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Securities and Exchange Commission
100 F St. NW
Washington, DC 20549-9303
Rule-comments@sec.gov

Re: Exchange Traded Funds

File S7-15-18

Dear SEC:

Here are my comments on the proposed ETF rules.

Summary:

- Right on!
- The Intraday Indicative Value (IIV) is useful for retail investors and should be retained.
- IIVs should be disseminated over CQA/UTP as part of the standard SIP feeds.
- Fails-to-deliver and high borrowing costs need to be addressed.
- Smaller creation unit sizes and custom baskets are a good idea.
- Encourage asymmetric make/break fees: Free to create, double to redeem.
- Standardized basket reporting in XBRL is a good idea.

¹ All opinions are strictly my own and do not necessarily represent those of Georgetown University or anyone else.

Right on!

Exchange-traded products (ETPs) provide very efficient and cost effective mechanisms for investors to implement specific investment strategies, whether on a particular slice of the market or the overall market itself. Overall, this proposal creates a streamlined mechanism for ETPs and is a good example of the use of the Commission's broad rulemaking and exemptive authority under our securities laws. I do have a few suggestions for improvement:

The Intraday Indicative Value (IIV) is useful for retail investors and should be retained!

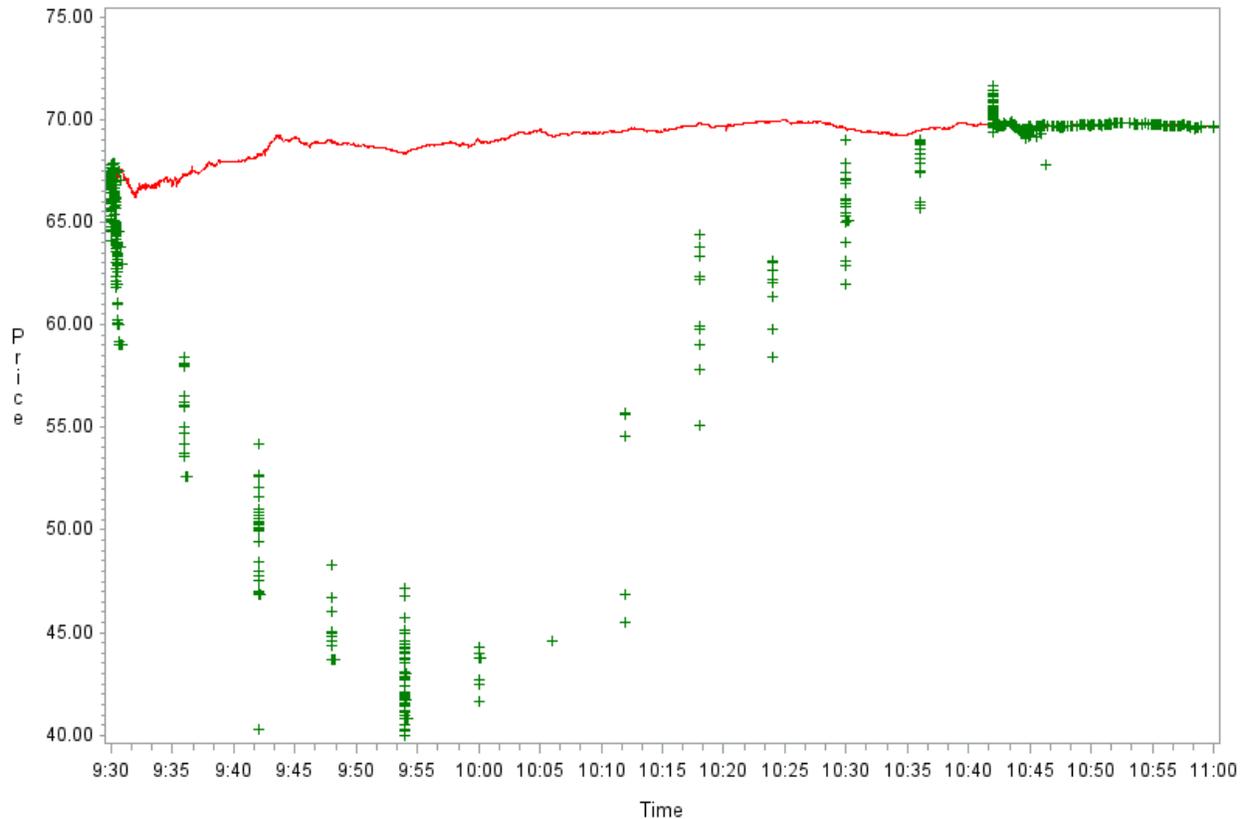
Most of the time, ETPs trade at prices very close to their true net asset values (NAVs). We should all thank the market makers and arbitrageurs who make this happen! However, sometimes the prices do not. This risk is particularly high during times of market stress. For example, on August 24, 2015, the iShares Core High Dividend ETF (HDV) traded at prices significantly different from the prices at which its underlying constituents. The following chart shows the trade prices with green + symbols and the actual value of the underlying portfolio is a solid red line. Due to a number of limit-up limit-down (LULD) halts, the ETF itself did not trade continuously during this period. Yet when it did trade, the ETF sometimes traded at prices more than \$20 – that's right, dollars, not pennies! – below its true net asset value at the time. Investors who trusted the arbitrage mechanism to always price the ETF at its true value were sadly disappointed that day.

