March 30, 2020

Vanessa A. Countryman  
Secretary  
Securities and Exchange Commission  
100 F Street, N.E.  
Washington, D.C. 20549-1090

Re: File Number S7-24-15  
Use of Derivatives by Registered Investment Companies and Business Development Companies; Required Due Diligence by Broker-Dealers and Registered Investment Advisers Regarding Retail Customers’ Transactions in Certain Leveraged/Inverse Investment Vehicles

Dear Secretary Countryman,

I am writing on behalf of the Consumer Federation of America (CFA) regarding the Commission’s re-proposal of its rule on funds’ use of derivatives and its new proposal regarding sales practices of leveraged and inverse exchange traded vehicles. First, we strongly oppose the re-proposal of the funds’ use of derivatives rule, as it would not meaningfully protect against the risks that funds would use derivatives in ways that are excessively speculative or that they operate without sufficient assets to cover potential derivatives-related losses. Rather than propose an approach that imposes clear limits on funds’ use of derivatives, such as the one it proposed in 2015, the Commission has opted instead for a largely permissive approach that defers to funds to assess their own derivatives-related risks and decide how to address them. We believe that this proposal will therefore amount to little more than a paperwork exercise for funds, whereby they won’t adequately assess or control their own derivatives-related risks, and investors will be left holding the bag. Such a regulatory approach would fail to fulfil the purposes and concerns underlying the Investment Company Act.

Second, while we commend the Commission for recognizing the need to address the risk that investors are misusing leveraged and inverse vehicles and being harmed as a result, and we

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1 CFA is a non-profit association of more than 250 national, state, and local pro-consumer organizations. It was formed in 1968 to advance the consumer interest through research, advocacy and education.  
are not in theory opposed to the sales practice rule that the Commission has proposed, the Commission has totally failed to provide any evidence that its proposed regulatory approach would serve its intended purpose.

Unfortunately, this rulemaking exemplifies this Commission’s eagerness to propose and adopt hollow, “industry knows best” rules without any serious consideration for how those rules would actually address real problems. Given the Commission’s utter lack of serious economic analysis in this regard, there’s no reason to believe they would succeed.

The Commission should go back to the drawing board and propose a regulatory solution that adequately protects investors, rather than one that is likely to mollify the fund industry. The Commission should also undertake serious economic analysis that attempts to explain the real impacts of its proposals, rather than ignore and deflect these important issues, as the Commission has done here.

I. Background on how funds use derivatives and the risks that such practices pose to investors.

As we detailed in our March 2016 comment on the Commission’s previous proposal to regulate funds’ use of derivatives, registered investment companies, including mutual funds and ETFs, are the preferred investment vehicles for most investors, and specifically, most retail investors. Investors routinely use these funds to save for retirement, college, or other important savings goals. However, many of the funds that are marketed and sold to investors today look very different from those that were marketed and sold to investors just twenty years ago.

As the derivatives market has grown in volume and complexity over the last two decades, there has also been a growth in registered funds’ use of derivatives. While many funds use derivatives to hedge certain risks, others use derivatives to engage in a range of complex and, in some cases, highly leveraged “hedge fund-like offerings structured as so-called ’40 Act funds,” according to McKinsey. Hedge fund-like offerings packaged as registered funds can include, for example, managed futures funds, options trading funds, unconstrained bond funds, long-short funds, market-neutral funds, global macro funds, arbitrage funds, and double and triple leveraged and inverse ETFs, among others.

The number of funds engaging in these strategies and the assets under management have grown at a considerable pace in the last decade. For example, in 2010, there were only about 590 alternative strategy funds, with around $320 billion in assets under management. However, by the end of 2014, there were more than 1,100 alternative strategy funds, with total assets under management in excess of $469 billion, according to a 2015 DERA whitepaper on the use of derivatives by registered investment companies. More recent data suggests that the amount of assets in liquid alternative ETFs and mutual funds has grown considerably, with one estimate at

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$700 billion, as of 2019. We are unable to provide precise numbers because the Commission did not update the previous analysis DERA put out, which strikes us as a significant oversight in assessing the size and nature of this market.

But we do know, based on the Commission’s analysis of Form N-Port, that roughly 41% of funds use derivatives in some way and that 14% of funds hold derivatives with greater than 50% notional value relative to fund assets. Assuming there are roughly 11,350 funds (open-end mutual funds and ETFs, and closed-end funds), this suggests that more than 4,650 use derivatives in some way and that close to 1,600 funds use derivatives extensively, holding more than 50% notional exposure. We are unable to provide precise figures because the Commission, for reasons not explained here, didn’t provide them in its analysis.

Alternative strategy funds that use derivatives are among the many investments that are increasingly marketed and sold to retail investors based on claims that emphasize potential benefits, but not the risk of these strategies. For example, providers claim they “may help lower volatility, enhance returns and broaden diversification.” According to BlackRock’s website, for example, “Individual investors have greater access to alternatives than ever before due to innovations in product structures. Open-end mutual funds, for example, have either no or low barriers to investing. Other structures, such as registered closed-end funds and unregistered funds, have some limits on who can access them.”

Moreover, the advent and growth of ETFs, which require no investment minimums and are widely available on brokerage platforms, has made many complex strategies widely available to retail investors. According to ETF.com, for example, there are currently 43 “hedge fund ETFs” traded in U.S. markets, 28 of which are long/short ETFs. The World Economic Forum has predicted that, “This ‘retailization’ trend will be a key driver of growth in the alternatives industry in coming decades,” with “the potential to redefine and broaden the pool of investors in alternatives.”

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7 Release at 254.


9 Id.


11 ETF.com, Hedge Funds ETF Channel, Hedge Funds ETF Overview, [https://bit.ly/2xpLyQD](https://bit.ly/2xpLyQD) (last visited March 26, 2020) (We recognize that hedge funds can’t legally be offered in an ETF wrapper. We are merely illustrating how they are characterized.).


Given the fact that registered funds are the preferred investment vehicles for retail investors and these investors are able to gain exposure to hedge fund-like strategies that use derivatives extensively through these funds, it’s critical to safeguard these investors from the significant risks that can result from funds’ use of derivatives. These risks can include taking on heightened leverage that exposes a fund and its investors to the possibility of immediate and unexpected losses, illiquidity, counterparty risk, and operational risk, among others.

Unfortunately, as we’ve seen time and time again, even some of the most sophisticated investors with unmatched expertise in using derivatives have proven incapable of using derivatives prudently.\(^\text{14}\) We have also seen that when derivatives are not used prudently, they can cause extreme damage and devastating losses. While the most high-profile derivatives-laced disasters have been in the hedge fund and bank context, recent examples in the registered fund context have shown that these concerns are not limited to those contexts. Indeed, as the below examples show, fund managers have used derivatives in ways that have significantly increased risks to the funds and their investors, and the funds and their investors have suffered the sudden and extreme losses that resulted when those risks became apparent.

In February 2018, for example, LJM Preservation and Growth Fund, an open-end fund that bought and sold a combination of put and call options contracts, suffered sudden and severe losses.\(^\text{15}\) According to the Securities Litigation and Consulting Group (SLCG), LJM was implementing a risky trading strategy called a “short strangle,” which was both long and short, effectively betting that market volatility would not increase significantly. However, when the stock market did experience dramatic swings and volatility increased, the fund’s risky bets turned out to be very wrong. As a result, the fund and its investors lost over 80% of their value in just a few days, and the fund shut down.\(^\text{16}\)

According to the fund’s investment manager, Anthony Caine, in a letter to investors, the losses were unexpected. “Volatility and options markets experienced an extreme outlier event,” Cain wrote.\(^\text{17}\) “Monday’s losses were so severe because as volatility spiked exponentially in the afternoon, the illiquidity in the markets severely limited LJM’s ability to reduce risk,” he continued.\(^\text{18}\) Moreover, according to a Financial Times article following the disaster, “On its website, LJM says that risk management is a ‘key component’ of its strategy, adding: ‘LJM Funds enter into specific risk-mitigation trades in an effort to mitigate losses during extreme

\(^{14}\) See, e.g., Long Term Capital Management (Robert M. Merton and Myron B. Scholes founded Long Term Capital Management and received the Nobel prize in 1997 for their work that expanded on the Black-Scholes options pricing model. Long Term Capital Management collapsed a year later due to derivatives-related losses, and required a private bailout to limit the risk of contagion); See also AIG, Lehman Bros., JPMorgan London Whale, to name a few. While none of these examples arose in the registered fund context, they are still relevant to showing the substantial risks derivatives can create for even the most sophisticated investors.


\(^{16}\) Trevor Hunnicutt, Exclusive: LJM Partners shutting its doors after 'vol-mageddon' losses in U.S. stocks, REUTERS, February 28, 2018, [https://reut.rs/39jRELr](https://reut.rs/39jRELr).

\(^{17}\) Id.

\(^{18}\) Id.
events.”\textsuperscript{19} Further, according to the \textit{FT} article, “The [portfolio manager] described to us several processes he had in place at the open-end fund that would limit losses,” said Gretchen Rupp, an analyst at Morningstar.\textsuperscript{20} “We discussed the risk management process with the PM and their risk officer at length. Clearly, the process failed.”\textsuperscript{21} Thus, this appears to be a situation where a highly sophisticated derivatives user, who had implemented a risk management process, engaged in a complex and risky derivatives strategy that faced sudden, unexpected, and extreme losses, and those losses were passed on to retail investors.

In another recent example, Catalyst Hedged Futures Strategy Fund engaged in another type of strategy of buying and selling options on the S&P 500, hoping to benefit from relatively stable markets. But the fund’s bets backfired in a fast-rising market, and the fund lost more than $700 million, or roughly 20%, in net asset value from December 2016 through February 2017.\textsuperscript{22} According to the fund adviser’s CEO, “We’ve had a pretty unprecedented market run here, and the volatility is at record lows,” said Jerry Szilagyi of Catalyst Capital Advisors.\textsuperscript{23} “This is the type of market that is the worst type of environment for the fund,” he continued.\textsuperscript{24}

Edward Walczak, the portfolio manager who ran the Catalyst Hedged Futures Strategy Fund, was no stranger to derivatives use. He had used this options strategy for more than a decade, with great success, beating the S&P 500 by about two percentage points a year, according to Morningstar. “These aren’t circumstances that happen very often,” he said.\textsuperscript{25} Thus, this appears to be another situation where the fund’s personnel were highly sophisticated and had assessed the risk associated with their strategies, but their strategies blew up when faced with unexpected events in the market. Ultimately the fund agreed to pay $10.5 million to settle regulatory claims that it misled investors about its procedures for limiting losses.\textsuperscript{26}

The Release highlights other recent examples of funds using derivatives in ways that have resulted in rapid and substantial losses for the funds and their investors.\textsuperscript{27}

- OppenheimerFunds: Two mutual funds suffered losses driven primarily by their extensive exposure to commercial mortgage-backed securities, obtained mainly through

\textsuperscript{19} Joe Rennison, \textit{Fast-growing mutual fund is victim of market turbulence}, \textsc{Financial Times}, February 8, 2018, https://on.ft.com/3bAW0zn. Furthermore, the fund claimed that its option trading strategy acted as a form of risk mitigation for the fund. See LJM Preservation and Growth Fund Prospectus, February 28, 2017, https://bit.ly/3bE6Ns ("The fund aims to preserve capital, particularly in down markets (including major market drawdowns), through using put option spreads as a form of mitigation risk.").

