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August 30, 2014

Elizabeth M. Murphy
Secretary
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Re: Proposed Rule Change to Adopt Rule 14.11(k) to Permit BATS Exchange, Inc. to List Managed Portfolio Shares and to List and Trade Shares of Certain Funds of the Spruce ETF Trust, File No. SR-BATS-2014-018

Dear Ms. Murphy:

Thank you for the opportunity to comment on the above-referenced filing (Filing) by BATS Exchange, Inc. (Exchange) to permit the listing of Managed Portfolio Shares (Shares) and to list and trade shares of certain funds of the Spruce ETF Trust (Funds).[1] Unless otherwise noted, the capitalized terms I use below have the same meanings as in the Filing.

Summary of the Proposal

The Funds are proposed actively managed open-end registered investment companies that would invest primarily in U.S. equities. The Shares would list and trade on the Exchange and also trade on other national securities exchanges. Compared to actively managed ETFs as approved to date, the Funds' distinguishing features are: (a) disclosure of portfolio holdings quarterly with a lag, rather than on a current daily basis; (b) issuance of Shares exclusively for cash; (c) redemptions of Shares in Redemption Unit quantities through a blind trust; (d) Order Cut-off Times for purchases and

[1] As background, I am the author of The Exchange-Traded Funds Manual (Second Edition, Wiley, 2010) and numerous articles on exchange-traded funds. Since 2003, I have been the principal of a consulting business now operating as ETF Consultants.com, Inc. I was previously Managing Director for ETF Product Development at Nuveen Investments and Senior Vice President for New Product Development at the American Stock Exchange. In 2005, Managed ETFs™ LLC (Managed ETFs), of which I am a principal, filed an application for exemptive relief to permit the offering of certain actively managed ETFs (File No. 812-13228 (May 29, 2005); no longer active). The intellectual property developed by Managed ETFs was subsequently sold to an affiliate of Eaton Vance Corp. (Eaton Vance) and forms much of the basis for Eaton Vance's ongoing efforts to introduce "Exchange-Traded Managed Funds" (ETMFs). Eaton Vance has filed an application for exemptive relief to permit the offering of ETMFs (File No. 812-14139 (January 23, 2014)) and The NASDAQ Stock Market LLC (Nasdaq) has filed a proposed rule change to permit the listing and trading of ETMFs (Release No. 34-71572; File No. SR-NASDAQ-2014-020 (March 6, 2014)). Because ETMFs may be competitive with the Shares and because I have a retained economic interest, my views on the Filing may be considered subject to a conflict of interest. The comments expressed herein are my own and do not necessarily represent the opinions of Eaton Vance, Nasdaq or any other party. My comments are made in the public interest and, to the best of my ability, are not influenced by any conflict.

redemptions of Shares that are expected to be prior to the Funds' Valuation Time; (e) reliance on Intraday Indicative Values (IIVs) disseminated intraday, rather than daily holdings disclosures, as the primary basis for seeking to ensure the Shares' secondary market trading efficiency; and (f) the ability of eligible shareholders to redeem sub-Redemption Unit quantities of Shares for cash following periods in which the Shares' closing Bid/Ask Price (as defined) is significantly below NAV (Small Allotment Redemption Option).

The Exchange asserts that "use of cash for creations, and in-kind redemptions through a blind trust, will preserve the integrity of [a Fund's] active investment strategy and eliminate the potential for "free riding," while still providing investors with the advantages of the ETF structure."[2]

Assessment of the Proposal

My analysis concludes that the proposal set forth in the Filing (Proposal) has serious flaws that *strongly recommend against its approval.* I believe approval would not be in the public interest or consistent with the protection of investors. I see a host of structural deficiencies that undermine the Funds' asserted benefits, inflict potential harm on investors and violate principles of equal market access and fair treatment. In the following sections I address my concerns in detail and provide commentary on other considerations that I believe should weigh importantly in the Commission's evaluation of the Proposal.

Tax Treatment of In-kind Redemptions[3]

In the Filing, the Exchange asserts that "the Funds can use in-kind redemptions to reduce the unrealized capital gains that may, at times, exist in a Fund by distributing low cost lots of each security that a Fund needs to dispose of to maintain its desired portfolio exposures. Shareholders of a Fund would benefit from the in-kind redemptions through the reduction of the unrealized capital gains in a Fund that would otherwise have to be realized and, eventually, distributed to shareholders."[4]

As background on the Funds' proposed use of in-kind redemptions to enhance tax efficiency, Section 852(b)(6) of the Internal Revenue Code (IRC) provides that a distribution of appreciated property from a regulated investment company (RIC) to a shareholder does not result in recognition of gain for the distributing RIC "if such distribution is in redemption of its stock upon the demand of the shareholder." Applying IRC Section 852(b)(6), ETFs that redeem their shares by distributing portfolio securities have generally avoided recognizing gains in connection with shareholder redemptions.

As described in the Filing, the Funds' in-kind redemptions would differ from how existing ETFs redeem shares in kind in three significant respects. First, unlike ETFs that distribute broad baskets of securities, the Funds would have the ability to concentrate their distributions in targeted individual securities "to effectively implement changes to a Fund's portfolio composition [and] take advantage of

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[2] *See* Filing at page 48.

[3] I am not an attorney or tax expert, but have consulted extensively with a tax attorney who I believe is widely recognized as one of the foremost specialists on investment company tax matters. The attorney has reviewed a draft of this section and concurs with the tax analysis and conclusions presented here.

[4] *See* Filing at page 23-24.

tax strategies."[5] Because the Funds' distributions of securities to redeeming Authorized Participants would be through a blind trust, the Funds could reduce their holdings of individual securities without revealing the identity of those securities to the marketplace. By distributing, rather than selling, securities, a Fund could reduce or eliminate unwanted individual holdings without realizing taxable gains in a manner generally not available to funds that distribute broad baskets of securities.

Second, the Fund and its principal agents, the Adviser and the Custodian, would participate significantly in the operation of the blind trust that receives and sells the redemption proceeds. "Each Authorized Participant will be required to appoint the Custodian as trustee of its blind trust"[6] and "the trustee will be paid by the Authorized Participant a fee negotiated by the Adviser on behalf of Authorized Participants."[7] Further, "the Trust, on behalf of a Fund, will maintain a security interest in the assets of [the] blind trust and, under applicable documentation, will be entitled to such assets in the event an Authorized Participant fails to make timely delivery of redeemed Shares."[8]

Third, as a practical matter, it appears that a redeeming Authorized Participant will have little or no ability to control the disposition of the distributed securities, whose identity is never disclosed to the Authorized Participant. "Although an Authorized Participant could, in its sole discretion, provide different standing instructions, it is expected that, in order to realize proceeds from a redemption at a value as close as possible to the redemption's NAV, all Authorized Participants will likely instruct the trustee of the blind trust to sell all securities received in kind as redemption proceeds at the close of the market on the date of redemption."[9]

Tax Analysis. Applying the substance-over-form doctrine, the federal courts have a long history of re-characterizing in-kind distributions of appreciated property by a corporation[10] to a shareholder followed by an immediate sale of the property. In *Commissioner v. Court Holding Co.*, 324 U.S. 331 (1945), the Supreme Court held that a corporation's distribution of assets in liquidation followed by a shareholder's pre-planned sale of the assets designed to avoid taxation to the corporation should be viewed as a sale occurring at the corporate level, basing its decision in part on the corporation's role in negotiating the sale. Other cases have similarly also focused on the corporation's involvement in negotiating and planning the sale of distributed assets, as well as the existence of a tax avoidance motive, lack of a business purpose and the expectation of immediate sale by the shareholder.

In *Anderson v. Commissioner*, 92 T.C. 138 (1989), the Tax Court required some evidence of involvement by the distributing corporation in the sale of publicly traded stock distributed to a shareholder to re-characterize the transaction. The Tax Court in *Anderson* held that, if the assets distributed were not inventory or similar to inventory, to re-characterize the transaction as a sale by the corporation it was essential that there be a finding that the corporation had "participation in a

[5] *ibid* at page 25.

[6] *ibid* at page 23.

[7] *ibid* footnote 23 at page 23.

[8] *ibid* at page 26.

[9] *ibid* footnote 24 at page 24.

[10] For federal income tax purposes, RICs are corporations subject to special requirements and special tax treatment. Until enactment of the Tax Reform Act of 1986, all corporate taxpayers were generally permitted to make tax-free distributions of appreciated property to their shareholders. Only RICs and certain other categories of corporate taxpayers may do so today.

significant manner" in the shareholder's sale of the distributed assets by negotiation, prior agreement, post-distribution activities or otherwise. In such a case, tax avoidance motives, lack of business purpose, existence of a ready market and expectation of immediate sale, although relevant factors, were not enough without some participation by the distributing corporation.