Note that HDV contains only large cap U.S.-exchange listed dividend-paying stocks, the safest and most liquid in the land. While some of its constituents had not yet opened that morning on the NYSE, they were trading quite actively on the other exchanges and thus it is possible to re-create the true intraday net asset value at the time.

HDV: iShares Core High Dividend ETF

August 24, 2015

Trades (+) versus real-time NAV



It is thus extremely important for investors that we get this important signal of the value of the underlying portfolio.

Opponents of the IIV basically say that market makers don't use them, so get rid of them. It is true that professional market makers and arbitrageurs "roll their own" intraday values because they are better than the IIVs, but we retail investors can't! Even if the IIVs are flawed, they can still provide a good warning to us retail investors in stressful times that something is amiss.

As a retail investor, I routinely check the IIVs when trading ETPs to see if the quoted prices are reasonable. It is not uncommon to find that the IIVs are outside the range of the bid and the ask prices. Depending on my trading strategy, I may wait until later to trade (or use limit orders) when the IIV is outside the bid-ask range. IIVs are important for intelligent trading of ETPs by retail investors.

Even in normal times, it is not unusual to find ETPs trading at prices different from their published IIVs. The following chart from Friday September 28, 2018 shows a selection of ETFs and their intraday indicative values (IIVs), which have the ticker suffix ".IV". Note that the Vanguard Total Stock Market ETF (VTI) has an IIV of \$149.72, which is barely outside the bid-ask range of \$149.73-\$149.74. This could easily be an artifact of the leisurely 15 second update interval for the IIVs.

However, the iShares 3-7 year Treasury ETF (IEI), a much less volatile ETF than the VTI, was also substantially outside the bid-ask range (IIV of \$119.04 versus a bid-ask range of \$119.09-\$119.10) for a lot longer than 15 seconds. The following screen shot shows several other examples of ETFs with IIVs outside their bid-ask ranges:

Fin Instrument	Company Name Account	Last Action	Bid Quantity	Bd Sz Dest	Ask Type	Ask ! TIF
VTI	VANGUARD TOTAL STOCK MKT ETF	149.73	149.73	12	149.74	50
VTI.IV INDEX	Vanguard Total Stock Market ETF - I...	149.72				
IEI	ISHARES 3-7 YEAR TREASURY BO	119.10	119.09	2	119.10	28
IEI.IV INDEX	ISHARES LEHMAN 3-7 YEAR TREA I...	119.04				
ITA	ISHARES U.S. AEROSPACE & DEF	216.57	216.53	1	216.58	24
ITA.IV INDEX	ISHARES AERO & DEF IOPV	216.52				
MIDU	DIREXION DLY MID CAP BULL 3X	53.10	53.11	1	53.14	14
MIDU.IV INDEX	Direxion Mid Cap Bull 3x IOPV	53.06				
PST	PROSHARES ULTRASHORT 7-10 YR	23.32	23.31	315	23.32	56
PST.IV INDEX	Proshares Ultrashort Lehman 7- IOPV	23.30				