\textsuperscript{20} \textit{Id}.

\textsuperscript{21} \textit{Id}.


\textsuperscript{23} Chris Dieterich and Gunjan Banerji, \textit{Fund’s $600 Million Lost Week Captivates Traders}, \textsc{Wall Street Journal}, February 16, 2017, https://on.wsj.com/2UJH5vX.

\textsuperscript{24} \textit{Id}.

\textsuperscript{25} \textit{Id}.


\textsuperscript{27} See Release at 16, note 22. The settlements were largely based on the fund’s misrepresentations or omissions, not their taking on excessive risk or failing to appropriately manage risk.
total return swaps (TRS). Both funds had to raise cash for anticipated TRS contract payments by selling depressed bonds into an increasingly illiquid market in 2008.

Notably, the funds had a risk management program, but it proved insufficient to protect against devastating losses. Specifically, in late 2008, the funds’ exposure to CMBS through TRS caused the funds to exceed certain internal risk limits. One of the funds, however, was reluctant to “lock in losses” on their TRS contracts, believing that the CMBS market would rebound, and fund management allowed the funds to maintain their elevated risk levels. Later, management urged the funds to comply with a risk-reduction plan. By that time, however, it was too late. As the funds began attempting to trim risk, the CMBS market’s collapse accelerated, which created staggering liabilities.28

- Fiduciary/Claymore Dynamic Equity Fund: A registered closed-end fund pursued an investment strategy involving written out-of-the-money put options and short variance swaps. While the fund’s strategy was initially profitable, the fund was highly exposed to potentially significant losses in the event of steep market declines or higher than expected market volatility. Based on the consent order, it appears that the fund had inaccurately assessed its value-at-risk (VaR). Specifically, the fund estimated its position had a potential loss of approximately 17.5% of the fund’s value. Further, according to the fund’s internal research and analysis, such declines were expected to be infrequent. However, when financial markets declined rapidly and became very volatile in the fall of 2008, the fund stuck with its strategy and experienced sudden and substantial losses. By the end of October 2008, the fund lost almost 73% of its NAV.29

- UBS Willow Management: A registered closed-end fund incurred significant losses due in part to significant losses stemming from the fund’s credit default swap (CDS) portfolio. The CDS portfolio became the primary driver of the Fund’s performance from the fall of 2008 until the fund’s board of directors liquidated the fund in 2012. Moreover, because of its inherent synthetic leverage, the CDS portfolio amplified the fund’s profits and losses, making the fund more volatile. Notably, the fund’s advisor stress tested the portfolio but did not inform the fund’s board of directors or investors of stress test results showing large potential CDS losses.30

- Team Financial Asset Management (TEAM) Fund: A mutual fund incurred substantial losses arising out of its extensive investment in futures, options, and currency contracts, representing over 100% notional exposure of the fund’s NAV. The fund then switched its strategy and began short selling equities in massive amounts. As time went on, the TEAM Fund increased its use of these derivatives and exposed more and more of the fund’s assets to greater leverage risks. However, those bets didn’t pay off, and instead

contributed to significant losses in 2012 and 2013, to the tune of 80% in net assets. 72% of the losses were due to the fund’s derivatives trading. Notably, the fund did not adopt or implement any risk management policies and procedures or internal controls for monitoring and controlling for derivatives-related risks. Nor did the fund’s adviser provide the board with a full picture of his use of derivatives or the fund’s risk profile.\(^{31}\)

- **Z Seven Fund**: A mutual fund engaged in a speculative strategy of buying a significant amount of options. The notional value of the option positions was 17.9 times the value of ZSF’s equity portfolio. Ultimately, the strategy backfired and the fund lost about 69% of its assets within 15 months before liquidating in 2010. \(^{32}\)

### II. The purposes and concerns underlying the Investment Company Act relating to funds’ use of derivatives are not being fulfilled under current Commission policy.

The Investment Company Act (Act) imposes strict restrictions on funds’ activities that are designed to protect investors. Among them, Section 18 of the Act imposes various limitations on the capital structure of funds, including restricting the ability of funds to issue “senior securities.” Congress’ findings and declaration of policy underlying Section 18 make clear that Congress was concerned with the potential for investment companies, through excessive borrowing, to engage in undue speculation and operate without sufficient assets to cover potential losses.\(^{33}\) Accordingly, Congress declared it to be in the national public interest and the interest of investors for the Act to be interpreted “to mitigate and, so far as is feasible, to eliminate” these concerns.\(^{34}\)

While Section 18 does not explicitly refer to funds’ use of derivatives, the concerns are the same. Funds can use derivatives in ways that create the same risks of excessive borrowing that the issuance of senior securities create. Both types of borrowing can magnify the fund’s leverage risk and create the possibility that the fund operates without a sufficient cushion to cover potential losses, as the above examples clearly illustrate.

Despite the concerns and purposes underlying Section 18, the Commission’s current approach to regulating funds’ use of derivatives allows funds to take on substantial leverage without any meaningful constraints and to operate without sufficient assets to cover potential derivatives-related losses. The Commission first issued a General Statement of Policy (Release 10666), which formed the basis for the Commission’s approach to regulating funds’ use of derivatives, in 1979. This approach required funds to segregate assets to cover potential liabilities. The Commission reasoned that if segregated accounts were “properly created and maintained,” it “would limit the investment company’s risk of loss.”\(^{35}\) The Commission also stated that the segregated account would function as “a practical limit on the amount of leverage

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\(^{33}\) Section 1(b)(7) and 1(b)(8) of the Investment Company Act.

\(^{34}\) Id.

which the investment company may undertake and on the potential increase in the speculative
character of its outstanding common stock” and that it would “assure the availability of adequate
funds to meet the obligations arising from such activities.”

Since 1979, however, the Commission staff have issued a patchwork of no-action letters
applying Release 10666 to different derivative transactions. This ad-hoc, instrument-by-
instrument approach has created a lack of clarity about how Release 10666 should apply to
different derivative arrangements. Without clear guidance on how to treat the full range of
derivatives transactions, different funds have reached their own varying interpretations of how
they should apply Release 10666 to their particular situation. Predictably, funds have used this
flexibility to take on substantial leverage without any meaningful constraints or protections
against losses. In other words, the Commission’s current approach to regulating funds’ use of
derivatives does not ensure that segregated accounts are “properly created and maintained,” nor
does it ensure that funds’ segregation practices function as “a practical limit on the amount of
leverage which the investment company may undertake and on the potential increase in the
speculative character of its outstanding common stock.” Likewise, it does not “assure the
availability of adequate funds to meet the obligations arising from such activities.” Thus, the
Commission’s current approach does not effectively “limit the investment company’s risk of
loss,” as Release 10666 originally intended.

In short, the Commission’s current approach to regulating funds’ use of derivatives does
not achieve the purposes originally outlined in 10666, nor does it adequately address the
concerns underlying Section 18. Under the current regulatory regime, funds are able to engage in
derivatives practices that are unduly speculative, without sufficient assets to cover potential
losses. When a fund uses derivatives in ways that are unduly speculative or that result in the
fund’s not having sufficient assets to cover its losses, the fund exposes its investors to the risks of
experiencing sudden and severe losses. Moreover, the Commission’s ad-hoc, instrument-by-
instrument approach to applying Release 10666 to different derivatives also makes it difficult for
the Commission to effectively examine funds to ensure compliance with Release 10666 and its
progeny. These deficiencies have resulted in a lack of adequate regulatory protections for
investors of funds that use derivatives.

III. The Commission’s 2015 proposed regulatory approach to funds’ use of derivatives
would have fulfilled the purposes and concerns underlying the Investment Company
Act.

In 2015, the Commission proposed a clear and comprehensive framework that sought to
put prudent safeguards in place to ensure that funds limit their use of derivatives and operate
with sufficient assets in order to meet current and potential obligations. First, that proposal would
have required funds to comply with clear portfolio exposure limits to prevent funds from taking
on excessive leverage and from engaging in undue speculation. Under the first alternative
portfolio limitations, a fund would have been limited to accumulating a notional exposure of up
to 150 percent of net assets. Under the second alternative portfolio limitation, a fund would have
been limited to accumulating a notional exposure of up to 300 percent of net assets, provided the
fund complied with a value-at-risk-based test showing that the fund’s derivatives transactions, in

36 Id.
aggregate, would result in an investment portfolio that would be subject to less market risk than if the fund did not use such derivatives.

In addition to the proposed alternative portfolio exposure limits, funds also would have been required to maintain a sufficient cushion of segregated assets to cover any reasonably foreseeable losses that could occur from their derivatives transactions. It proposed to do so in a way that would have provided a functional limit on derivatives exposure, thus addressing the particular concerns that Release 10666 sought to address. Finally, funds that took on more than a limited amount of derivatives exposure or that used complex derivatives would have been required to establish a formalized derivatives risk management program to help ensure that they would use derivatives as intended.

While none of the previously proposed conditions on funds’ use of derivatives alone, in our view, would have been adequate to protect against the risks underlying the Act, they would have complemented and reinforced one another to effectively address the policies and concerns underlying the Act. In short, this comprehensive approach was appropriate given the significant and unexpected risks derivatives can pose to funds and their investors. At the same time, the proposal would have achieved these goals while still allowing funds the flexibility to take on a considerable amount of derivatives exposure. This would have enabled them to pursue different investment strategies and accomplish different investment objectives, including hedging and reducing risk.

To be sure, certain uses of derivatives would have been deemed impermissible under the previously proposed rule. We viewed that as a benefit, as we believe exotic hedge fund-like strategies that use extensive leverage were never intended to occur within the registered fund context. Those strategies are more appropriately reserved for the unregistered space where, at least in theory, investors are sophisticated, can withstand losses resulting from risky strategies, and are able to access information that would enable them to make informed investment decisions.37

Unsurprisingly, what we considered a positive feature of the previous proposal -- that it would have constrained certain fund practices -- industry participants who use derivatives extensively considered a bug. Accordingly, they vehemently opposed that previous proposal. Rather than stand firm against this industry opposition, the Commission backed down and instead has proposed this largely permissive approach that defers to funds to assess their own derivatives-related risks and decide how to address them. Such an approach is likely to mollify the industry in a way the previous proposal did not precisely because it is unlikely to force them to adopt meaningful changes to their derivatives use practices.

37 In practice, this is not the case and the Commission continues to make the problem worse. See Letter from Barbara Roper and Micah Hauptman, CFA, to the SEC, Concept Release on Harmonization of Securities Offering Exemptions, October 1, 2019, https://bit.ly/3bGJ6zV; See also Letter from Barbara Roper and Micah Hauptman, CFA, to the SEC, Amending the “Accredited Investor” Definition, March 9, 2020, https://bit.ly/33PMyoP.
IV. This proposed regulatory approach, in contrast to the Commission’s 2015 proposal, would not fulfill the purposes and concerns underlying the Investment Company Act.

