Response to SEC Questions Regarding 'Open-End Fund Liquidity Risk Management Programs'
File Number S7-16-15

This very serious comment letter is based on data that shows some deep fundamental flaws in the Exchange Traded Product ("ETP")[1] industry as it is operating today. ETPs have already shown their capability to experience severe price deviations and trading problems under medium to even mild market stress events. The investigation into these products by the Financial Stability Oversight Council ("FSOC") and the SEC and their desired mission to obtain information from a wide variety of sources, exemplifies the need for more transparency in ETPs and raises serious concerns about the knowledge of how the products are functioning.

If the data provided herein (sourced from exchanges, FINRA, the National Securities Clearing Corporation ("NSCC"[2]), Thomson Reuters, the SEC's Edgar and MIDAS systems, the consolidated tape, the ETP operators and other presumed to be reliable data resources) is accurately reported to the sources, then the risks discussed raise red warning flags regarding how the ETP industry has morphed into dangerous products since the 2008 financial crisis. We have consistently shown *the data works together* to provide a truer picture of ETP valuations and actual liquidity. It is vital for **all** relevant market metrics to be considered by fund operators to properly evaluate the quality of an ETP.

With the mortgage-backed securities crisis (which for the most part remained unrecognized by economists, regulators and market participants before the collapse), it was the bundled, flawed mortgage products that became a significant contributing factor to the negative financial events of 2008/2009. Some ETPs contain very similar characteristics to the illiquid mortgage-backed securities. Other ETPs are based on very risky trading and settlement processes that can produce systemic challenges to the ETP industry, thus the financial markets. There has been an exponential growth rate in the number of ETPs since the financial crisis.

Unfortunately, unlike mortgage-backed securities, which were sold to more professional investor classes, ETPs have been marketed on a large-scale to retail investors, their mutual and pension funds and financial advisors are advocating the products to even their retail customers. Moreover, the most active ETPs are based on the important components of the U.S. capital markets, i.e. S&P 500 securities. A collapse or disturbance caused by these products could strike directly at the heart of the U.S. financial system during the next financial crisis through blue chip securities.

The vast majority of ETPs have very low levels of assets under management and illiquid trading volumes. Many of these have illiquid underlying assets and a large group of ETPs are based on derivatives that are not backed by physical assets such as stocks, bonds or commodities, but rather swaps or other types of complex contracts.

Many of these products may have been designed to take what were originally illiquid assets from the books of operators, bundle them into an ETP to make them appear liquid and sell

[1] Including both Exchange Traded Funds ("ETFs") and Exchange Traded Notes ("ETNs").
[2] The National Securities Clearing Corporation (NSCC) is a subsidiary of The Depository Trust & Clearing Corporation (DTCC). The DTCC/NSCC acts as a settlement bank for securities transactions.

them off to unsuspecting investors. The data suggests this is evidenced by ETPs that are formed, have enough volume in the early stage of their existence to sell shares, but then barely trade again while still remaining listed for sale. This is reminiscent of the mortgage-backed securities bundles sold previous to the last financial crisis in 2008.

Collectively, these are all grouped together as Exchange Traded Products, which can carry systemic risk from one type of ETP to the rest of the ETP universe.

To be clear, there should be a distinction between the risks associated with open-end mutual funds versus ETPs. There are risks to mutual funds, which were recently exemplified by the Third Avenue fund, but the primary risks are in the exploding ETP markets that are not functioning properly. Here our comments are directed primarily at Exchange Traded Products.

The data points to a few large additional issues of concern for the SEC to consider in its' deliberations/investigations of these matters; 1) liquidity needs to be defined holistically, 2) further remedies need to be addressed in the cases for non-compliant funds under the 1940 Act and the proposed additional accounting requirements, 3) the secondary market is not fully considered in this proposal, 4) fatal fundamental structural flaws in ETPs must be addressed before the next financial crisis and ETP management must come into compliance with the 1940 Act through accurate, current valuations and liquidity assessments of existing ETPs. In other words, industry attempts to complicate/prolong the issues of this proposal should not diminish the present requirements of the 1940 Act, 5) washed and matched trading must be considered to assess the actual marketplace ETP liquidity, 6) pre-execution spoofing and layering creating additional liquidity that would not normally exist is a factor of importance, and 7) important ETFs that are Unit Investment Trusts (the SPY, QQQ, etc), may be incorrectly exempted from this proposal. We discuss these and other relevant issues below.

Previous Public Comments

We have previously supplied three extensive public comments on ETPs to FSOC and the SEC.[3] These comment letters discussed in depth liquidity of ETPs, the illiquidity and difficulty in valuating certain underlying assets and fatal flaws in the products. Some ETPs have morphed into trading vehicles that are completely different than their generally understood investment objectives/goals and what the public believes is their operational processes (such as, net investment through trading leads to increased purchases of fund assets, similar to mutual funds).[4]

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[3] Notice Seeking Comment on Asset Management Products and Activities, FSOC-2014-0001-0001, ID FSOC-2014-0001-0015 http://www.regulations.gov/#!documentDetail;D=FSOC-2014-0001-0015
SEC Request for Comment on Exchange-Traded Products, *Response to SEC Questions Regarding Exchange Traded Products*, File Number S7-11-15 http://www.sec.gov/comments/s7-11-15/s71115-19.pdf
And follow up to the above SEC Request for Comment on Exchange-Traded Products, *The ETF Stress Test of August 24, 2015*, File Number S7-11-15 http://www.sec.gov/comments/s7-11-15/s71115-38.pdf

[4] In testimony before the Senate Subcommittee on Securities, Insurance and Investment in October 2011, Eileen Rominger, the director of the SEC's Division of Investment Management explained the SEC's understanding of physical ETFs; "ETFs offer investors an undivided interest in a pool of securities and other assets." "Apart from the fact that ETFs trade intraday, most **ETFs are similar to *mutual funds*** in that they ***both translate investor purchases and sales in the fund*** (and **changes in investor sentiment**) ***into purchases and sales of underlying holdings***." Eileen Rominger, Director, Division of Investment Management, *Testimony on Market Micro-Structure: An Examination of ETFs*, October 19, 2011 http://www.sec.gov/news/testimony/2011/ts101911er.htm

The industry has promoted these products as safe investments. For example, in general BlackRock describes investments in ETFs as;[5]

> "ETFs are investment products that can help individuals **build a nest egg**, prepare for **retirement**, or save for their **children's education**. They also help institutions such as large pension plans, foundations and endowments **meet their financial obligations**."

Notably, on July 15, 2015, prominent investor Carl Icahn was critical of the ETP industry for marketing ETPs based on illiquid high yield corporate bonds.[6] He stated these types of ETPs give an illusion of liquidity for the "extremely illiquid, and extremely overpriced" underlying assets and "there is no liquidity. That's my point. And that's what's going to blow this up".[7]

Mr. Icahn offered a scenario that wealth management personnel are offering these types of ETPs to retail investors as a way to find liquidity, without knowing or disclosing the risks, likening the sales to what occurred in 2007 with mortgage-backed securities. He stated that because of these types of ETPs, "BlackRock is an extremely dangerous company."

And previously the CEO of BlackRock, Larry Fink discussed leveraged ETFs, stating that BlackRock, "would **never** do a leveraged ETF. We just think that's just a **structural problem that could blow up the whole industry one day**."[8]

Below, we reference our prior comment letters to avoid the unnecessary duplication of information, while concentrating on the most illustrative data. Additionally, we have provided information to the SEC regarding ETPs not contained in these comment letters, but relevant to the market for ETPs.

In these comment letters and other documentation, we discussed the differences between the various ETP and why they should be classified separately from each other because of the diverse risks among the products. The SEC has addressed some of these differences in its' proposed rules regarding derivative use by ETPs.[9]

We realize there are a limited number of readers of the comment letters to the SEC. Historically, most comment letters follow similar themes crafted by the industry's representative group (lobbyists and legal counsels). Generally, these comment letters contain little or no data regarding the specific issues under SEC review. Ours are not designed for readers who are unfamiliar with how the trading and settlement processes operate, but rather for regulators and industry professionals to be aware of and take appropriate actions to disclose and mitigate the risks before these products cause significant damage to the financial system.

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[5] Canadian ETF Watch, *ETFs: A Need for Greater Transparency and Regulation,* Mary Anne Wiley, Managing Director, Head of iShares Distribution at BlackRock Asset Management Canada, September 2011 http://www.canadianetfwatch.com/reports/CanadianETFWatch-Volume2Issue5.pdf

[6] Bloomberg article, *Icahn Calls BlackRock 'Dangerous' for Selling High-Yield ETFs*, Beth Jinks and Simone Foxman, July 15, 2015 http://www.bloomberg.com/news/articles/2015-07-15/icahn-says-to-fink-blackrock-sale-of-etfs-extremely-dangerous-

[7] ETF.com article, *Fink & Icahn Spar Over Bond ETF Liquidity*, Sam Forgione, July 16, 2015 http://www.etf.com/sections/features-and-news/fink-icahn-spar-over-bond-etf-liquidity

[8] BlackRock at Deutsche Bank 2014 Global Financial Services Investor Conference, May 28, 2014

[9] *Use of Derivatives by Registered Investment Companies and Business Development Companies*, SEC Release No. IC-31933; File No. S7-24-15, December 11, 2015 http://www.sec.gov/rules/proposed/2015/ic-31933.pdf

We presented data in public comment letters beginning in March 2015 that show significant red flags of current fundamental flaws in the structure and operation of ETPs. In the 9 months since, the industry has not disputed the information nor disclosed the risks shown from the data. The ETP industry has disclosure requirements to address the dangers shown in the data for the ETPs. It is time for the industry to come forward and help the regulators create a more transparent and safe marketplace, before the next financial crisis, which could very well be fueled by hundreds of improperly functioning ETPs the industry has created.

1. Defining Liquidity, Which is NOT Just Price and Execution Speed

The SEC asks in this proposal:

> *"Are there any additional factors, besides the proposed factors, that a fund should be required to consider in evaluating the liquidity of a portfolio position in a particular asset? … Are there any additional factors, besides the proposed factors, that a fund should be required to consider in assessing liquidity risk?"*

As commonly recognized, liquidity is a vital component to market stability. However, liquidity cannot ***just*** be defined as "price and execution speed" at the time of trade; as the industry has continued to **narrowly define *'liquidity'***. This concept ignores post-execution liquidity required for legal settlement of securities transactions; i.e. completion of securities contract terms in accordance with contract law.

> The SEC stated, *"a fund is required to consider whether it would be able to sell an asset within seven days,* ***but not also*** *whether those* ***asset sales would settle within this period****, in determining whether a particular portfolio asset is a 15% standard asset."*

Whether a security is liquid or illiquid, the ability to sell shares to another counterparty that does not get delivery of the shares prolongs, and most likely increases, the risks. Just because a fund can sell an illiquid asset to a counterparty does not guarantee settlement and delivery to the purchaser. This is an exacerbation of what is shown below in the problematic ETF market activity. Moreover, why would a fund receive money to continue operations for securities that do not get delivered for settlement? This is a simple concept; the fund should not receive the sale proceeds if the asset has not been delivered to the buyer to complete the legal contract.

To define liquidity, one must look past the industry definition and examine the far more important market liquidity factors/requirements, including those mandated by Congress for open-end funds under the 1940 Investment Company Act and the intent/spirit of securities settlement through the creation of the national clearance and settlement system.

Real securities market liquidity is much broader in scope and includes, liquidity to; a) settle transactions, b) borrow securities for short sales, c) return borrowed assets to lenders, d) provide good collateral and margin loans consistent with federal regulations, e) have properly segregated shares/capital for fully paid for securities[10], f) create/redeem shares of ETFs, and g)

[10] Securities Exchange Act of 1934 Rule 15c3-3 - Customer Protection--Reserves and Custody of Securities.

exit positions in stressed market environments.[11] These components of liquidity are critical to market health, quality and integrity. History suggests a degradation of these liquidity elements can/will end badly for the financial system as a whole.

There are basic fundamental liquidity needs in the holistic sense to operate a fully functioning supply and demand U.S. marketplace as it was designed to work. These, along with other liquidity obligations (such as for derivatives and other stock related products), go far beyond the industry concept of liquidity 'equals' **price and execution speed** at the time of trade. Without liquidity requirements considered together, gaping holes are left in the financial system that could/will be a cause of the next financial crisis.

Increasing Liquidity Risks from Expanding Products

In addition to the broader fundamental liquidity requirements, we believe the ETP assets' connected to other derivative products (both U.S. and abroad) should be considered due to the exponentially increasing number of derivative products based on the same small group of underlying assets.[12]

Large blue chip stocks are not only components in ETPs based on S&P 500 underlying securities, large capitalization companies and dividend funds, but also there are a number of ETPs based on specific sub sections of the S&P 500 stocks such as the Dow components, retail, technology and other sectors that pose growing risks to the financial system while showing little benefit to the markets and investors. For example, all 30 Dow component stocks are now underlying securities in at least 70 separate ETFs; half of which are an ***underlying security in over 90 ETFs***.

Some derivative structured U.S. and foreign ETFs are based on large U.S. ETFs. Moreover, there are a number of other derivative products based on the same securities, including index futures, E-Mini futures, single stock futures, index options, equity options, leap options, flex options and swaps. Foreign options on U.S. indexes, ETFs and the underlying securities are not transparent to regulators and could produce additional stress under crisis market conditions.

ETFs based on S&P 500 companies also have a number of linked derivative products using the **ETFs as the underlying component**, like the S&P 500 ETF (Symbol: SPY).