A number of factors present in the Proposal weigh in favor of the IRS re-characterizing the Funds' in-kind distributions as constructive sales. Not only is an immediate sale of the distributed securities expected, it is arguably a foregone conclusion due to the blind nature of the trust and the redeeming Authorized Participant's ignorance regarding what securities are distributed. While in form redeeming Authorized Participants would control disposition of the distributed securities, in substance they may exercise little real, meaningful choice, and are more similar to a conduit. The Proposal makes clear that a Fund will likely specify Order Cut-off Times for Redemption Unit redemptions in advance of the market close, so that "Authorized Participants can realize redemption proceeds as close to the Fund's NAV on the redemption date as is possible."[11]

In addition, there is a clear tax benefit to a Fund of using in-kind redemptions through the blind trust to discretely remove unwanted holdings from the Fund's portfolio, which benefit the Filing promotes. Further, to the extent *Anderson*'s requirement of at least some involvement in the sale by the distributing corporation were to apply, factors supporting a Fund's "participation in a significant manner" in the sale of the distributed securities by a redeeming Authorized Participant would include the Custodian's role as trustee of the blind trust, the Adviser's role in negotiating trustee fees and the Fund's retained security interest in the assets of the blind trust. The entire blind trust arrangement is constructed by the Fund's agents, and redeeming Authorized Participants have no choice other than to redeem through the specified arrangement.

<u>Conclusion and Recommendations.</u> In my view, there is a significant risk that the Funds' in-kind distributions of securities will be re-characterized for federal income tax purposes as a sale of the securities by the Fund followed by a distribution of cash, thereby negating the normal tax advantages to a RIC of redeeming in kind.

Given the strong possibility that the Funds' asserted tax benefits will be denied, I believe this risk cannot be adequately addressed through disclosure. The IRS has in place a process through which a taxpayer taking a tax position can request a ruling (Private Letter Ruling) that the position would not be subject to challenge. Although, to my knowledge, no ETF has previously requested a Private Letter Ruling addressing the appropriate tax treatment of in-kind redemptions, I believe it should be a condition for approval of the Filing that the Funds receive, prior to their launch, a Private Letter Ruling from the IRS affirming the tax treatment of the proposed use of in-kind distributions.

I understand that the IRS has in the past issued favorable Private Letter Rulings on proposed distributions of appreciated property by a RIC,[12] but with conditions and under circumstances quite different from the Proposal. Based on past precedent, I doubt that the IRS would be willing to grant a Private Letter Ruling assenting to the proposed tax treatment of the Funds' in-kind distributions. If the IRS will not grant a favorable Private Letter Ruling, I believe the Proposal should not be permitted to move forward.

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[11] *See* Filing at page 22.

[12] *See, e.g.*, Private Letter Ruling 200023021 (June 12, 2000) and Private Letter Ruling 199924061 (June 21, 1999).

Secondary Market Trading Efficiency

Beginning with the introduction of the first index ETF in 1993, a key requirement for approval of new ETF structures has been that applicants demonstrate to the Commission's satisfaction that there will exist a reliable mechanism to ensure that fund investors have an ongoing ability to sell their shares at prices that closely approximate NAV. This requirement relates to the fact that ETFs are generally regulated as open-end investment companies and, accordingly, that their shares are "redeemable securities" as defined in the 1940 Act.

Consideration of actively managed ETFs has similarly demonstrated an overriding concern for the efficiency of secondary market trading. As one commenter responding to the Commission's 2001 Concept Release on Actively Managed Exchange-Traded Funds[13] (2001 Concept Release) expressed, "whatever level of transparency and frequency of disclosure requirements are . . . adopted by the [Commission], they must be designed to result in arbitrage opportunities that will eliminate material deviations between the NAV and market prices of the shares."[14]

Different from actively managed ETFs as approved to date, the Proposal does not include a requirement or the expectation that the Funds would disclose their full current portfolio holdings[15] each Business Day. Instead, the Funds propose to disclose their holdings on a quarterly basis with a lag of not more than 60 days, consistent with mutual fund disclosure requirements.

As most observers of ETF trading understand, the daily disclosure of current portfolio holdings is the central foundation supporting effective arbitrage and efficient secondary market trading of existing ETFs. Knowing an ETF's current portfolio holdings provides market makers with two pieces of information vital to effective arbitrage: first, the current value of the ETF's holdings, which tells the market maker whether potential arbitrage profits are available, either in buying shares below current value or selling shares above this value; and second, what market exposures the market maker should assume to offset the market risk it assumes when it goes long or short the ETF's shares.

Market makers that enter into arbitrage positions in ETF shares and offsetting market exposures can unwind their ETF positions at NAV (plus or minus a transaction fee) by transacting with the ETF through an Authorized Participant to purchase or redeem creation units of shares. If a market maker has hedged its ETF share inventory by buying or selling the securities that constitute the ETF's current creation/redemption basket, the market maker can unwind its hedge, and lock in arbitrage profits, as it closes its ETF position by (a) depositing the basket securities to the ETF (to close a long position in such securities) in a purchase of fund shares or (b) receiving basket securities from the ETF (to close a short position in such securities) in a redemption of fund shares.

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[13] *See* Release No. IC-25258; File No. S7-20-01 (November 8, 2001).

[14] *See* Comments of Leo C. O'Neill, President, Standard & Poor's, January 11, 2002 under File No. S7-20-01 (File name: s72001-5.pdf)

[15] All existing actively managed ETFs are required to include on their sponsor's public website, updated each Business Day prior to the opening of market trading, a complete listing of the holdings that will be used to determine the ETF's NAV on such day. Index ETFs are required to make available to market members through NSCC daily creation and redemption composition files that either replicate, or closely approximate, the fund's holdings. Many index ETFs also disclose their full holdings on the sponsor's website on a daily basis.

ETF market makers commonly employ transactions in a representative hedge portfolio, rather than trading each of the creation/redemption basket securities, to add or subtract offsetting market exposure as they build short or long inventory positions in ETF shares through intraday trading. Transacting in a hedge portfolio may be easier to implement or more cost effective for a market maker than buying or selling each of the basket securities. Moreover, for ETFs holding foreign securities that do not trade during U.S. market hours, it may not be possible for a market maker to hedge its ETF positions by simultaneously trading in the basket securities. For a market maker that uses trading in a hedge portfolio to offset changes in its ETF positions, the arbitrage profits it earns will fluctuate to the extent that the hedge portfolio deviates in performance from that of the ETF over their respective holding periods. A loose correspondence between the hedge portfolio and the ETF's holdings means that arbitrage profits may be highly variable. The more uncertain the potential to earn arbitrage profits, the more market makers will seek to be compensated by trading the ETF with wide bid-ask spreads and variable premiums/discounts to the ETF's underlying NAV.

Distinctive Arbitrage Mechanism. Because the Funds will not disclose their holdings on a daily basis, the Filing proposes a different mechanism to seek to ensure that secondary market trading prices of Shares are aligned with NAV. As described in the Filing, Fund market makers would: (a) use the IIVs disseminated at 15 second intervals throughout the Exchange's Regular Trading Hours[16] to identify potential opportunities to earn arbitrage profits by either selling Shares above the underlying value of the Fund's net assets or buying Shares below this value; and (b) construct hedges to offset the market risk exposures of the Share positions they assume, based principally on information about the Fund's current portfolio positions they derive from time-series analysis of changes in IIVs. The Exchange believes that "the real-time dissemination of a [F]und's IIV, together with the knowledge of a [F]und's investment objective and the right of Authorized Participants to create and redeem [S]hares of each [F]und daily at the NAV, will be sufficient for market participants to value and trade [S]hares in a manner that will not lead to significant deviations between the [S]hares' Bid/Ask Price and NAV."[17]

In support of the proposed arbitrage mechanism, the Filing states that "the Exchange, after consulting with various market makers that trade ETFs (and other products) on various exchanges, believes that market makers will be able to make efficient and liquid markets priced near the IIV even without daily disclosure of a [F]und's underlying portfolio as long as an accurate IIV is disseminated every 15 seconds, each [F]und's means of achieving its investment objective is clearly disclosed based on publicly available information, and there is typically an ability to manage inventory of Shares through creations and redemptions each day."[18] The Filing represents that "market makers will initially use the knowledge of a [F]und's means of achieving its investment objective . . . to construct a hedging proxy for a [F]und to assist them in managing their risk in connection with trading the [S]hares of a [F]und. Market makers will then conduct statistical arbitrage between their hedging proxy (for example, the Russell 1000 Index) and the [S]hares of a [F]und, buying and selling one against the other over the course of the trading day. Market makers will then be able to evaluate how their proxy performed in comparison to the price of the [S]hares of a [F]und, and use that analysis as well as knowledge of risk metrics, such as volatility and turnover, to enhance their proxy calculation to make it a more efficient hedge."[19]

[16] Generally 9:30 a.m. to 4:00 p.m. Eastern Time.

