

assets that may be held by the ETF, but only to a limited extent. For example, prospectus disclosures of general risks and investment objectives provide little quantitative precision about an ETF's assets and risk exposures. The proposed quarterly portfolio disclosures would provide little additional quantitative precision as a result of portfolio turnover, as discussed previously. Consequently, variability would inevitably be introduced into the proposed model. The Commission believes that this may lead to a break in alignment between a market maker's hedge portfolio and the NAV per share of the ETF; this could diminish the market maker's ability to manage its risks, which, in turn, could increase its risk of loss.<sup>62</sup> This greater risk of loss would be reflected in wider bid/ask spreads and result in intraday market prices that deviate from the NAV per share of the ETF, which would be contrary to the foundational principle underlying section 22(d) and rule 22c-1 under the Act that shareholders be treated equitably.

43. The Commission also preliminarily believes that this potential price disparity could be even worse under times of market stress or volatility. Market makers would likely be heavily reliant on sophisticated algorithms to deconstruct the portfolio holdings of the proposed ETF in order to construct the hedge portfolio. During times of market stress or volatility, the Commission believes that reliance on these algorithms would not be sufficient for market making purposes in the proposed ETFs and the correspondence between the hedge portfolio and the NAV per share of the ETF might be expected to lag. This is because the market makers' hedge portfolio may deviate significantly from the actual

portfolio of the proposed ETF, resulting in greater intraday market risk to the market maker and a corresponding widening of the bid/ask spread.<sup>63</sup> This would result in market prices, at which investors would buy and sell the ETF shares, not being at or close to the NAV per share of the ETF, which would be contrary to the foundational principle underlying section 22(d) and rule 22c-1 under the Act that shareholders be treated equitably. Accordingly, although some market makers supporting Applicants noted that they should be able to construct hedge portfolios that were closely aligned (and would remain aligned) to the NAV per share of the ETF for the domestic equity ETFs proposed by Applicants, the Commission cannot fully agree with that conclusion.

44. Finally, although Applicants proposed a retail redemption option to address a significant and persistent deviation of market price to NAV, as discussed in detail above, the Commission preliminarily believes that this option is not sufficient to protect investors as required by the Act.

#### *B. Potential Disruption of Orderly Trading and Damage to Market Confidence*

45. In the absence of sufficient information for market makers to accurately assess the value of the underlying portfolio securities and to make markets in ETF shares at levels that are closely aligned to the NAV per share of the ETF, market makers are likely to trade in proposed ETFs with wide bid/ask spreads and variable premiums/discounts to the NAV per share of the ETF. This would be particularly the case during times of market stress and for active management strategies that might involve high portfolio turnover when there is a greater need for confidence in pricing signals.<sup>64</sup> Under particularly stressful or volatile market conditions, the inability to independently and accurately value an ETF's portfolio assets may cause market makers to withdraw from providing meaningful liquidity, which in turn can lead to the disruption of orderly trading in the ETF.<sup>65</sup> The Commission preliminarily believes that a structure that may lead market makers to make markets in the proposed ETFs at prices that are not closely aligned to the NAV per share of the ETF is not necessary or appropriate in the public

interest, nor is it consistent with the protection of investors or with the foundational principle underlying section 22(d) and rule 22c-1 under the Act that shareholders be treated equitably.

46. Further, any breakdown in the pricing or the ability to price the proposed ETF may result in damage to market confidence in secondary trading of ETFs—not just in the proposed product, but in ETFs generally. Investors may exit the ETF market because of a loss of trust, particularly in actively managed ETFs, should the proposed ETFs fail to function in a manner similar to current ETFs.<sup>66</sup> For this additional reason, the Commission preliminarily believes that it is not necessary or appropriate, nor in the public interest or consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the Act, to grant the requested relief.

\* \* \* \* \*

47. In light of the foregoing, the Commission remains unconvinced that Applicants' proposed ETFs meet the standard for relief under section 6(c) of the Act. Accordingly, absent a request for a hearing that is granted by the Commission, the Commission intends to deny Applicants' request for an exemption under section 6(c) of the Act as not necessary or appropriate in the public interest and as not consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the Act.

By the Commission.

**Kevin M. O'Neill,**  
*Deputy Secretary.*

[FR Doc. 2014-25438 Filed 10-24-14; 8:45 am]

**BILLING CODE 8011-01-P**

## **SECURITIES AND EXCHANGE COMMISSION**

**[Investment Company Act Release No. 31300; 812-14116]**

### **Precidian ETFs Trust, et al.; Notice of Application**

October 21, 2014.

**AGENCY:** Securities and Exchange Commission ("Commission").

**ACTION:** Notice of an application for exemptive relief.

<sup>62</sup> See Examining the Exchange-Traded Nature of Exchange-Traded Funds, Morningstar ETF Research (Feb. 11, 2013) ("Morningstar ETF Report"), at 21 ("To consider conducting an arbitrage transaction, arbitrageurs must be fairly confident that they will receive a return commensurate with the level of risk they are assuming. Therefore, it is likely that intraday changes to volatility (that is, risk) cause arbitrageurs to become more or less confident when transacting in the equity market for purposes of arbitrage and thus cause premiums or discounts to occur in the short term. . . . From the perspective of an arbitrageur, increased equity market volatility implies that the value of purchased equities relative to the value of the ETF's shares is at greater risk to fall and thus increases the potential that arbitrage trade will be less profitable, if at all. Therefore, when equity market volatility rises, it is likely that an arbitrageur would wait longer before acting to exploit an ETF premium. As a result, the ETF market price would outperform the NAV price on days when equity market volatility is increasing. . . . Arbitrageurs knowingly leave profits on the table for a short amount of time because the risk or cost to trade and profit is too high at that time.").

<sup>63</sup> Ron Delegee, *ETF Bid/Ask Spreads* (Apr. 23, 2013), available at <http://investius.com/2013/04/23/etf-bidask-spreads/>.

<sup>64</sup> See *supra* note 50 and accompanying text.

<sup>65</sup> See Flash Crash Report, *supra* note 51, at 4-6. See also Morningstar ETF Report, *supra* note 62.

<sup>66</sup> See Tamar Frankel, *Regulation and Investors' Trust in the Securities Markets*, 68 Brook. L. Rev. 439 (2002), at 448 (arguing that once investors' trust is lost, they will flee the stock markets and turn to other types of investments that "they can see, evaluate and guard for themselves.").

**SUMMARY OF APPLICATION:** Applicants request an order under section 6(c) of the Investment Company Act of 1940 (“Act”) for an exemption from sections 2(a)(32), 5(a)(1), 22(d) and 22(e) of the Act and rule 22c–1 under the Act, under sections 6(c) and 17(b) of the Act for an exemption from sections 17(a)(1) and 17(a)(2) of the Act, and under section 12(d)(1)(j) of the Act for an exemption from sections 12(d)(1)(A) and (B) of the Act. If granted, the requested order would permit several registered open-end investment companies that are actively managed exchange traded funds (each, an “ETF”) to list and trade without being subject to the current daily portfolio transparency condition in actively managed ETF orders.

**APPLICANTS:** Precidian ETFs Trust (the “Trust”), Precidian Funds LLC (the “Adviser”) and Foreside Fund Services, LLC (the “Distributor”) (together, the “Applicants”).

**FILING DATES:** The application was filed on January 25, 2013, and amended on February 12, 2013 and July 23, 2013.

**HEARING OR NOTIFICATION OF HEARING:** Interested persons may request a hearing by writing to the Commission’s Secretary and serving applicants with a copy of the request, personally or by mail. Hearing requests should be received by the Commission by 5:30 p.m. on November 17, 2014, and should be accompanied by proof of service on applicants, in the form of an affidavit or, for lawyers, a certificate of service. Pursuant to rule 0–5 under the Act, hearing requests should state the nature of the writer’s interest, any facts bearing upon the desirability of a hearing on the matter, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by writing to the Commission’s Secretary. Absent a request for a hearing that is granted by the Commission, the Commission intends to issue an order under the Act denying the application.