The **relatively new interconnection** between top U.S. companies and ***hundreds of derivative products*** (ETPs, options, futures etc.), has caused an unprecedented and apparent unhealthy relationship between traditional investments and systemically risky products that puts the majority of U.S. institutional and retail investors' and potentially taxpayers' money at risk in a stressed or crisis market environment. Without being disclosed, S&P 500 companies and their

[11] These elements of liquidity are requirements under federal securities laws, including compliance with Regulation SHO, Rule 15c6-1, Rule 15c3-3 and the Investment Advisers Act of 1940.

[12] See *Section 7 – Systemic Risk from High Ownership and Derivative Trading Concentration on S&P 500 Companies* of the SEC Request for Comment on Exchange-Traded Products, *Response to SEC Questions Regarding Exchange Traded Products,* File Number S7-11-15 http://www.sec.gov/comments/s7-11-15/s71115-19.pdf

investors have now been systemically attached to the world of derivatives and the associated risks. This does not appear to be an outcome that investors understand.

ETFs, E-Mini futures and options, can significantly affect the underlying stocks as found by the SEC/CFTC during the May 2010 Flash Crash. Derivatives add additional risk to the financial system that today, mostly surrounds a small group of S&P 500 companies. The large number of products concentrated on a small number of the large capitalization stocks continues to grow.

As an example of how the increasing number of derivatives on the same securities can have diminishing returns, in May 2013, the BOX Options Exchange listed a new derivative product based on the SPY, a Jumbo S&P 500 option contract for 1,000 shares of the SPY. Competing exchanges publicized their concerns regarding the Jumbo options.

Boris Ilyevsky, the managing director of the International Securities Exchange stated:[13]

> "We believe Jumbo SPY would not create incremental volume and, even worse, could ***harm liquidity in SPY***."

> "Larger sized ETF contracts do not address any unmet need in the industry and in fact would serve primarily to further fragment ***one of the few healthy centers of liquidity***."

The Chicago Board Options Exchange in a comment letter to the SEC when the BOX Options Exchange first proposed Jumbo options on the SPY stated:[14]

> "CBOE believes that the Commission should give consideration to the fact that BOX's filing would introduce *a third contract on a single security*. CBOE believes that the **potential for market fragmentation increases with each additional and different contract on a single security**, ***even if that security is highly liquid*** with a well-established trading history."

As the owner of the SPY and the SRO that lists its shares for trading, the NYSE stated regarding the BOX Jumbo SPY product:[15]

> "Importantly, the creation of a second-tier market for internalizing SPY options would also detract from price discovery and discourage aggressive liquidity provision in the regular SPY contract (one of the most successful options products ever created)."

We agree; the more derivatives on the same security poses increasing risks for the underlying security. This is precisely why derivatives that have expanded dramatically in the last few years may be dangerous products to the center of the capital markets, i.e. the S&P 500

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[13] Reuters article, *'Jumbo' SPY options make debut, but liquidity a concern to some*, Doris Frankel, May 10, 2013 http://www.reuters.com/article/2013/05/10/us-jumbo-spy-options-idUSBRE9490YL20130510

[14] CBOE comment letter to the SEC on File No. SR-BOX-2013-06, February 25, 2013 https://www.sec.gov/comments/sr-box-2013-06/box201306-1.pdf

[15] NYSE Euronext comment letter to the SEC on File No. SR-BOX-2013-06, February 25, 2013 http://www.sec.gov/comments/sr-box-2013-06/box201306-2.pdf

blue chip securities which are the very heart of the important U.S. companies, the financial system as a whole and the economy.

When a typically liquid security is an underlying asset for hundreds of derivative products that are interconnected through other derivative products, the underlying asset's liquidity could be severely diminished in crisis market conditions and may not be available to satisfy settlements of equities, ETPs and related derivative products.

These products must be considered together to truly evaluate an ETPs' underlying assets and actual liquidity.

2. Non-Compliance with the 1940 Investment Company Act

Many ETFs hold illiquid underlying assets and could provoke substantial risks for the ETF marketplace. Some of these risks could be mitigated with little apparent disruption to the markets by changing the product type investment descriptions, disconnecting them from products registered under the 1940 Investment Company Act ("the Act") and fully disclosing the type of investments these funds actually represent.

Illiquidity and over-leveraging are market disruptors playing important roles in past financial stress events, such as the collapse of the 1980s junk bond market, Lehman Brothers, Knight Capital, Long-Term Capital Management, Adler Coleman, and currently is fueling the market fears regarding mutual funds and ETFs holding illiquid assets, such as junk bonds (see the recent activity regarding Third Avenue Focused Credit Fund[16]).

The SEC designated that an open-end fund registered under the Act (most ETFs today) is to invest no more than ***15% of its' assets*** in illiquid securities stating:[17]

> "The term "illiquid security" generally includes any security which cannot be disposed of promptly and in the ordinary course of business without taking a reduced price. A security is considered illiquid if a fund cannot receive the amount at which it values the instrument within seven-days."

The SEC cautioned the guidelines would not:[18]

> "…relieve a fund from the requirements concerning valuation and the **general responsibility to maintain a level of portfolio liquidity that is appropriate** under the circumstances. If no market quotations for an illiquid security are available, the board of directors of the fund will be required to determine the fair value of the security. In addition, the **Commission expects funds to *monitor portfolio liquidity on an ongoing***

[16] SEC Release No. IC-l1943; 812-14593, Third Avenue Trust and Third Avenue Management LLC; Notice of Application and Temporary Order, December 16, 2015 http://www.sec.gov/rules/ic/2015/ic-31943.pdf
[17] *Acquisition and Valuation of Certain Portfolio Instruments by Registered Investment Companies*, SEC Release No. IC-14983, March 17, 1986 http://www.sec.gov/rules/final/1986/ic-14983.pdf
[18] *Revisions of Guidelines to Form N-1A*, SEC Release No. 33-6927, March 20, 1992 http://www.sec.gov/rules/other/1992/33-6927.pdf

basis to determine whether, in light of current circumstances, an ***adequate level of liquidity is being maintained***."

The current SEC proposal does not change the 15% threshold established by the 1940 Act; it adds additional baskets that the fund is required to monitor. If ETFs are not in compliance with the Act, they should/could be terminated from this class of securities. As the data shows some illiquid ETFs have illiquid underlying assets that are hard to value in times of stress and will not be able to comply with the SEC's expectation of "funds to *monitor portfolio liquidity on an ongoing basis* to determine whether, in light of current circumstances, an *adequate level of liquidity is being maintained".* For many of these illiquid underlying assets, there is no readily available market.

As the SEC stated in its' request for comment, it is concerned that *"some funds observed by the staff do not take different market conditions into account when evaluating portfolio asset liquidity"….. "Staff has observed that some of these funds, when faced with higher than normal redemptions, experienced particularly poor performance compared with their benchmark and some even experienced an adverse change in the fund's risk profile, each of which can increase the risk of investor dilution."*[19]

A sample ETF that was included in the previous comment letters was the SPDR Nuveen S&P High Yield Municipal Bond ETF (Symbol: HYMB), which is based on high yield, lower quality rated municipal bonds.[20]

During the week from June 17th through June 21, 2013, State Street experienced redemption issues in some of its ETFs.[21] Normally, a fund redeems assets and returns cash to the Authorized Participants. State Street has no obligation to pay cash, but when the market for municipal bonds became stressed, State Street had to notify its Authorized Participants that they would only receive actual municipal bond securities if they redeemed against State Street's suite of municipal bond ETFs.[22] This would naturally slow redemptions because Authorized Participants do not want to have to market the hard to sell municipal bonds.

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[19] SEC Proposed Rule: Open-End Fund Liquidity Risk Management Programs; Swing Pricing; Re-Opening of Comment Period for Investment Company Reporting Modernization Release, September 22, 2015 http://www.sec.gov/rules/proposed/2015/33-9922.pdf

[20] See *Section 4 – ETP Examples – Problematic Assets and Over-Ownership, E. The SPDR Nuveen S&P High Yield Municipal Bond ETF (Symbol: HYMB)* of the SEC Request for Comment on Exchange-Traded Products, *Response to SEC Questions Regarding Exchange Traded Products*, File Number S7-11-15 http://www.sec.gov/comments/s7-11-15/s71115-19.pdf

[21] Summarizing a relevant statement from FSOC: "The Council understands that pooled investment vehicles may employ a variety of techniques to manage liquidity risks"… "Many exchange-traded funds (ETFs) redeem in kind as a matter of course, and those that allow authorized participants (APs) to redeem in cash frequently impose transaction or liquidity fees that force the AP to bear the liquidity-related costs of its own redemption"… "The Council is interested in the effectiveness of these measures during periods of overall market stress, as well as the potential impact on broader financial markets from the exercise of such measures."

[22] Wall Street Journal article, *State Street Temporarily Stops Cash Redemptions For Muni-Bond ETFs*, Chris Dieterich, June 21, 2013 http://blogs.wsj.com/moneybeat/2013/06/21/state-street-temporarily-stops-cash-redemptions-for-muni-bond-etfs/

According to media reports, in June 2013 State Street halted its cash redemptions for the HYMB.[23] Very little trading occurred to drain this ETF of cash in June 2013. It appears there were simply larger than normal redemption requests. The fund's risk profile changed. This aspect of the fund's risk portfolio has not been fully disclosed.

Important: If the valuation and liquidity of the underlying municipal bond holdings were accurately calculated by State Street (as required by the Act), the Authorized Participants should not have been concerned whether they received cash or the underlying bonds. Conversely, State Street (as the ETF operator) should have been able to liquidate the bonds without problems and continue allowing normal redemptions.

The SEC asked:

> *"Are there particular types of funds (or investment strategies) that are subject to heightened liquidity risk and should be subject to more prescriptive or stringent requirements under a liquidity risk management program or otherwise?"*
>
> *"What types of funds would be largely composed of assets that would be considered less liquid assets under proposed rule 22e-4?"*
>
> *"Are there any types of funds (or investment strategies) with such limited liquidity that we should consider limiting their ability to be structured as open-end funds?"*

As we have previously stated, ETPs based on corporate bonds, mortgage-backed securities, municipal bonds, Real Estate Investment Trusts ("REITs") and other potentially illiquid assets may be hard to sell or value in any market, but especially in a stressed market environment (these products include both ETFs and ETNs[24]).

This subgroup of products does not fit with other ETFs registered under the 1940 Act. Municipal bond, corporate bond and REITS ETPs are mostly illiquid ETFs with illiquid underlying assets that are hard to value in times of stress and many will not be able to comply with the SEC's expectation of "funds to *monitor portfolio liquidity on an ongoing basis* to determine whether, in light of current circumstances, an *adequate level of liquidity is being maintained"*, and the 1940 Act's requirements that a registered fund is to "invest *no more than 15%* of its assets in illiquid securities."[25]

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[23] Bloomberg article, *ETF Tracking Errors in Rout Shows Access Comes With Risks*, Christopher Condon and Michelle Kaske, June 23, 2013 http://www.bloomberg.com/news/2013-06-24/etf-tracking-errors-in-rout-shows-access-comes-with-risks.html

[24] While ETNs are not registered under the 1940 Act, they are frequently grouped together with ETFs by ETF websites, the financial media and therefore, by ETP investors.

[25] *Revisions of Guidelines to Form N-1A*, SEC Release No. 33-6927, March 20, 1992 http://www.sec.gov/rules/other/1992/33-6927.pdf
The SEC has designated that an open-end fund registered under the 1940 Act is to invest no more than ***15% of its' assets*** in illiquid securities. An illiquid security is "any security which cannot be disposed of promptly and in the ordinary course of business without taking a reduced price. A security is considered illiquid if a fund cannot receive the amount at which it values the instrument within seven-days." *Acquisition and Valuation of Certain Portfolio Instruments by Registered Investment Companies*, SEC Release No. IC-14983, March 17, 1986 http://www.sec.gov/rules/final/1986/ic-14983.pdf

There should be remedies for noncompliance with the 1940 Act. A fund registered under the Act benefits from a higher degree of assumed product integrity, providing for more tradability than if it was not registered. When funds taking advantage of this privilege become noncompliant with the Act requirements, there should be significant consequences, i.e. remove the funds from public trading to protect investors and hold the fund management accountable.

If an open-end fund is in compliance with the 1940 Act, presumably 85% (or more) of the fund's assets are liquid and must be able to be liquidated easily and swiftly, without disturbing the market pricing. This has been in force for decades and should remain the standard because this proposal is not intending to change the 1940 Act.

The proposed different categories/baskets of liquidity can provide an early warning sign of problematic products to ETP operators, boards, auditors and regulators. Will there be a lot of ETPs that do not comply with the requirements of the Act and the new proposal? Yes. But the natural result over time will be to weed out those that do not comply with the laws, rules and regulations, making the marketplace safer for the industry and investors.

3. The Secondary Market

It is necessary for funds to appropriately gauge the risks to value/liquidity of the underlying assets and of the ETF itself from the secondary market activity. This SEC proposal on page 80 looks to address some of the secondary market liquidity to be measured by the funds' management. Below are short descriptions of other secondary market considerations discussed in our previous comment letters that should be considered by ETF operators in their mandated requirements under the 1940 Act:

- Some securities have more shares owned by institutional 13F filers than were **issued (i.e. shares outstanding)** ***plus*** short interest (these appear to be fictitious financial instruments that are neither long nor reported short, moreover they are not failing at NSCC. These fictitious positions represent undisclosed settlement liabilities/risks at clearing firms who may also be Authorized Participants. The SPDR S&P Retail ETF (Symbol: XRT) is one example ETF with multiple owners per share on a continuous basis for years without significant corresponding NSCC settlement fails; resulting in undisclosed delivery liabilities, which likely will require settlement liquidity that is not readily available in a crisis market. The XRT is a clear example of settlement risk that could occur in stressed markets. In order to truly value securities and liquidity, the fund operators need to know if there are more shares trading in the marketplace than the fund has issued, which could create greater than expected redemptions in stressed market conditions.