The Commission has proposed a weak regulatory approach that would not meaningfully protect against the risks that funds would use derivatives in ways that are excessively speculative or without sufficient assets to cover potential derivatives-related losses. First, the proposal relies excessively on value-at-risk (VaR) assessments, despite the fact that we know VaR is a notoriously poor predictor of fund’s leverage risk and their potential liabilities. Moreover, it appears that the proposed VaR tests as applied won’t curtail existing fund practices. Second, the proposal includes no requirement to segregate assets. Thus, funds may continue to operate without sufficient assets to cover potential derivatives-related liabilities, including those that don’t appear in their VaR test. Third, the requirement for funds to implement a written derivatives risk management program is insufficient to cure the clear deficiencies of the Commission’s proposed VaR approach. It is likely that this proposal, if adopted, will become little more than a paperwork exercise. It won’t reduce derivatives-related risks that currently exist in the market or decrease the likelihood that funds would use derivatives in risky ways that end up harming investors.

A. This proposal relies excessively on VaR, which is a notoriously poor predictor of a fund’s leverage risk and potential liabilities.

VaR is intended to measure the potential likelihood of loss on an instrument or portfolio over a specified time horizon and at a given confidence level. However, VaR is notorious for failing to predict both the likelihood of certain derivatives-related losses occurring and the potential losses that result when certain derivatives-related losses occur. In our previous comment, we highlighted the deficiencies of a value-at-risk (VaR) approach. We made clear that even a well-designed VaR test would be insufficient on its own to prevent funds from engaging in undue speculation. Therefore, we argued, it was imperative that the Commission preserve the clear 150% portfolio limit based on notional exposure to ensure that, if and when a fund’s VaR turned out to be wrong, which is inevitable, the fund and its investors would not be excessively exposed to losses. Without such a ceiling, funds could obtain vast amounts of derivatives exposure that comply with a VaR test during certain periods, but which are nonetheless unduly speculative and expose the portfolio to devastating losses during periods of unexpected market stress.

According to Professor of Finance at the Stern School of Business at New York University Aswath Damodaran, “While Value at Risk has acquired a strong following in the risk management community, there is reason to be skeptical of both its accuracy as a risk management tool and its use in decision making.”38 The reasons to be skeptical of VaR are discussed below.

1. VaR does not predict the kinds of risks derivatives can create and exacerbate

The Commission readily concedes that VaR is not a reliable predictor of leverage or tail risk. First, the Commission states, “We recognize that VaR is not itself a leverage measure.”\(^{39}\) It continues, stating, “we recognize risk literature critiques of VaR (especially since the 2007-2009 financial crisis). One common critique of VaR is that it does not reflect the size of losses that may occur on the trading days during which the greatest losses occur—sometimes referred to as ‘tail risks.’”\(^{40}\) The Commission further acknowledges that, “VaR will not provide, and is not intended to provide, an estimate of an instrument or portfolio’s maximum loss amount. For example, if a fund’s VaR calculated at a 99% confidence level was $100, this means the fund’s VaR model estimates that, 99% of the time, the fund would not be expected to lose more than $100. However, 1% of the time, the fund would be expected to lose more than $100, and VaR does not estimate the extent of this loss.”\(^{41}\)

In such circumstances, there could be a 1% chance that the fund would lose $101, but there could also be a 1% chance that the fund could lose $101 million. Clearly, these different possibilities would have radically different results on fund outcomes. The first could be a minor annoyance for the fund and its shareholders. The second could force the fund to sell depressed assets to meet payment obligations, or it could wipe out the fund’s entire investment. VaR doesn’t even consider what the likelihood of those possibilities is and how much that would impact the fund and its investors should either of these possibilities occur. This question is not merely theoretical. Assuming 250 trading days a year, if the models are working as intended, which as discussed below is a big assumption, it’s expected that a 99% VaR will yield between two and three VaR breaches every year. What happens on those two to three days is unknowable. That should terrify the Commission.

Because VaR doesn’t consider potential loss scenarios outside of a particular confidence level, VaR has the potential to create distortions in fund practices. Specifically, it could create incentives for fund managers to take excessive risks that are not likely to be captured in their VaR model. For example, a fund manager may know that certain derivatives strategies could be extremely risky under certain conditions but highly unlikely to occur. Because they are highly unlikely to occur, they wouldn’t be captured in the fund’s VaR test under the VaR model’s stated confidence level. That manager would therefore have an incentive to undertake those very risky strategies instead of less risky strategies that are more likely to occur and more likely to be captured in the fund’s VaR model. We wonder why the Commission would promulgate a rule that is not only unlikely to spot critical risks but also likely to encourage excessive risk-taking. Yet the Commission’s reliance on a VaR approach may do just that.

The Commission is not ignorant of these concerns. It states that, “a related critique is that VaR calculations may underestimate the risk of loss under stressed market conditions.”\(^{42}\)

\(^{39}\) Release at 92.

\(^{40}\) Release at 93.

\(^{41}\) Release at 91.

\(^{42}\) Release at 94, note 183 (quoting Philippe Jorion, \textit{Value at Risk: The New Benchmark for Managing Financial Risk} (3d ed. 2006) (VaR “quantifies] potential losses under ‘normal’ market conditions, where normal is defined by the confidence level, typically 99 percent. . . . In practice, [VaR] measures based on recent historical data can fail to identify extreme unusual situations that could cause severe losses.”).
Commission further acknowledges that, “In times of extreme market stress, price correlations between asset classes frequently break down…During periods of stressed conditions, correlations between asset classes with historically weak or inverse correlations may change significantly.”

The Release cites evidence, for example, showing that during the 2008 financial crisis, the 30-day correlation between S&P 500 prices and 10-year Treasury yields showed equity and bond markets, typically inversely correlated markets, moving in lockstep, and that during the 1998 Russian financial crisis, the average correlation between five-day changes in yield spreads for 26 instruments in 10 economies rose from 11% in the first half of 1998 to 37% during the height of the crisis. Thus, just when a fund is most at risk of losses, its VaR model, which is critical to assessing and managing risk, is unlikely to hold up.

Real world experience in the fund context validates and underscores these concerns. For example, as discussed above, LJM suffered sudden and severe losses when volatility and options markets “experienced an extreme outlier event.” This appears to be the result of the fund’s being exposed to multiple types of derivatives with different payoff structures that, when combined, increased the risk that an unexpected event would cause those derivatives to interact in a way that was never expected. Similarly, Catalyst Hedged Futures Strategy Fund suffered sudden and extreme losses after it bet in the wrong direction on the market and the market then went in the opposite direction. As discussed above, the CEO said that the market run was “pretty unprecedented” and that “these aren’t circumstances that happen very often.”

In another recent example discussed above, the Claymore Dynamic Equity Fund, apparently relying on VaR assessments, estimated that it had a potential loss of approximately 17.5% of the fund’s value, but that such declines were expected to be infrequent. But when the markets did experience unexpected and rapid declines and became very volatile, the fund lost almost 73% of its NAV, well outside the fund’s estimated VaR. In short, during times of stress, when funds are likely to suffer the most and when the risks of derivatives’ compounding those stresses are the highest, VaR is unreliable if not entirely useless.

The Commission also concedes that VaR does not capture other risks, including counterparty and liquidity risk, that a fund’s use of derivatives transactions may create. Counterparty and liquidity risk are significant factors in the use of derivatives. Yet rather than conclude, based on these inherent deficiencies, that VaR is unreliable and inappropriate for use in this context, the Commission emphasizes that the derivatives risk management program component of the rule will somehow pick up the slack and address these concerns because the program would require a fund that uses derivatives “to consider these risks as part of its

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43 Release at 145, note 268.
44 Id.
46 Chris Dieterich and Gunjan Banerji, Fund’s $600 Million Lost Week Captivates Traders, WALL STREET JOURNAL, February 16, 2017, https://on.wsj.com/2UJH5vX.
48 Release at 94.
derivatives risk management program.”\footnote{Id.} Saying that funds would have to “consider” these risks, with nothing more, is not a serious response.

It is unreasonable that the Commission would propose a regulation that its own analysis and real-world experience both clearly show is unlikely to be effective in protecting investors from risk.

2. VaR models themselves can be faulty

Another deficiency of VaR is that it is typically based on different economic models. Depending on the VaR model that is chosen, it can yield different and potentially misleading results for different types of derivatives used. The Commission readily acknowledges this deficiency, stating, for example, “some parametric methodologies may be more likely to yield misleading VaR estimates for assets or portfolios that exhibit non-linear returns, due, for example, to the presence of options or instruments that have embedded optionality.”\footnote{See Release at 124, note 243; Release at 119, note 228 (“[I]f a fund invested significantly in options, it generally would not be appropriate to use certain parametric VaR models. The fund might instead use Monte Carlo simulation, which is more computationally intensive and takes more time to perform.”).} The Commission concludes that, “if a fund invested significantly in options, it generally would not be appropriate to use certain parametric VaR models.”\footnote{Release at 123-124.} Even as it acknowledges this risk, the Commission does nothing to address it.

3. VaR inputs and assumptions can be faulty

In addition, VaR models are calculated using different inputs and assumptions, which can materially affect the resulting VaR calculations.\footnote{Joe Nocera, 	extit{Risk Mismanagement}, NEW YORK TIMES MAGAZINE, January 2, 2009, \url{http://nyti.ms/1MN901K} (Marc Groz, a risk consultant, referred to VaR inputs by saying, “The old adage, ‘garbage in, garbage out’ certainly applies.”).} According to Aswath Damodaran, “The end-result is that the Value at Risk that we compute for an asset, portfolio or a firm can be wrong, and sometimes, the errors can be large enough to make VaR a misleading measure of risk exposure.”\footnote{Aswath Damodaran, 	extit{VAR}, NYU STERN SCHOOL OF BUSINESS, \url{http://bit.ly/1VQ6or1}.}

There are a number of ways in which VaR can be wrong based on flawed inputs and assumptions:

\begin{enumerate}
\item[a)] Return distributions may not reflect reality

First, every VaR measure makes assumptions about return distributions which, if violated, result in incorrect estimates of the value-at-risk. Delta-normal estimates of VaR, for example, assume that the multivariate return distribution is the normal distribution. Yet “there is substantial evidence that returns are not normally distributed and that not only are outliers more common in reality but that they are much larger than expected, given the normal distribution,” according to Damodaran. As a result, Damodaran highlights Mandelbrot’s criticism that firms that use VaR can be “under prepared for large and potentially catastrophic events that are
extremely unlikely in a normal distribution but seem to occur at regular intervals in the real world.”

b) History may not predict the future

Next, all VaR measures use historical data to predict the likelihood of future risk and losses, despite the fact that the past may not provide any meaningful predictive value of future risk and losses. This is particularly the case when the period of historical data used is limited. According to Damodaran, “if that time period was a relatively stable one, the computed Value at Risk will be a low number and will understate the risk looking forward. Conversely, if the time period examined was volatile, the Value at Risk will be set too high.” The Release concedes this point, acknowledging that “periods of unusually high or low volatility could result in unusually high or low VaR estimates,” yet does not reflect that concern in its proposed regulatory approach.