**ADDRESSES:** Secretary, U.S. Securities and Exchange Commission, 100 F Street NE., Washington, DC 20549–1090. Applicants: c/o Precidian Funds LLC, 350 Main Street, Suite 9, Bedminster, New Jersey 07921–2689.

**FOR FURTHER INFORMATION CONTACT:** Deepak T. Pai, Senior Counsel; Kay-Mario Vobis, Senior Counsel; or Dalia Osman Blass, Assistant Chief Counsel, at (202) 551–6821 (Division of Investment Management, Chief Counsel’s Office).

**SUPPLEMENTARY INFORMATION:** The following is a summary of the application. The complete application

may be obtained via the Commission’s Web site by searching for the file number, or an applicant using the Company name box, at <http://www.sec.gov/search/search.htm> or by calling (202) 551–8090.

## I. Introduction

1. Applicants seek to introduce a novel type of actively managed exchange-traded fund (“ETF”) that would not be required to disclose its portfolio holdings on a daily basis. Due to their characteristics, ETFs (including those proposed by Applicants) are only permitted to operate subject to Commission orders that provide exemptive relief from certain provisions of the Act and rules thereunder.<sup>1</sup> Accordingly, Applicants seek an order under section 6(c) of the Act for an exemption from sections 2(a)(32), 5(a)(1), 22(d) and 22(e) of the Act and rule 22c–1 thereunder; and under sections 6(c) and 17(b) of the Act granting an exemption from sections 17(a)(1) and 17(a)(2) of the Act, and under section 12(d)(1)(j) for an exemption from sections 12(d)(1)(A) and (B) of the Act.

2. As discussed below, the Commission preliminarily believes that Applicants’ proposed ETFs do not meet the standard for exemptive relief under section 6(c) of the Act. Section 6(c) allows the Commission to exempt any person, security, or transaction, or any class thereof, only “if and to the extent that such exemption is necessary or appropriate in the public interest and consistent with the protection of investors and the purposes fairly intended by the policy and provisions of [the Act].”<sup>2</sup> Accordingly, the Commission preliminarily intends to deny the application.<sup>3</sup>

## II. Background

### A. Open-End Investment Companies and Net Asset Value

3. The Act defines an investment company as an “issuer” of “any security” which “is or holds itself out as being engaged primarily . . . in the business of investing . . . in securities.”<sup>4</sup> Shares in an investment company represent proportionate

interests in its investment portfolio, and their value fluctuates in relation to the changes in the value of that portfolio.

4. The most common form of investment company, the “open-end” investment company or mutual fund, is required by law to redeem its securities on demand at a price approximating their proportionate share of the fund’s net asset value (“NAV”) at the time of redemption.<sup>5</sup> These funds also continuously issue and sell new shares, thereby replenishing their investment capital.

5. Because open-end investment companies are required by law to redeem their shares based on investors’ demands, shares of the funds have historically not traded on exchanges or in other secondary markets.<sup>6</sup>

### B. Exemptions Under the Act for Actively Managed ETFs

6. ETFs, including those proposed by Applicants, are a type of open-end fund. But unlike traditional open-end funds, ETFs are made available to investors primarily through secondary market transactions on exchanges.

7. In order for this to take place, ETFs require various exemptions from the provisions of the Act and the rules thereunder. Critically, in granting such exemptions to date, the Commission has required that a mechanism exist to ensure that ETF shares would trade at a price that is at or close to the NAV per share of the ETF.<sup>7</sup>

8. Such a mechanism is essential for ETFs to operate because ETFs do not sell or redeem their individual shares at NAV per share as required by the Act. Instead, large broker-dealers that have contractual arrangements with an ETF (each, an “Authorized Participant”) purchase and redeem ETF shares directly from the ETF, but only in large blocks called “creation units.” An Authorized Participant that purchases a creation unit of ETF shares first deposits with the ETF a “basket” of securities

<sup>5</sup> Section 22(d) of the Act prohibits a dealer from selling a redeemable security that is being offered to the public by or through an underwriter other than at a current public offering price described in the fund’s prospectus. Rule 22c–1 under the Act requires open-end funds, their principal underwriters, and dealers in fund shares (and certain others) to sell and redeem fund shares at a price based on the current NAV next computed after receipt of an order to buy or redeem. Together, these provisions are designed to require that fund shareholders be treated equitably when buying and selling their fund shares.

<sup>6</sup> This stems from section 22(d) of the Act, which in effect fixes the prices at which redeemable securities, including open-end shares, are sold. The result is a system that precludes dealers from making a secondary market in open-end shares.

<sup>7</sup> This has been a required representation in all ETF orders since the Commission issued the first order. See *supra* note 1.

<sup>1</sup> The Commission first granted exemptive relief to operate ETFs in the early 1990s when the first index-based ETFs were developed. See SPDR Trust Series I, Investment Company Act Release Nos. 18959 (Sept. 17, 1992) (notice) and 19055 (Oct. 26, 1992) (order).

<sup>2</sup> 15 U.S.C. 80a–6(c).

<sup>3</sup> For this reason, the Commission finds it unnecessary to consider whether the application meets the section 17(b) and section 12(d)(1)(j) standards for exemptive relief.

<sup>4</sup> 15 U.S.C. 80a–3(a); 80a–3(a)(1).

and other assets (e.g., cash) identified by the ETF that day, and then receives the creation unit of ETF shares in return for those assets. The basket is generally representative of the ETF's portfolio and is equal in value to the aggregate NAV of ETF shares in the creation unit. After purchasing a creation unit, the Authorized Participant may sell the component ETF shares in secondary market transactions. Investors then purchase individual shares in the secondary market. The redemption process is the reverse of the purchase process: the Authorized Participant acquires a creation unit of ETF shares and redeems it for a basket of securities and other assets.

9. The combination of the creation and redemption process with the secondary market trading in ETF shares provides arbitrage opportunities that, if effective, keep the market price of the ETF's shares at or close to the NAV per share of the ETF.<sup>8</sup> For example, if an ETF's shares begin trading on national securities exchanges at a "discount" (a price below the NAV per share of the ETF), an Authorized Participant can purchase ETF shares in secondary market transactions and, after accumulating enough shares to comprise a creation unit, redeem them from the ETF in exchange for the more valuable securities in the ETF's redemption basket. In addition to purchasing ETF shares, Authorized Participants also are likely to hedge their intraday risk. Thus, for example, when ETF shares are trading at a discount to the NAV per share of the ETF, an Authorized Participant may also simultaneously short the securities in the redemption basket. At the end of the day, the Authorized Participant will return the creation unit of ETF shares to the ETF in exchange for the ETF's redemption basket of securities and other assets, which it will then use to cover its short positions. Those purchases reduce the supply of ETF shares in the market, and thus tend to drive up the market price of the shares to a level closer to the NAV per share of the ETF.<sup>9</sup>

10. Conversely, if the market price for ETF shares reflects a "premium" (a price above the NAV per share of the ETF), an Authorized Participant can

deposit a basket of securities in exchange for the more valuable creation unit of ETF shares, and then sell the individual shares in the market to realize its profit. An Authorized Participant may also hedge its intraday risk when ETF shares are trading at a premium. Thus, for example, when the shares of an ETF are trading at a premium, an Authorized Participant may buy the securities in the purchase basket in the secondary market and sell short the ETF shares. At the end of the day, the Authorized Participant will deposit the purchase basket of securities and other assets in exchange for a creation unit of ETF shares, which it will then use to cover its short positions. The Authorized Participant will receive a profit from having paid less for the ETF shares than it received for the securities in the purchase basket. These transactions would increase the supply of ETF shares in the secondary market, and thus tend to drive down the price of ETF shares to a level closer to the NAV per share of the ETF.<sup>10</sup>

11. Market participants can also engage in arbitrage activity without using the creation or redemption processes described above. For example, if a market participant believes that an ETF is overvalued relative to its underlying or reference assets, the market participant may sell short ETF shares and buy the underlying or reference assets, wait for the trading prices to move toward parity, and then close out the positions in both the ETF shares and the underlying or reference assets to realize a profit from the relative movement of their trading prices. Similarly, a market participant could buy ETF shares and sell the underlying or reference assets in an attempt to profit when an ETF's shares are trading at a discount to the ETF's underlying or reference assets. As discussed above, the trading of an ETF's shares and the ETF's underlying or reference assets may bring the prices of the ETF's shares and its portfolio assets closer together through market pressure.