- A significant amount of securities contracts entered into have not been completed. Undisclosed delivery liabilities exist that can become a liquidity crisis under stressed market conditions. Internalized and ex-cleared fails, including offshore re-hypothecated securities and hypothecation by clearing firms and custodians, are not reflected in data produced by the NSCC. These positions need to be

considered; therefore it is essential that transparency is provided to an ETF from Authorized Participants and clearing firms holding large undisclosed positions.

- Reported short interest has declined; short sales are at unprecedented levels since the financial crisis while the value of shares borrowed/loaned have flat-lined and the number of shares on loan have declined. Short interest in the largest ETF, the SPY alone equals almost the value of all ETF shares on loan indicating a large amount of ETF short interest is not supported by borrowed shares.[26] J.P. Morgan stated the ETF industry is operating under an 'expectation' of future delivery.[27] As shown below, this 'expectation' appears to have grown systemically risky in size and will affect market liquidity. Securities lending or non-lending in the secondary market needs to be considered for true evaluation of ETFs.

- If shares are not borrowed for short sales, U.S. margin requirements and net capital reporting for some clearing firms may be inaccurate and cause internal liquidity difficulties (along with counterparty risks) and an escalation of the next market crisis that is yet to be understood. This potential stress on ETFs and their underlying securities from undisclosed clearing firm positions could be a tremendous burden on the viability of an ETF under crisis conditions. Simply put, if the shares are leveraged up inside of clearing firms, redemption stresses could be far greater than what a fund anticipates.

- Positions not backed by assets (synthetic/fictitious positions), referred to by the SEC as 'naked' securities positions can be very difficult to cover. For many securities, such as the XRT with multiple owners per share, securities segregation requirements cannot be complied with. On a large scale, as the 'naked' positions appear to be today in ETFs, liquidity problems from these positions can clearly be damaging to ETFs and more importantly, the entire marketplace.

- As the data shows for many ETFs, shares are not being net created for extended periods of time, regardless of excessive short selling and significant investment monies flowing into ETFs. Short sales are siphoning investor capital/investment liquidity from ETFs and their underlying securities, ultimately interrupting the capital formation processes of the market for both publicly traded companies and investors.

We believe the SEC should specify that ETF operators monitor settlement liquidity risk daily by considering not only the ETF trading in the marketplace, but the trading of the underlying assets and the other linked derivative products based on the same assets. In short, all settlement risks should be considered from long and short sales, options and other derivatives that may require delivery of shares when exercised. These should be considered together in

[26] Data from FOCUS Reports published annually in Select SEC and Market Data http://www.sec.gov/about.shtml and the Financial Stability Oversight Council 2014 Annual Report and Annual Report Data http://www.treasury.gov/initiatives/fsoc/studies-reports/Pages/2014-Annual-Report.aspx
See *Section 6 – Operational Risk – Securities Lending* of the FSOC Notice Seeking Comment on Asset Management Products and Activities, FSOC-2014-0001-0001, ID FSOC-2014-0001-0015 http://www.regulations.gov/#!documentDetail;D=FSOC-2014-0001-0015

[27] J.P. Morgan, Global Asset Allocations, Flows & Liquidity: Are ETFs Dangerous? July 5, 2013

determining the value/liquidity and creation/redemption liability of shares that may be required of the ETF.

4. A Variety of Fundamental Structural Flaws in ETFs

Not only may these ETFs not be compliant with the 1940 Act, but they also may exhibit violations of Regulation SHO, Rule 15c3-3, Federal Reserve margin requirements, SEC and FINRA reporting rules, the anti-fraud provisions of the federal securities laws, SRO/exchange rules and industry standards and principals of trade.

The following is a sampling of ETFs that the data indicates are simply not functioning as they should be with regard to creation of securities, maintenance of assets, share lending/borrowing, containment of abusive short selling, an endless supply of locates for short selling, many owners for the same share and other problematic activity that has a potential to create systemic market-wide risk.

ETFs included are; a) the largest commodity ETP, the State Street SPDR Gold Shares ETF (Symbol: GLD), b) the largest ETP, the S&P 500 ETF (Symbol: SPY), c) an illustrative example of an ETP that has experienced a variety of long-term structural flaws, the SPDR S&P Retail ETF (Symbol: XRT), is a classroom in itself for showing problematic trading and settlement deficiencies, d) two standard ETPs that have not received protection from regulations governing abusive short selling and illegal market behavior, the Industrial Select Sector SPDR ETF (Symbol: XLI) and the SPDR S&P Biotech ETF (Symbol: XBI), and e) an inverse and leveraged ETP that has not received abusive short selling protections under the law, the ProShares UltraPro Short Russell 2000 ETF (Symbol: SRTY).

As an example, the GLD, which holds only 1 commodity asset, physical gold, is a straightforward and simplistic ETF that demonstrates the supply and demand for shares and values of assets are not showing the expected natural economic relationships between the trading of the ETF and its' gold assets.[28]

The GLD is an ETF that has experienced both periods when shares should have been created but were not and times when massive amounts of shares were redeemed (decreasing GLD assets at more than twice the rate of changes in the price of gold).

Each type of creation/redemption period showed unexpected risk for investors in the GLD. By any measure, the GLD exemplifies asset risk to investors outside of the fundamental movement in the price of gold. Sample periods are discussed below.

Large GLD Redemptions Caused Multiplying Losses of Physical Gold Assets – 2013

From March 1st through December 31, 2013 (212 trading days), the **price of the GLD declined by $37.25 or 24%**, aligning with the $378 drop in the price of gold. At the same time,

[28] See *Section 4 – ETP Examples – Problematic Assets and Over-Ownership, A. The State Street SPDR Gold Shares ETF (Symbol: GLD)* of the SEC Request for Comment on Exchange-Traded Products, *Response to SEC Questions Regarding Exchange Traded Products,* File Number S7-11-15 http://www.sec.gov/comments/s7-11-15/s71115-19.pdf

there was a large amount of GLD redemptions that **decreased the shares outstanding** from 416 million to 266 million.

Due to the combined price decrease in the underlying asset (gold) and the net redemptions in the GLD, the value of assets under management ***dropped by $33 billion or 52%*** during the period. Simply put, the price of gold and the GLD declined by 24% and the value of the GLD assets (troy ounces) fell by an accelerated 52%.

This is very important. The 212-day period of net ***redemptions*** showed ETF underlying assets became unhinged from the underlying gold. Assets decreased by more than double the rate of gold's decline in price (decline in the price of gold plus the underlying assets of the GLD).

A $1,000 investment in gold at the beginning of this period would have resulted in a loss of 24% or an ending value of $760. A $1,000 investment in the GLD would have resulted in the same loss in the price of gold, with an additional loss in the underlying assets, making the initial investment in the GLD valued at $480. Investors could sell at the NAV, but behind the scenes the pooled investment assets were in rapid decline.

Investors wishing to participate in the gold market would not buy the GLD if they knew that a price decline in gold could result in *twice as much **underlying asset** decline for the GLD*.

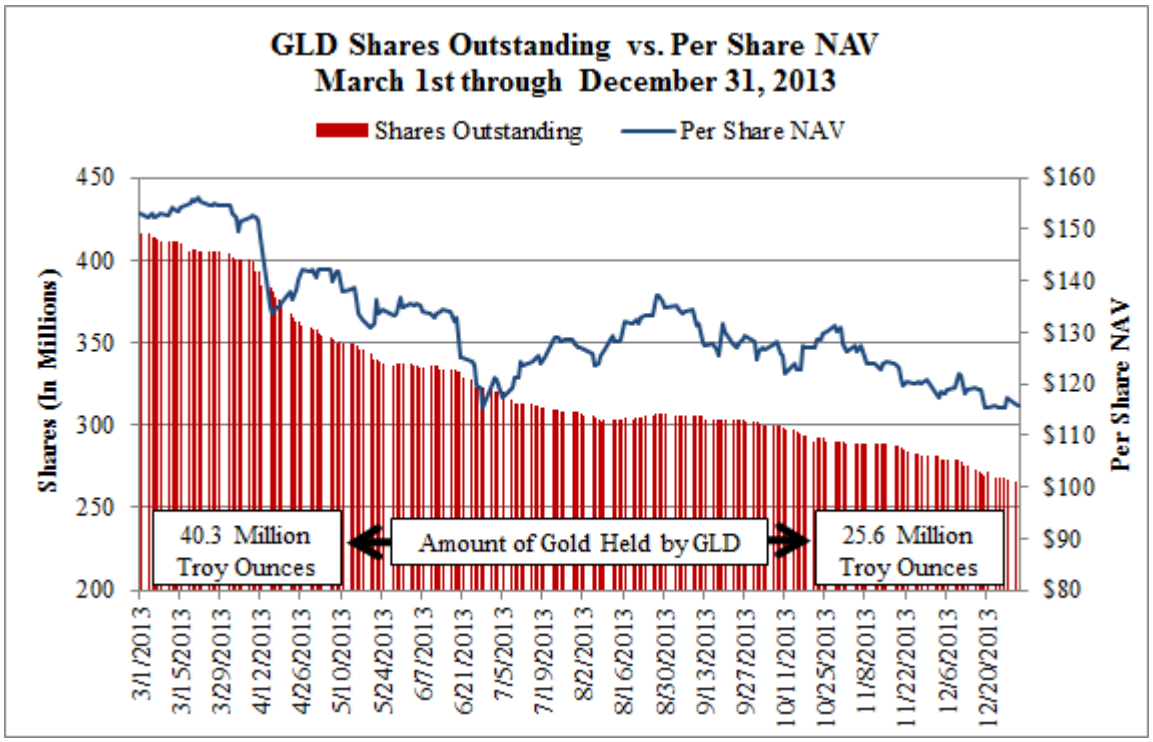
The summary of this period is shown in Table 1.

Table 1 – GLD NAV, Shares Outstanding and Assets Under Management March 31 through December 31, 2013 (212 Trading Days)

Date	GLD Per Share NAV	GLD Shares Outstanding	GLD Total Assets Under Management	Price of Gold Per Troy Ounce (London PM Fix)
3/1/2013	$153.12	416,400,000	$63,758,194,679	$1,582
12/31/2013	$115.87	266,000,000	$30,822,044,650	$1,205
Change	($37.25)	(150,400,000)	($32,936,150,030)	($377)
Percent Change	-24%	-36%	-52%	-24%

Chart 1 shows the decline in shares outstanding and the price of the GLD during the 212-day period.

Chart 1 – GLD Shares Outstanding vs. Per Share NAV March 1, 2013 through December 31, 2013 (212 Trading Days)



During the 212-day period, there were over 2.2 billion shares worth $298 billion traded for the GLD. The 51% short sale percentage on all reporting markets equates to approximately 1.1 billion shares sold short at a value of $151 billion.[29]

When the GLD assets under management declined at a significantly different rate than the price of the underlying gold, **red flags should have been/were triggered at ETF operators and the GLD auditor** that serious fundamental flaws and asset risks in the GLD exist that have not been properly disclosed to regulators and investors.

A Period of No Net Creation for the GLD – 2014

On January 2, 2014 there were 264.8 million GLD shares outstanding and on September 3, 2014 (169 trading days later) there were 264.1 million shares outstanding; virtually no net change. The underlying asset value (amount of gold holdings) remained flat at the reduced levels of over $30 billion less than when gold declined by 24% and the GLD gold holdings declined by 52% in the previous discussed period.

[29] Produced in Short Sale Data reports by: NASDAQ OMX BX (B), National Stock Exchange (C), Alternative Display Facility (D), Direct Edge A (J), Direct Edge X (K), NYSE/FINRA TRF (N), NYSE ARCA (P), NASDAQ/FINRA TRF (Q), NASDAQ OMX PHLX (X), BATS Y (Y) and BATS Z (Z). The data is available daily from all of the current reporting markets beginning November 2010. Excluded data has not been produced in part by the NYSE, NYSE Amex, alternative trading systems/dark pools and possibly other sources.

During this 169 days, over 1.1 billion GLD shares traded worth $143 billion with sales of the GLD averaging 62% short each day on reporting SROs/exchanges. Using the reporting markets percentage indicates approximately 704 million shares were sold short worth $88 billion, while there was **again *no* net creation of shares**. The summary of this period is shown in Table 2.

Table 2 – GLD NAV, Shares Outstanding and Assets Under Management January 2, 2014 through September 3, 2014 (169 Trading Days)

	1/2/2014	**9/3/2014**
Per Share NAV	$118.14	$121.72
Shares Outstanding	264,800,000	264,100,000
Total Assets Under Management	$31,424,456,594	$32,146,670,696

January 2 - September 3, 2014	**Volume Between Dates**	**Value Traded Between Dates**
Shares Executed (Consolidated Tape)	1,145,395,200	$143,114,573,074
Short Sales (Based on SRO Reporting Markets Percent)	703,746,799	$87,997,877,090

Most investors believe ETFs perform like a type of mutual fund.[30] For the GLD, the assets under management are deviating from what would be expected from a 'mutual fund type investment'. This is caused by the creation/redemption process implemented by the ETF operators and Authorized Participants, which has not been fully disclosed to regulators or investors.