Some ETPs, especially products that are no longer being created, can deviate even more from their underlying asset values. The iPath GSCI Crude Oil Trust (OIL) ETP was an example.² Individual investors need the IIVs to protect them from these situations.

Yes, IIVs do have some problems, especially for ETFs that contain foreign securities when the underlying market is closed. But we should not throw out this important consumer protection because of the problems. We should fix the problems! For example, releasing IIVs at one second intervals instead of 15 second intervals would make them much more timely. Computing power has improved significantly since the 15 second interval became standard many many years ago.

IIVs should be disseminated on standard quote feeds from CQA and UTP.

² See my article in Seeking Alpha for more details: <https://seekingalpha.com/article/3898146-overpricing-oil-etf-presents-arbitrage-opportunity>

Another problem with IIVs is that they are not disseminated on the standard SIP feeds. Consequently, not every broker displays the data to their customers. The IIVs should be disseminated on the regular CQS and UTP quote feeds, and thus easily available to all investors. Even once a second updates will not cause bandwidth problems for the SIPs.³

IIVs should have standard suffixes.

Another problem with the IIVs is a result of the ongoing symbology problem in our equity markets. Nasdaq and the NYSE use different suffixes for various securities, and data vendors use different delimiters to indicate a suffix. Thus, the IIV for VTI could be VTI.IV, VTI-IV, VTI^IV or VTI IV, depending on the data vendor. This is confusing to consumers and a cause of errors in the back office. The SEC should work with the industry to create standard symbology across exchanges and data vendors.

It's time to fix the chronic fail-to-deliver problem in ETPs.

Regulation 204 has largely cleaned up the problems we previously had with endemic failures to deliver shares.⁴ Except in ETFs. A quick glance at the NYSE group's Regulation SHO Threshold list of stocks with high and extended rates of failures to deliver for September 28, 2018 illustrates the problem:

Regulation SHO Threshold List Securities NYSE exchanges (NYSE, NYSE-Arca, NYSE-American, NYSE-National) September 28, 2018	
Symbol	Security Name
BIBL	Inspire 100 ETF
BOUT	Innovator IBD Breakout Opportunities ETF
BSCQ	Invesco BulletShares 2026 Corporate Bond ETF
BSCR	Invesco BulletShares 2027 Corporate Bond ETF
DUST	Direxion Daily Gold Miners Bear 3x Shares
DWT	VelocityShares 3x Inverse Crude
DXD	ProShares UltraShort Dow 30

³ The UTP SIP has a capacity of about 2.8 million messages per second, and usually has a peak volume of about a fourth of that. http://www.utpplan.com/DOC/UTP_Website_Statistics_Q3-2018-July.pdf The CQA SIP has a capacity of about 4.5 million messages per second. Adding a quote each second for 2000 ETPs would consume less than 3% of the combined 7.3 million messages per second capacity of the SIPs.

⁴ This is not to say that Regulation 204 is perfect. I continue to believe that late fees such as are used in the Treasury bond market are a better approach than the draconian approach in Regulation 204. Even more important is to adopt measure to reduce frictions in the stock loan market, such as the excessively restrictive Rule 15c3-3 which makes it extremely hard to lend fully paid shares.