Again, we have real world evidence to validate these criticisms. According to Damodaran, for example, a portfolio manager or corporation that determined its oil price VaR based upon 1992 to 1998 data, where oil prices were stable, would have been exposed to much larger losses than expected over the 1999 to 2004 period, when volatility returned to the market. Similarly, “in mid-2007, the VaR of the big Wall Street firms was relatively quite low, reflecting the fact that the immediate past had been dominated by uninterrupted good times and negligible volatility.” Yet, according to the Federal Reserve Board Staff, “the banks’ risk measures appeared to give little forewarning of the loss potential and the high frequency and level of realized losses during the crisis period.” As the risk consultant Marc Groz put it best, “The years 2005-2006, which were the culmination of the housing bubble, aren’t a very good universe for predicting what happened in 2007-2008.” In sum, with VaR, you are looking backward more than you are looking forward, and as the Commission well knows, past performance is no guarantee of future results.

c) VaR models are susceptible to manipulation

Because VaR calculations are dependent on the models used, the inputs and assumptions made, and the inherent discretion that flows from those determinations, VaR is susceptible to manipulation. The best recent example is the JPMorgan London Whale trading scandal, in which the bank changed its VaR methodology in order to “dramatically lower” its risk profile by 50

54 Id.
55 Id.
56 Release at 121.
59 Joe Nocera, Risk Mismanagement, NEW YORK TIMES MAGAZINE, January 2, 2009, http://nyti.ms/1MN901K (Groz stated, “When you realize that VaR is using tame historical data to model a wildly different environment, the total losses of Bear Stearns’ hedge funds become easier to understand. It’s like the historic data only has rainstorms and then a tornado hits.”). See also Pablo Triana, VaR: The Number That Killed Us, FUTURES MAGAZINE, December 1, 2010, https://bit.ly/2WO0p0PK.
percent. This effectively masked the significant increases in derivatives risk in the bank’s portfolio, which allowed the bank to take on tens of billions of dollars in new credit derivatives, increasing the risk to the bank’s portfolio. The bank told investors that the bank made “constant changes and updates to models, always trying to get them better.” Those statements were proven to be false and misleading, but only after the bank lost more than $6 billion. And even then, it took a Senate investigation to understand why and how the bank kept changing its VaR model.

4. **If VaR is so unreliable, why do regulators and market participants rely so heavily on it? Because it feels good and allows self-regulation to displace other, more effective regulatory approaches.**

   It may feel good for regulators to rely on VaR as a measurement of risk. It is, after all, a simple, single measurement that industry participants and regulators can point to in order to take solace at the idea that they are solving a problem, in this case, assessing and managing risk. According to University of California at Irvine Professor of Political Science Erin Lockwood, market participants rely on VaR so heavily because it allows them to fashion themselves “as authoritative, responsible managers of an uncertain financial future.”

   According to Lockwood, reliance on VaR as a viable regulatory solution also serves the industry's goal of preserving a weak self-regulatory framework instead of facing stronger and more prescriptive alternative regulatory approaches. Under this self-regulatory framework, market participants are able to create a system in which they are in charge of assessing their own risk, based on their own VaR models, assumptions and inputs, which they know regulators will be loath to second-guess. But the predictable results of this self-regulatory approach, according to Lockwood, are the misrepresentation of risk, greater vulnerability to crisis, and changes in behavior by the users of VaR, in potentially unpredictable ways.

B. **Relying so heavily on VaR without any other meaningful constraints would not protect against the risks that funds would use derivatives in ways that are excessively speculative or without sufficient assets to cover potential derivatives-related losses.**

   Given the concerns about VaR, discussed above, we are troubled that the Commission has chosen to rely so heavily on it in this rulemaking. With few limitations, the Commission places discretion in the derivatives risk manager to implement VaR as they see fit. We fear that this largely self-regulatory framework would create a false sense of security that the Commission has adequately addressed the concerns regarding funds’ use of derivatives when it has not.

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62 Id.
63 Id.
First, the proposal defers to the fund’s derivatives risk manager to choose whatever VaR model they think is appropriate. The Commission states, “We believe it should be the responsibility of the derivatives risk manager to choose the appropriate VaR model for the fund’s portfolio, and the proposed requirement is designed to allow funds to use a VaR model that is appropriate for the fund’s investments.”64 The Commission proposes to adopt this approach despite the fact that it readily acknowledges that certain VaR models are inappropriate for certain uses.

Next, the proposal defers to the derivatives risk manager to determine the inputs and assumptions they think are most appropriate for their VaR models. Specifically, it merely requires that the manager “take into account and incorporate all significant, identifiable market risk factors associated with a fund’s investments.”65 Thus, the manager has considerable discretion in deciding what risks are “significant.” As discussed above, it doesn’t require them to identify all relevant risks for VaR purposes. Credit and liquidity risk, which may also be significant, are among those that need not be considered for VaR purposes.

In addition, the proposal requires that the fund’s chosen VaR model be based on at least three years of historical market data. But as discussed above, and as recent events should have made clear, market dynamics during the previous three years are far too limited to provide any meaningful predictive value of current or future risk, particularly if the previous three years are marked by relative calm. For example, how well would a VaR test performed on February 1st of this year have predicted the market risks that occurred within just a few weeks? As the Commission concedes, “periods of unusually high or low volatility could result in unusually high or low VaR estimates.”66

Moreover, particular features of the proposal’s two VaR tests increase the likelihood that VaR won’t be effective at limiting undue speculation. First, a fund would satisfy the proposed relative VaR test if the VaR of its entire portfolio does not exceed 150% of the VaR of its designated reference index, which must be unleveraged and reflect the markets or assets in which the fund invests, among other requirements. This gives the derivatives risk manager considerable discretion to choose the designated reference that acts as its baseline, particularly if it’s for a multi-asset fund or has implemented a complex strategy. This is particularly the case, if the manager chooses a blended index which, as the Release acknowledges, “would give some flexibility in identifying or constructing a designated reference index that provides an appropriate baseline for the relative VaR test.”67 The Commission further states that, “We recognize the concern that funds could have the incentive to select an inappropriate designated reference index composed of more volatile securities to allow the fund to obtain more leverage risk under the

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64 Release at 119.
65 Release at 117-118.
66 Release at 121, note 235 (citing Thomas J. Linsmeier & Neil D. Pearson, Value at Risk, 56 JOURNAL OF FINANCIAL ANALYSTS 2 (Mar.-Apr. 2000) (stating that, because historical simulation relies directly on historical data, a danger is that the price and rate changes in the last 100 (or 500 or 1,000) days might not be typical. For example, if by chance the last 100 days were a period of low volatility in market rates and prices, the VaR computed through historical simulation would understate the risk in the portfolio)).
67 Release at 100.
relative VaR test.” While the proposal includes three provisions that are designed to address this concern, they are largely administrative and disclosure-based and unlikely to stop funds from selecting indexes that allow them to maximize, or at least increase beyond what they otherwise would, the fund’s permissible leverage risk under the proposed rule.

If the fund’s derivatives risk manager is “unable” to identify an appropriate designated reference index, the fund would be required to comply with an absolute VaR test. This test requires the VaR of the fund’s portfolio not to exceed 15% of the fund’s net assets. The Release arrives at that number by using the S&P 500’s historical VaR, which is approximately 10%, and multiplying that by 150%. There are several problems with this approach.

First, to the extent a fund invests in non-equity securities, it could potentially substantially increase the risk of the portfolio in ways that investors wouldn’t readily understand. For example, an unconstrained bond fund could use credit derivatives extensively to lever up the portfolio, increasing the market risk substantially to that of the S&P 500. Doing so would also increase the fund’s credit risk, but that wouldn’t be captured in the VaR test. That fund would almost assuredly fail the relative VaR test if the reference index were the Barclays U.S. Aggregate Index. But given that its VaR would be comparable to the S&P 500, it would nonetheless comply with the absolute VaR test. An investor might reasonably expect the fund to have a comparable risk to other bond funds, given its name, but that would not be the case.

In the end, a fund’s derivatives risk manager will choose whatever VaR test works best for them, even if that allows them to take on risks they otherwise wouldn’t. They might claim they were “unable” to identify an appropriate designated index, for example, even if they were just unwilling to do so because their strategy would not have complied with the relative VaR test.

Second, while basing the absolute VaR test on the S&P 500’s historical VaR may sound appealing, history has shown that approach doesn’t safeguard against derivatives-related meltdowns. For example, Long Term Capital Management (LTCM) over-relied on VaR and routinely made statements asserting that “the portfolio was managed so that its target risk was no larger than the risk of an unleveraged position in the S&P 500.” That approach to VaR and the firm’s other risk management practices “severely underestimated its risk” and, as a result, the firm’s failure nearly blew up the global financial system.

These proposed VaR approaches are not sufficient to protect against the risk of funds’ engaging in undue speculation.

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68 Release at 103.
69 Requiring: 1) the derivatives risk manager to select the designated reference index and to periodically review it; 2) the fund to disclose the designated reference index, relative to its performance, in its annual report, creating the disincentive for a fund to present performance that may be significantly lower than, or not related to, the disclosed index; and 3) the board of directors to receive a written report providing the derivatives risk manager’s basis for selecting the designated reference index.
71 Id.
1. The Commission could make up for some of VaR’s clear deficiencies by including requirements for funds to undertake stressed VaR or expected shortfall analysis, but it has refused to do so.

Given the inherent deficiencies in VaR, we encouraged the Commission in our previous comment to consider requiring funds to comply with a stressed VaR test. Such a test would require funds to take into account the impact of reasonably foreseeable stress events on their portfolio. Doing so would help protect against the risk that a fund could engage in undue speculation by taking on derivatives exposure that appears to be risk-reducing based on recent but unrealistic assumptions, but which would actually be risk-increasing under reasonably foreseeable circumstances. Yet the Commission has refused to propose such a requirement. Instead, the Commission states that, “calibrating VaR to a period of market stress, however, can pose quantitative challenges by requiring funds to identify a stress period with a full set of risk factors for which historical data is available.”

In other words, having concluded that a stressed VaR test would be imperfect, the Commission has chosen to rely on a much more deeply flawed approach.

The Commission also refused to require expected shortfall analysis, which would account for tail risk by valuing the potential losses beyond the specified confidence level. According to Shiu-Wah Chu and Ritabrata Bhattacharyya, traders tend to implement trading models that have “a high probability to make gains with a very low probability to make high losses. For such trading models, VaR is not very accurate in capturing the potential losses, as VaR does not indicate the potential loss in the tail end of the distribution. Instead, Expected Shortfall would be a better risk measure for such models.” Despite the fact that expected shortfall is considered a more comprehensive risk assessment, the Commission pointed to the fact that there are fewer observations in the tail, making it difficult to estimate the expected value of larger losses, to justify not adopting this approach. We do not agree that, just because certain events are rare and could span a range of outcomes, they should be disregarded altogether.

The end result is a VaR test that will provide extremely little useful information about the most dire risks to the fund and its inventors. Relying on such a deficient regulatory approach to constrain undue speculation is beyond irresponsible.