The data suggests assets are not created despite incoming investment while synthetic shares increase the number of actual shares trading in the marketplace, which can exacerbate the downfall of the ETF assets under management during large redemption periods in stressed markets or over longer time periods, creating a slow insidious decline in asset value before the risks in the investment are discovered.

Since the 2008/2009 financial crisis, the GLD and other ETFs have diverged from their expected relationship with their underlying assets. In this case, it has created a lose-lose for GLD investors (redemptions of gold holdings without net creations, despite investments), along with a potential collapse of GLD held assets under a gold market in crisis conditions. Moreover, the excessive short selling indicates that there is massive over-leveraging of GLD shares sold that do not actually exist (suggesting there are multiple owners for each issued share of the GLD).

[30] In testimony before the Senate Subcommittee on Securities, Insurance and Investment in October 2011, Eileen Rominger, the director of the SEC's Division of Investment Management explained the SEC's understanding of physical ETFs; "ETFs offer investors an undivided interest in a pool of securities and other assets." "Apart from the fact that ETFs trade intraday, most **ETFs are similar to *mutual funds*** in that they ***both translate investor purchases and sales in the fund*** (and **changes in investor sentiment**) ***into purchases and sales of underlying holdings***." Eileen Rominger, Director, Division of Investment Management, *Testimony on Market Micro-Structure: An Examination of ETFs*, October 19, 2011 http://www.sec.gov/news/testimony/2011/ts101911er.htm

When these factors are taken into consideration, it appears that the value of the assets held by the GLD are seriously diluted and over-leveraged, which has created a potentially toxic ETF. Again, these facts are not being disclosed by the ETF operators.

Who would invest in the GLD if the above information was clearly disclosed?

The Largest Equity Based ETF

In the previous comment letters to FSOC and the SEC, we provided data for the SPY which exemplifies the discrepancies/deficiencies and risks that can build undiscovered by investors in ETFs.[31]

As an example of the lack of share creation for the SPY, on **December 13, 2012**, there were **824.2** ***million*** shares outstanding and on **August 7, 2014** (*414 trading days later*), there were **825.6** million shares outstanding; an increase of just 1.4 million shares or a change of only one tenth of 1%; essentially no net change. Between these dates, marketplace volume for the SPY totaled **48 billion shares, worth *$8.2 trillion*.**

Reporting markets/SROs showed ***65%*** of all sales were the product of a short sale. Using the reporting markets percentage as a proxy, there were approximately ***31 billion shares sold short*** valued at ***over $5.3 trillion*** during the period.[32]

In other words, there was $8 trillion worth of SPY shares sold with $5 trillion sold short (not owned by the sellers), **while there was virtually no net creation of shares outstanding to support this trading.** The summary data for this period is shown in Table 3.

Table 3 – SPY Marketplace Volume and Value, with Percent of Short Sales on Reporting Markets December 13, 2012 through August 7, 2014 (414 Trading Days). ***Shares Outstanding at the Beginning and End of This Period: Approximately 825 Million.***

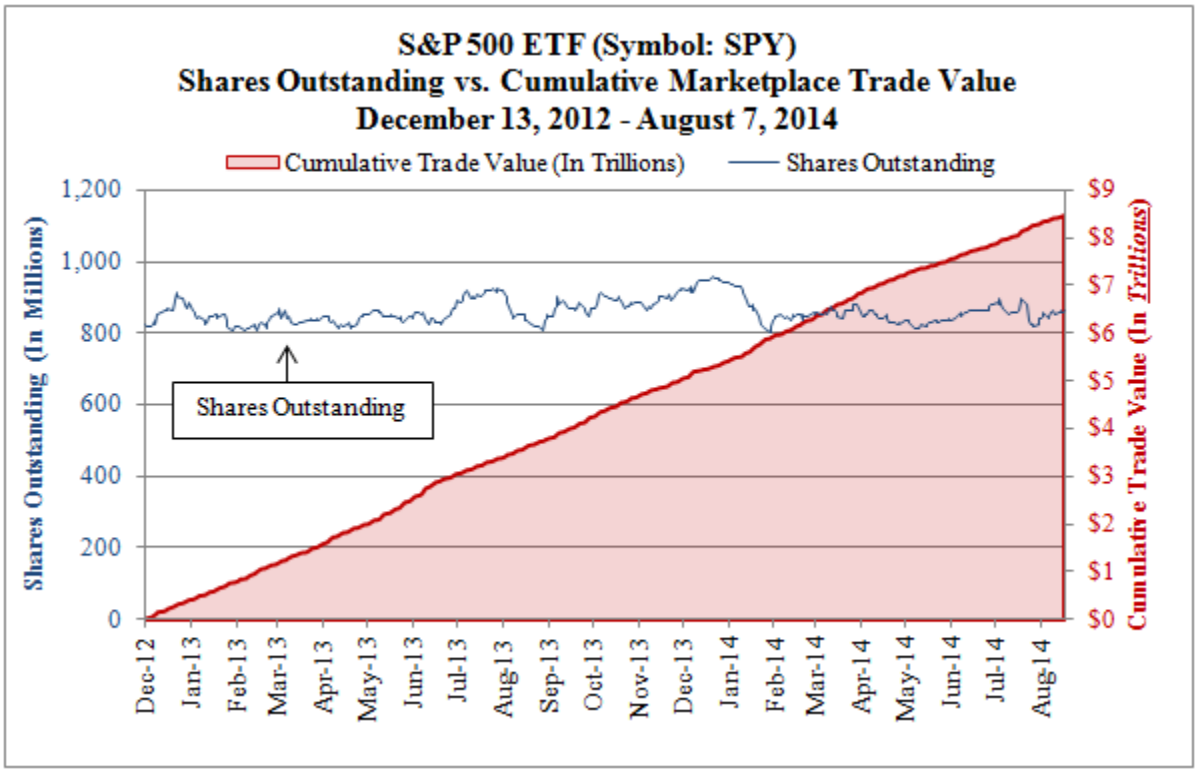
	Trade Volume	Value Based on Daily Closing Price
Total Marketplace	48,206,697,900	$8,225,654,349,292
Short Sales Based on SRO Reporting Markets Percent (65%)	31,162,024,592	$5,321,631,995,402

Chart 2 shows the SPY shares outstanding remained relatively stable despite the cumulative marketplace trade value growing to $8.2 trillion.

[31] See *Section 4 – ETP Examples – Problematic Assets and Over-Ownership, B. The S&P 500 ETF (Symbol: SPY)* of the SEC Request for Comment on Exchange-Traded Products, *Response to SEC Questions Regarding Exchange Traded Products*, File Number S7-11-15 http://www.sec.gov/comments/s7-11-15/s71115-19.pdf

[32] We are reasonably confident the reporting markets percent of short selling is a representation of short selling on the non-reporting markets. Therefore, throughout this document we also use the percentage of short selling on reporting markets as a proxy for short selling on the consolidated tape.

Chart 2 – SPY Shares Outstanding vs. Cumulative Marketplace Trade Value December 13, 2012 through August 7, 2014 (414 Trading Days)



To put this in perspective, for the full **414-day period**, the average daily trade volume was **116 million shares** for a total volume of **48 billion shares** with **a net change in shares outstanding of 1.4 million shares**; ***virtually no net creation***.

Proponents of the current ETF investment marketplace theorize that ETFs are adding value to the underlying securities, but the evidence from the data does not support this hypothesis. In fact, the data suggests otherwise; that purchasers that would normally invest into the underlying securities are buying the SPY, which is not ending up as investment into the S&P 500 companies.

Bloomberg reports that ETFs now account for 70% of the U.S. equity option volume, with the SPY alone accounting for ***47.6%*** of all U.S. options market trading or **$554 billion** on average **each day**, which is a 100% increase from 5 years ago.[33] The article stated that as the SPY option volume has grown **individual stocks** "overall have seen a *decline in option volume over the years* relative to the whole market. In addition, SPY is most likely sucking volume away from options on S&P 500 Index futures, which trade about $160 billion a day."

[33] Bloomberg article, *That Giant Sucking Sound You Hear Is the ETF Options Market*, Eric Balchunas and Tracy Alloway, January 8, 2016 http://www.bloomberg.com/news/articles/2016-01-08/that-giant-sucking-sound-you-hear-is-the-etf-options-market

The amount of short selling for the SPY indicates the investment money flowing into the SPY is benefiting those professional participants with the ability to short sell unlimited amounts of the SPY shares.

Without the creation of ETF shares and the subsequent purchases of the underlying securities, some ETFs have morphed into a trading vehicle that is opposed to the concept of the U.S. marketplace, which is to provide a capital formation opportunity for U.S. companies and their investors.

Without net creation of shares, the underlying S&P 500 stock holdings by the SPY do not effectively grow. The ETF is not causing capital formation for investors in the SPY, nor in the underlying securities. The incoming capital to the SPY from investors appears to be profitable to the short sellers/clearing firms/Authorized Participants, whom may be executing illegal short sales.

Chart 3 shows the SPY month-end shares outstanding and closing price at the end of each month from January 2012 through December 2014.

Chart 3 – SPY Month-End Shares Outstanding and Closing Value December 2012 through August 2014

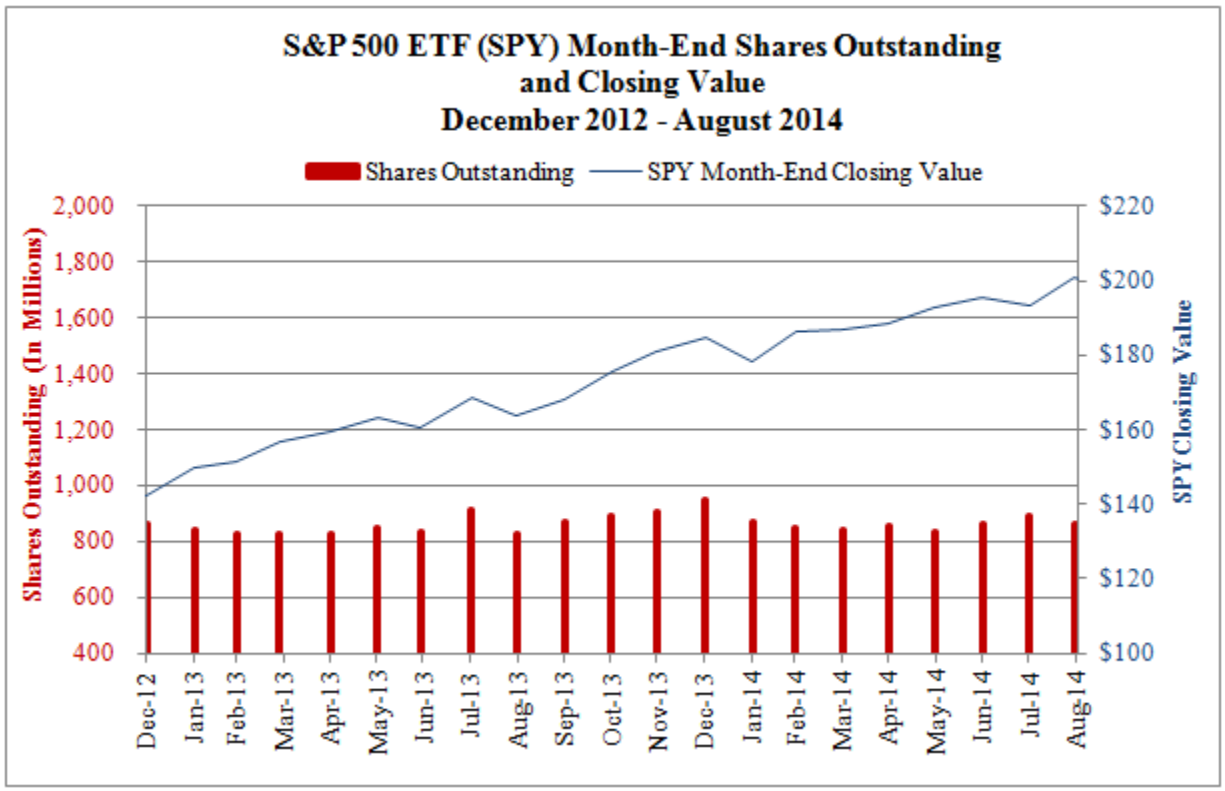


Chart 3 shows issues of serious concern that are running throughout the ETF industry's approach to marketing, lack of risk disclosure and the morphing of these securities into something that is not understood by investors or expected to be the outcome by regulators. The

industry consistently touts the growing assets under management as a means to attract new investors.

In fact, as the SPY demonstrates, the assets under management are merely a reflection of increased value of the underlying assets and not 'investments' in the underlying assets. This is a very serious issue to contend with because investors believe ETFs operate like mutual funds, suggesting actual pooled investments are growing.

As Chart 3 clearly demonstrates, the SPY is not acting like a mutual fund generating new asset growth through pooled investments. Investments into the S&P 500 securities are increasing in prices and the SPY's price is benefiting, but the ETF is not participating in the growth of capital formation of those S&P 500 securities.

From December 13, 2012 through August 7, 2014 (414 trading days), the value of assets underlying the SPY increased by $40 billion or ***34%***. This increase in value was due to the increased price of the S&P 500 Index, which also grew by ***34%*** during the period. In other words, the SPY asset value increase was from rising underlying stock prices, **not** from an **increased growth in actual underlying share ownership**. Again to simplify, no increase in ETF shares results in no net increase of pooled asset holdings.

From the creation side of shares outstanding, little or no money was used by the SPY operators and Authorized Participants to increase the net purchases of its' underlying securities, in this case S&P 500 companies.