GLDM	SPDR Gold MiniShares
JDST	Direxion Daily Junior Gold Miners Index Bear 3X Shares
LQDH	iShares Interest Rate Hedged Corporate Bond ETF
MJ	ETFMG Alternative Harvest ETF
OILD	ProShares UltraPro 3x Short Crud
PEXL	Pacer US Export Leaders ETF
RUSS	Direxion Daily Russia Bear 3x Shares
SDOW	ProShares UltraPro Short Dow 30
SMH	VanEck Vectors Semiconductor ETF
SOXS	Direxion Daily Semiconductor Bear 3X Shares
SVXY	ProShares Short VIX Short-Term Futures ETF
TBT	ProShares Trust UltraShort Lehman 20+ Year Treasury
TNA	Direxion Daily Small Cap Bull 3X Shares
UCON	First Trust TCW Unconstrained Plus Bond ETF

Note that every single security on the NYSE's Reg SHO list is an exchange-traded product. This overrepresentation of ETPs on the threshold lists has been a continuing problem for a very long time.⁵

The protracted failures to deliver in ETPs indicate that there are frictions in the ETP space that need to be addressed.

Despite the excuses to the contrary, fails to deliver do cause harms to other investors:

- Long investors who are failing to receive are deprived of the stock lending revenue they could otherwise generate.
- Long investors failing to receive are deprived of their voting rights.
- The fails-to-deliver create synthetic long positions that deprive the ETPs of the management fees on the assets. Due to the economies of scale in managing money, the fund's expenses are spread over a smaller number of assets and thus the other long shareholders are harmed.
- ETPs on the Reg SHO Threshold list are hard to borrow, making it expensive if not impossible to short the shares. This makes it much harder for the arbitrageurs, who are essential to keeping the

⁵ Some observers hold that this is a function of the grace period given to market makers before they are required to be bought in by their clearing firms subsequent to a failure to deliver. However, this does not explain why ETPs are so overrepresented on the Reg SHO lists. By the way, it is not true that "market makers don't have to deliver on time." They are given a grace period before they have to be bought in by their clearing entities, but they are still vulnerable to enforcement actions for violating the rules calling for delivery on the settlement date. The lack of enforcement activity to date does not preclude a future Commission from suddenly deciding to clean up this problem through regulation by enforcement, which I oppose. The real solution is to reduce the impediments to creating ETPs and also reduce frictions in the stock lending market so that no market maker ever needs to fail.

prices of ETPs in line with their underlying values, to function. It also makes it much more difficult for other investors to engage in short strategies. As ETPs are often excellent hedging products for various risks, the inability to short them on a cost-effective basis deprives investors of risk reducing hedging opportunities.

- The imperfections in the create/redeem/stock lending process makes it much more likely that short investors will be involuntarily bought in. Been there, done that, got the tax losses.

Creation units should be as small as the ETF's distributor can handle.

Theoretically, no one should every have to fail because they could just create ETP shares. However, the large size of the creation units is an impediment. A market maker who is short 10,000 shares of an ETP with a creation unit size of 50,000 shares will not want to create those 50,000 shares as it would leave them with an excess inventory of 30,000 shares.

I thus strongly support the proposal to eliminate any minimum creation unit sizes.

Encourage asymmetric make/break fees: Free to create, double to redeem.

Another way to encourage the creation of ETPs to prevent failures to deliver is to reduce the creation fees charged by ETP distributors. Obviously, the distributors need to be compensated for the costs involved in creating and redeeming ETPs. I recommend an approach used on many toll bridges that charge a high toll in one direction but no toll in the other. As traffic is somewhat symmetrical, it is more efficient to only put toll collection facilities in one direction and charge the other direction double. Likewise, distributors should not only be explicitly allowed, but actually encouraged to make creations free and redemptions costlier.

The Commission should explicitly state that asymmetric fee structures are permissible.

Standardized basket reporting in XBRL is a good idea.

Better transparency will make it easier for market participants to price and trade ETP baskets. Posting basket constituents in a standardized format such as XBRL will make it easier and less error prone for market participants to create and redeem creation units.

Respectfully submitted,

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