2. There are no serious consequences for breaching the VaR tests.

According to the proposal, if a fund breaches one of the VaR tests, it must come back into compliance within no more than three business days. If the fund is still not in compliance within three business days, then: 1) the derivatives risk manager must report to the fund’s board and explain how and by when the manager reasonably expects the fund to come back into compliance; 2) the manager must analyze the circumstances that caused the fund to be out of compliance for more than three business days and update any program elements as appropriate to address those circumstances; and 3) the fund may not enter into new derivatives transactions, unless they are risk reducing, until the fund has been back in compliance with the applicable VaR test for three consecutive business days. These proposed requirements are extremely weak,

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72 Release at 95.
do not impose any meaningful consequences for violating VaR, and may not stop funds from staying out of compliance with their VaR test for long periods.

First, it’s mind-boggling that a derivatives risk manager wouldn’t immediately have to report VaR breaches to the board of directors. To the extent that the VaR test provides any meaningful information about the fund’s risk profile and that information reflects a risk profile that is not within the ordinary day-to-day operations of the fund, that information should be conveyed to the board immediately. If the Commission is of the view, however, that VaR breaches are part of the day-to-day operations of a fund and are therefore no big deal or that they don’t necessarily give much meaningful information about a fund’s risk profile, then that only reinforces the inadequacy of relying so heavily on VaR for the purposes of this rulemaking in the first place.

Next, the proposed three-day remediation provision doesn’t actually require the fund to come back into compliance within three days. It merely requires the derivatives risk manager to notify the board and come up with a plan to come back into compliance. The derivatives risk manager could go to the board and say, “Our VaR was breached, but I still think this is a bet that will pay off in a little more time, so let’s wait a month to see what happens.” And if the derivatives risk manager, the portfolio manager, and the board agree with this approach, then there appears to be nothing stopping the fund from staying out of compliance with the VaR test for very long periods. In other words, there appear to be no backstops in the proposal for perpetual breach of the VaR test, including, for example, the Commission being able to force the fund to come back into compliance by exiting positions or entering positions that would reduce the fund’s risk, or disclosing the perpetual breach to shareholders and letting the market impose discipline on the fund.

The Commission justifies this approach by saying it is “designed to provide funds with some flexibility in coming back into compliance.”\textsuperscript{74} That is an understatement. In fact, providing funds with this amount of flexibility renders the three-day requirement more of a suggestion than an actual limitation.

In addition, the three-day requirement prohibits a fund from entering new derivatives arrangements, unless they are risk reducing,\textsuperscript{75} until the fund has been back in compliance with the applicable VaR test for three consecutive business days. First, this requirement doesn’t stop a fund from staying out of compliance by maintaining existing derivatives arrangements. It merely prohibits them from entering new derivatives arrangements. To the extent a fund has engaged in excessive speculation by taking on too much derivatives exposure and that exposure becomes apparent via a breach of the fund’s VaR, the fund could maintain that level of exposure and speculative activity perpetually. Again, this allows a fund’s derivatives risk manager, portfolio manager, and board to wait out risky and speculative bets that they think will ultimately pay off.

\textsuperscript{74} Release at 129.

\textsuperscript{75} According to the proposal, any new derivatives transactions would have to, “individually or in the aggregate, [be] designed to reduce the fund’s VaR.” Id. It appears that the derivatives risk manager or the fund’s board of directors would have complete discretion in deciding what transactions are “designed to reduce” the fund’s VaR. Whether those transactions actually reduce the fund’s risk is another story. The Commission fails to consider the implications of providing seemingly unfettered discretion to risk managers and fund boards after they have already proven an inability to operate within certain risk limits.
To the extent that breach indicates an increase of risk, which is of course the basic premise of the proposed regulatory approach, staying in breach could mean the fund is in a perpetually risky state precisely of the sort the rule is intended to prevent.

While we share the Commission’s concern that funds could go in and out of compliance with their VaR test, we don’t think the requirement that the fund must be in compliance with the applicable VaR test for three consecutive business days before it can enter new derivatives arrangements adequately addresses that problem. Putting a fund in the “penalty box” for three days before they can enter new derivatives transactions and begin the process all over again will just be seen as a pointless hassle that funds will wait out and work around. This is not a real deterrent; this is not serious regulation.

Finally, the proposal does not require a fund that has failed to come back into compliance with its VaR test to inform investors. Instead, the proposal merely requires that the fund file a report with the Commission. The proposal justifies this approach by stating, “certain adverse effects might arise from real-time public reporting of a fund’s VaR test breaches. For example, publicly disclosing this information could lead to investor confusion. Investors might mistakenly assume that a fund that breached the applicable VaR test actually had suffered substantial losses or that substantial losses necessarily were imminent. Investors might also believe that a fund’s failing the VaR test suggests a sudden increase in fund risk when, in some cases, a fund can fail a VaR test--and especially an absolute VaR test--due to changes in market volatility generally. Investors might also believe that a fund’s real-time reporting of a VaR test breach necessarily meant that the fund was not complying with applicable regulations…. [This] could confuse investors and lead them and other market participants to make incorrect assumptions about a fund’s relative riskiness. This could have potential adverse effects for funds if investors redeem or sell fund shares as a result.”

In other words, if funds disclose certain information about VaR breaches, the Commission is concerned that investors may deem that information material and relevant, and act on it. Rather than provide material and relevant information to investors, the Commission has decided that it’s best to keep them in the dark. That’s a repudiation of the entire disclosure-based system of securities regulation. Bizarrely, the Commission simultaneously argues that information about a breach is too relevant -- that investors would likely make investment decisions based on information about funds’ breaches -- and that information about a fund’s VaR breach isn’t really relevant at all to investors and therefore doesn’t need to be disclosed. The Commission can’t have it both ways.

Rather than trying to keep investors in the dark, we believe that information about VaR breaches should be made public so that investors and third-party researchers can understand and evaluate that information and make informed decisions about the fund’s risk management practices. That information may be particularly relevant for a fund that invests heavily in derivatives. For example, if given a choice between two funds that seek to achieve the same strategy through extensive use of derivatives, and one of those funds routinely breaches its VaR test, that would be relevant information for the investor’s decision and could possibly tilt the investor’s decision to invest in the fund that does not routinely breach its VaR test. However,

76 Release at 217.
changing the proposal to require disclosure of VaR breaches would not cure the fundamental deficiencies in a VaR-based approach, for the many reasons discussed above.

C. The proposal’s failure to include any asset segregation requirement increases the likelihood that funds won’t have a sufficient cushion to cover losses that could result from their derivatives use.

As discussed above, one of the concerns underlying Section 18 was that funds would engage in excessive borrowing to create leverage and they would operate without sufficient assets to cover potential losses arising from that excessive borrowing and leverage. To address these concerns, Release 10666 required funds to segregate assets to cover potential liabilities. The Commission reasoned that if segregated accounts were “properly created and maintained,” they “would limit the investment company’s risk of loss.” The Commission also stated that the segregated account would function as “a practical limit on the amount of leverage which the investment company may undertake and on the potential increase in the speculative character of its outstanding common stock” and that it “[would] assure the availability of adequate funds to meet the obligations arising from such activities.”

The proposal, however, does not include any requirement for funds that use derivatives to segregate assets to cover potential losses. The Commission first tries to justify the lack of an asset segregation requirement by saying, “we do not believe that an asset segregation requirement is necessary in light of the proposed rule’s requirements, including the requirements that funds establish risk management programs and comply with the proposed VaR-based limit on fund leverage risk…” That’s quite a lot of faith to put into VaR, which suffers from a host of deficiencies, as discussed above, and a derivatives risk management program, whose implementation is largely within the control and discretion of the fund. In other words, a fund’s VaR and risk management program may not contemplate or reflect the risk of a significant loss, and the fund may not have the money to cover such a loss. If this situation should occur, the fund likely would be forced to sell securities to cover the losses, potentially at a significant loss, exacerbating fund losses.

The Oppenheimer case, discussed above, illustrates the risk of not segregating assets to cover potential losses. In that case, two mutual funds suffered derivatives-related losses and were forced to raise cash for anticipated derivatives contract payments by selling depressed bonds into an increasingly illiquid market in 2008. The funds were reluctant to “lock in losses” on their derivatives contracts, believing that the CMBS market would rebound, so they waited, which only made problems worse.

The Commission also tries to justify the lack of any asset segregation requirement by claiming that various alternative approaches have their own implementation issues. For example, it argues that a segregation approach based on notional amount, although generally an effective

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77 Section 1(b)(7) and 1(b)(8) of the Investment Company Act.
78 Release 10666.
79 Id.
80 Release at 173.
way to limit leverage risk, is not risk-sensitive and is often more restrictive to limiting potential leverage risk as compared to the proposed VaR tests. Next, the Commission argues that an approach similar to the one the Commission proposed in 2015, which would require funds to segregate liquid assets in an amount equal to the fund’s daily mark-to-market liability plus a “cushion amount” designed to address potential future losses, would raise compliance complexities and may not be as effective as the proposed VaR tests in limiting fund leverage risk. The Commission also argues that a segregation approach based on a 2016 DERA memo, which would allow a broader range of assets to be segregated, rather than just cash and cash-like assets, subject to haircuts, may not effectively address all of the section 18 concerns underlying an asset segregation requirement.

While the concerns the Commission raises have a legitimate basis, they do not justify dispensing with a segregation requirement altogether. Rather, the Commission should choose a reasonable segregation approach that can be applied uniformly across a range of derivatives and that decreases the likelihood that funds would operate without any assets to cover potential losses. This, at least, would provide some cushion against losses and provide some practical limit on funds’ derivatives exposure where VaR should fail and where funds’ derivatives risk management programs don’t function as the Commission intends.

Without any segregation requirement, however, funds will have total discretion to decide whether to segregate any assets at all. If they do, it will also be up to them to decide what segregation practices to apply, including what kinds of assets to segregate and the value of the assets to segregate. Given this total discretion, funds will likely continue to take differing approaches to their asset segregation practices, with some funds not segregating any assets, some funds segregating assets based on notional amounts, others based on marked-to-market, some funds based on a variety of liquid assets, some funds based on cash and cash-like assets, etc.

In addition, it’s reasonable to assume that, to the extent funds currently engage in prudent segregation practices, they may decide to roll back those practices, since doing so would be acceptable under the Commission’s proposed regulatory approach, potentially increasing their leverage risk and the risk that they are unable to cover potential losses. The Commission appears to acknowledge this concern, stating, “Where there is no specific guidance, or where the application of existing guidance is unclear or applied inconsistently, funds may take approaches that involve an extensive use of derivatives and may not address the purposes and concerns underlying Section 18.” As a result, the Commission’s concern, that funds’ practices regarding derivatives may not address the undue speculation and asset sufficiency concerns underlying Section 18, will likely persist.

Ironically, one of the Commission’s stated concerns about the current regulatory environment is that different funds have different policies and practices with regard to the treatment of different derivatives, and that these inconsistent approaches perpetuate an unlevel playing field and make it hard for Commission staff to examine for compliance. We don’t see how the Commission’s concerns with regard to inconsistencies in funds’ asset segregation practices will be addressed with the proposal, unless the Commission assumes all funds will subsequently decide not to segregate any assets. If these are the Commission’s assumptions, it

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82 Release at 29.
has not admitted them and it has not considered the danger that would result from funds’ failure to segregate any assets, leaving funds operating without sufficient assets to cover potential unforeseen losses.