While the SPY and its' underlying securities are liquid, the lack of net share creation and massive ongoing short selling appears to be increasing the number of owners per share, which could lead to redemption problems in stressed market conditions even in the SPY and its underlying S&P 500 securities.

A Comprehensive Macro View of the Current Flawed Structure of ETFs – The XRT

The XRT is ***one of several major ETFs*** (along with their underlying equity securities) that have had ongoing excessive short selling, a high number of shares owned by reporting institutions (up to 7 owners per share at times, considering just institutional 13-F reporting owners), inadequate share creation to support legitimate settlements, significantly under borrowed shares for short sale transactions, improper reporting of short interest and NSCC fails for several years. Moreover, locates (affirmative determinations in order to sell short) are and have been provided daily for millions of shares sold short when the data shows no sophisticated clearing firm could have reasonable grounds to believe shares could be located/borrowed/delivered for legal settlement of large amounts of short sales.

XRT Long-Term Trading Metrics to Contemplate

Imbalances in XRT ownership versus shares issued has continued to be found from 2011 through September 30, 2015 (the most recent 13F filings) (1,237 trading days, or 4 years). Despite continuous daily short selling averaging ***70% of trade volume***, or nearly 3 of every 4 shares sold on the reporting markets, there has been no sustained increase in shares outstanding,

reported short interest nor NSCC fails. This is in complete contradiction to the expected natural results that should be found in a properly functioning supply and demand marketplace.

As an example, on **March 31, 2014**, just reporting institutions owned more than ***5 shares for every share of the XRT outstanding***. However, NSCC delivery fails were just 7,728 shares. Obviously, shares were not fully delivered for the 5 ownership claims (42 million shares), yet these unfulfilled securities contracts are not reflected in NSCC data. This is a 'financial system' red flag; the national clearance and settlement system is not capturing and disclosing these contractual settlement deficiencies.

This is perhaps the most serious problem facing the U.S. markets today, i.e. the improper functioning of the national clearance and settlement system. The DTCC/NSCC is a finely-tuned and time-tested automated clearance and settlement system that is fully capable of providing the services mandated by Congress (the accurate clearance and settlement of securities transactions). However, it can only process the information it is given. The XRT, along with most important U.S. securities, show characteristics of significant misreporting of securities positions to the NSCC.

The XRT makes this issue simple; multiple investors claim ownership of the same shares while the NSCC reports virtually perfect settlement occurring on a continuous basis.

The March 31, 2014 metrics are shown in Table 4.

Table 4 – XRT Data March 31, 2014

	Shares
Shares Claimed to be Owned by Institutions (13F Filers)	42,808,001
Shares Outstanding	8,550,113
NSCC Fails	7,728
Shares Owned by Institutions Above Shares Outstanding	34,257,888
Reported Short Interest	24,461,700
Shares Outstanding	8,550,113
Shares Outstanding Plus Short Interest	33,011,813
Ownership Claims by 13F Filers Above Shares Outstanding Plus Short Interest	9,796,188

The XRT data raises significant questions and red flags regarding what is being sold in the marketplace as XRT shares. This is a prime example of a fund management team that appears to be improperly valuating its' ability to redeem assets and its' liquidity. How has the XRT's management been able to currently and historically account for valuation and liquidity requirements under the 1940 Act, justified compliance with the Act and reported this accounting to the SEC, when many shares exist beyond what the fund issued?

Here, there are 9.8 million more shares claimed to be owned above shares outstanding plus reported short interest. These securities positions were not owned by the sellers so they were short sales, but they did not get reported as short interest. This clearly exposes another fundamental reporting flaw in the U.S. markets. Short interest is widely followed as a metric investors use to make critical investment decisions. When these numbers are false, all market

participants are misled, even those who do not use this metric in their decisions, because so many other investors do use short interest as a key component of their strategies.

Short interest should be a metric considered by funds in their accounting, but if the numbers are inaccurate then the fund is incapable of calculating its' actual exposure to liabilities outstanding from short positions.

Examining these metrics, i.e. 70% short selling, no real net-creation of shares and no fails at the NSCC clearly suggests that the Authorized Participants of the XRT are internalizing/ex-clearing much of the trading that is occurring for the XRT. This should raise a significant red flag for the fund management that along with the institutional ownership far exceeding the number of shares outstanding, there may be a large number of additional short shares (not owned by the sellers) internalized at clearing firms that could be required to be redeemed and potentially weigh heavily on the stability of the fund.

Simply put, if there are 5 owners for each XRT share, the additional redemption of those shares can render the existing shares of the XRT essentially valueless, with no liquidity left in the shares issued to accommodate the additional ownership claims.

These excess owners represent undisclosed delivery liabilities at clearing firms and 'too big to fail' institutions, which likely will require settlement liquidity that is not readily available in a crisis market.[34] The XRT is a clear example of settlement risk that exists today and is undisclosed by the XRT operator.

Example XRT Period – March 2011

The XRT metrics in March 2011:

- **All of the outstanding shares of the XRT** (which were more than **100% institutionally owned,** verifiable through the SEC's EDGAR system) **were turned over every day for 20 days in a row**.
- There were 10 **days** where XRT shares issued were turned over from two to **seven times**.
- On 10 days, ***short sales exceeded the shares outstanding***. On March 9th, **short sales exceeded shares outstanding by over four times**.
- There were **65 to 73 million shares** reported to FINRA as established short positions, when there were only on average less than 8 million real shares outstanding.
- On average, there were **over 8 owners of shares sold short for each real share issued**.
- NSCC fails started the period at 32 thousand and ended the period at 149 thousand, virtually net flat despite at least 8 owners per share.

[34] See *Section 2 – Exchange Traded Products Liquidity and Assets* of the SEC Request for Comment on Exchange-Traded Products, *Response to SEC Questions Regarding Exchange Traded Products,* File Number S7-11-15 http://www.sec.gov/comments/s7-11-15/s71115-19.pdf

Considering the ownership scenario of the XRT has continued in the overbought position since 2011, no clearing firms should have reasonable grounds to believe that the large number of short sales will or could be properly delivered to complete settlement.

Simply put, no locate provided by the clearing firm; no short sale will/can be legally executed by brokers or investors. Locates provide an assurance by clearing firms that shares will be borrowed and delivered to complete legal short sale settlement. The amount of short sales should be limited by the amount of shares to lend, creating natural supply and demand market forces that constrain short selling, however short selling in the XRT is and has been ***unlimited***.

If a clearing firm does not have a legitimate belief that it can/will comply with the intent of federal securities regulations for locating and borrowing securities for delivery prior to the execution of a short sale, violations of securities laws, rules and regulations occur. These legal short sale restrictions and potential penalties do not appear to have constrained the trading or changed the behavior of some clearing firms.

This type of clearing firm is willing to provide itself or its' clients with the ability to sell short with knowledge that the shares will not or cannot be delivered to consummate contractual settlement of the securities.

Table 5 illustrates these metrics which logically indicate that **'reasonable grounds to believe' that millions of shares each day could be located for legitimate short selling was a virtual impossible threshold to meet.** Again, short positions are multiple times higher than shares outstanding without corresponding NSCC settlement failures reported to regulators. Without the national clearance and settlement system alerting the SEC to these undisclosed settlement problems, a serious concern is raised regarding the functioning of Regulation SHO and other regulations in effect for margin limits and excessive leverage.

There is a gap in volume between the consolidated tape versus the volume produced daily by the reporting exchange markets/SROs, which is attributable to non-reporting markets, including alternative trading systems/darks pools. How is a fund to rate the quality of its' market liquidity that is executed on dark markets? Is it real liquidity that will be available in stressed market periods?

Table 5 – XRT Share Accounting and Trading in March 2011

Trade Date	Shares Outstanding Issued by ETF Distributor State Street Global Advisors	Total Daily Marketplace Volume (Consolidated Tape)	Total Daily Marketplace Volume as a Percent of Shares Outstanding	Percent of Short Sale Volume on SRO Reporting Markets	Settlement Date NSCC Reported Fails for Trade Date	Reported Short Interest[35]
3/1/2011	11,900,113	14,141,500	119%	***83%***	32,016	
3/2/2011	8,550,113	13,839,500	162%	***70%***	27,822	
3/3/2011	7,500,113	11,728,500	156%	***76%***	151,569	
3/4/2011	11,150,113	13,172,000	118%	***81%***	174,432	
3/7/2011	8,200,113	13,542,800	165%	***77%***	2,672,325	
3/8/2011	6,950,113	15,042,000	216%	***78%***	3,111,135	
3/9/2011	**2,450,113**	**17,579,100**	**717%**	***81%***	**2,884,700**	
3/10/2011	4,400,113	15,952,900	363%	***77%***	1,380,378	66,315,811
3/11/2011	5,000,113	14,444,800	289%	***75%***	218,745	
3/14/2011	11,000,113	13,972,700	127%	***75%***	98,595	
3/15/2011	11,900,113	16,880,300	142%	***71%***	4,052	
3/16/2011	12,400,113	16,005,300	129%	***66%***	84,502	
3/17/2011	12,650,113	17,281,200	137%	***72%***	97,961	
3/18/2011	11,150,113	24,381,500	219%	***79%***	140,899	
3/21/2011	6,300,113	14,521,000	230%	***64%***	1,867,320	
3/22/2011	7,850,113	12,303,200	157%	***72%***	3,469,764	
3/23/2011	5,500,113	14,426,700	262%	***69%***	4,539,685	
3/24/2011	**2,650,113**	**15,078,800**	**569%**	***67%***	**4,929,698**	
3/25/2011	5,000,113	13,772,300	275%	***69%***	662,020	
3/28/2011	6,900,113	14,297,900	207%	***76%***	149,243	73,022,120
Average	7,970,113	15,118,200	190%	74%	1,334,843	
Totals		302,364,000				

On March 9, 2011, there were **2.5 million XRT shares outstanding** and **11.6 million shares sold short** on just the reporting markets. Note on March 9th, the reporting markets show over **8 of 10 shares** traded were short sales, leaving less than two shares sold long and available to cover the day's short sales. At the same time, there were **more shares sold long than existed**. The **fails that were reported to NSCC were greater than all of the shares outstanding**.

In effect, the XRT was asset bankrupt and the trading consisted of a supply of shares that did not actually exist.

Trade volume exceeded shares outstanding by over **7 times**. Short shares traded on just the reporting markets surpassed shares outstanding by **4.7 times**. Of the 11.6 million shares sold short, where did the required locates come from? Moreover, where did the necessary locates come from when **10 million** shares were sold short the next day and **9 million** shares the following day? While years of XRT trading suggests there were/are no reasonable grounds to believe that millions of shares could be delivered for settlement of short sales, 11 trading days

[35] Reported short interest was 65,642,975 shares on trade date February 23, 2011.

later on March 24th, the same trading characteristics occurred. The SEC desires the funds to take into consideration marketplace trade volume liquidity in their evaluations. What if the trading volumes do not consist of legitimate supply/demand liquidity?

Table 6 shows the value of trading and underlying assets in the XRT during March 2011. The values traded for the XRT puts the magnitude of trading into perspective, ***short sales*** were valued at ***$8.5 billion*** in these ***20 trading days*** on assets with an average value of ***$388 million.*** Along with virtually every other month of trading data examined for the XRT, March 2011 shows a continual buildup of large short positions versus the value of underlying assets.

The XRT shows that for long periods of time, regardless of the billions of dollars traded, the underlying shares issued for the XRT by State Street were not created in sufficient quantities to support the trading activity, short selling and ownership claims.

Table 6 – XRT Values of Trading and Underlying Assets in March 2011

Trade Date	Value of Total Underlying Assets	Value of Total Daily Marketplace Volume	Percent of Short Sale Volume on SRO Reporting Markets	Value of Short Sale Volume Based on Reporting Markets Percent
3/1/2011	$575,772,190	$684,218,914	83%	$565,446,546
3/2/2011	$416,630,487	$674,372,097	70%	$470,607,579
3/3/2011	$370,119,450	$578,784,070	76%	$437,362,044
3/4/2011	$547,662,297	$646,971,719	81%	$524,805,471
3/7/2011	$396,699,089	$655,163,706	77%	$507,359,862
3/8/2011	$337,878,898	$731,264,995	78%	$573,569,309
3/9/2011	**$119,978,164**	**$860,820,770**	**81%**	**$700,421,269**
3/10/2011	$214,086,382	$776,184,297	77%	$600,219,254
3/11/2011	$246,155,391	$711,117,013	75%	$536,579,849
3/14/2011	$536,359,471	$681,301,181	75%	$513,474,545
3/15/2011	$579,394,318	$821,870,342	71%	$580,354,186
3/16/2011	$597,441,451	$771,140,524	66%	$511,655,512
3/17/2011	$607,692,290	$830,162,702	72%	$593,899,736
3/18/2011	$536,050,516	$1,172,159,923	79%	$926,220,967
3/21/2011	$307,403,458	$708,527,858	64%	$453,326,776
3/22/2011	$379,970,732	$595,514,472	72%	$426,063,648
3/23/2011	$267,742,881	$702,284,889	69%	$481,438,280
3/24/2011	**$131,123,226**	**$746,074,189**	**67%**	**$502,655,324**
3/25/2011	$249,667,248	$687,682,905	69%	$471,557,286
3/28/2011	$342,040,061	$708,749,934	76%	$541,213,710
Average	$387,993,400		74%	
Totals		$14,744,366,497		$10,918,231,154

The data for March 9th in Table 6 shows there were ***$571 million worth of shares sold short*** while the XRT had only ***$120 million in underlying assets***. Where could the required locates come from for these short sales? On the next day, where did the necessary locates come

from for **$484 million** worth of short shares and another **$441 million** of short shares the following day?