12. In assessing whether to grant exemptive relief to actively managed ETFs in the past, the Commission has required a mechanism that would keep the market prices of ETF shares at or close to the NAV per share of the ETF. To date, this mechanism has been dependent on daily portfolio

transparency.<sup>11</sup> This transparency provides market makers and other market participants with an important tool to value the ETF portfolio on an intraday basis, which, in turn, enables them to assess whether an arbitrage opportunity exists. It is the exercise of such arbitrage opportunities that keeps the market price of ETF shares at or close to the NAV per share of the ETF. This close tie between market price and NAV per share of the ETF is the foundation for why the prices at which retail investors buy and sell ETF shares are similar to the prices at which Authorized Participants are able to buy and redeem shares directly from the ETF at NAV. In granting relief from section 22(d) of the Act and rule 22c-1 under the Act, the Commission relies on this close tie between what retail investors pay and what Authorized Participants pay to make the finding that the ETF's shareholders are being treated equitably when buying and selling shares.<sup>12</sup> The Commission therefore has granted such exemptive relief to date only to those actively managed ETFs that have provided daily transparency of their portfolio holdings.

### III. The Application

#### A. The Applicants

13. The Trust is a statutory trust organized under the laws of Delaware and registered under the Act as an open-end management investment company with multiple series (each, a "proposed ETF"). Applicants propose to offer 15 initial proposed ETFs, each of which will use a variety of active management strategies to meet its investment objectives. The proposed ETFs include long/short funds.

14. The Adviser, a limited liability corporation organized under the laws of Delaware, is registered as an investment adviser under the Investment Advisers Act of 1940 ("Advisers Act") and would serve as the investment adviser to the initial proposed ETFs. The Distributor, a Delaware limited liability company, is a registered broker under the Securities Exchange Act of 1934, as amended.

#### B. Applicants' Proposal

15. Applicants seek exemptive relief under section 6(c) of the Act to allow them to introduce several actively managed ETFs that would not disclose their portfolio holdings on a daily basis.

<sup>8</sup> See Investment Company Institute, 2014 *Investment Company Fact Book* (2014) ("ICI Fact Book"), at 60.

<sup>9</sup> The Authorized Participant's purchase of the ETF shares in the secondary market, combined with the sale of the redemption basket securities, may also create upward pressure on the price of ETF shares and/or downward pressure on the price of redemption basket securities, driving the market price of ETF shares and the value of the ETF's portfolio holdings closer together.

<sup>10</sup> The Authorized Participant's purchase of the purchase basket securities, combined with the sale of ETF shares, may also create downward pressure on the price of ETF shares and/or upward pressure on the price of purchase basket securities, bringing the market price of ETF shares and the value of the ETF's portfolio holdings closer together.

<sup>11</sup> The condition for daily portfolio transparency has consistently been one of the conditions to the exemptive relief issued to actively managed ETFs by the Commission. See PowerShares Capital Management LLC, et al., *Investment Company Act Release Nos. 28140* (Feb. 1, 2008) (notice) and 28171 (Feb. 27, 2008) (order).

<sup>12</sup> See *supra* note 5 and accompanying text.

Applicants note that actively managed ETFs with transparent portfolios are susceptible to “front running” and “free riding” by other investors and/or managers which can harm, and result in substantial costs to, the actively managed ETFs.<sup>13</sup>

16. As explained below, the Applicants propose to operate actively managed ETFs that would not disclose their portfolio holdings on a daily basis. Applicants state that the relief requested in their application is similar to the relief granted in exemptive orders issued to existing actively managed ETFs, except for certain differences permitting the proposed ETFs to operate on a non-transparent basis. These material differences are highlighted below:

a. *Prospectus and Portfolio Disclosures*: Applicants would not provide the daily disclosure of a proposed ETF's portfolio holdings that is a condition in all exemptive orders issued to existing actively managed ETFs. Applicants would instead only provide the standard portfolio and other disclosures required for traditional mutual funds. Traditional mutual funds are required to disclose their portfolio holdings only on a quarterly basis, with a lag of not more than 60 days.<sup>14</sup>

b. *Indicative Intraday Value*: Investors and others acquiring the proposed ETFs' shares would primarily have to rely on the intraday indicative value (the “IIV”), which would be disseminated by an exchange every 15 seconds during the trading day,<sup>15</sup> to assess the value of a proposed ETF due to the lack of portfolio transparency. The IIV would be calculated by a calculation agent who would receive the daily list of securities constituting the proposed ETF's portfolio from the ETF sponsor.<sup>16</sup> As acknowledged by the Applicants, the

IIV is based on the value of the proposed ETF's portfolio and is calculated by the calculation agent using the last available market quotation or sale price of the proposed ETF's portfolio holdings.<sup>17</sup> As further acknowledged by the Applicants, the IIV is not the NAV; rather, it is a reference produced by a third party seeking to approximate the proposed ETF's underlying per share net asset value.<sup>18</sup> Applicants also concede that the IIV is not intended as a “real-time NAV” and (unlike the NAV) would not include extraordinary expenses or liabilities booked during the day.<sup>19</sup> As discussed below, an ETF's portfolio could contain securities and other assets all (or most) of which need to be fair valued in order for the IIV to be accurate.<sup>20</sup>

c. *Blind Trust Mechanism*: Applicants propose for creation unit purchases to be made in cash and for redemptions to be effected in-kind through a “blind trust” established for each Authorized Participant. Applicants assert that the delivery of redemption securities into the blind trust would allow the ETF to retain the benefits associated with in-kind redemptions,<sup>21</sup> while shielding the identity of the ETF's portfolio securities. Based on the standing instructions of the Authorized Participant, the blind trust would sell or otherwise manage the securities on behalf of the Authorized Participant without disclosing the contents of the underlying portfolio.

d. *Back-up Redemption Option*: Applicants have proposed a back-up mechanism that would allow retail investors to redeem individual shares directly from the proposed ETFs in the event of a significant deviation of closing market price from NAV. Under the proposal, retail investors exercising the option would be subject to a

redemption fee of up to 2% of the value of shares redeemed and would likely be charged additional brokerage commissions.

#### IV. Analysis of the Application

17. As noted above, the Applicants have sought exemptive relief under several provisions of the Act—each of which the Applicants would need to obtain in order to operate their proposed ETFs.

18. Applicants state that the relief requested in their application is similar to the relief granted in exemptive orders issued to existing actively managed ETFs, except for certain differences permitting the proposed ETFs to operate on a non-transparent basis.

19. As discussed below, however, the Commission preliminarily believes that the specific features proposed by the Applicants that would cause the proposed ETFs to operate without transparency fall far short of providing a suitable alternative to the arbitrage activity in ETF shares that is crucial to helping keep the market price of current ETF shares at or close to the NAV per share of the ETF.<sup>22</sup> Accordingly, the Commission preliminarily believes that it is not in the public interest or consistent with the protection of investors or the purposes fairly intended by the policy and provisions of the Act to grant the exemptive relief under section 6(c) that the Applicants seek.