D. Requiring funds to implement written derivatives risk management programs is insufficient to cure the clear deficiencies of the Commission’s proposed VaR approach.

The proposed rule would require a fund to adopt a written derivatives risk management program, which would include stress testing, backtesting, internal reporting and escalation, and program review elements. Our 2016 comment made clear that, while a formalized derivatives risk management program is a necessary component of a derivatives proposal and can complement and reinforce other aspects of the rule, it would be insufficient by itself or merely paired with a VaR test to protect against the risks and concerns underlying Section 18. Specifically, we stated, “Defined limits on portfolio exposure are a critical component of the proposed rule.” We further stated, “Requiring funds to comply with asset segregation standards that take into account reasonable estimates of future liabilities and that segregate cash or cash-equivalents is critical to ensure funds operate with sufficient assets to meet their obligations.” We reasoned that these three components of the previous proposal would comprehensively work together to ensure that the risks and concerns underlying Section 18 are fulfilled. This proposal, however, places excessive reliance on funds’ implementing risk management programs to avoid those concerns, which in our view is unreasonable and inappropriate.

The Commission provides significant discretion and deference to funds to decide how to implement such risk management programs. The Commission states that each program “would be tailored based on how the fund’s use of derivatives may affect its investment portfolio and overall risk profile.” Given this discretion and deference, which the Commission would be hard-pressed to second-guess, some funds may do poor jobs of implementing risk management programs that help to ensure that they are using derivatives as intended. In the end, we fear that without meaningful restrictions on fund leverage or derivatives exposure or asset segregation requirements, the proposed VaR test and the proposed derivatives risk management program requirements will be little more than paperwork exercise that funds engage in to satisfy their regulatory requirements, but which have little actual utility. These largely administrative, process-driven requirements may provide a false sense of security to the Commission, to the funds, and most importantly to investors, that they are managing their derivatives use prudently, when that may not be the case.

Our concerns that the Commission provides significant discretion and deference to funds to decide how to implement their risk management programs, coupled with the fact that the Commission provides significant discretion and deference to funds to decide how to implement their VaR test, reinforces our concern that this proposal does not provide the protections necessary to safeguard against the significant risks funds’ derivatives use can create.

Nor will this proposal fulfil one of the Commission’s stated goals of creating a more standardized and level competitive landscape. Just the opposite, such a deferential and

83 Release at 30.
permissive approach is likely to perpetuate an environment of varied practices within the fund industry.

Finally, this proposal appears to be based on the misplaced notion that the issue to be solved is a matter of funds not understanding and managing derivatives-related risks. The premise seems to be that, if funds and fund boards better monitor their value-at-risk and have better policies and procedures in place to better understand and address their risks, that will address the concerns underlying the Investment Company Act. But those were not the problems Section 18 was intended to address. Congress didn’t dictate that if a fund issued senior securities, it should engage in VaR testing to ensure that the fund wouldn’t be exposed to too much risk; nor did it dictate that if a fund issued senior securities, it should have a risk management program to understand and manage the risks associated with issuing those senior securities. Rather, Congress dictated that funds abide by a clear and unequivocal hard cap on the amount of senior securities a fund could issue that would not be susceptible to gaming. It did so out of concern that without such a constraint, it would leave funds and their shareholders exposed to excessive risk and, ultimately, the fund’s failure. Unfortunately, this proposal totally sidesteps this issue.

E. The Commission has provided no evidence that this proposed approach would meaningfully limit funds’ ability to use derivatives in ways that are unduly speculative or operate without setting aside sufficient assets to cover potential losses resulting from those speculative activities.

As has become all too common in Commission rulemakings, the economic analysis in this proposal is woefully inadequate. It fails to explain how the proposal would actually improve funds’ derivatives practices relative to the status quo, and do so in ways that would actually address the concerns underlying Section 18. Nor does it explain how the proposal, if applicable at the time, would have avoided or decreased the likelihood of recent fund blow ups as a result of derivatives practices gone awry.

First, the Commission’s economic analysis fails to explain how the proposal would actually improve funds’ derivatives practices relative to the status quo. In fact, the Commission acknowledges the proposal may merely mirror what funds already do. The Commission states, for example, “We understand that VaR models are widely used in the industry and that backtesting is commonly performed in conjunction with VaR analyses.”

The Commission similarly acknowledges that the requirement for funds to implement risk management programs may also mirror existing practices. The Commission states, for example, “the proposed rule’s derivatives risk management program requirements, including stress testing and backtesting requirements are, generally, high level and principles-based. As a result, it is likely that many funds’ current risk management practices may already be in line with

84 Release at 266.
85 Release at 93.
many of the proposed rule’s derivatives risk management program requirements or could be readily conformed without material change.”

In an attempt to put a positive spin on its woefully inadequate proposal, the Commission states, “To the extent that the resulting risk management activities are more comprehensive than funds’ current practices, this may result in more-effective risk management across funds.” It may, but there’s absolutely no reason to believe that it will.

Elsewhere, buried in a footnote, the Commission concedes that it has little idea what impact the proposal would have on funds’ derivatives practices more generally. It states, “Overall, the effect of the proposed rules and amendments on funds use of derivatives transactions is ambiguous and depends on the type of derivatives transaction.” The range of possibilities, according to the Commission, includes funds’ changing the types of derivatives they use, reducing their use of derivatives, increasing their use of derivatives, and changing their asset segregation policies and practices. The Commission’s disturbing admission reflects a total lack of informed analysis and judgment of what the proposal would likely do in practice.

To the extent we have any concrete evidence of what the proposal would do in practice, that evidence strongly suggests the proposal would merely preserve the status quo. DERA staff analyzed the VaR levels of the portfolios of all funds that would be subject to the proposed rule as of December 2018 in order to estimate how many of the funds that would be subject to the proposed VaR-based limit currently operate in exceedance of that limit. DERA staff calculated the relative VaR test using the primary benchmark disclosed in the funds’ prospectuses. This analysis identified only six funds among those that would be subject to the proposed limit that DERA staff estimated may fail the relative VaR test. Moreover, according to the Release, “To the extent that these funds’ derivatives risk managers were to determine that a different index would be more appropriate for purposes of computing the relative VaR test or that no appropriate designated reference index were available, some or all of these funds could be compliant with the VaR-based limit on fund leverage risk either under the relative VaR test with a more appropriate index or under the absolute VaR test.” Thus, the Commission acknowledges that derivatives risk managers could choose different benchmarks that result in more favorable relative VaR tests or determine that there’s no appropriate reference index to compare their VaR with in order to rely on the potentially less stringent absolute VaR test.

Once again, buried in a footnote, the Commission further concedes that its proposal is likely to have minimal effect, stating, “we estimate that only one of the six funds that we identified may fail the proposed relative VaR test would also fail the proposed absolute VaR test.” As a result, according to the Release, “we estimate that there would only be a very small number of funds, if any, that would have to adjust their portfolios in order to comply with the VaR-based limit on fund leverage risk.”

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86 Release at 266.
87 Release at 262.
88 Release at 306, note 585.
89 Release at 275-276 (italics added for emphasis).
90 Id.
91 Release at 276, note 516 (italics added for emphasis).
92 Id. (italics added for emphasis).
Just to put a finer point on this, the DERA analysis suggests, at least at the time the test was undertaken, that out of more than 4,650 funds that use derivatives in some way, and out of the close to 1,600 funds that use derivatives extensively (having more than 50% notional exposure), only 6 funds (or 0.12% of the funds that use derivatives in some way and 0.375% of the funds that use derivatives extensively) would potentially be out of compliance with the relative VaR test. And if those six funds are out of compliance, they would very likely be able to get creative to figure out another way they can comply with the relative VaR test. Moreover, only one fund (or 0.02% of the funds that use derivatives in some way and 0.0625% of the funds that use derivatives extensively) would potentially be out of compliance with the absolute VaR test. It’s hard to see this as anything but an intentional exercise, designed to create the appearance that the Commission is doing something about funds’ derivatives risks without actually changing anything.

While the Release suggests the proposal would have little if any impact, we have been given to understand in informal conversations with staff that a much greater number of funds would be out of compliance with the proposed VaR tests. According to the staff’s informal feedback, because the DERA analysis only examined funds’ VaRs at a specific period of time, there are funds who would be out of compliance at other times and would conceivably have to change their practices to be in compliance at all times. This may be the case. To the extent the Commission has evidence that the VaR tests would limit the activities of a broader range of the market, it should publish it. As discussed above, however, we do not believe the proposal provides any meaningful safeguards against the concern that funds could bounce in and out of compliance.

Next, the Commission has provided no support for the proposition that the proposal, if applicable at the time, would have avoided or decreased the likelihood of recent derivatives-related fund blow ups. This is a serious deficiency in the proposal.

For example, the Release discusses the implosion of the LJM Preservation and Growth Fund as a result of options bets gone awry. Yet the Release provides no evidence that LJM would have been in breach of one of the proposed VaR tests, giving the fund and the Commission advance warning of the fund’s heightened risk. It’s far more likely that it wouldn’t have been in breach, given that the fund “experienced an extreme outlier event,” which would have been outside the 99% confidence window. Moreover, according to press reports and the fund’s website, LJM had a risk management program that was a “key component” of its strategy, including having a risk officer. According to a Morningstar analyst, however, “Clearly, the process failed.” Thus, it appears unlikely that the proposal would have staved off LJM’s failure completely, or even reduced the risk of it occurring or the resulting damage that ensued.

Similarly, Catalyst Hedged Futures Strategy Fund experienced devastating losses when its options trading strategy backfired. Again, the Release provides no evidence that this fund would have been in breach of one of the proposed VaR tests. It’s far more likely it wouldn’t have been in breach, given that the fund got caught on the wrong side of a bet on where the market would go in “a pretty unprecedented market run.” According to the fund's adviser, “These aren’t circumstances that happen very often.” As a result, it appears likely that the unexpected events that occurred and their devastating effect on the fund would have been outside the proposed VaR test’s 99% confidence window. Moreover, the fund manager had significant expertise using derivatives. While we couldn’t find any information indicating whether the fund had a derivatives risk management program, we think it’s unlikely that the proposal’s requirement to have a written derivatives risk management program would have made a material difference in this case. The Commission has provided no evidence to the contrary.

The Release highlights other recent examples of funds using derivatives in ways that have resulted in rapid and substantial losses for funds and their investors. However, just as discussed above, it’s not clear that the proposal, if applicable at the time these funds were misusing derivatives, would have changed the outcomes. And the Commission never even attempted to consider these issues. For example:

- The OppenheimerFunds had a risk management program, but it proved insufficient to protect against devastating losses.

- The Fiduciary/Claymore Dynamic Equity Fund appears to have tested VaR, however its estimates turned out to be incorrect.