Locates from clearing firms are the <u>first component</u> in the chain of events that creates a legal short sale.

*What **reasonable grounds to believe** that shares could be **borrowed and delivered for settlement** would have existed in order to provide or accept locates for these **multiple millions of shares to be sold short legally <u>day after day</u>**?*[36]

This trading/share accounting raises significant red flags of operational and systemic risks across firms involved with the XRT, which could accumulate into massive stress on the valuation and liquidity of the XRT. We believe these metrics should be monitored by the fund to assess the quality of its' ETF. The risk presented by only viewing a portion of the data may understate the potential problems because of the hidden stresses that are being created in the secondary market.

Collectively during these 20 trading days, $11.6 billion worth of the XRT was sold on just the reporting markets when the average daily value of the shares outstanding was only $388 million. Over ***30 times the average daily value of the XRT*** was ***traded during just these 20 trading days***. This extraordinary turnover ratio occurred despite the fact that over 8 shares had already been purchased short (reported short interest) for every 1 share outstanding.[37]

During the **20-day period**, **302 million shares traded turning over the 8 million average shares outstanding *<u>38 times, when all of the existing shares were and remained owned by institutions reporting SEC 13F filings</u>***. By any measure there is an extreme amount of leverage continuing to grow in the XRT, which is ***<u>just one ETF product</u>***.

Since all of the shares outstanding were already owned, much of what was trading in the marketplace appears to be washed/matched type trading. The SEC wants the funds to include trade volume liquidity in their calculations, but what if there is an excessive amount of false liquidity in the marketplace? This could seriously undermine a funds' liquidity evaluation of the ETF itself.

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[36] To dispel any questions, most of these short sales cannot be attributed to bona fide market making activity under the ownership circumstances that exist for the XRT. Bona fide market making requires a fair and orderly market to be conducted by market makers. The XRT has not had a fair and orderly market for years, thus trading from bona fide market making was limited at best, while millions of shares were traded and sold short each day.
In 1993, the SEC discussed the bona fide market maker exemption for short selling: "The Commission believes that for the qualifier 'bona fide' to have any substance, <u>it must mean more than the fact that the transactions in the account are effected in a market making account</u>. <u>At a bare minimum, to qualify for the exception, a market maker's short selling activity must be reasonably related to its market making activities</u>." Exchange Act Release No. 32632, July 14, 1993
In 2004, the SEC further clarified: "Bona-fide market making does not include activity that is related to speculative selling strategies or investment purposes of the broker-dealer and is disproportionate to the usual market making patterns or practices of the broker-dealer in that security." Regulation SHO Final Rule and Interpretation, Release No. 34–50103, August 6, 2004

[37] Reported short interest at the end of February/beginning of March 2011 versus the average shares outstanding during March 2011.

Another XRT Period

We have previously discussed the time period from November 2010 through March 31, 2014 (858 trading days), when **70%** of the XRT volume on reporting markets was a product of a short sale. Using the reporting markets percentage as a proxy for the consolidated tape volume, nearly **4 billion XRT shares were sold short** in the marketplace. From March 31, 2014 through September 30, 2015, the short selling remained at an average of 69% of the daily volume.

During the 858-day trading period, there were on average only ***12.4 million*** shares outstanding. Marketplace volume averaged ***6.6 million*** shares traded per day, turning over the average shares outstanding every ***1.9 days***.

Moreover, short shares averaged ***4.6 million*** shares each day, or a turnover of the average number of shares outstanding by **just short sales *every 2.7 days***.

This is an extreme rate of turnover for shares outstanding. Considering all shares have been and are claimed to be owned by multiple institutional investors for the entire period, share turnover rates should be low in a normal well-functioning supply and demand market. The XRT turnover ratio has been as high as **7 times the shares outstanding** in a ***single day***. These metrics should be monitored by the fund and considered in its calculations to comply with the existing and proposed SEC rules.

For the XRT on November 1, 2010, there were 10.5 million shares outstanding and on March 31, 2014 (858 trading days), there were 8.6 million shares outstanding, despite 70% short selling on reporting markets between the two dates and multiple ownership claims for the shares outstanding. Between these dates total marketplace volume for the XRT was **5.6 billion shares**, with approximately ***4 billion sold short*** based on the reporting markets short sale percentage.

There is a consistent pattern of excessive short selling ***without share creation*** to accommodate the settlement of XRT securities. ETF operators know these facts; they do not have to reach for any hard to obtain outside information to understand these circumstances, as it is a simple calculation of trade volume, short interest and 13F filings compared to their shares issued. These factors should already be considered by any fund operator under its' obligations required by the 1940 Act.

Using the daily closing price during this 858-day period, the trade value equaled **$326 billion worth of XRT shares sold** with **$225 billion sold short (not owned by the sellers), while there was no net creation of shares outstanding to support this trading.**

The management, compliance personnel and auditors of the XRT have to be fully aware of the problems that exist in the XRT as the data is publicly available. At some point, these metrics can no longer be ignored. The XRT has not been properly monitored by its operators and appears to not comply with the spirit of the 1940 Act liquidity requirements. When neither the shares outstanding or underlying assets are growing and short sales are turning over the shares outstanding every two days, it is very obvious that there are substantial risks that could

affect the ETF. This is not isolated to the XRT, but the XRT is an undeniable illustration of a fund that has not been properly monitored.

If the operators disclosed to the buyers of the XRT that the shares were already owned by 5 or more owners and you may or may not have delivery of your shares someday, investors would not likely enter into a purchase of these shares and certainly may not be inclined to pay full price.

Regulations are NOT Operating as Intended

The Industrial Select Sector SPDR ETF (Symbol: XLI)

In January 2005, the SEC implemented Regulation SHO, which was designed to:[38]

> "Establish uniform locate and delivery requirements in order to address potentially abusive naked short selling and other problems associated with failures to deliver… Rule 203 is a targeted approach that incorporates the provisions of existing SRO rules while imposing additional restrictions where we believe appropriate to address naked short selling while protecting and enhancing the operation, integrity, and stability of the markets."

Rule 203 was further supplemented by the SEC with the 2008 implementations of Rule 204 and Rule 10b-21, which made clear the SEC's intent to curtail abusive short selling and the improper settlement of securities. Collectively, the regulations do not appear to be achieving the SEC's desired affects because of a lack of compliance.

Accordingly, a Regulation SHO threshold security should receive protections from abusive short selling through heightened regulatory oversight, hard to borrow status, tighter restrictions on locates/affirmative determinations for short selling and buy-ins of shares that have failed to be delivered to the purchaser.

In our previous comment letters, we have discussed the Industrial Select Sector SPDR ETF (Symbol: XLI), which is one of State Street's 9 ETFs that are based on specific sectors of the S&P 500 securities.[39] The XLI's holdings are liquid blue chip securities. The data indicates that even under special settlement and short sale limit requirements provided by Regulation SHO the XLI short sale trading continued unaffected.

The XLI has historically been heavily sold short on reporting markets. In 2014, short selling for the XLI averaged 69% on reporting markets/SROs. Using the reporting markets

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[38] Securities and Exchange Commission Release No. 34-50103, File No. S7-23-03, Regulation SHO Final Rule and Interpretation, August 6, 2004, http://www.sec.gov/rules/final/34-50103.htm
and Securities and Exchange Commission Release No. 34-60388, File No. S7-30-08, Amendments to Regulation SHO, July 31, 2009 http://www.sec.gov/rules/final/2009/34-60388fr.pdf

[39] See *Section 4 – ETP Examples – Problematic Assets and Over-Ownership, B. The Industrial Select Sector SPDR ETF (Symbol: XLI)* of the SEC Request for Comment on Exchange-Traded Products, *Response to SEC Questions Regarding Exchange Traded Products*, File Number S7-11-15 http://www.sec.gov/comments/s7-11-15/s71115-19.pdf

percent of short selling as a proxy for the consolidated tape equates to approximately **1.8 billion shares** worth **$95 billion in short sales during just 2014**.

From January 14th through February 9, 2015 (18 trading days) the ***XLI was on the NYSE Regulation SHO threshold list***, which should have provided regulatory protection from abusive short selling. One would expect a Regulation SHO designation should cause an immediate decline in short selling due to tighter locate and delivery requirements while failed to deliver positions would be bought-in.

In contradiction to this expectation, Table 7 shows the high percentage of short selling continued along with a rise in volume prior to and during the period the XLI was a Regulation SHO threshold security. During the 18 days short selling in the XLI should have been constrained, reporting markets showed ***2 of every 3 shares sold*** were the product of short sales.

While the real number of Regulation SHO status securities is under-reported due to ex-clearing outside the NSCC system, Regulation SHO's basic concepts are very important to the proper functioning of the supply and demand capital markets. Some clearing firms have opted to circumvent this regulation via bypassing reporting their settlement obligations to the national clearance and settlement system.

Table 7 – XLI Consolidated Tape Volume, Reporting Markets Short Sale Percentage and Share Accounting December 26, 2014 through February 9, 2015[40]

Date	Shares Outstanding	Marketplace Volume (Consolidated Tape)	Percent of Short Sale Volume on All SRO Reporting Markets	Short Sale Volume Based on SRO Reporting Markets Percent	Reported Short Interest (Reflective of Shares Borrowed)	NSCC Fails
12/26/2014	163,576,000	5,733,400	**76%**	4,375,403	36,047,200	255,457
12/29/2014	163,826,000	3,565,000	**60%**	2,149,348		85,560
12/30/2014	163,526,000	3,602,800	**75%**	2,717,319		2,767
12/31/2014	163,976,000	5,572,900	**70%**	3,890,509		853
1/2/2015	163,976,000	10,982,800	**69%**	7,596,779		110,429
1/5/2015	163,776,000	15,144,700	**73%**	11,006,722		2,194,123
1/6/2015	159,026,000	19,209,800	**68%**	13,153,544		3,653,257
1/7/2015	159,826,000	11,770,300	**68%**	8,058,186		3,651,478
1/8/2015	159,026,000	11,419,800	**54%**	6,179,761		3,408,710
1/9/2015	158,326,000	10,168,200	**70%**	7,129,123		3,487,095
1/12/2015	157,626,000	11,229,500	**63%**	7,029,970	44,974,500	55,569
1/13/2015	158,076,000	17,530,900	**65%**	11,459,495		2,323,809
1/14/2015 Regulation SHO Listed	**156,226,000**	**19,597,500**	**71%**	**13,900,053**		**4,579,261**
1/15/2015	155,026,000	15,614,500	**76%**	11,868,973		5,392,063
1/16/2015	155,376,000	16,371,500	**68%**	11,105,347		1,769,058
1/20/2015	155,776,000	11,072,100	**63%**	6,970,588		173,345
1/21/2015	157,126,000	8,943,500	**64%**	5,728,600		4,497
1/22/2015	158,676,000	10,950,900	**66%**	7,174,864		243,533
1/23/2015	159,176,000	10,148,200	**68%**	6,891,994		102,691
1/26/2015	156,626,000	6,037,000	**66%**	3,991,963		1,288,739
1/27/2015	154,926,000	12,118,500	**60%**	7,298,826	48,640,800	1,074,629
1/28/2015	153,526,000	14,673,900	**60%**	8,803,326		1,612,890
1/29/2015	149,976,000	14,215,100	**65%**	9,248,654		1,917,334
1/30/2015	150,226,000	14,650,000	**69%**	10,069,616		1,725,428
2/2/2015	149,426,000	19,465,900	**69%**	13,472,137		330,640
2/3/2015	151,626,000	18,896,200	**61%**	11,609,530		6,029
2/4/2015	155,426,000	10,600,000	**56%**	5,976,443		525
2/5/2015	152,426,000	9,193,800	**67%**	6,159,718		10
2/6/2015	153,426,000	6,192,200	**59%**	3,670,260		3,502
2/9/2015	151,826,000	7,112,100	**69%**	4,933,720		0
Total Since Becoming a Threshold Security		**225,852,900**	**66%**	**148,874,613**		
Change Since Becoming a Threshold Security	**-6,250,000**					

[40] Regulation SHO Threshold: "for five consecutive settlement days, there are fails to deliver at a registered clearing agency of 10,000 shares or more per security, and that is equal to at least one-half of one percent of the issue's total shares outstanding." The SEC's Key Points about Regulation SHO states: "For the securities for which an SRO is the primary market, that SRO calculates whether the level of fails for each security is equal to, or greater than, 0.5% of the issuer's total shares outstanding of the security. If, for five consecutive settlement days, such security satisfies these criteria, then such security is a threshold security. Each SRO includes such security on its daily threshold list until the aggregate fails level for the security falls below these levels for five consecutive days."

Between short interest reporting dates of mid-month and the end of January (10 trading days), **64 million shares were sold short** just on reporting markets, but short interest (shares borrowed) increased by **less than 4 million shares** and there were **only 1 million shares failed** at NSCC at the end of the period.

Using the reporting markets/SROs percent of short selling as a proxy, equates to approximately ***149 million shares sold short*** during the 18 days the XLI was a **Regulation SHO security**. In other words, the average XLI shares outstanding (154 million) were nearly turned over **just by short sales**, indicating the ***ETF did not receive protection from abusive short selling despite being publicly listed as a Regulation SHO security***.

The XLI seems to be a clear example of circumvention and obfuscation of federal securities laws with disregard for the integrity and principles of the supply/demand U.S. markets. There appears to be a pattern and practice of disregard for securities laws by some participants suggesting disrespect for not only the SEC, but for congressional intent.