[17] *See* Filing at page 42.

[18] *ibid* at pages 10 and 42.

[19] *ibid* at page 43.

Analogy to Existing Foreign ETFs. In support of the Proposal, the Filing observes that "certain existing ETFs with portfolios of foreign securities have shown their ability to trade efficiently in the secondary market at approximately their NAV even though they do not provide opportunities for riskless arbitrage transactions during much of the trading day. Such ETFs have been shown to have pricing characteristics very similar to ETFs that can be arbitraged in this manner. For example, index-based ETFs containing securities that trade during different trading hours than the ETF, such as ETFs that hold Asian stocks, have demonstrated efficient pricing characteristics notwithstanding the inability of market professionals to engage in "riskless arbitrage" with respect to the underlying portfolio for most, or even all, of the U.S. trading day when Asian markets are closed. Pricing for shares of such ETFs is efficient because market professionals are still able to hedge their positions with offsetting, correlated positions in derivative instruments during the entire trading day."[20]

Deferring my analysis of the trading efficiency of existing foreign ETFs to the next section, I note that the challenges faced by the Funds' market makers will be quite different, and more formidable in significant respects, than those faced by market makers in existing foreign ETFs. Today's foreign equity ETFs are almost exclusively index-based and are generally broadly representative of stocks trading in the target country or region. In many cases, there are futures contracts, other derivatives, other ETFs and/or individual stocks from that country or region that trade actively in U.S. markets that can be used by market makers to hedge their positions in foreign ETFs as they trade fund shares intraday. In all cases, market makers in existing foreign ETFs have full knowledge of current fund holdings and full control over the disposition of the securities distributed to meet their redemptions. By contrast, the Funds' market makers will have only indirect, and likely imperfect, information about Fund holdings and will have no ability to manage the sales of the securities they receive from redemptions due to the blind trust structure. I suspect most market makers will learn that effectively arbitraging the Funds is significantly more difficult than doing the same for most existing foreign ETFs.

Trading Efficiency of Existing ETFs. The assertion that existing ETFs whose holdings do not support low-risk arbitrage (*e.g.*, due to differences in trading hours) generally trade at acceptably tight bid-ask spreads and stable premiums/discounts is a key underpinning to the argument that the Funds should be expected to trade acceptably well, despite not disclosing their current holdings. The Filing offers no data to support this key assertion. I suspect this is, at least in part, because the trading experience of different types of ETFs has not been the subject of extensive research.[21] Fortunately, a new academic study examining ETF trading patterns has recently become available: "Inefficiencies in the Pricing of Exchange-Traded Funds," by Antti Petajisto (draft working paper dated September 20, 2013) (Petajisto Study).[22] Data included in the Petajisto Study permits the thesis set forth in the Filing to be tested.

The Petajisto Study is a comprehensive analysis of the pricing efficiency of essentially all U.S.-traded ETFs over the January 2007 through December 2010 study period. For a universe of over 1,000 ETFs, the study evaluated intraday bid-ask spreads and the stability of end-of-day fund

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[20] *ibid* at pages 44-45.

[21] I believe the most up-to-date and comprehensive academic study of ETF trading prior to the Petajisto Study was previously "Premiums-Discounts and Exchange Traded Funds," Robert Engle and Debojyoti Sarkar, The Journal of Derivatives (Summer 2006), which evaluated trading patterns in a sample of only 37 ETFs tracked through 2000.

[22] Available at http://www.petajisto.net/. I reviewed an earlier draft of the paper for the author.

premiums/discounts, calculated using closing bid-ask midpoints and NAVs. To control for stale pricing of non-U.S. fund assets, the study computed a second measure of premium/discount stability, using the cross-sectional average closing price of a group of similar ETFs (Peer Group) as a proxy for a fund's true ending portfolio value on a particular day.

For the entire fund universe over the 2007-2010 period examined in the Petajisto Study, the average intraday bid-ask spread of the studied funds was 36 basis points (bps) (0.36%) on an equal-weighted (EW) basis and 7 bps (0.07%) value-weighted (VW). Closing premiums/discounts based on NAV averaged 14 bps, with a standard deviation of 66 bps EW and 57 bps VW. The standard deviation of premiums/discounts based on Peer Group was 56 bps EW and 24 bps VW.[23] Not surprisingly, the Petajisto Study found that market trading efficiency varied significantly by type and size of ETF. Funds with high share trading volumes, liquid underlying holdings and efficient arbitrage mechanisms traded with relatively tight bid-ask spreads and more stable premiums/discounts; funds lacking these characteristics generally traded with wider spreads and more variable premiums/discounts.

To test the Filing's assertion that "index-based ETFs containing securities that trade during different trading hours than the ETF, such as ETFs that hold Asian stocks, have demonstrated efficient pricing characteristics,"[24] I evaluated the results of the Petajisto Study for "Pacific/Asia ex-Japan Stocks" (Asia Pacific) ETFs, the largest category of Asian stock ETFs,[25] and compared this to the universe of diversified U.S. equity (Diversified U.S.) ETFs.

	Average Bid-Ask Spread		Average Premium/Discount Based on NAV	Volatility of Premium/Discount Based on NAV		Volatility of Premium/Discount Based on Peer Group	
	EW	VW	EW	EW	VW	EW	VW
Asia Pacific ETFs	24	13	23	110	155	61	60
Diversified U.S. ETFs	16	4	0	26	13	26	11

Source: "Inefficiencies in the Pricing of Exchange-Trade Funds," Anti Petajisto (2013). All data in basis points (1 basis point =0.01%).

Taking the (generous) view that the "true" volatility of the premiums/discounts of Asia Pacific ETFs is the Peer Group VW measure, a typical investor in an Asia Pacific ETF would have had about a 5% chance[26] of incurring a 240 bps or greater swing (plus or minus two standard deviations) in the ETF's premium/discount from purchase to sale. Adding the 13 bps average bid-ask spread increases that range to 253 bps, assuming (very generously) that fluctuations in bid-ask spreads are insignificant or uncorrelated with changes in premiums/discounts, and not positively correlated with other investors' decisions to buy or sell. If "Roundtrip Fund Trading Costs" is defined as the sum of a fund's bid-ask spread and changes in its premium/discount over an investor's holding period, in the Petajisto Study

[23] *See* Petajisto Study Tables III, VI and VII at pages 30, 34 and 36.

[24] *See* Filing at page 44.

[25] Excluding Japanese stocks is also appropriate because Japanese equity index derivatives trade actively in the United States during the Exchange's Regular Trading Hours.

[26] Like in the Petajisto Study, I assume that the data is normally distributed and estimate the incidence of tail outcomes based on this assumption. In a normal distribution, approximately 68% of observations are within one standard deviation of the mean and approximately 95% of observations are within two standard deviations of the mean.

about one in twenty Asia Pacific ETF investors experienced approximately 250 basis points or more of Roundtrip Fund Trading Costs. Calculated in the same manner, the one-in-twenty Roundtrip Fund Trading Costs bound for investors in Diversified US ETFs was approximately 50 basis points.

I conclude from the above that investors in Asia Pacific ETFs have experienced *significantly higher* Roundtrip Fund Trading Costs than investors in Diversified U.S. ETFs. Relating to the Filing, I see little support for the assertion that ETFs, such as Asia Pacific ETFs, that lack an efficient arbitrage mechanism, due to trading hour differences or other factors, have demonstrated a history of trading at generally tight bid-ask spreads and stable premiums/discounts.

<u>Reliance on IIVs</u>. As previously described, dissemination of IIVs reflecting the approximate current values of each Fund's underlying holdings at least every 15 seconds during the Exchange's Regular Trading Hours is the foundation of the Funds' proposed approach to seeking to ensure that secondary market trading prices of Shares and underlying portfolio values stay in alignment. The Filing notes that "the ability of market participants to buy and sell Shares at prices near the IIV is dependent upon their assessment that the IIV is a *reliable, indicative real-time value* (emphasis added) for a Fund's underlying holdings."[27]

To evaluate whether the disseminated IIVs are likely to provide a sufficient basis for ensuring that a Fund's market prices and underlying values will remain aligned, it is necessary to understand how IIVs will be calculated, what IIVs will represent and how that compares to NAV, and, perhaps most importantly, what party, if any, will take responsibility for ensuring the accuracy and timeliness of the disseminated values. I address each of these in the following paragraphs.