##### A. ETF Prospectus Disclosure and IIV Dissemination

20. Applicants assert that ETF prospectus disclosure and the dissemination of the IIV every 15 seconds during the trading day would be sufficient to allow the arbitrage mechanism to function effectively after a few days of trading.<sup>23</sup> Applicants further assert that market participants do not need any additional information about the proposed ETF's portfolio so long as they are able to create correlations against and, over time, evaluate how various market factors affect the disseminated IIV. According to Applicants, this process is referred to as “reinforcement learning.”<sup>24</sup>

<sup>13</sup> Application at 20. See also Murray Coleman, *Could a Stock ETF Cloak its Portfolio* (May 7, 2012), available at <http://online.wsj.com/news/articles/SB10001424052702304432704577348261039833588> (noting that if traders can identify the shares in which a fund manager is building a position, they can start buying the shares ahead of the manager and drive up the price while the manager is still buying the stock).

<sup>14</sup> Shareholder reports, including a schedule of portfolio holdings, must be transmitted to shareholders semi-annually, within 60 days of the end of the second and fourth fiscal quarters. See Rule 30e–1. A complete schedule of portfolio holdings must be filed with the Commission on Form N–CSR within 10 days of the transmission of the shareholder report. See Rule 30d–1. Complete portfolio holdings also must be filed on Form N–Q within 60 days of the end of the first and third fiscal quarters. See Rule 30b1–5.

<sup>15</sup> We note that the IIV is not disseminated during early and late trading sessions when market participants would still be trading the proposed ETFs' shares. Therefore, there would be no pricing signal at all for these trades.

<sup>16</sup> See *infra* note 34.

<sup>17</sup> Application at 15. See also Matt Hougan, *The Flaws in iNAV*, 104 Exchange-Traded Funds Report (“Hougan ETF Report”), 5, 10 (2009).

<sup>18</sup> Application at 15.

<sup>19</sup> *Id.*

<sup>20</sup> See *infra* notes 37–42 and accompanying text.

<sup>21</sup> Because redemptions from ETFs are often made in-kind, ETFs may offer certain tax efficiencies compared to traditional mutual funds by avoiding the need to sell assets and potentially experience a taxable event. In addition, ETFs do not bear the brokerage costs associated with liquidating portfolio instruments to meet redemption requests. We note that it is unclear whether Applicants' proposed ETFs would experience the same in-kind benefits experienced by existing ETFs. The blind trust structure is likely to introduce additional costs because, among other things, the Authorized Participants would not be able to manage the sale of the securities to enhance arbitrage profits. See Comment Letter of Gary Gastineau, File No. SR–NYSEArca-2014–10 (Mar. 18, 2014) (“Gastineau March 2014 Letter”), at 3–5 for a discussion of the potential issues presented by this structure.

<sup>22</sup> Staff in the Division of Economic and Risk Analysis provided advice and analyses relevant to the Commission's conclusions, discussed in more detail below.

<sup>23</sup> Application at 19–21.

<sup>24</sup> According to Applicants, reinforcement learning is dependent on statistical arbitrage. See text following *supra* note 10. Applicants assert that market makers would use the proposed ETF's market price, IIV and daily NAV to construct a hedging portfolio for the proposed ETF. The market makers would then engage in statistical arbitrage between their hedging portfolio and the shares of the proposed ETF—i.e., buying and selling one

21. ETF prospectus disclosure will not assist the arbitrage mechanism because such disclosure does not contain any material real-time information necessary to creating or facilitating effective arbitrage. Actively managed funds generally include very broad investment objectives and strategies in order to provide investment advisers with the maximum flexibility possible in managing the portfolio, and do not include more specific, current information about a fund's portfolio holdings.<sup>25</sup> The Commission preliminarily believes that it would be difficult, if not impossible, for market participants to discern sufficient useful information from such broad disclosures. Therefore, the lack of more specific information with respect to the proposed ETF's investment objectives or principal investment strategies may not enable market makers to effectively assess whether real-time arbitrage opportunities in ETF shares exist and may discourage them from making markets in ETF shares that would keep the share prices at or close to the NAV per share of the ETF—a condition that may be exacerbated during times of market stress.

22. Dissemination of the IIV at 15 second intervals throughout the trading day does not fill this information void. Today, market makers calculate their own NAV per share of the ETF with proprietary algorithms that use an ETF's daily portfolio disclosure and available pricing information about the assets held in the ETF's portfolio.<sup>26</sup> They generally use the IIV, if at all, as a secondary or tertiary check on the values that their proprietary algorithms

against the other during the trading day and evaluating the effectiveness of their hedging portfolio at the day's end. Applicants further assert that after a few days of trading, there would be sufficient data for a market maker to run a statistical analysis that would result in the market maker's spreads being tightened substantially around the IIV. Application at 19–21.

<sup>25</sup> For example, Form N–1A requires mutual funds to disclose in the prospectus and statement of additional information their investment objectives or goals, principal investment strategies, and the portfolio turnover rate during the most recent fiscal year. *See, e.g.*, Form N–1A, Items 2 to 4, and 9. As discussed above, mutual funds are required to disclose their portfolio holdings quarterly. *See supra* note 14 and accompanying text.

<sup>26</sup> *See* David J. Abner, *The ETF Handbook: How to Value and Trade Exchange Traded Funds* (2010), at 90 (“[s]ince stock trading now takes place in microseconds, a lot can happen between two separate 15-second quotes. Professional traders are not using published IIVs as a basis for trading. Most, if not all, desks that are trading ETFs are calculating their own [NAV of the ETF] based on real time quotes . . . that they are generating within their own systems.”). *See also* Comment Letter of BGFA, File No. S7–07–08 (May 16, 2008) (“BGFA 2008 Letter”), at n.43; and ICI Fact Book, *supra* note 8, at 59.

generate. If the daily portfolio holdings for the proposed ETFs are not available for market makers to calculate current values of a proposed ETF, they will be reliant principally on the IIV given the limitations of the prospectus and quarterly portfolio disclosures. Even though the IIV continues to be disseminated in conjunction with the full portfolio holdings and basket of existing ETFs, its reliability as a primary pricing signal for the proposed ETFs is questionable for the reasons discussed below.

23. *The IIV is stale data.* Unlike market maker proprietary algorithms, which rely on portfolio transparency and provide market makers with real-time data to effectively trade in today's fast moving markets, IIV dissemination frequency is inadequate for purposes of making efficient markets in ETFs.<sup>27</sup> Market makers operate at speeds calculated in fractions of a second.<sup>28</sup> In today's markets, 15 seconds is too long for purposes of efficient market making and could result in poor execution.<sup>29</sup> Because an ETF is a derivative security, its current value changes every time the value of any underlying component of the ETF portfolio changes.<sup>30</sup> Therefore,

<sup>27</sup> The Commission previously issued a proposing release on a proposed rule for certain ETFs. *See* Exchange-Traded Funds, Investment Company Act Release No. 28193 (Mar. 11, 2008) (“2008 ETF Rule Proposal”). Various industry members commenting on the 2008 ETF Rule Proposal noted that market makers did not rely on the IIV because of either its staleness or unreliability. *See, e.g.*, Comment Letter of NYSE Arca, Inc., File No. S7–07–08 (May 29, 2008) (the exchange noted that it “is not convinced that the [IIV] is a meaningful pricing tool for investors in light of the availability of other pricing information. In fact, we believe that it is the transparency of the portfolios [sic] holdings which permit [sic] market makers and other professionals to arbitrage efficiently and not the regular dissemination of an [IIV]. Some market participants may choose to generate an [IIV] for their own use, using their own calculation methodology to include financing costs, capital costs, etc., in kind trading or arbitrage. Importantly, the [IIV] generated by professionals is in real-time and not delayed by 15 or 60 seconds.”); and BGFA 2008 Letter, *supra* note 26, at n. 43 and n. 92. *See also* Matt Hougan, *Ban iNAV's For ETFs* (June 24, 2013), available at <http://www.indexuniverse.com/sections/blog/19037-hougan-ban-inavs-for-etfs.html>.