Other Sample Regulation SHO Threshold Securities

As another example, the SPDR S&P Biotech ETF (Symbol: XBI) is based on U.S. biotechnology stocks. Short selling for the XBI on reporting markets/SROs in the first 11 months of 2015 averaged **60%**.

From September 22nd through November 12, 2015 (38 trading days) the ***XBI was on the NYSE Regulation SHO threshold list***, which should have provided it regulatory protection from abusive short selling. However, short selling on reporting markets ***increased*** to an average of 62%, equating to approximately **141 million shares sold short.** By the end of the period, short interest declined to **less than 37 million shares** and there were **only 165 thousand shares failed** at NSCC.

Table 8 shows the percentage of short selling and the excessive volume that continued during the period the XBI was a Regulation SHO threshold security. During the 38 days, short selling in the XBI showed no signs of constraint.

Table 8 – XBI Consolidated Tape Volume, Reporting Markets Short Sale Percentage and Share Accounting While the XBI was a Regulation SHO Threshold Security, September 22, 2015 through November 12, 2015

Trade Date	Shares Outstanding	Marketplace Volume (Consolidated Tape)	Percent of Short Sale Volume on All SRO Reporting Markets	Short Sale Volume Based on SRO Reporting Markets Percent	Reported Short Interest (Reflective of Shares Borrowed)	NSCC Fails
9/22/2015	29,500,000	6,446,700	**58%**	3,758,426		2,812,867
9/23/2015	29,700,000	3,190,200	**75%**	2,382,760		1,446,488
9/24/2015	30,950,000	4,298,200	**66%**	2,834,663		235,146
9/25/2015	32,800,000	12,655,600	**55%**	6,922,613	43,063,500	313,656
9/28/2015	31,650,000	14,555,300	**56%**	8,217,922		29,533
9/29/2015	33,850,000	10,645,100	**57%**	6,077,288		17,744
9/30/2015	33,600,000	9,716,000	**49%**	4,739,465		145,100
10/1/2015	32,050,000	6,974,800	**57%**	3,997,955		802,547
10/2/2015	30,500,000	9,076,900	**71%**	6,434,614		942,740
10/5/2015	31,500,000	6,505,900	**72%**	4,675,790		446,740
10/6/2015	31,600,000	10,204,100	**55%**	5,654,092		6,732
10/7/2015	30,900,000	6,362,300	**51%**	3,230,776		N/A
10/8/2015	30,450,000	6,390,100	**50%**	3,210,386		62,005
10/9/2015	28,850,000	4,745,600	**63%**	2,968,373		870,326
10/12/2015	29,650,000	2,425,800	**62%**	1,507,877	44,086,800	312,619
10/13/2015	30,250,000	4,988,500	**61%**	3,030,015		471,332
10/14/2015	29,850,000	6,143,700	**65%**	4,019,209		71,072
10/15/2015	31,500,000	7,328,700	**66%**	4,856,729		508,572
10/16/2015	32,250,000	6,964,400	**83%**	5,793,684		521,843
10/19/2015	33,450,000	7,916,000	**53%**	4,233,477		184,877
10/20/2015	33,450,000	5,147,500	**54%**	2,757,516		70,518
10/21/2015	30,900,000	10,346,700	**70%**	7,205,442		297,556
10/22/2015	31,200,000	8,071,700	**80%**	6,470,275		418,694
10/23/2015	31,700,000	4,823,800	**82%**	3,940,562		26,122
10/26/2015	32,950,000	4,077,600	**69%**	2,805,389		1,728
10/27/2015	33,450,000	4,614,600	**66%**	3,030,408	37,065,400	387,398
10/28/2015	34,300,000	5,574,900	**69%**	3,836,089		498,128
10/29/2015	34,650,000	4,889,000	**80%**	3,908,267		591
10/30/2015	35,050,000	2,688,900	**62%**	1,660,396		3,165
11/2/2015	33,750,000	5,361,600	**54%**	2,911,349		190,747
11/3/2015	34,050,000	3,882,100	**58%**	2,265,594		90,121
11/4/2015	32,150,000	3,342,000	**63%**	2,112,812		48,825
11/5/2015	32,350,000	3,056,700	**61%**	1,875,591		77,470
11/6/2015	32,350,000	4,137,000	**48%**	1,999,412		N/A
11/9/2015	31,500,000	2,448,100	**45%**	1,095,525		19,195
11/10/2015	31,300,000	2,566,900	**57%**	1,453,379	36,764,200	17,751
11/11/2015	31,300,000	3,140,300	**49%**	1,537,805		82,901
11/12/2015	31,700,000	3,331,100	**46%**	1,528,642		165,631
Total Since Becoming a Threshold Security		**229,034,400**	**62%**	**140,940,566**		
Change Since Becoming a Threshold Security	**2,200,000**					

An Inverse ETF Based on Swaps

The ProShares UltraPro Short Russell 2000 (Symbol: SRTY) is an inverse, 3 times leveraged ETF that holds Russell 2000 Index swaps. The swap parties are domestic and international 'too big to fail' institutions using foreign subsidiaries as the swap originator.

From at least September 1st through November 17, 2015 (55 trading days) the ***SRTY was on the NYSE Regulation SHO threshold list***, which should have provided it regulatory protection from abusive short selling. However, short selling on reporting markets averaged 64%, equating to approximately **41 million shares sold short.** By the end of the period, short interest declined to **227 thousand shares** and there were **only 1,000 shares failed** at NSCC.

These types of ETF products are recognized as complex underlying non-physical asset based ETFs, however the fundamental functioning of the ETF security product sold in the U.S. market should not vary from its registration as a security governed by the 1940 Act.

Table 9 shows the percentage of short selling and the excessive volume that continued during the period the SRTY was a Regulation SHO threshold security. During the 55-day period, short selling was not constrained, shares outstanding were not sufficiently created, short interest didn't match trading and there were no significant fails at NSCC.

Table 9 – SRTY Consolidated Tape Volume, Reporting Markets Short Sale Percentage and Share Accounting While the SRTY was a Regulation SHO Threshold Security, September 1, 2015 through November 17, 2015

Trade Date	Shares Outstanding	Marketplace Volume (Consolidated Tape)	Percent of Short Sale Volume on All SRO Reporting Markets	Short Sale Volume Based on SRO Reporting Markets Percent	Reported Short Interest (Reflective of Shares Borrowed)	NSCC Fails
9/1/2015	1,904,660	2,845,600	**73%**	2,077,003		234,464
9/2/2015	1,904,660	1,265,600	**62%**	781,635		109,987
9/3/2015	2,004,660	1,221,800	**70%**	849,762		15,838
9/4/2015	2,104,660	996,400	**68%**	674,961		10,895
9/8/2015	2,104,660	808,400	**59%**	477,279		57,881
9/9/2015	2,204,660	1,341,600	**40%**	533,152		66,471
9/10/2015	2,204,660	1,500,600	**47%**	698,679	148,800	61,099
9/11/2015	2,204,660	838,800	**58%**	488,853		75,387
9/14/2015	1,854,660	1,913,000	**51%**	979,456		206,374
9/15/2015	1,854,660	646,400	**72%**	464,438		351,991
9/16/2015	1,854,660	732,500	**75%**	547,690		379,725
9/17/2015	2,254,660	1,015,300	**72%**	728,985		31,298
9/18/2015	1,904,660	1,265,400	**51%**	645,607		207,031
9/21/2015	1,904,660	782,400	**73%**	568,414		29,494
9/22/2015	1,904,660	994,900	**65%**	649,073		28,346
9/23/2015	2,204,660	808,000	**70%**	562,853		8,805
9/24/2015	2,204,660	1,422,200	**67%**	957,852		33,084
9/25/2015	2,054,660	1,075,700	**65%**	694,579	91,100	45,597

Table 9 – Continued

Trade Date	Shares Outstanding	Marketplace Volume (Consolidated Tape)	Percent of Short Sale Volume on All SRO Reporting Markets	Short Sale Volume Based on SRO Reporting Markets Percent	Reported Short Interest (Reflective of Shares Borrowed)	NSCC Fails
9/28/2015	1,904,660	1,738,400	**63%**	1,101,103		400,000
9/29/2015	2,304,660	1,321,700	**60%**	792,888		415,165
9/30/2015	2,304,660	2,006,300	**57%**	1,134,763		0
10/1/2015	2,354,660	1,100,700	**44%**	480,896		840
10/2/2015	2,054,660	1,768,700	**54%**	956,690		176,369
10/5/2015	2,054,660	1,663,600	**66%**	1,103,133		13,730
10/6/2015	2,154,660	1,574,000	**67%**	1,060,089		0
10/7/2015	2,154,660	1,435,200	**63%**	910,060		N/A
10/8/2015	2,154,660	1,263,300	**72%**	908,060		4,381
10/9/2015	2,154,660	960,800	**70%**	670,638		3,926
10/12/2015	2,154,660	597,100	**69%**	412,775	166,500	34,048
10/13/2015	2,154,660	1,972,600	**73%**	1,431,910		70,878
10/14/2015	2,154,660	1,641,400	**67%**	1,094,486		116,217
10/15/2015	2,154,660	1,403,900	**69%**	965,743		129,891
10/16/2015	1,804,660	1,001,200	**67%**	666,799		132,472
10/19/2015	1,804,660	1,029,600	**74%**	762,007		97,537
10/20/2015	2,104,660	792,700	**67%**	533,646		110,403
10/21/2015	2,104,660	1,680,800	**64%**	1,074,367		126,326
10/22/2015	2,104,660	1,568,800	**67%**	1,047,488		269,470
10/23/2015	2,104,660	1,274,200	**67%**	859,066		196,809
10/26/2015	2,354,660	812,500	**68%**	553,313		36,511
10/27/2015	2,354,660	1,306,100	**55%**	721,751	143,700	15,918
10/28/2015	2,354,660	1,511,100	**60%**	908,776		119,698
10/29/2015	2,354,660	995,700	**61%**	607,078		43,732
10/30/2015	2,354,660	1,016,900	**73%**	742,947		93,132
11/2/2015	2,404,660	891,200	**79%**	705,741		61,986
11/3/2015	2,604,660	804,700	**73%**	590,408		670
11/4/2015	2,604,660	619,500	**66%**	408,498		15
11/5/2015	2,604,660	558,700	**66%**	366,842		1,000
11/6/2015	2,604,660	474,100	**76%**	362,070		N/A
11/9/2015	2,704,660	698,600	**65%**	451,156		36,943
11/10/2015	2,704,660	667,400	**70%**	468,582	226,700	54,165
11/11/2015	2,704,660	568,400	**56%**	316,087		108,656
11/12/2015	2,704,660	930,300	**54%**	503,292		16,000
11/13/2015	2,704,660	1,603,300	**65%**	1,043,748		945
11/16/2015	2,804,660	796,600	**57%**	452,150		1,000
11/17/2015	2,804,660	1,335,800	**61%**	816,307		1,000
Total Since Becoming a Threshold Security		**64,860,500**	**64%**	**41,365,626**		
Change Since Becoming a Threshold Security	**900,000**					

There are numerous other ETF examples of problematic trading, short selling and settlement issues, but these examples highlight the concerns that should be at the forefront for ETF operators, their Authorized Participants and auditing firms in order to properly evaluate the fund's compliance with the 1940 Act.

How does an ETF operator value an ETF that is a Regulation SHO threshold security, while it continues to experience high levels of short selling? The data shows there is obviously; a) incomplete NSCC versus clearing firm fails data, b) insufficient reported short interest/shares borrowed, c) fails internalized to clearing firms, which could substantially impact liquidity if they were required to be bought in, d) an unknown quantity of fails outside of the NSCC system that could massively impact redemptions, and e) false liquidity and excessive trading volume that can mislead managements' ability to evaluate a fund.

If an ETF operator evaluates a fund's liquidity based on false liquidity, incorrect data and unknown settlement liability, how can it determine the true valuation and liquidity of the ETF?

Just because there are shares trading in the marketplace, does not mean the volume is a reliable factor to use if it is made up of washed/matched type trading.

The market is not operating correctly when a security falls under Regulation SHO that was designed to stop abusive short selling, but the trading continues as shown in Tables 7, 8 and 9 above. This suggests ETFs have morphed into a world of their own where some are disconnected from the laws, rules and regulations governing the U.S. capital markets.

Obtaining a Proper Valuation

The above examples show a variety of factors in today's markets that, without having all of the information available, render it difficult to calculate a proper valuation of underlying assets and the actual real liquidity of an ETF (i.e. what makes up the full category of holistic liquidity beyond price and execution).

Below are some questions derived from the above example securities that should be considered by ETF operators in their current valuations under the 1940 Act:

1. How does the accelerated decrease in GLD assets under management affect the funds valuations when redemptions can so quickly drive down the asset pool?

2. How does the fund obtain a risk profile when the basic metrics are; virtually no net shares created for 414 trading days, despite trade volume of 48 billion shares, worth $8.2 trillion, with 65% short selling for the SPY? This is a major factor opposed to how these ETFs are supposed to operate, which is in theory like a pooled investment type mutual fund. The data suggests the lack of share creation is being offset by the amount of short selling, which is siphoning investor money away from the ETFs and underlying securities.

3. What is the proper valuation when there are 5 owners for 1 share and the additional redemption of those shares can render the existing shares of the XRT essentially valueless, with no liquidity left in the shares issued to accommodate the additional ownership claims?