IIV Calculation Mechanics. Each Fund's IIVs will be calculated by an independent third-party calculator using information provided by the Fund. The IIVs will be calculated by "dividing the "Estimated Fund Value" . . . as of the time of the calculation by the total number of outstanding Shares of that Fund."[28] The Funds will provide the independent third-party calculator with relevant information, but will not be involved in the actual calculation.

The Applicants warn that the disseminated IIVs "should not be viewed as a "real-time" update of the NAV . . . because the IIV may not be calculated in the same manner as the NAV, which will be computed once a day, generally at the end of the [B]usiness [D]ay. Unlike the IIV, which will be based on consolidated last sale information, the NAV per [S]hare will be based on the closing price on the primary market for each portfolio security. If there is no closing price for a particular portfolio security, such as when it is subject to a trading halt, a [F]und may use fair value pricing. That fair value pricing will be carried over to the next day's IIV until the first trade in that stock is reported."[29]

Particularly during periods of rapid market movement, the use of last sale prices in calculating IIVs and disseminating IIVs only every 15 seconds will mean that the disseminated values are, at best, a lagging indicator of actual portfolio values. In addition, the IIVs may reflect clearly erroneous values for securities that have not yet opened for trading on a particular Business Day or that are subject to an

[27] *See* Filing at page 47.

[28] *ibid* at page 32.

[29] *ibid* at pages 9-10.

intraday interruption in trading. An exchange may institute a trading halt in a stock to address a significant order imbalance or in connection with release of important company news. Intraday trading in a stock may also be interrupted by malfunctions at the stock's listing exchange or other trading venues.

IIV calculations will differ from a Fund's daily NAV determinations not only in terms of potential inputs, but also in terms of the standard of care applied to the calculations. From the close of market trading to when fund NAVs are required to be disseminated, hours are available (if necessary) to check for and correct errors, and to make other calculation adjustments as needed. In contrast, IIVs must be disseminated in real time *1,560 times* each Business Day, within *milliseconds* of when calculations are made. Getting it right the first time is the only option for IIV calculations; there is no time or scope for any checking.

Basis for IIV Calculations. The timeliness and accuracy of disseminated intraday values scarcely matters for existing ETFs.[30] In contrast, the Funds cannot trade with acceptable bid-ask spreads and premium/discount volatilities unless IIVs are deemed useful and reliable by market participants. The Filing makes clear, however, that no responsible party will stand behind the IIVs to ensure timeliness and accuracy. "Neither the Exchange . . . nor [the IIV calculation] agent . . . shall have any liability for damages, claims, losses, or expenses caused by any errors, omissions, or delays in calculating or disseminating any current portfolio value . . . resulting from any negligent act or omission by [them] . . . or any act, condition, or cause beyond [their] reasonable control."[31]

Due to the limitations on what IIVs represent, how the values are calculated and what party (none) stands behind them, I see little support for the expectation that market participants will "accept the IIV as a reliable, indicative real-time value"[32] or the contention that there will be "enough information for market participants to value and trade Shares in a manner that will not lead to significant deviations between the Shares' Bid/Ask Price and NAV."[33] Without reliable IIVs, the Funds cannot and will not trade acceptably in the secondary market.

The Applicants may argue that disseminated intraday values based on substantially the same calculation methodology and substantially the same reliability standards as proposed here have been used by existing ETFs for more than two decades. What this argument overlooks is the dramatic difference in the role of the disseminated intraday values: for the Funds, dissemination of reliable IIVs is the foundation supporting market trading efficiency; for existing (transparent) ETFs, the disseminated portfolio values have essentially zero relevance to Fund trading efficiency and limited overall utility to investors. Responding to the Commission's 2008 Proposed Exchange-Traded Funds Rule,[34] NYSE Arca commented that it was "not convinced that the Intraday Value is a meaningful pricing tool for investors [in existing ETFs] in light of the availability of other pricing information" and "a public investor should

[30] It is widely understood that market makers in existing ETFs place little or no reliance on the "official" intraday fund values disseminated every 15 seconds based on last sale prices. Instead, they use their own calculations of fund value (or valuations provided by third-party pricing services) based on the disclosed portfolio holdings and bid, offer and execution prices of the portfolio securities and other relevant pricing indicators updated continuously.

[31] *See* Filing at pages 7-8.

[32] *ibid* at page 47.

[33] *ibid* at page 48.

[34] *See* Release Nos. 33-8901 and IC-28193; File No. S7-07-08 (March 11, 2008).

not use the Intraday Value to determine the price at which the investor will buy or sell a particular ETF."[35]

Blind Trust Arrangement. In the Funds' proposed method of operation, the proceeds of all redemptions of Redemption Units of Shares will be distributed to a blind trust for the benefit of the redeeming Authorized Participant. The distributed securities will be sold or otherwise managed by the trustee of the blind trust (which will be the Custodian) based on standing instructions from the Authorized Participant. "It is contemplated that Authorized Participants will instruct the trustee of its blind trust to liquidate redemption securities in market on close orders on the date of redemption."[36] Because "the Adviser would be free to select redemption securities that do not represent an exact slice of a Fund's portfolio,"[37] the distributed securities may be concentrated in a small number of individual securities, and perhaps only one security.

Compared to the usual redemption arrangements of ETFs, the proposed structure introduces additional costs and uncertainties for Authorized Participants. Elements of the proposed arrangement that contribute to this include: (a) the Custodian has a monopoly position as the sole eligible provider of trustee services for the blind trust; (b) the Adviser, rather than the Authorized Participant, negotiates the fees paid to the trustee; (c) in contrast to existing ETFs, no Authorized Participant would have the potential ability to use its market knowledge and market position to enhance arbitrage profits (or offset arbitrage costs) by managing sales of the distributed securities to minimize market impact or realize prices above the market close; and (d) the Custodian that stands in for the Authorized Participant in the sale of distributed securities would have no apparent incentive to sell distributed securities with low market impact or at prices above the close, as well as little or no downside from doing the opposite. Given the likelihood that the Funds' distributed securities will be significantly more concentrated than is typical for existing ETFs, the potential costs and risks to redeeming Authorized Participants of not being able to control disposition of the securities they receive are considerably magnified. Unavoidably, the extra costs and risks borne by Authorized Participants in connection with the blind trust arrangement will be passed through to shareholders transacting in the secondary market, reflected as wider bid-ask spreads and/or more volatile premiums/discounts for the Shares.

Conclusion and Recommendations. Based on the analysis presented above, I do not believe there is a reasonable basis for concluding that the Shares will trade nearly as well as most existing ETFs. Due to limitations in the proposed IIV-based arbitrage mechanism and the added costs and risks to Authorized Participants of the blind trust, I believe the Shares are likely to trade at significantly wider bid-ask spreads and/or more volatile premiums/discounts than most existing ETFs, including ETFs (such as Asia Pacific ETFs) holding securities that trade during different market hours.

The Exchange may assert that the existence of the Small Allotment Redemption Option program should argue for a more lenient standard of expected secondary market trading efficiency for the Funds to be treated as open-end investment companies and the Shares as redeemable securities for 1940 Act purposes. Due to the limitations and deficiencies in the Small Allotment Redemption Option program as

[35] *See* Comments of Mary Yeager, Corporate Secretary, NYSE Arca, Inc., May 29, 2008 under File No. S7-07-08 (available at http://www.sec.gov/comments/s7-07-08/s70708-16.pdf).

[36] *See* Filing at page 22.

[37] *ibid* at page 24.

discussed below, I reject this notion and believe the Funds and the Shares should be held to the same standards of expected secondary market trading liquidity as the Commission has applied to existing ETFs. I believe the Proposal falls well short of meeting an appropriate secondary market liquidity standard, and should not be approved for this and other reasons stated in this letter.

Erroneous Share Trades

I believe it is inevitable that IIV errors will occur with some frequency, given the various challenges to the accurate calculation and timely dissemination of IIVs throughout each Business Day. Due to the pivotal role of IIVs in determining market prices of Shares, material errors in IIVs will, in turn, invariably cause erroneous Share trades to be executed.