<sup>28</sup> *See* Comment Letter of ICI, File No. SR–NASDAQ–2012–117 (Nov. 8, 2012), (“ICI 2012 Letter”), at 4. *See also* ICI Fact Book, *supra* note 8.

<sup>29</sup> *See, e.g.*, *How To Minimize Your Cost Of Trading ETFs* (June 22, 2009), ETF.com, available at <http://www.etf.com/publications/journalofindexes/joi-articles/6042-how-to-minimize-your-cost-of-trading-etfs.html>, at Figure 2 and related discussion. *See also* ICI 2012 Letter, *supra* note 28 (“Professional equity traders operate at speeds calculated in fractions of a second. In such markets, 15 seconds can be an eternity, and establishing an order price based on data that is nearly 15 seconds old could result in poor execution.”).

<sup>30</sup> In particularly volatile markets, the dissemination lag of IIV values (*i.e.*, every 15 seconds) may misrepresent the actual value of the

the IIV for a more frequently traded component security might not effectively take into account the full trading activity for that security, despite being available every 15 seconds. For example, a large buy order for a component security held by the proposed ETF could temporarily spike the price of that security and, therefore, inflate the proposed ETF's contemporaneous IIV calculation.<sup>31</sup> The IIV for the proposed ETF cannot adjust for such variations, whereas the NAV would.<sup>32</sup> Therefore, relying on a stale IIV as a primary pricing signal for market making in Applicants' proposed ETFs would not result in an effective arbitrage mechanism.<sup>33</sup>

24. *The IIV is not subject to meaningful standards.* Because there are no uniform methodology requirements, the IIV can be calculated in different ways rendering it potentially arbitrary and inconsistent.<sup>34</sup> Also, Applicants acknowledge that no party has agreed to take responsibility for the accuracy of IIV calculation.<sup>35</sup> Therefore, the

ETF. *See Understanding iNAV*, ETF.com, available at <http://www.etf.com/etf-education-center/21028-understanding-inav.html>; Gary L. Gastineau, *Exchange-Traded Funds Manual*, Second Edition (2010), at 200–202.

<sup>31</sup> *See, e.g.*, ICI 2012 Letter, *supra* note 28.

<sup>32</sup> *See, e.g.*, ICI 2012 Letter, *supra* note 28. *See also* Gastineau March 2014 Letter, *supra* note 21, at 10, for a more detailed discussion of why the IIV would at best be a “lagging indicator of actual portfolio values” during times of rapid market movement.

<sup>33</sup> An IIV that is disseminated at more frequent intervals could present a different set of problems, as it may enable third parties to reverse engineer the underlying portfolio using data analysis. Therefore, changing the frequency of dissemination would not appear to be a viable option to the extent Applicants' objective is to prevent disclosure of the proposed ETF's portfolio. *See also infra* note 36 and accompanying text.

<sup>34</sup> *See, e.g.*, ICI 2012 Letter, *supra* note 28 (“[M]any parties participate in the calculation, publication, and dissemination of [IIV]. The ETF sponsor provides an independent calculation agent with the daily list of securities constituting an ETF's creation basket (which for U.S. equity ETFs is typically, but not always, a pro rata slice of the ETF's portfolio). The calculation agent separately obtains market pricing information for each of the component securities from a third party source, such as the exchange or a pricing vendor, and calculates the estimated per-share value of an ETF share. *This process creates several opportunities for errors:* For example, an ETF may report a basket inaccurately; a calculation agent may receive faulty data from a pricing vendor; or an error may be made in the calculation process. *We understand that such errors are not infrequent.*” [emphasis added]).

<sup>35</sup> Applicants explicitly disclaim making any warranty by the ETFs as to the accuracy of the IIV. The Adviser would merely use “commercially reasonable efforts to assure that the calculation agent has an accurate listing of all securities in each [fund's] portfolio as of the beginning of trading on each day the [fund] is traded.” Similarly, “[a]lthough the calculation agent will not guarantee the accuracy of the IIV, the contract with the calculation agent will require that it use

Continued

Commission's preliminary conclusion is that the IIV calculation methodology is not appropriate for the IIV to be used as a primary pricing signal because it is potentially unreliable and susceptible to errors.<sup>36</sup>

25. *The IIV would be inaccurate for certain securities and asset classes.* Because the IIV is constructed using last available market quotations or sale prices and not fair value prices for the underlying assets, it can be inaccurate.<sup>37</sup> For example, as some securities do not trade frequently, the IIV would reflect the last quoted or sale price which could be stale and no longer reflect their current value.<sup>38</sup> Other securities may not have yet opened for trading on a particular trading day or may be subject to an intraday interruption in trading.<sup>39</sup>

26. Applicants note that up to 15% of the proposed ETFs' total assets could be in illiquid securities.<sup>40</sup> Illiquid securities often fall within the category of securities for which there is no readily available market quotation and their fair value must be determined in good faith by the fund's directors.<sup>41</sup> Therefore, a significant amount of illiquid securities in a proposed ETF's portfolio could exacerbate the deviation between the IIV and the NAV per share of the ETF because the accurate value of illiquid securities is determined by current fair valuation (reflected in the NAV) rather than use of stale pricing data (reflected in the IIV).<sup>42</sup>

commercially reasonable efforts to calculate the IIV correctly. . . ." Application at 15.

<sup>36</sup> As is the case with more frequent dissemination, an IIV that is sufficiently accurate and precise may also enable third parties to reverse engineer the underlying portfolio using data analysis. Such an ETF would thus once again become vulnerable to front running if its portfolio can be reverse engineered by others. See Gastineau March 2014 Letter, *supra* note 21, at 15.

<sup>37</sup> See Horgan ETF Report, *supra* note 17. NAV includes fair value pricing, and with daily portfolio disclosure, market makers can estimate fair value on their own for the holdings of current ETFs.

<sup>38</sup> See, e.g., ICI 2012 Letter, *supra* note 28.

<sup>39</sup> See Gastineau March 2014 Letter, *supra* note 21 (noting that 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).

<sup>40</sup> See Securities Exchange Act Release No. 34–71588 (Feb. 20, 2014), File No. SR–NYSEArca–2014–10.

<sup>41</sup> 15 U.S.C. 80a–2(a)(41)(B). See also Independent Directors Council, *Fundamentals for Newer Directors* (Feb. 2014), available at [http://fundamentals.idc.org/specific/specific\\_pricing](http://fundamentals.idc.org/specific/specific_pricing), at 27.

<sup>42</sup> ETF sponsors seek to minimize exposure to assets that could impact this deviation because they can make arbitrage opportunities more difficult to evaluate. See Comment Letter of ICI, File No. S7–07–08 (May 19, 2008). See also Comment Letter of The American Stock Exchange LLC, File No. S7–20–01 (Mar. 5, 2002) ("Ultimately it is in the interest of the sponsor and investment adviser to provide for effective arbitrage opportunities. It is

27. *IIV inaccuracies can increase ETF tracking errors.* Errors in the IIV will likely lead to errors in estimating the factors that a market maker must consider when valuing a proposed ETF and constructing a hedging portfolio.<sup>43</sup> Therefore, market makers may not be able to construct accurate hedging portfolios for the ETF shares.<sup>44</sup> This would increase the tracking error associated with the hedging portfolios described above. As a result, tracking errors between intraday ETF prices and NAV per share of the proposed ETF would also likely increase because greater tracking errors in hedging portfolios would expose the market maker's position to greater risk.<sup>45</sup>

28. In addition, it may be more difficult for market makers to construct appropriate hedging portfolios from the IIV for proposed ETFs with higher portfolio turnover. In particular, changing portfolio allocations can cause the factors that a market maker must consider when valuing a proposed ETF and constructing a hedging portfolio to fluctuate more rapidly. This would in turn increase uncertainty around the market maker's estimates of these factors.<sup>46</sup> Therefore, proposed ETFs with more complex investment strategies involving dynamic factors will likely have higher tracking errors and bid-ask spreads if there is lack of sufficient information for market participants to construct tight hedges.<sup>47</sup>

unlikely that an . . . ETF sponsor would be able to convince the critical market participants such as specialists, market makers, arbitrageurs and other Authorized Participants to support a product that contained illiquid securities to a degree that would affect the liquidity of the ETF, making it difficult to price, trade and hedge, ultimately leading to its failure in the marketplace.").