- UBS Willow Management did stress test the portfolio but did not inform the fund board of stress test results showing large potential CDS losses. This appears to be one of only two examples where the rule might have changed the outcome. If the board knew of the fund’s risk, it is possible it would have forced the fund to reduce its risk. However, it is also possible that the board would have allowed the risky activities to continue.

- The Team Financial Asset Management fund did not adopt or implement any risk management policies and procedures or internal controls for monitoring and controlling for derivatives related risks. Moreover, the fund’s adviser did not provide the board with

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97 See Release at 16, note 22. The settlements were largely based on the fund’s misrepresentations or omissions, not their taking on excessive risk or failing to appropriately manage risk.


a full picture of his use of derivatives or the fund’s risk profile.100 This is another example where the rule might have changed the outcome. However, it is also possible that a risk management program and board involvement would not have stopped the risky activities.

- The Z Seven Fund had significant notional exposure to options, equaling 17.9 times the value of the fund’s equity portfolio. However, it’s not clear that the fund’s extensive derivatives use would have breached one of the proposed VaR tests. It’s possible that, based on the fund’s VaR model and assumptions which, as discussed above, are within the discretion of the fund’s derivatives risk manager, the fund would not have breached the proposed VaR tests.101

The Commission’s failure to consider whether the proposal would have changed these outcomes, leaves us to wonder what the Commission is trying to achieve with this proposal. The most obvious answer is that it is simply trying to provide a regulatory shield for funds’ current practices.

V. While we appreciate that the Commission has recognized the need to address the risk that investors are misusing leveraged and inverse vehicles, and we are not in theory opposed to the sales practice rule that the Commission has proposed, the Commission has failed to provide any evidence that its proposed regulatory approach would achieve its intended goal.

In our previous comment, we highlighted evidence that suggested investors are incorrectly using leveraged and inverse products. For example, despite the fact that double and triple leveraged ETFs are short-term trading vehicles that are not meant to be held longer than one day, research by the Securities Litigation and Consulting Group suggested that a significant number of shares are held for several days, if not weeks.102 The paper concluded that, “The percentage of investors that we estimate hold these short term investors longer than a month is quite striking.”103 Holding these investments for longer than one day exposes investors to substantial risk, as the holding period returns will deviate from the returns of the leveraged or inverse investment in the index or benchmark being tracked. At a certain point, it’s a near mathematical certainty that the investor will lose her entire investment.104

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102 Ilan Guedj, Guohua Li, and Craig McCann, Leveraged ETFs, Holding Periods and Investment Shortfalls, SECURITIES AND LITIGATION CONSULTING GROUP, 2010, http://bit.ly/1Uq86ju (finding that DPK had an average daily turnover ratio of 18.1%, and that 16.42% of purchases were held for more than 1 week, TYO had an average daily turnover ratio of 5.5% and that 48.02% of purchases were held for more than 1 week, SBB had an average daily turnover ratio of 4.6% and that 55.49% of purchases were held for more than 1 week, RHO had an average daily turnover ratio of 2.9% and that 61.28% of purchases were held for more than 1 week, and UVG had an average daily turnover ratio of 3.7% and that 54.31% of purchases were held for more than 1 week.).
103 Id.
A. Evidence still suggests retail investors are using leveraged and inverse vehicles incorrectly.

We understand that there is some dispute about whether investors actually hold these products for longer than one day. For example, in 2016, the Commission’s current chief economist, S.P Kothari, was retained by Rafferty Asset Management, LLC, the sponsor of and investment adviser to the Direxion, one of the two leveraged and inverse fund companies, to compute implied holding periods for select pairs of the company’s leveraged and inverse leveraged ETFs for its comment on the 2015 proposal. Mr. Kothari’s analysis concluded that, “the average implied holding periods for these ETFs during this period are extremely short, ranging from 0.44 to 1.14 days. Collectively, these statistics indicate that investors in these ETFs, on average, hold their shares for a day (or under in most cases).”

Mr. Kothari’s analysis was seriously flawed. And even he has admitted that there was a fundamental deficiency in his analysis, stating, “No claim is made that on each of these five days a distinct set of 2 million shares is traded. That is, it is possible that some shares are traded in less than five days and others in more than five days, but on average, a share is held for five days before being traded.” That is quite the disclaimer. Mr. Kothari effectively acknowledged that it was unlikely his analysis accurately reflected how the market actually works. Investors don’t coordinate with each other, taking turns to sell their holdings (A sells all of their shares, then B sells all of their shares, then C sells all of their shares, etc...), in order to ensure that shares are held for a certain amount of time. Rather, it is far more likely that some shares are held for a very short amount of time by certain traders, while other shares are held for a very long amount of time by other traders.

The analysis that the Securities Litigation and Consulting Group (SLCG) published in 2010, which showed long holding periods for certain leveraged and inverse ETFs, took this into consideration. It inferred holding periods based on multiple trading models that are used in the securities class action context based on observed trading volume. We have updated the SLCG paper’s analysis for the ETFs that still exist and added several other leveraged and inverse ETFs that are available. We used the three-month average daily trading volume, ending on March 9th, which would reduce the risk that the recent explosion in trading volume related to COVID-19 would alter the results. We sourced our data from ETFdb.com. However, we checked with other public websites, such as Marketwatch.com and Fidelity.com, to ensure that the data were robust. While we are not claiming academic precision with our findings, they tell a very different

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106 Id. at Exhibit 1 (Report of S.P. Kothari, Ph.D.).

107 Id.

108 The first, a proportional trading model, assumes that each share outstanding is equally likely to trade. The second, a multiple trader model, assumes that there are at least two types of investors within each trader type with a different level of trading activity, a high-activity trader and low-activity trader.

109 We applied the proportional trading model. Unfortunately, we did not complete an analysis using the multiple trader model due to time constraints. We encourage the Commission to do its own analysis using this model.
story than the analysis that Mr. Kothari provided to the Commission several years ago. Like the 2010 analysis from SLCG, they show that there is still ample evidence to suggest investors are incorrectly using leveraged and inverse vehicles, holding them much longer than the one day that Mr. Kothari’s analysis suggested.

Based on our analysis of 12 funds, we found funds with daily share turnover ranging from approximately 1% to 29%. All funds in our sample had a majority of their shares held for longer than one day. More than half of the funds in our sample had a majority of their shares held for longer than one week. Several funds in our sample had a majority of their shares held for longer than one month. For example:

- **ProShares Ultra S&P 500**, which provides 2X leverage to the S&P 500 (SSO):
  - Daily share turnover of approximately 12%;
  - Approximately 87% of shares are held longer than 1 day;
  - Approximately 50% of shares are held longer than 1 week;
  - Approximately 35% of shares are held longer than 2 weeks.

- **Direxion Daily S&P 500 Bull 3X** (SPXL):
  - Daily share turnover of about 23%;
  - More than 75% of shares are held longer than 1 day;
  - Almost 60% of shares are held longer than 2 days;
  - Approximately 25% of shares are held longer than 1 week.

- **ProShares Short SmallCap600**, providing 1X inverse leverage (SBB):
  - Daily share turnover of approximately 3%;
  - More than 95% of shares are held longer than 1 day;
  - More than 80% of shares are held longer than 1 week;
  - Approximately 70% of shares are held longer than 2 weeks;
  - Almost 50% of shares are held longer than 1 month.

- **Direxion Daily MSCI Developed Markets**, which provides 3X inverse leverage to international developed markets (DPK):
  - Daily share turnover of approximately 5%;
  - Approximately 95% of shares are held longer than 1 day;
  - Approximately 75% of shares are held longer than 1 week;
  - Approximately 60% of shares are held longer than 2 weeks;
  - More than 35% of shares are held for longer than 1 month.

- **Direxion Daily 7-10 Year Treasury Bull 3x Shares**, which provides 3X leveraged exposure (TYD):
  - Daily share turnover of approximately 3%;
  - Approximately 97% of shares are held longer than 1 day;
  - More than 85% of shares are held longer than 1 week;
  - More than 75% of shares are held longer than 2 weeks;
  - Approximately 60% of shares are held longer than 1 month;
  - More than 45% of shares are held longer than 6 weeks.

- **Direxion Daily 7-10 Year Treasury Bear 3x Shares**, which provides 3X inverse leveraged exposure (TYO):
  - Daily share turnover of less than 1%
  - Approximately 99% of shares are held longer than 1 day;
Approximately 95% of shares are held longer than 1 week;
More than 90% of shares are held longer than 2 weeks;
More than 80% of shares are held longer than 1 month;
More than 75% of shares are held longer than 6 weeks.

  - Daily share turnover of approximately 20%;
  - More than 80% of shares are held longer than 1 day;
  - More than 65% of shares are held longer than 2 days;
  - Approximately 35% of shares are held longer than 1 week;
  - More than 10% of shares are held longer than 2 weeks.

- ProShares UltraShort Health Care, provided 2X inverse leveraged exposure (RXD):
  - Daily share turnover of approximately 5%;
  - Approximately 95% of shares are held longer than 1 day;
  - More than 75% of shares are held longer than 1 week;
  - Almost 60% of shares are held longer than 2 weeks;
  - More than 33% of shares are held longer than a month.

- Direxion Daily Gold Miners Index Bull 3X Shares (NUGT):
  - Daily share turnover of about 29%;
  - More than 70% of shares are held longer than 1 day;
  - Almost 20% of shares are held longer than 1 week.

- Direxion Daily Financial Bull 3X (FAS)
  - Daily share turnover of about 5%;
  - Approximately 95% of shares are held longer than 1 day;
  - More than 75% of shares are held longer than 1 week;
  - Approximately 60% of shares are held longer than 2 weeks;
  - More than 30% of shares are held longer than 1 month.

- Direxion Daily Financial Bear 3X (FAZ):
  - Daily share turnover of about 15%;
  - Approximately 85% of shares are held longer than 1 day;
  - More than 40% of shares are held longer than 1 week.

- Direxion Energy Bull 3X Shares (ERX):
  - Daily share turnover of about 10%;
  - Approximately 90% of shares are held longer than 1 day;
  - Approximately 60% of shares are held longer than 1 week;
  - Between 35% and 40% of shares are held longer than 2 weeks;
  - Between 10% and 16% of shares are held longer than 1 month.

As is evident from these results, many leveraged and inverse ETF shares are apparently being held for periods much longer than one day, which suggests they are not being used properly.

Data provided to us by Morningstar confirms our results, finding very lengthy holding periods for many leveraged and inverse vehicles. In fact, it suggests that our results may be too conservative. Rather than examine holding periods based on shares held and traded, the
Morningstar data examines holding periods based on values held and traded.\(^{110}\) The Morningstar analysis found the following holding periods:

- SSO: 17 days;
- SPXL: 6 days;
- SBB: 58 days;
- FAS: 32 days;
- FAZ: 34 days;
- NUGT: 6 days;
- ERX: 29 days;
- GUSH: 74 days.

Recent market turmoil shows just how dangerous it can be to hold leveraged products for longer than one day. For example, GUSH is down approximately 99% year-to-date (YTD). SPXL is down more than 70% YTD. SSO is down more than 50%.