The Proposal does not address the treatment of erroneous Share trades resulting from faulty IIVs. Would all such trades be cancelled? Would the Exchange apply a materiality standard in determining when to cancel trades due to faulty IIVs? Most importantly, as a first step, how would IIV errors and associated erroneous Share trades be detected?

The Filing describes, in general terms, the steps the Exchange will take to monitor trading in Shares, which will be "subject to the Exchange's surveillance procedures for derivative products."[38] The Exchange does not express an intent to monitor the accuracy and timeliness of disseminated IIVs, or describe how Share trades executed in reliance on faulty IIVs would be treated.

As a condition for approval, I believe the Exchange should be required to institute a comprehensive program to monitor the timeliness and accuracy of disseminated IIVs and to adopt appropriate procedures for the treatment of Share trades executed during periods when erroneous IIVs are determined to have been disseminated. Based on my expectation that IIV errors will occur frequently, I believe appropriate monitoring and remediation efforts will result in significant numbers of executed Share trades being subject to cancellation, which is inconsistent with the maintenance of orderly markets.

Indirect Selective Disclosure

As described in the previous two sections, the potential *unreliability* of a Fund's IIVs raises concerns about the efficiency of the Fund's secondary market trading that argue against approval of the Proposal. In this and the following section, I address separate concerns raised by the potential *reliability* of a Fund's IIVs.

Citing from Section 1(b)(3) of the 1940 Act, the Commission observed in the 2001 Concept Release that "the public interest and the interest of investors are adversely affected when investment companies issue securities containing inequitable or discriminatory provisions."[39] Responding to the 2001 Concept Release, Vanguard commented that "sponsors of actively managed ETFs should not be permitted to provide more information about portfolio holdings to the exchange specialist and market makers than they provide to other investors. Vanguard believes, as a matter of fundamental fairness,

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[38] *ibid* at page 34.

[39] *See* 2001 Concept Release at page 15.

that all investors in a fund must be treated equally. Providing information only to a favored few is inconsistent with the foundation of our capital markets—full and fair disclosure to all investors."[40]

On this same topic, the Investment Company Institute (ICI) commented that "an actively managed ETF might seek to selectively disclose its portfolio, *i.e.*, to the creation unit holders but not to retail investors. The Institute believes that any such disparate treatment of investors would be contrary to the public interest. Selectively disclosing information to one group of investors—*and allowing them to trade on the basis of this information*—while keeping other investors in the dark would be fundamentally at odds with the core principles of the federal securities laws. For these reasons, the Institute urges the Commission *not* to grant exemptive relief to any actively managed ETF that would disclose information about its portfolio holdings on a disparate basis to different groups of shareholders."[41] It is pretty hard to take issue with these positions.

The Commission's 1940 Act citation and the Vanguard and ICI comment letters collectively implicate one of the Proposal's central features—the asserted ability of market makers and other professional traders to glean information about a Fund's holdings through sophisticated data analysis of changes in IIVs. Assuming that all investors are provided with equal access to IIVs, market makers and other professional traders will not have a *direct* information advantage over other investors. But it is the very intent of the Proposal for market makers to use data analysis to gain knowledge about a Fund's holdings that will provide them with a significant *indirect* information advantage over other investors.

In my own comment letter in response to the 2001 Concept Release, I anticipated the developments of fund ideas like the Proposal and commented that "the ability of some market makers to make superior estimates of portfolio contents from intra-day value calculations suggests that some increase in explicit portfolio disclosure is necessary to level the playing field."[42]

Some observers might argue that concerns about fairness and disparate treatment should not apply to the Funds' IIV disseminations and their use by market makers, due to the role of market makers in determining the trading efficiency of Shares. I don't see it this way: investors should be entitled to at least as much protection against exploitation by market makers as by anyone else seeking to take advantage of an unfair information advantage. In my opinion, the merits of the Proposal are not sufficient to tolerate the advantage bestowed upon market makers and other professional traders by the Fund's proposed method of indirectly disclosing portfolio information through IIV disseminations.

<u>**Reverse Engineering of Portfolio Holdings**</u>

A particularly harmful form of information advantage could develop for a Fund if its IIV disclosures are so precise and so accurate as to enable the Fund's holdings and trading activity to be uncovered through data analysis. If this were to occur, the Fund's claims of non-transparency would be

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[40] *See* Comments of Heidi Stam, Principal, Securities Regulation, Vanguard Group, Inc., February 14, 2002 under File No. S7-20-01 (File name: s72001-14.pdf).

[41] *See* Comments of Amy B.R. Lancellotta, Senior Counsel, Investment Company Institute, January 14, 2002 under File No. S7-20-01 (File name: s72001-6.pdf).

[42] *See* Comments of Gary L. Gastineau, Managing Director, Nuveen Investments, January 14, 2002 under File No. S7-20-01 at page 19 (File name: gastineau1.htm).

invalidated and the Fund would become susceptible to the dilutive effects of front running by investors that gain the ability to anticipate the Fund's trades.

In 2011, the outsourced research provider Amba Holdings Inc. (Amba) performed a private study, the results of which I have reviewed, demonstrating the ability to identify the holdings, and daily changes in holdings, of two sample U.S. equity funds using only intraday fund valuations reported at 15 second intervals during the trading day. The Amba reverse engineering analysis used a pricing matrix of eligible securities and applied multivariate linear regression and stepwise selection statistical techniques to correctly identify the funds' holdings.

The principal factors determining a fund's susceptibility to reverse engineering using intraday valuations disseminated at 15 second intervals were identified in the Amba study as: (a) correspondence in the securities prices used in determining fund valuations and as reported for the fund's eligible investments; (b) the precision (*i.e.*, the number of decimal places) with which per share fund valuations are reported; (c) number of fund holdings; and (d) number of potential fund investments. Other significant factors could include the intraday price volatility of the fund's portfolio as a whole and its eligible investments, and the degree to which price movements of the fund and the eligible investments are correlated.

Given the attention the issue of reverse engineering has received over the years in relation to various non-transparent ETF concepts,[43] I find it surprising that the Filing does not address reverse engineering risk or describe steps the Funds will take to mitigate this risk. As I suspect the Exchange understands, there is a clear conflict between, on the one hand, providing market makers with IIVs and other Fund information to support efficient market making and, on the other hand, protecting the Fund against reverse engineering risk. For example, in determining the frequency of IIV dissemination and the number of decimal points of precision with which disseminated IIVs are disclosed,[44] efficient market making argues for more frequency and more precision, while protection against reverse engineering argues for less.

Prior to approval, the Filing should be amended to include: (a) a discussion of the steps to be taken to minimize reverse engineering risk; (b) discussion of how the Funds propose to resolve the conflict between providing market makers with adequate information to support efficient Share trading and protecting against reverse engineering; and (c) representations that the Funds will adequately disclose reverse engineering risk and the conflicts the Funds face in seeking to provide for efficient market trading and protection against reverse engineering.

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[43] A number of U.S. patents have been issued describing methods for addressing reverse engineering risk for non-transparent ETFs.

[44] The Filing specifies that the Funds' published NAVs will be rounded to the nearest cent; however, for purposes of determining the price of Shares in creations and redemptions, the NAV will be calculated to five decimal places. (*See* Filing at page 25.) No similar specifications for disseminated IIVs are identified. The Exchange should be required to represent that IIVs will be disclosed to all investors with the same number of decimal places of precision.

Early Order Cut-off Times

The Filing provides that Order Cut-Off Times for direct purchases and redemptions of Shares will likely be earlier than the Funds' daily Valuation Time.[45] "It is anticipated that all Funds will adopt Order Cut-Off Times for redemptions prior to their Valuation Time in order to facilitate the timely identification and notice to the trustee of the blind trust . . . of the securities to be redeemed in kind."[46] On its face, the imposition of early Order Cut-off Times for redemptions of Shares violates the prohibition set forth in Section 22(e) of the 1940 Act against a registered investment company suspending the right of redemption of any redeemable security and the requirement of Rule 22c-1 under the 1940 Act that shareholders in open-end funds receive the NAV next computed after their redemption request. Mandatory early Order Cut-off Times for direct purchases and/or redemptions of Shares also raise Exchange Act issues due to the potential impact on secondary market trading. If Authorized Participants cannot enter orders to purchase and redeem Shares after a designated cut-off time, how will this affect market trading later in the session? If market makers cannot transact with the Fund to offload long and short positions in Shares accumulated after the cut-off time, how could the Funds' proposed arbitrage mechanism function effectively?