<sup>43</sup> Such factors would include the market, asset class, sector and other risk factors. Market makers would need to estimate these exposures for a proposed ETF in order to construct hedging portfolios.

<sup>44</sup> This calls into question the reinforcement learning process which may not perform adequately during periods of heightened market volatility. See Sanmay Das, *Intelligent Market-Making in Artificial Financial Markets*, Massachusetts Institute of Technology—Artificial Intelligence Laboratory, AI Technical Report 2003–005, at 37.

<sup>45</sup> A commonly accepted assumption in economic models of market making is that market makers' bid-ask spreads compensate them for a number of costs including the risk they bear in their positions. See Maureen O'Hara, *Market Microstructure Theory*, First Edition (1998), at 35. Therefore, greater tracking errors in hedging portfolios for the proposed ETFs will likely result in higher bid-ask spreads and greater tracking errors between intraday ETF prices and the NAV of the ETF.

<sup>46</sup> In contrast, turnover would introduce no such uncertainty in ETFs with daily portfolio disclosure as the end-of-day NAV would be marked to the previously disclosed portfolio, which is known by market makers.

<sup>47</sup> Applicants are seeking relief to launch, among others, long/short equity proposed ETFs. These

29. *IIV inaccuracies can increase during periods of market stress or volatility.* Market stress can reduce liquidity in certain assets and consequently increase errors in IIV as the portfolio becomes increasingly illiquid and current market prices become more difficult to determine. In addition, volatility can increase errors around prices used in IIV calculations as volatility can increase the movement of prices.

30. In stressed markets, confidence in the pricing of (and in turn, the knowledge of) the ETF portfolio becomes increasingly important for market makers to continue to quote prices in ETF shares.<sup>48</sup> By itself, the IIV of a proposed ETF likely will not instill such confidence in a proposed ETF's pricing because, as discussed above, the IIV is potentially unreliable and susceptible to errors.<sup>49</sup> Nevertheless, a market maker that questions the current market price or IIV for an ETF can check those numbers against the NAV per share of the ETF output from its proprietary algorithm if the ETF has a fully transparent portfolio. That same market maker, however, would not be able to run a similar cross-check on those figures against a non-transparent ETF like the ones proposed by Applicants. Due to the inherent weaknesses of the IIV as a stand-alone metric, Applicants' proposal (which relies heavily upon the IIV as a substitute for full portfolio transparency) likely will not offer enough information about the underlying portfolio. As discussed below, this, in turn, likely would discourage market makers from making markets that would keep the market price for the proposed ETF's shares at or

types of funds have a higher portfolio turnover on average than that of actively managed equity funds. See Jing-Zhi Huang and Ying Wang, *Should Investors Invest in Hedge Fund-Like Mutual Funds? Evidence from the 2007 Financial Crisis*, 22 J. of Financial Intermediation 482 (2013), available at <http://dx.doi.org/10.1016/j.jfi.2012.11.004>, at 486–487 (finding that average turnover across 130/30 equity mutual funds was 196% from June 2003 until December 2009 versus less than 70% across all actively managed mutual funds in a comparable time period). These proposed ETFs also could have more thinly traded securities that could be more susceptible to price volatility during stressed market conditions. Therefore, it may be difficult for market makers to construct appropriate hedging portfolios from the IIV, making the proposed ETFs also likely to have higher tracking errors and bid-ask spreads.

<sup>48</sup> See, e.g., *Report to the Joint Advisory Committee on Emerging Regulatory Issues*, Staffs of the CFTC and SEC (Sept. 20, 2010) ("Flash Crash Report"), at 4–6 (noting that buy-side and sell-side interest returned only after market makers were able to verify the integrity of their data and systems and that they had to assess the risks of continuing to trade during the events of May 6, 2010).

<sup>49</sup> See *supra* notes 27–36 and accompanying text.

close to the NAV per share of the ETF, particularly under stressed market conditions when the need for real-time and verifiable pricing information becomes more acute.<sup>50</sup>

31. Accordingly, the Commission's preliminary conclusion is that use of the IIV as a primary pricing signal for market making in Applicants' proposed ETFs would not result in an effective arbitrage mechanism.

#### *B. Quarterly Release of Portfolio Holdings*

32. Applicants also propose providing their portfolio holdings disclosures on a quarterly basis, with a lag of not more than 60 days. But such disclosures would quickly lose their relevance for purposes of valuing or hedging the proposed ETFs because the content of their portfolios can change on a daily basis. This problem is heightened for ETFs with active management strategies that involve high portfolio turnover and alternative asset classes.<sup>51</sup> Again, this may discourage market makers from making markets that would keep the market price for the proposed ETF's shares at or close to the NAV per share of the ETF, particularly during times of market stress when the need for real-time pricing information becomes more acute.

#### *C. Back-Up Redemption Option*

33. In light of concerns about the effect on retail investors if the arbitrage mechanism failed to keep market prices at or close to the NAV of the proposed ETFs, Applicants proposed a redemption option that, in their view, would act as a "fail-safe" mechanism in the event of a significant deviation of closing market price from NAV. The redemption option would permit retail investors (but not institutional or other investors) to redeem their shares, in less than creation unit size, for cash directly from the proposed ETFs at NAV as of 4:00 p.m. (Eastern Time) each trading day.<sup>52</sup> For the reasons discussed below, the Commission preliminarily believes that this redemption option does not remedy the defects with Applicants'

proposal outlined above such that exemptive relief would be appropriate.

34. Under the proposal, retail investors exercising the redemption option would be subject to redemption and brokerage fees, which would likely discourage use of the option. Specifically, retail investors exercising the redemption option would be subject to a redemption fee of up to 2% of the value of shares redeemed. In addition, retail investors would likely be charged additional brokerage commissions to exercise the option. These fees and costs may dissuade retail investors from exercising a redemption option meant to provide retail investors with the ability to transact with the ETF on an equal footing with the Authorized Participants.<sup>53</sup>

35. But even if Applicants were able to address the Commission's concerns about the retail redemption option, this would not address the Commission's more fundamental concerns about Applicants' proposal. As discussed above, Applicants are proposing an ETF model that the Commission preliminarily believes would not have a sufficiently effective arbitrage mechanism to consistently produce a secondary market price for investors that would approximate NAV per share of the ETF. The presence of a back-up retail redemption option does not cure the inherently flawed structure of the proposed ETFs here.<sup>54</sup>

<sup>53</sup> An economically rational investor who seeks to exercise the option is likely not to redeem until a trading discount to IIV in the secondary market exceeds the costs to redeem (*i.e.*, the redemption fee plus the brokerage charges). Given that typical bid/ask spreads for ETFs with underlying diversified domestic equity holdings average 4 basis points, a redemption fee set at 2% will cost the investor 200 basis points (not including brokerage charges) to exit the proposed ETFs. See Antti Petajisto, *Inefficiencies in the Pricing of Exchange-Traded Funds* (Sept. 20, 2013), available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2000336](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2000336), at Table III. This assumes that the investor has the information necessary (IIV, bid price for the shares, redemption fee, brokerage charges) to make the determination of whether to redeem directly from the proposed ETFs or sell on the market. See generally, Matt Hougan, *The Flaws in the iNAV*, Exchange-Traded Funds Report (July 2009), at 5 (noting that investors would have to have deep quantitative experience to create models to see if they were getting fair prices on ETF trades today); and John Beshears, James Choi, David Laibson, and Brigitte C. Madrian, *How Does Simplified Disclosure Affect Individuals' Mutual Fund Choices?*, in *Explorations in the Economics of Aging*, edited by David A. Wise (2011) (noting that many retail investors lack the ability to perform even elementary calculations to compare investment options with differing sales fees).