4. How can the XRT operate when more shares are sold long than exist on some days and during one month trade volume turned over the average shares outstanding 38 times, when all of the existing shares were and remained owned by institutions reporting on SEC 13F filings?

5. There are important securities laws, rules and regulations that are not being complied with. When an ETF is sold short at an equal rate (or even a higher rate) after becoming a Regulation SHO threshold security and is clearly not receiving protection from abusive short selling and deviating from the natural supply and demand marketplace, how is the real level of liquidity determined?

6. When you have what appears to be a complete disregard for reporting, how do you know what data to use and whether it is accurate (garbage in = garbage out)?

5. Concerns About False Liquidity From Washed/Matched Type Trading

For some ETFs that are being high frequency traded, there appears to be fictitious liquidity caused by extensive washed/matched type trading that is distorting the appearance of supply and demand liquidity. It is unknown how much market volume is washed/matched, but it could be considerable.

This activity has a long history of being illegal and is normally designed to manipulate prices and entice others to participate in securities transactions they otherwise would not, absent the false interest indications/liquidity provided by the washed/matched type trades. On a large scale it is detrimental to the markets' integrity, fairness to investors and long-term health of the financial system. Washed/matched trading can also push legitimate market participants providing real liquidity away from the business of market making, clearly an undesirable result for other market participants.

If ETF operators are basing liquidity of their products on trading volume liquidity in the marketplace and a high percentage is washed/matched type trading, there is a false read as to the actual liquidity. In a stressed market, washed/matched trading will not be additive to the liquidity of the fund or its' underlying assets.

6. Concerns About False Pre-Execution Liquidity

For those ETFs with higher volumes that are being traded through high frequency trading ("HFT") strategies, the amount of spoofing/layering should also be considered in the fund's liquidity risk profile.

Illegal pre-execution HFT activity negatively affects the market by distorting the real amount of demand to purchase or sell a security and like washed/matched trading entices liquidity to come into the market that otherwise would not.

Operational risk for money managers, investment funds and others in the industry rises substantially when liquidity is removed from the market (1987 Black Monday and May 6, 2010

Flash Crash). False liquidity from excessive high frequency trading order placement/cancellations can magnify these risks in stressed market conditions.

An order cancellation is not designed to eliminate the expression of interest for trillions of dollars worth of securities; it is to deal with operational issues (i.e. cancel a mistaken order due to human error or changing orders to adjust to market conditions). When a HFT system is cancelling trades on a large scale, typically it indicates these cancels are programmed into the computer strategy with ***intent*** to order and cancel, referred to by various names including 'spoofing' (i.e. fictitious liquidity designed to create the appearance of market interest while influencing price direction and inducing others to purchase or sell securities).[41]

The amount of orders placed then cancelled in the data are distorting supply and demand. When this massive amount of orders and cancels are used as a trading strategy, it is disseminating false information into the marketplace, creating a false sense of supply and demand for securities and therefore distorting the funds' ability to gauge liquidity and actual valuations.

In our previous comment letters, we have discussed the MIDAS data in detail for ETFs and blue chip securities and have shown false pre-execution liquidity is occurring in ETFs across indexes and sectors.[42]

The SPY's sister fund based on the same underlying assets but operated by BlackRock, the iShares Core S&P 500 ETF (Symbol: IVV) is one example ETF that shows the magnitude of order cancellations found in the SEC's MIDAS data.[43] For the IVV, the rate of orders versus executions in the MIDAS data during a 1 year period examined equates to 1.2 million shares ordered/cancelled for each 1,000 shares executed. During the entire 250-trading day period examined there were **859 billion** IVV shares ordered with **858 billion** shares cancelled and only **719 million** shares executed. Each day, **3.4 billion shares were cancelled** and just **2.9 million were executed**, i.e. 99.9% of the orders were cancelled. For the IVV during one year, the trade volume in the MIDAS data equated to approximately **$113 billion** compared to the order volume/cancellations of **$127 trillion**.

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[41] Gregory Scopino, Special Counsel in the CFTC's Division of Swap Dealer & Intermediary Oversight, authored a legal article, stating: "The better approach is not to view high-speed pinging as a form of front running or insider trading, but as analogous to ***disruptive, manipulative, or deceptive trading practices***, such as banging the close (submitting a high number of trades in the closing period to influence the price of a contract), spoofing (submitting an order for a trade with the intent to immediately cancel it), or wash trading (self-dealing, or taking both sides of a trade), all of which are illegal."
The (Questionable) Legality of High-Speed "Pinging" and "Front Running" in the Futures Markets, Gregory Scopino, Connecticut Law Review February 2015, Volume 47 http://connecticutlawreview.org/files/2015/01/7-Scopino.pdf

[42] See *Section 8 – Operational Risk - Abusive High Frequency Trading* of the SEC Request for Comment on Exchange-Traded Products, *Response to SEC Questions Regarding Exchange Traded Products,* File Number S7-11-15 http://www.sec.gov/comments/s7-11-15/s71115-19.pdf

[43] While the MIDAS data is capturing a limited amount of the consolidated tape volume, it is illustrative in this case to show the end result of this non-bona fide market making activity undertaken by some high frequency traders.

Excessive order input with high levels of order cancellations indicates there is a large amount of false pre-execution liquidity in a security that should be taken into consideration by management when determining the liquidity (or lack thereof) of a fund.

7. Unit Investment Trusts Must Be Included in Liquidity Requirements

The SEC requested comment on whether Unit Investment Trusts should be excluded from proposed Rule 22e-4.

> *"Is there a significant risk that UITs (or a certain subset of UITs) may not be able to meet redemption requests?"*

While there are few ETFs that are UITs, the largest volume/value traded ETF in the world, the S&P 500 ETF (Symbol: SPY), is a UIT. The SPY is based on S&P 500 securities, which collectively with the SPY account for the majority of value trading each day in the U.S. markets. The SPY is constantly discussed as a 'plain jane' standard ETF and is a bell-weather ETF for the industry.

In addition to the SPY, the NASDAQ 100 ETF (Symbol: QQQ), SPDR Dow Jones Industrial Average Trust (Symbol: DIA) and the SPDR S&P MidCap 400 (Symbol: MDY) are all UITs. Each of these trusts are operating or generally thought to be operating as/like standard ETFs constituting the rest of the ETF universe. UITs should not be excluded from the liquidity requirements proposed by the SEC because they contain the same or more risks associated with redemption, valuation and liquidity as all other ETFs.

These could be even more risky than other ETFs because they are so large they literally could blow up the entire market if they have liquidity problems. To reiterate, the derivative products that are attached to these UITs have grown exponentially since the financial crisis. Not only are these UITs collectively some of the most popular ETFs, they have an unprecedented risk profile attached to derivative products, which could provide a significant amount of stress in a crisis market. Simply put, these UITs have become risky products because even though they have high levels of price and execution liquidity, the holistic view of their liquidity is questionable.

Moreover, if the SEC exempts UITs or other types of ETFs from the liquidity risk requirements proposed under Rule 22e-4, it may prompt more ETFs to find a way to become UITs rather than regular ETFs to avoid the more strict liquidity requirements.

8. Responsibility of Determining Liquidity Risk – Gatekeepers

The SEC asked several questions relating to the responsibilities for evaluating and monitoring a funds' liquidity risk:

> *"Who at the fund and/or the adviser is tasked with assessing the fund's liquidity risk? Who should be tasked with assessing the fund's liquidity risk? Should the proposed rule specify the officers or functional areas that should be tasked with assessing a fund's liquidity risk?"*

"Should the Commission require boards, including a majority of independent directors, to approve the initial liquidity risk management program, including the three-day liquid asset minimum?"

"Should the Commission require boards to approve material changes to a fund's liquidity risk management program, including any changes to a fund's three-day liquid asset minimum?..... Alternatively, should the Commission require boards to approve all changes to a fund's liquidity risk management program?"

All aspects of management, compliance and auditing should be responsible for reporting the ETF data. Unfortunately, ETFs have morphed into different trading vehicles than was originally expected to occur. The gatekeepers (i.e. boards, management, compliance personnel and auditors) have in essence allowed this to occur. For these reasons, they should all be responsible for reporting, which may be the only way that funds will become compliant with these requirements.

Above, we detailed several data points that suggest significant omissions of material facts is occurring. These omissions of risks are being withheld from ETF advertising, prospectus filings and other public disclosures. The trustees and fund operators have certain fiduciary duties to know the risks associated with their funds and disclose those risks to investors and the SEC.[44] Auditors are required to look for such risks and report risks to management for disclosure.

Especially in the case of a sophisticated ETF auditor, it should be very easy to determine that problems exist when no shares are being created for long periods of time and public filings show (like for the XRT) multiple owners claim the same shares. Actually, this should not be difficult for any of the ETF management team to understand.

An Automated Process

Liquidity risks and underlying asset liquidity should be calculated each day and the responsible parties for the fund should notify the SEC of any red flags.

The majority of the necessary data for funds to adequately monitor liquidity and risks is already publicly available. Perhaps the only data not easily obtainable by fund operators is the hidden positions within their Authorized Participants/clearing firms.

ETFs are a different financial instrument in that they use Authorized Participants to operate the fund, which is why the Authorized Participants should be transparent to the ETF operators. Authorized Participants have no obligation to create shares of an ETF; thus they could have large positions on their books that may come into play that are undisclosed to the ETF management. However, these positions should be accurately reported to the funds on a regular basis or the shares outstanding cannot be calculated correctly.

[44] SEC Release, *SEC Charges Advisory Firms and Portfolio Managers for Roles in Collapse of Midwest-Based Closed-End Fund*, December 19, 2012 http://sec.gov/news/press/2012/2012-272.htm

In order for a fund to properly evaluate risks, they must have all of the data and the industry must work together to provide that data.

For an ETF to have the fund-specific trading and settlement data submitted to it on a daily basis is not a monumental task. With the proper data in compatible formats, the entire liquidity and risk monitoring process for ETFs could easily become automated. The automated process could continuously monitor and red flag a fund's management when problems begin to arise in the valuation or true market liquidity.

Conclusion

The concept of ETFs based on indexes is a theory for a reasonable investment instrument and gives investors the opportunity to participate in the broader market by being able to buy and sell baskets of securities. The popularity of broader index-based ETFs proves they may be useful and financially successful products. However, they need to properly function. The fatal flaws within ETFs need to be corrected.

A product line such as ETFs should not function without the operators being constantly aware of the risks. Since operators are/will be fully aware of these risks on an ongoing basis, it should be/become part of their regular disclosure regime to investors and regulators. Further, the total history of shares created, redeemed and outstanding each day should be available to the market and investors reflecting the entire creation/redemption history of the ETF since inception.

Disclosure and transparency of investments is a vital part of the federal securities laws and the proper functioning of the U.S. markets. We have previously discussed the massive advertising campaigns for ETFs that do not clearly disclose the ETF facts and potential risks to investors.[45] The lack of disclosure creates operational and systemic risk for large and small investors, which is why investment transparency and full disclosure is so very important. When new financial products rapidly grow in number and value invested, careful consideration should be given as to the nature of the products' risks, the extent of marketing, to whom they are being marketed and ultimately who the products benefit (i.e. purchasers, sellers or short sellers).

The majority of systemic market risk comes from large U.S. ETF ***products*** run by sophisticated operators like BlackRock and State Street, which we believe know the above discussed facts and risks.

For years, ETF proponents have described the products as mutual funds that trade intraday. ETFs have been thought by regulators and the public to be pooled investments that gain in asset value as the investment pool grows, but many ETFs are not acting like mutual funds because they are not actually increasing their value by creating shares and purchasing underlying assets. This is not debatable, as the data comes from the ETF operators themselves.

[45] See *Section 3 – Marketing of ETFs to Retail and Other Investors* of the SEC Request for Comment on Exchange-Traded Products, *Response to SEC Questions Regarding Exchange Traded Products,* File Number S7-11-15 http://www.sec.gov/comments/s7-11-15/s71115-19.pdf

We believe the data has brought the SEC to the conclusion that these risks are real and very much at the forefront of its' focus. On the day before these comment letters were due, the SEC included the following in its' Examination Priorities for 2016:[46]

> "We will examine ETFs for compliance with applicable exemptive relief granted under the Securities Exchange Act of 1934 and the Investment Company Act of 1940 and with other regulatory requirements, as well as review the ETFs' unit creation and redemption process. We will also focus on sales strategies, trading practices, and disclosures involving ETFs, including excessive portfolio concentration, primary and secondary market trading risks, adequacy of risk disclosure, and suitability, particularly in niche or leveraged/inverse ETFs."

> "Liquidity Controls. Amidst the changes in fixed income markets over the past several years, we will examine advisers to mutual funds, ETFs, and private funds that have exposure to potentially illiquid fixed income securities. We will also examine registered broker-dealers that have become new or expanding liquidity providers in the marketplace. These examinations will include a review of various controls in these firms' expanded business areas, such as controls over market risk management, valuation, liquidity management, trading activity, and regulatory capital."

At the end of the day, the lack of disclosure of risks and the fact that some ETFs are not in compliance with their stated objectives or securities laws, rules and regulations, is what makes these fast-growing products so dangerous to investors and the marketplace.

If the above facts were clearly disclosed, investors would be able to make their own informed decisions. For example, if an investor knew there were 5 ownership claims for the same share, they would not likely purchase the ETF. Few ETFs would exist as the market would require them to be more like the products they are supposed to emulate, such as a mutual fund that trades during the day.

[46] SEC Office of Compliance Inspections and Examinations, Examination Priorities for 2016 http://www.sec.gov/about/offices/ocie/national-examination-program-priorities-2016.pdf