To my knowledge, the Commission has not previously permitted an ETF or mutual fund to suspend redemption rights in its shares for a portion of each Business Day. For many years, ETF sponsors have succeeded in operating a wide range of ETFs without imposing an explicit mandatory early order cut-off time. In my opinion, the merits of the Proposal are not sufficient to warrant granting this novel relief and establishing a new precedent that the Commission may be called upon to repeat.

Small Allotment Redemption Option

As described in the Filing,[47] eligible shareholders may submit orders to redeem Shares for cash in any amount less than a Redemption Unit for a period of 15 calendar days after the occurrence of a prescribed Triggering Event. A Triggering Event occurs when a Fund's closing Bid/Ask Price is at a discount of 5% or greater from NAV for 10 consecutive Business Days. Upon a Trigger Event, a Fund will notify shareholders of the acceptance of Small Allotment Redemption Orders by (a) issuing a press release, (b) delivering notice, via the Transfer Agent and DTC, to DTC Participants and (c) posting related information on the Fund's website. The Funds will process Small Allotment Redemption Orders at the NAV of the Fund next calculated following submission, less a redemption fee not to exceed 2%. Order Cut-off Times for Small Allotment Redemption Orders may be earlier than a Fund's daily Valuation Time.

According to the Filing, the Small Allotment Redemption Option "will permit Beneficial Owners holding amounts smaller than a Redemption Unit to redeem at NAV in the event that trading on the secondary market is consistently resulting in a negative variance between the NAV of a Fund's Shares and the secondary market price of Shares at the Valuation Time."[48] I understand that the purpose of the Small Allotment Redemption Option is to serve as a fallback liquidity mechanism, ensuring that shareholders will be able to redeem Shares at or near NAV even during periods in which secondary

[45] *See* Filing at pages 20-25.

[46] *ibid* at page 22.

[47] *ibid* at pages 26-28.

[48] *ibid* at page 45.

market trading prices are at a significant discount. I believe that, as proposed, the Small Allotment Redemption Option program is grossly inadequate for this purpose, and does not justify applying a less rigorous standard of expected performance for the Shares' secondary market trading in determining whether the Filing should be approved.

Among the reasons why the proposed Small Allotment Redemption Option program does not, in my judgment, justify applying a lower standard of expected secondary market trading performance to the Funds are: (a) a Fund's Shares could trade at persistently wide discounts to NAV and still rarely, if ever, cause the Small Allotment Redemption Option to be invoked, due to how Triggering Events are determined; (b) the Small Allotment Redemption Option will be available only to a subset of shareholders and restricted to redemptions of less than a Redemption Unit of Shares, the value of which is not specified; (c) the expected early Cut-off Time for redemptions under the Small Allotment Redemption Option program means that a shareholder's ability to redeem Shares for cash will exist for only a portion of each Business Day during a Small Allotment Redemption Option period; and (d) shareholders who redeem Shares under the Small Allotment Redemption Option program will be subject to Transaction Fees imposed by the Fund of up to 2% of NAV and may also be subject to broker-dealer processing fees. In the below paragraphs I address each of these considerations.

Triggering Event. A key factor in determining the utility of the Small Allotment Redemption Option program for its intended purpose is the conditions under which the program is activated. As noted above, the Filing provides that a Triggering Event occurs when a Fund's Bid/Ask Price is at a discount of 5% or greater from NAV for 10 consecutive Business Days. To assess the appropriateness of the Funds' Triggering Event, it is necessary to evaluate the suitability of each of the defining metrics: (a) the Bid/Ask Price as a measure of the prevailing discounts of Shares selling in the marketplace; (b) the 5% threshold for triggering daily discounts; and (c) the requirement that a triggering discount occurs for 10 consecutive Business Days to active the Small Allotment Redemption Option program.

Bid/Ask Price. In my judgment, the Bid/Ask Price is a remarkably poor choice as a measure of the current discounts to NAV at which Shares are being sold in the marketplace. First, the Bid/Ask Price reflects neither the actual price of the last Share trade of the Business Day nor the bid price at which Shares could be sold at the market close—instead, it is the *midpoint* of the national best bid and offer as of the time NAV is determined.[49] If no Shares actually trade at the Bid/Ask Price, and no dealer is willing to buy Shares at that price, how could that possibly be a reasonable measure of the prevailing discount at which Shares are being sold in the marketplace?

Second, a Fund's Bid/Ask Price can easily be manipulated. If broker-dealers making markets in a Fund's Shares wish to avoid invoking a Triggering Event, they can simply raise the closing offer price at which they are willing to *sell* Shares (not at all relevant to the bid price at which *shareholders* can sell Shares) sufficiently above the national best bid to bring the bid-ask *midpoint* within 5% of NAV. As an example, a Fund whose closing national best bid (and/or last sale price) of Shares is 10% below NAV would not invoke a Triggering Event so long as the closing national best offer price of the Shares is above NAV.

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[49] *ibid* at page 4. The Funds' NAV is determined as of the end of the Exchange's Regular Trading Hours, generally 4:00 p.m. Eastern Time.

Third, the Bid/Ask Price reflects (not very well) market conditions as of one point in time during each Business Day, and not the day's trading as a whole. Because only a small fraction of Share trading is likely to take place at the market close, and that trading may not be representative of the Business Day in its entirety, the actual discount experience of most Shares traded intraday does not enter into the determination of whether a Triggering Event is invoked.

5% Daily Discount Threshold. The indicated 5% daily discount to invoke a Triggering Event strikes me as completely inappropriate, far wider than is reasonable. As shown in the Petajisto Study,[50] even those categories of existing ETFs that trade with the widest bid-ask spreads and most variable premiums/discounts do not typically trade with discounts (or premiums) approaching 5%. In addition, the proposed 5% discount threshold is substantially in excess of the 2% limit imposed by the Commission on open-end fund redemption fees. If the Funds are to be regulated as open-end management investment companies offering redeemable securities, it seems reasonable to apply threshold discount levels for the Small Allotment Redemption Option program that are no higher than open-end funds are permitted to charge as redemption fees.

10 Consecutive Business Days. The requirement that the defined threshold discounts must persist for a Fund for 10 consecutive Business Days to trigger activation of the Small Allotment Redemption Option program strikes me, again, as inappropriate and unreasonable. Rather than requiring a Fund to trade poorly in the secondary market for a *consecutive* period of days to activate its fallback liquidity mechanism, a better option would be to focus on the *average* daily trading experience over rolling periods, as recommended in the paragraph below. Like basing the triggering threshold discount on Bid/Ask Price, the requirement that a Fund must trade at wide discounts for a period of consecutive days to activate the Small Allotment Redemption Option program lends itself to manipulation. If broker-dealers wish to avoid invoking a Fund's Triggering Event, they need merely to set their closing offer prices sufficiently above the national best closing bid on at least *one Business Day out of ten.*

Recommendation. As a condition for approval of the Filing, I believe that Triggering Events for the Fund's Small Allotment Redemption Option program should be required to be substantially modified. In particular, I recommend that: (a) the reference discount be changed from the discount of the Bid/Ask Price versus NAV to the Intraday Average Best Bid Discount (as defined herein);[51] (b) the daily discount threshold be changed from 5% to 2%; and (c) the requirement that a Fund's daily discount exceeds the defined threshold for 10 consecutive Business Days be changed to a requirement that the Fund's average daily discount over a period of 10 Business Days exceeds the defined threshold. As recommended, a Triggering Event would occur whenever the daily average of a Fund's Intraday Average Best Bid Discount over a period of 10 Business Days exceeds 2%.

<u>Program Eligibility.</u> Although I can see no valid reason why different categories of shareholders should have different redemption rights, participation in the Small Allotment Redemption Option program will be limited to (a) natural persons, (b) trusts established for the benefit of a natural person

[50] *See* Petajisto Study Tables III at page 30.

[51] The Intraday Average Best Bid Discount for each Business Day could be determined at the end of the day based on a random sampling of discounts of the Shares' current national best bid price versus IIV at various IIV calculation times during the day. Selecting the IIV calculation times to be used in the determination of the Intraday Average Best Bid Discount for a given Business Day after the end of the day would deter manipulation and enable the selected IIVs to be checked and verified.

or a group of related family members and (c) tax deferred retirement plans where investments are selected by a natural person purchasing for its own account.[52] Among the types of investors that may own relatively small holdings of Shares but would not be eligible to participate in the Small Allotment Redemption Option program are (a) spouses, family members and other joint holders of Shares not through a trust,[53] (b) individual retirement plan assets under the supervision of an outside advisor and (c) investment accounts of small endowments and foundations, group retirement plans, for-profit and not-for-profit corporations, partnerships and limited liability companies of various descriptions.