<sup>54</sup> Applicants proposed the redemption option described above in response to the staff's suggestion. The Commission preliminarily believes that the inherent structural flaw of the proposed ETFs—*i.e.*, the potential lack of an effective arbitrage mechanism—cannot be solved by the proposed fail-safe mechanism.

#### **V. The Commission's Preliminary View**

36. As discussed above, the Commission preliminarily believes that Applicants have not provided an adequate substitute for portfolio transparency such that the proposed ETFs would consistently trade at or close to NAV. A close tie between market price and NAV per share of the ETF is the foundation for why the prices at which retail investors buy and sell ETF shares are similar to the prices at which Authorized Participants are able to buy and redeem shares directly from the ETF at NAV. This close tie between the prices paid by retail investors and Authorized Participants is important because section 22(d) and rule 22c-1 under the Act are designed to require that all fund shareholders be treated equitably when buying and selling their fund shares.<sup>55</sup> In fact, in granting relief from section 22(d) and rule 22c-1 under the Act, the Commission has relied on this close tie between what retail investors pay and what Authorized Participants pay to make the finding that the ETF's shareholders are being treated equitably when buying and selling shares.

37. The lack of portfolio transparency or an adequate substitute for portfolio transparency coupled with a potentially deficient back-up mechanism presents a significant risk that the market prices of ETF shares may materially deviate from the NAV per share of the ETF—particularly in times of market stress when the need for verifiable pricing information becomes more acute. This would be contrary to the foundational principle underlying section 22(d) and rule 22c-1 under the Act—that shareholders be treated equitably—and may, in turn, inflict substantial costs on investors, disrupt orderly trading and damage market confidence in secondary trading of ETFs.

#### *A. Substantial Costs to Investors*

38. One of the primary benefits of current ETFs is that investors are generally able to obtain a similar economic experience to investors in traditional open-end funds (*i.e.*, price at or close to NAV), but without certain of the costs associated with such funds (*e.g.*, transfer agency fees). The Commission preliminarily believes the proposed ETFs would not provide either element of this benefit if, as the Commission anticipates, the arbitrage mechanism does not function properly. A breakdown in the arbitrage mechanism could result in material deviations between market price and

<sup>50</sup> See *infra* Section V.

<sup>51</sup> Antti Petajisto, *Active Share and Mutual Fund Performance*, 69 Financial Analysts Journal 73 (2013), available at <http://www.cfpapubs.org/doi/pdf/10.2469/faj.v69.n4.7>, at 83. The study found that annual turnover across U.S. all-equity mutual funds is 87%. As a result, approximately 14% of the portfolio changes over the 60 days following the portfolio disclosure (prorating annual turnover of 87% for 60 days) and an additional 22% of the portfolio changes over the course of the following quarter (prorating annual turnover of 87% for three months). Therefore, there may be significant tracking errors between an ETF's current portfolio holdings and its prior quarterly portfolio disclosure.

<sup>52</sup> Application at 12.

<sup>55</sup> See *supra* note 5.



NAV per share of the ETF. Such deviations can hurt an investor. For example, if an investor places a buy order and the ETF is trading at a premium, this would result in a lower return for the investor as opposed to if the investor had bought the ETF when its prices were at or close to the NAV per share of the ETF or at a discount. As discussed above, the arbitrage mechanism inherent in the ETF structure keeps these differences small.

39. In this regard, the Commission finds it significant that market makers for Applicants expressed some skepticism during meetings with Commission staff that the IIV could be used as the primary pricing signal for ETFs with active management strategies that might involve high portfolio turnover.<sup>56</sup> They indicated that they would likely use the pieces of information provided by the Applicants (IIV, quarterly portfolio holdings disclosure and prospectus disclosure) to construct hedge portfolios using sophisticated algorithms.<sup>57</sup> Their ability to construct hedge portfolios that are generally predictive of the portfolio holdings of the ETF is critical to their management of their exposure to the ETF. If there is a break in the alignment between the market makers' hedge portfolios and the NAV per share of the ETF, the market makers' risk of loss increases. The greater the risk of loss, the more the market makers will seek to cover that risk by quoting wider price spreads of the proposed ETFs. This would result in market prices, at which investors would buy and sell the ETF shares, not being at or close to the NAV per share of the ETF, which would be contrary to the foundational principle underlying section 22(d) and rule 22c-1 under the Act that shareholders be treated equitably.

40. The Commission preliminarily believes that, even under normal market conditions, market makers could be unable to deconstruct the portfolio holdings of a proposed ETF with sufficient accuracy in order to construct a hedge portfolio that is closely aligned to the NAV per share of the ETF. The proposed disclosures by the Applicants would likely be useful in narrowing down the pool of securities and other assets that may be held by the ETF, but

only to a limited extent. For example, prospectus disclosures of general risks and investment objectives provide little quantitative precision about an ETF's assets and risk exposures. The proposed quarterly portfolio disclosures would provide little additional quantitative precision as a result of portfolio turnover, as discussed previously. Consequently, variability would inevitably be introduced into the proposed model. The Commission believes that this may lead to a break in alignment between a market maker's hedge portfolio and the NAV per share of the ETF; this could diminish the market maker's ability to manage its risks, which, in turn, could increase its risk of loss.<sup>58</sup> This greater risk of loss would be reflected in wider bid/ask spreads and result in intraday market prices that deviate from the NAV per share of the ETF, which would be contrary to the foundational principle underlying section 22(d) and rule 22c-1 under the Act that shareholders be treated equitably.

41. The Commission also preliminarily believes that this potential price disparity could be even worse under times of market stress or volatility. Market makers would likely be heavily reliant on sophisticated algorithms to deconstruct the portfolio holdings of the proposed ETF in order to construct the hedge portfolio. During times of market stress or volatility, the Commission believes that reliance on these algorithms would not be sufficient for market making purposes in the proposed ETFs and the correspondence between the hedge portfolio and the NAV per share of the ETF might be expected to lag. This is because the market makers' hedge portfolio may deviate significantly from the actual portfolio of the proposed ETF, resulting in greater intraday market risk to the

market maker and a corresponding widening of the bid/ask spread.<sup>59</sup> This would result in market prices, at which investors would buy and sell the ETF shares, not being at or close to the NAV per share of the ETF, which would be contrary to the foundational principle underlying section 22(d) and rule 22c-1 under the Act that shareholders be treated equitably. Accordingly, although some market makers supporting Applicants noted that they should be able to construct hedge portfolios that were closely aligned (and would remain aligned) to the NAV per share of the ETF for the domestic equity ETFs proposed by Applicants, the Commission cannot fully agree with that conclusion.

42. Finally, although Applicants proposed a retail redemption option to address a significant deviation of market price to NAV, as discussed in detail above, the Commission preliminarily believes that this option is not sufficient to protect investors as required by the Act.