For eligible shareholders, the number of Shares that may be redeemed pursuant to the Small Allotment Redemption Option program will be restricted to amounts less than a Redemption Unit (currently 25,000 Shares).[54] Because the per-Share value of the Shares is unspecified (and the number of Shares in a Redemption Unit is subject to change),[55] the upper limit on the value of Share redemptions eligible for the Small Allotment Redemption Option program is indeterminate.

The restrictions on which shareholders may participate in the Small Allotment Redemption Option program and the indeterminate limit on eligible redemptions mean that a sizable percentage of Fund shareholders and Share holdings may not be eligible for the program. Whatever protections or assurances the Small Allotment Redemption Option program offers do not apply to those shareholders and the Share amounts not eligible to participate.

Early Order Cut-off Times. The Filing states that the "cut-off time for Small Allotment Redemption Orders . . . may be earlier than the time of calculation of the NAV in order to facilitate the timely submission of such orders from DTC to the Transfer Agent."[56] The fact that an early Order Cut-off Time may apply to Small Allotment Redemption Option program redemptions further diminishes the utility of this program as a fallback liquidity mechanism for shareholders.

Fund Transaction Fees. Shareholders redeeming Shares under the Small Allotment Redemption Option program will be subject to Fund Transaction Fees of up to 2%. The stated purpose of the Transaction Fees is "to protect the continuing shareholders against possible dilutive transactional expenses, including operational processing and brokerage costs, associated with establishing and liquidating portfolio positions . . . in connection with the purchase and redemption of Shares. The Adviser believes that imposing Transaction Fees will best respond to market needs and help to defray certain costs that would otherwise be borne by the Funds, such as custodian transaction fees and various other fund overhead costs and fund accounting costs."[57]

An issue with Fund performance implications is whether Transaction Fees limited to 2% will be sufficient to accomplish the intended purpose of protecting a Fund's continuing shareholders against dilution as a result of small cash redemptions under the Small Allotment Redemption Option program.

[52] *See* Filing at page 5.

[53] The most egregious element of this absurd categorization is that a husband and wife with separate accounts are eligible for this redemption program; but if they have a joint account they can't use it.

[54] *See* Filing at page 21.

[55] *ibid.*

[56] *ibid* at page 27.

[57] *ibid* at page 30.

Given my understanding of the share processing costs of ETFs, I believe it is unlikely that Transaction Fees limited to 2% will be sufficient to offset the costs incurred by the Funds to process small cash redemptions. Similar to what the Funds propose, existing ETFs charge transaction fees on purchases and redemptions of their shares to offset the associated processing costs and estimated fund trading costs. Most existing ETFs charge transaction fees that are flat dollar amounts (e.g., $500), which do not vary with the number of ETF shares purchased or redeemed by an Authorized Participant on a given day. This reflects the fact that the costs to that fund of processing an in-kind purchase or redemption are essentially the same, irrespective of transaction size. Funds that issue and redeem shares in cash may charge additional, percentage-based amounts to offset associated fund trading costs. The lowest base processing charge of an existing ETF that I am aware of is $50, and most ETFs charge a multiple of that amount. If the Funds' true cost to process a purchase or redemption of Shares were $50, all Share transactions under $2,500 would be dilutive to Fund returns, assuming the maximum 2% Transaction Fee were to apply. Lots of small direct redemptions will unavoidably cause dilution of a Fund's returns.

A different consideration raised by the Funds' proposed Transaction Fees is whether payments of up to 2% of NAV in connection with the Small Allotment Redemption Option program will be commercially acceptable and attractive to shareholders. Few, if any, mutual funds impose redemption fees that approach these levels. I am concerned that the Funds may seek to discourage use of the Small Allotment Redemption Option program by relatively large shareholders by maintaining Transaction Fees at higher levels (*e.g.*, the maximum 2%) than can be justified by actual Fund expenses to accommodate direct Share transactions. To address this concern, I recommend that Transaction Fees be required to be limited to amounts determined by the Adviser to be appropriate to offset the expenses incurred by a Fund in connection with issuing or redeeming Shares, taking into account the size of a specific purchase or redemption.[58] Because the costs to a Fund of accommodating sub-Redemption Unit redemptions are likely to be largely fixed in nature, I believe it would be inappropriate for a Fund to charge the same *percentage* fee (*i.e.*, 2%) on relatively large Share transactions as it does on smaller transactions.

Broker-Dealer Processing Fees. In addition to Fund Transaction Fees, participants in a Fund's Small Allotment Redemption Option program may also be required to pay processing fees to their broker-dealer. Due to the expected high cost to broker-dealers of administering transactions under the Small Allotment Redemption Option program, I believe there is significant risk that, left unregulated, the processing fees imposed by broker-dealers on program redemptions will be significantly higher than standard brokerage commissions for secondary market trades. I believe it should be a condition for approval of the Filing that all broker-dealers trading Shares on the Exchange be required to represent to the Exchange that the processing fees they charge on Small Allotment Redemption Option redemptions will not exceed what they charge the same customers for secondary market trades. Without this condition, the utility of the Small Allotment Redemption Option program as a fallback liquidity mechanism could be effectively undermined.

Conclusion and Recommendations. The purpose of the Funds' Small Allotment Redemption Option program is to serve as a fallback liquidity mechanism, providing assurance that investors will be

[58] Certain actively managed ETF exemptive applications that I have examined include representations that the transaction fees charged will be limited to amounts determined "to be appropriate in order to defray" the transaction expenses that will be incurred by a fund when an investor purchases or redeems shares. (*See, e.g., T. Rowe Price Associates, Inc. et al.* (File No. 812-13726 (December 14, 2012) at page 12)). I believe an explicit representation that the Transaction Fees charged a purchasing or redeeming shareholder will be limited to the estimated Fund expenses incurred to accommodate that shareholder's redemption is necessary and appropriate to protect against unreasonable Transaction Fees.

able to redeem Shares at prices approximating NAV even during periods in which secondary market trading prices are significantly below NAV. I believe that, as proposed, the Small Allotment Redemption Option program is grossly inadequate for this purpose and that, for this and other reasons stated elsewhere, the Filing should not be approved.

If, contrary to my recommendation, the Proposal does move forward, I believe the Small Allotment Redemption Option program must be extensively reworked and the terms of participation substantially liberalized. The Triggering Events that activate the Funds' fallback liquidity mechanism should be modified as recommended above. Funds should also be required to extend eligibility for the Small Allotment Redemption Option program to all shareholders and to establish (and disclose) a reasonable upper limit on the value of Shares that are eligible for redemptions under the program.[59] The Order Cut-off Time for redemptions under the Small Allotment Redemption Option program should be established as the close of the Exchange's Regular Trading Hours. Funds should not be permitted to charge Transaction Fees on transactions in Shares that exceed the associated Fund expenses incurred, taking into account the size of a specific transaction, and broker-dealers trading Shares on the Exchange should not be permitted to charge their customers processing fees on Small Allotment Redemption Option redemptions that exceed what they charge the same customers for secondary market trades.

<u>Scope of Proposal</u>

For the reasons discussed previously in this letter, I believe the Filing should not be approved. If approved, however, I believe the Funds' permitted investments and the permitted trading in Shares should be curtailed as described below.

<u>The Initial Funds.</u> The Filing provides for 13 initial Funds. Under normal circumstances, each Fund will invest at least 80% of its net assets in long positions (or engage in borrowings for the purpose of establishing short positions) in U.S. equity securities, drawn primarily from the largest 1,200 U.S. stocks by market capitalization. Each Fund may, to a limited extent, also hold foreign stocks and other investments, and may engage in transactions in derivative instruments. A Fund may hold up to 15% of its net assets in illiquid assets.[60]

As described in the Filing, the Funds' proposed method for seeking to ensure that market trading prices of Shares remain aligned with underlying portfolio values will be based principally on the dissemination of IIVs at 15 second intervals throughout the Exchange's Regular Trading Hours. The reliability of a Fund's IIVs will, of necessity, be limited by the availability, timeliness and accuracy of intraday valuations for the Fund's underlying holdings. If intraday valuation information for a Fund's holdings does not support the dissemination of timely and accurate IIVs throughout the Regular Trading Hours, the Fund cannot be expected to trade efficiently.

In evaluating the Funds' investment limitations, I believe there is too much scope for the Funds to hold investments that are not well-suited for the continuous dissemination of timely and accurate IIVs throughout each Business Day—including small-cap and international stocks and illiquid assets. I also note that the Funds' ability to employ investment leverage and hold short positions could significantly

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[59] I suggest $1-5 million as a reasonable upper bound for Share amounts eligible for redemption under the Small Allotment Redemption Option program, which I understand is consistent with the range of creation unit and redemption unit sizes for most existing ETFs.

[60] *See* Filing at pages 2-3 and 13-16.

interfere with the effectiveness of the Funds' proposed mechanism for maintaining close correspondence between market trading prices of Shares and underlying portfolio values.

If the Proposal is approved, I believe the Funds' permitted investments should be curtailed. In particular, I recommend that the Funds: (a) be required to limit their non-cash investments to U.S.-listed stocks with market caps of $5 billion or greater (consistent with the general understanding of large- and medium-cap stocks; a universe of about 700 stocks currently); (b) not be permitted to invest in illiquid assets; and (c) not be permitted to employ investment leverage or hold short positions.

Market Trading Hours. The Filing provides that the Shares will trade on the Exchange from 8:00 a.m. to 5:00 p.m. Eastern Time each Business Day, during the Exchange's Pre-Opening Session, Regular Trading Hours and After Hours Trading Session.[61] By contrast, the IIVs that form the basis for the Funds' arbitrage mechanism will be disseminated only during the Exchange's Regular Trading Hours (normally 9:30 a.m. to 4:00 p.m. Eastern Time). The Exchange proposes to address this mismatch by including in the Information Circular to be sent to members prior to the commencement of trading, a discussion of the "risks involved in trading the Shares during the Pre-Opening and After Hours Trading Sessions when an updated IIV will not be calculated."[62]

In my judgment, the proposed disclosure is not sufficient to address the significant risk that the prices of Shares bought or sold in the Pre-Opening and After Hours Trading Sessions will vary widely from underlying portfolio values because updated IIVs are not available during those trading sessions. If approved, I believe trading in Shares should be limited to the Exchange's Regular Trading Hours. I see no rationale for permitting Shares to trade at times when *neither* the *contents* nor any estimates of current *values* of the Fund's holdings are known in the marketplace.

Adequacy of Investor Information

Access to IIVs. The Proposal provides that, at least every 15 seconds during the Exchange's Regular Trading Hours, IIVs will be "widely disseminated by one or more major market data vendors."[63] The proposed frequency and means of dissemination of intraday values is, as I understand, consistent with the current requirement for most ETFs.[64] Compared to existing ETFs, however, access to timely and accurate IIVs will be of greater importance for the Funds due to the role that IIVs play in seeking to ensure that market trading prices of Shares do not stray overly far from underlying portfolio values and the higher likelihood of the Shares trading at significant premiums or discounts.

Given the greater importance of IIVs to investor decision-making, I believe it is essential that all Fund investors be provided with ongoing access to current IIV values. I do not believe that the proposed dissemination of IIVs "by one or more major market data vendors" is sufficient or appropriate for this purpose. Market data vendors do not necessarily make their services available for free, and it would be an unreasonable burden on small, self-directed investors to require them to subscribe to commercial data services to make informed investment decisions regarding a Fund. I believe it should be a

[61] *ibid* at page 34.

[62] *ibid* at page 35.

[63] *ibid* at pages 6, 9 and 37.

[64] Certain ETF sponsors provide real-time intraday fund values on their public website or support dissemination of intraday fund values through other public websites.

requirement for approval of the Filing that each Fund's current IIVs are *provided* at no charge on a public website and *made available* to the public no later than available to any other market participant.

Website Information. The Filing represents[65] that the Funds will maintain a free public website through which a Fund's prospectus may be downloaded and including various Fund trading information that is updated daily. I understand that the Funds' proposed website disclosures are consistent with the current practices of many existing ETFs. Given the heightened importance of IIVs for Fund investors and the likelihood that the Funds will trade at wider spreads and more volatile premiums/discounts than most existing ETFs, I believe additional Fund trading information should be required as a condition for approval. In particular, I recommend that each Fund's website disclosures be required to include the following:

IIVs

a. Real-time IIVs updated continuously throughout the Exchange's Regular Trading Hours on each Business Day (as discussed above);

b. Updated daily, complete intraday IIV history for at least the 20 most recent trading days (allowing buyers and sellers of Shares to compare their executed prices to reported IIVs at approximately the time of their trade execution);

c. Updated daily, prior Business Day's closing IIV and a calculation showing relationship of closing IIV to NAV (allowing investors to evaluate IIV to NAV correspondence); and

d. Updated daily, a chart and tables showing the frequency distribution and range of the closing IIV-to-NAV ratios for each calendar quarter over the life of the Fund.

Closing Price Premiums/Discounts

a. Updated daily, prior Business Day's closing market price and premium/discount (expressed as a percentage) based on the relationship of closing market price to NAV; and

b. Updated daily, a chart showing the frequency distribution and range of daily closing price premiums/discounts (expressed as percentages) for each calendar quarter over the life of the Fund.

Intraday Estimated Premiums/Discounts

a. Updated daily, prior Business Day's average, minimum and maximum intraday estimated premiums/discounts (expressed as percentages) based on IIVs and bid-ask midpoints at each IIV publication time; and

b. Updated daily, a chart showing the frequency distribution and range of daily average, minimum and maximum intraday estimated premium/discounts (expressed as percentages) for each calendar quarter over the life of the Fund.

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[65] *See* Filing at page 31.

Bid-Ask Spreads

a. Updated daily, prior Business Day's closing bid-ask spread and average, minimum and maximum intraday bid-ask spreads (expressed as percentages) during the Exchange's Regular Trading Hours; and

b. Updated daily, a chart showing the frequency distribution and range of daily closing bid-ask spreads and intraday average, minimum and maximum bid-ask spreads (expressed as percentages) for each calendar quarter over the life of the Fund.

Fund Market Exposure and Leverage

a. Updated daily, prior Business Day's net long or short equity market exposure and amount of investment leverage employed, each expressed as a percentage of Fund net assets; and

b. Updated daily, a chart showing the frequency distribution and range of the Fund's daily net market exposure and leverage percentages for each calendar quarter over the life of the Fund.

Purchase and Redemption Transaction Fees

a. Updated daily, the schedule of Transaction Fees currently applicable to purchases of Shares, redemptions of Redemption Units and redemptions through the Small Allotment Redemption Option program; and

b. Updated daily, a chart showing the frequency distribution and range of Transaction Fees applicable to direct purchases of Shares, Redemption Unit redemptions and redemptions through the Small Allotment Redemption Option program for each calendar quarter over the life of the Fund.

Conclusion

My principal conclusion is that the Filing should not be approved. In my judgment, approval would not be in the public interest or consistent with the protection of investors. Among the reasons are:

1. The significant risk that the IRS will deny the purported tax benefits of the Funds' distinctive in-kind redemption program.

2. The unreliability of the Funds' proposed method for ensuring secondary market trading efficiency, and the likelihood that the Shares will trade at significantly wider bid-ask spreads and/or more variable premiums/discounts than most existing ETFs.

3. The likely incidence of erroneous Share trades because of erroneous IIVs.

4. Policy considerations relating to the indirect selective disclosure of Fund information through IIV dissemination and time-series analysis of IIV data by market makers and other professional traders.

5. Potential reverse engineering risk.

6. Policy considerations relating to mandatory early Order Cut-off Times for direct purchases and/or redemptions of Shares.

7. Deficiencies and limitations on eligibility to participate in the Small Allotment Redemption Option program that substantially undermine its potential usefulness as a fallback liquidity mechanism.

If, contrary to my recommendation, the Filing is approved, I believe the Small Allotment Redemption Option program should be required to be extensively reworked and the terms of participation substantially liberalized as described above under "Small Allotment Redemption Option." I also believe the Proposal's scope should be reduced by: (a) restricting the Funds' investments to include only U.S.-listed large-cap and mid-cap stocks and cash instruments; (b) not permitting the Funds to hold illiquid assets or non-U.S. investments, or to enter into short positions, and (c) restricting trading in Shares to the Exchange's Regular Trading Hours. Further, I believe the information to be made available to investors should be expanded to include: (a) real-time dissemination of IIVs on a free public website, updated continuously throughout the Exchange's Regular Trading Hours each Business Day; and (b) daily updated statistics to be provided on the Funds' website showing historical IIVs, closing price/NAV ratios, IIV/NAV ratios, intraday price/IIV ratios, bid-ask spreads, leverage ratios, net long and short market exposures, and Transaction Fees applicable to direct purchases and redemptions of Shares.

In closing, I wish to thank the commissioners and staff of the SEC for consideration of the views and information presented in this letter.

Sincerely,

Gary L. Gastineau

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