#### *B. Potential Disruption of Orderly Trading and Damage to Market Confidence*

43. In the absence of sufficient information for market makers to accurately assess the value of the underlying portfolio securities and to make markets in ETF shares at levels that are closely aligned to the NAV per share of the ETF, market makers are likely to trade in proposed ETFs with wide bid/ask spreads and variable premiums/discounts to the NAV per share of the ETF. This would be particularly the case during times of market stress and for active management strategies that might involve high portfolio turnover when there is a greater need for confidence in pricing signals.<sup>60</sup> Under particularly stressful or volatile market conditions, the inability to independently and accurately value an ETF's portfolio assets may cause market makers to withdraw from providing meaningful liquidity, which in turn can lead to the disruption of orderly trading in the ETF.<sup>61</sup> The Commission preliminarily believes that a structure that may lead market makers to make markets in the proposed ETFs at prices that are not closely aligned to the NAV per share of the ETF is not necessary or appropriate in the public interest, nor is it consistent with the protection of investors or with the

<sup>56</sup> Commission staff met with market makers invited by the Applicants on December 4, 2013.

<sup>57</sup> ETF market makers commonly use representative hedging portfolios instead of trading in basket securities because they may be easier to implement or more cost effective. They do this to offset market exposures as they build short or long positions in the ETFs intraday. The market maker will earn profits to the extent its hedge portfolio deviates from the NAV per share. See Gastineau March 2014 Letter, *supra* note 21, at 6.

<sup>58</sup> See Examining the Exchange-Traded Nature of Exchange-Traded Funds, Morningstar ETF Research (Feb. 11, 2013) ("Morningstar ETF Report"), at 21 ("To consider conducting an arbitrage transaction, arbitrageurs must be fairly confident that they will receive a return commensurate with the level of risk they are assuming. Therefore, it is likely that intraday changes to volatility (that is, risk) cause arbitrageurs to become more or less confident when transacting in the equity market for purposes of arbitrage and thus cause premiums or discounts to occur in the short term. . . . From the perspective of an arbitrageur, increased equity market volatility implies that the value of purchased equities relative to the value of the ETF's shares is at greater risk to fall and thus increases the potential that arbitrage trade will be less profitable, if at all. Therefore, when equity market volatility rises, it is likely that an arbitrageur would wait longer before acting to exploit an ETF premium. As a result, the ETF market price would outperform the NAV price on days when equity market volatility is increasing. . . . Arbitrageurs knowingly leave profits on the table for a short amount of time because the risk or cost to trade and profit is too high at that time.").

<sup>59</sup> Ron Delegee, *ETF Bid/Ask Spreads* (Apr. 23, 2013), available at <http://investius.com/2013/04/23/etf-bidask-spreads/>.

<sup>60</sup> See *supra* note 47 and accompanying text.

<sup>61</sup> See Flash Crash Report, *supra* note 48, at 4-6. See also Morningstar ETF Report, *supra* note 58.



foundational principle underlying section 22(d) and rule 22c-1 under the Act that shareholders be treated equitably.

44. Further, any breakdown in the pricing or the ability to price the proposed ETF may result in damage to market confidence in secondary trading of ETFs—not just in the proposed product, but in ETFs generally. Investors may exit the ETF market because of a loss of trust, particularly in actively managed ETFs, should the proposed ETFs fail to function in a manner similar to current ETFs.<sup>62</sup> For this additional reason, the Commission preliminarily believes that it is not necessary or appropriate, nor in the public interest or consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the Act, to grant the requested relief.

\* \* \* \* \*

45. In light of the foregoing, the Commission remains unconvinced that Applicants' proposed ETFs meet the standard for relief under section 6(c) of the Act. Accordingly, absent a request for a hearing that is granted by the Commission, the Commission intends to deny Applicants' request for an exemption under section 6(c) of the Act as not necessary or appropriate in the public interest and as not consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the Act.

By the Commission.

**Kevin M. O'Neill,**

*Deputy Secretary.*

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## SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-73395; File No. SR-MIAX-2014-53]

### Self-Regulatory Organizations; Miami International Securities Exchange LLC; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend the MIAX Top of Market ("ToM") and AIS Data Feeds

October 21, 2014.

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 ("Act")<sup>1</sup> and Rule 19b-4

thereunder,<sup>2</sup> notice is hereby given that on October 6, 2014, Miami International Securities Exchange LLC ("MIAX" or "Exchange") filed with the Securities and Exchange Commission ("Commission") a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

#### I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend the MIAX Top of Market ("ToM") and AIS data feeds.

#### II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

##### A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

###### 1. Purpose

The Exchange proposes to amend the MIAX Top of Market ("ToM") market data feed, the MIAX Express Interface ("MEI") connectivity service,<sup>3</sup> and Administrative Information Subscriber ("AIS") market data feed. Specifically, the Exchange proposes removing messages related to administrative information and Liquidity Seeking Events ("LSE") from ToM and the MEI Port connection, while also adding the information to the AIS data feed to the extent that it is not already included with AIS.

ToM provides market participants with a direct data feed that includes the Exchange's best bid and offer, with aggregate size, and last sale information, based on displayable order and quoting interest on the Exchange. The ToM data feed includes data that is identical to the data sent to the processor for the

Options Price Regulatory Authority ("OPRA"). The ToM and OPRA data leave the MIAX system at the same time, as required under Section 5.2(c)(iii)(B) of the Limited Liability Company Agreement of the Options Price Reporting Authority LLC (the "OPRA Plan"), which prohibits the dissemination of proprietary information on any more timely basis than the same information is furnished to the OPRA System for inclusion in OPRA's consolidated dissemination of options information. In addition to MIAX's best bid and offer, with aggregate size and last sale information, subscribers that currently subscribe to ToM also receive: opening imbalance condition information; opening routing information; Expanded

Quote Range<sup>4</sup> information, as provided in MIAX Rule 503(f)(5); Post-Halt Notification,<sup>5</sup> as provided in MIAX Rule 504(d), and Liquidity Refresh,<sup>6</sup> condition information, as provided in MIAX Rule 515(c)(2). This additional information (the "administrative information") is included in the ToM feed as secondary information. The administrative information is also currently available to non-Market Makers through the AIS data feed and MIAX Market Makers via connectivity with the MIAX Express Interface ("MEI"),<sup>7</sup> for which they are assessed connectivity fees.

The Exchange proposes to remove all the secondary administrative information including LSE related information from the ToM data feed and from the MEI Port connectivity service, with the exception of the Post-Halt Notification. The secondary administrative information and

<sup>4</sup> Where there is an imbalance at the price at which the maximum number of contracts can trade that is also at or within the highest valid width quote bid and lowest valid width quote offer, the System will calculate an Expanded Quote Range ("EQR"). The EQR will be recalculated any time a Route Timer or Imbalance Timer expires if material conditions of the market (imbalance size, ABBO price or size, liquidity price or size, etc.) have changed during the timer. Once calculated, the EQR will represent the limits of the range in which transactions may occur during the opening process. See Exchange Rule 503(f)(5).

<sup>5</sup> After the Exchange has determined to end a trading system halt, the System will broadcast to subscribers of the Exchange's data feeds, a Post-Halt Notification. See Exchange Rule 504(d).

<sup>6</sup> If a Market Maker quote was all or part of the MIAX Best Bid or Offer ("MBBO") and the Market Maker's quote was exhausted by the partial execution of the initiating order, the System will pause the market for a time period not to exceed one second to allow additional orders or quotes refreshing the liquidity at the MBBO to be received ("liquidity refresh pause"). See Exchange Rule 515(c)(2).

<sup>7</sup> MIAX Express Interface is a connection to MIAX systems that enables Market Makers to submit electronic quotes to MIAX.

<sup>62</sup> See Tamar Frankel, *Regulation and Investors' Trust in the Securities Markets*, 68 Brook. L. Rev. 439 (2002), at 448 (arguing that once investors' trust is lost, they will flee the stock markets and turn to other types of investments that "they can see, evaluate and guard for themselves").

<sup>1</sup> 15 U.S.C. 78s(b)(1).

<sup>2</sup> 17 CFR 240.19b-4.

<sup>3</sup> MIAX Express Interface is a connection to MIAX systems that enables Market Makers to submit electronic quotes to MIAX.