Non ‘40 Act products can suffer similar fates as registered funds. The most notable recent example is the VelocityShares Daily Inverse VIX Short Term ETN (XIV), which lost more than 96% of its value in a single trading day. At the time, the ETN held $1.9 billion in assets. It has since shuttered.\(^{111}\) Another recent example is VelocityShares 3x Long Crude Oil ETN (UWT), which offers triple leverage on crude oil futures. It lost more than 73% of its value in a single day and is down 98% YTD. Citigroup, the issuer of the note, recently decided to “accelerate at its option, and in full,” UWT and its inverse companion ETN, VelocityShares Index 3x Inverse Crude Oil ETN (DWT). Holders will receive a cash payment per ETN in an amount equal to the closing indicative value of the respective series of ETNs on the final valuation date of the optional acceleration valuation period, according to a company press release.\(^{112}\) Lara Crigger of ETF.com summed up the recent overall damage for these products, writing that over the past several weeks, “we’ve seen a bloodbath in leveraged and inverse exchange-traded products, with almost 30 ETFs and ETNs seeing the cessation of trading—sometimes overnight.”\(^{113}\)

Recent anecdotal evidence suggests retail investors still do not understand how these products work. According to a BlackRock Blog, “Our experience is that these complex provisions are not intuitive or well-understood by many users of the products.”\(^{114}\) Yet some retail investors think that buying and holding these investments is a smart investment strategy. According to Crigger in a recent tweet, she “just answered seven emails in a row asking me the same basic thing: No but seriously it’s totally okay for me to buy and hold THIS leveraged ETF, right? The answer is and always will be: NO.”\(^{115}\) In a column discussing this issue, she implored

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\(^{110}\) Average Holding Period = 365/(Total $ Value Traded/Average Daily Assets Under Management), Where: Total $ Value Traded = The sum of daily $ volumes for the ETP during the preceding 12 months. Average Daily Assets Under Management = The average of daily share class net assets over the preceding 12 months.


financially unsophisticated retail investors not to use these products. “I'm begging you: Leave these products for the sophisticated traders they were meant for.”

Perhaps the fact that retail investors are interested in using these products as buy and hold investments should not come as a surprise. They often face messages that say buy-and-hold investing in these products is a smart strategy, undercutting disclosures they receive from issuers stating that these products are intended to be held for a single day. For example, one recent article in the prominent investing blog, SeekingAlpha, titled “Why Leveraged ETFs Might Be Perfect For Achieving Retirement,” stated that it was a “myth...that leveraged ETFs suffer from volatility decay and inevitably march to zero.” The article suggests that, “People in real life are successfully implementing these strategies.” And the article concludes, “If you can stomach the drawdowns, there’s a lot of money currently being made with these products. Whether they’ll continue to do so in the future is uncertain, but the history suggests it’s more likely than not that they will.”

In another recent article on the same blog, another author writes, “Leveraged ETFs generally provoke a lot of concern on the part of the market commentariat. Some of the concerns are valid but many are not...It is clear that there should be greater care taken in allocating to leveraged ETFs, however, in our view the structure itself can be appropriate for long-term investors with some caveats.”

Disturbingly, many investors are buying and holding these products because their financial professionals are advising them to. According to one article, which admittedly is a bit dated, these products “are showing up more frequently as buy-and-hold investments in Mom and Pop portfolios, thanks to the advisers who are putting them there.” The article states that the number of investment advisers using leveraged and inverse ETFs increased roughly 15 to 20 percent over the prior year, according to the head of product development at Direxion, Michael Eschmann. Eschmann said he started getting calls “pretty frequently” from investors inquiring about longer holding periods, according to the article.

Recent enforcement actions confirm that financial professionals have continued to recommend buying and holding leveraged and inverse vehicles in ways that are inconsistent with their stated purpose. The Release cites a slew of recent FINRA and SEC actions against broker-dealers and investment advisers for recommending that long-term investors hold these products

118 Id.
119 Id.
121 Ashley Lau, Leveraged ETFs not just for day traders anymore, REUTERS, February 12, 2014, https://reut.rs/2wHXEQD.
for months or even years.\textsuperscript{122} Since the proposal was published, the SEC took another enforcement action, this time against Wells Fargo.\textsuperscript{123} According to the order, from April 2012 through September 2019, Wells Fargo recommended that many retail investment advisory clients and brokerage customers buy and hold single inverse ETFs, in many cases for months or years. During the relevant period, the clients collectively sustained millions of dollars of losses in the product by holding the positions. Moreover, a number of these clients were senior citizens and retirees who had limited incomes and net worth, as well as conservative or moderate risk tolerances, according to the order.

**B. The Commission has failed to provide any evidence that its proposed regulatory approach would protect retail investors against the risks of inappropriately using leveraged and inverse vehicles.**

We strongly agree with the Commission that there is a serious problem with the inappropriate use of leveraged and inverse vehicles by retail investors. However, we are not convinced that the Commission’s proposed regulatory approach would address that problem. While we are not in theory opposed to the sales practice rule that the Commission has proposed, the Commission needs to do more to determine whether its proposal would achieve its regulatory goal of meaningfully reducing the inappropriate use of leveraged and inverse vehicles by retail investors. If evidence suggests the rule would not meaningfully reduce inappropriate use, the Commission must propose a more effective approach.

The sales practice rule proposal would require broker-dealers and investment advisers to exercise due diligence in determining whether to approve a retail customer or client’s account to buy or sell leveraged and inverse vehicles.\textsuperscript{124} A broker-dealer or investment adviser could only approve the account if it has a reasonable basis to believe that the customer or client has the financial knowledge and experience necessary to be reasonably expected to be capable of evaluating the risks associated with these products. These account approval and due diligence


\textsuperscript{124} The proposal defines leveraged/inverse investment vehicle to include registered investment companies and currency- or commodity-based trusts or funds. It’s not clear to us that this would include all leveraged and inverse vehicles, including all leveraged and inverse ETNs. We request clarification on this point.
requirements are modeled after FINRA’s options account approval requirements for broker-dealers. FINRA’s rules require firms to collect information about the retail investor’s financial status, investment objectives, and experience in trading options.

The natural question regarding this proposal is, if we are going to model a sales practice rule for leveraged and inverse vehicles after FINRA’s options account approval requirements, do we know whether FINRA’s rules serve their intended purpose? It is possible that the rules function effectively, and therefore provide a good model for this rulemaking. But the Commission doesn’t attempt to answer this question. Thus, we have no idea how effective the FINRA rules are and, by extension, we have no idea whether applying the FINRA’s rules to the sale of leveraged and inverse vehicles would be effective at achieving a similar purpose.

Our review of several of the largest retail broker-dealers in the market indicates that they by and large require retail investors to fill out a relatively short application in order to be approved to trade options. It takes less than 10 minutes to fill out the forms that we reviewed. However, it’s not clear on what basis firms decide whether to approve or deny investors who complete these applications. Are certain retail investors who aren’t capable of understanding the risks that options present routinely approved? The Commission doesn’t attempt to answer that question. What level of rigor do firms apply when making these determinations? Is it largely a paperwork exercise or is it a thoughtful determination? The Commission doesn’t attempt to answer that either.

Moreover, brokers often set different levels of options account approval based on the perceived level of expertise of the trader and the relative riskiness of the trading strategy. For example, firms typically grant approval for covered calls more readily than uncovered calls because covered calls are less risky and can be used for capital preservation or hedging purposes. But we don’t know how brokers determine in practice what level of trading privileges is appropriate for each investor. Are there investors who are granted privileges to trade certain options when they aren’t capable of evaluating the risks associated with those products? Do they suffer losses as a result? Do firms reassess their determination of the level they’ve approved each retail investor for trading based on the investor’s actual trading experience? For example, if a retail investor is approved to trade uncovered calls and routinely loses all of his money on every contract, which would provide strong evidence that he is not in fact capable of evaluating the risks associated with that strategy, at some point does the firm reconsider its previous approval and reduce his trading privileges? Or does the firm continue to allow it? Do firms collect information on outcomes to be able to make this type of assessment? Do they analyze that information? We don’t know the answers to any of these questions because the Commission hasn’t attempted to answer them in the proposing Release.

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125 See, e.g., FINRA rule 2360(b)(16), (17) (requiring for options accounts, firm approval, diligence and recordkeeping).
126 The one exception in our search appears to be Interactive Brokers, which appears to have more stringent requirements. See INTERACTIVE BROKERS, Configuring Your Account, Trading Requirements, https://bit.ly/2wK62iy (“To trade options, futures or Cash Forex, you must have a minimum of two years trading experience with that product or take a test….To trade Complex & Leveraged Products, you must have a minimum of two years trading experience with stocks and either options or futures, or with stocks or options or futures and take a test.”) (last visited March 26, 2020).
Applying these considerations to leveraged and inverse vehicles, the proposal provides discretion to firms to determine what level of trading privileges leveraged and inverse vehicles should occupy. Thus, it appears that there’s nothing stopping a firm from choosing to adopt policies and procedures to approve the trading of all leveraged and inverse vehicles on its platform, including the most highly leveraged vehicles tracking the most volatile indexes, on the same basis as it would approve the trading of covered calls. Does the Commission think this is appropriate? If so, why? If not, why hasn’t it included measures in the rule to prevent this outcome?

The Commission suggests that firms could consider adopting policies and procedures that establish multiple levels of account approvals for retail investors seeking to trade different leveraged/inverse investment vehicles. The Commission states that “a firm may determine that certain leveraged/inverse investment vehicles (e.g., those with lower leverage multiples or that invest in less-volatile asset classes) are more appropriate for a lower level of account approval, while other types of leveraged/inverse investment vehicles may be more appropriate for a higher level of account approval.” However, the Release makes clear this type of differentiation is “not required under the proposed rules.” If the Commission believes such differentiation is appropriate, why hasn’t it required it? If it doesn’t believe such differentiation is necessary, on what basis did it reach that conclusion?

Finally, how does FINRA examine firms’ options account approval? Based on our understanding, FINRA’s primary focus in this space is on broker-dealers’ recommendations. To the extent a firm does not make a recommendation, and investors are trading options on their own, does FINRA examine to ensure that investors are adequately protected? For example, does it go beyond simply ensuring that the firm retained the investor’s options agreement to determine whether the investors’ level of trading privileges matched the level for which they applied and were approved? Would the Commission intend the examination process for the approval of leveraged and inverse vehicles to function similarly?

As our questions and concerns make clear, we are not convinced that FINRA’s options account approval rules adequately ensure that retail investors have the financial knowledge and experience to be reasonably expected to be capable of evaluating the risks associated with options. Accordingly, we are not convinced that applying those rules to the trading of leveraged and inverse vehicles would protect against the risks involved with trading those products. However, if the Commission were to provide evidence showing that FINRA’s rules do serve their intended purpose, and that applying those protections to this context would function similarly, then we are open to being convinced. But to date, the Commission has failed to engage in any thoughtful analysis on these fundamental questions.

Finally, while account approval rules may not serve their stated purpose of ensuring that retail investors have the financial knowledge and experience necessary to be reasonably expected to be capable of evaluating the risks associated with leveraged and inverse vehicles, there may be some, albeit unquantifiable, benefit to requiring investors to fill out an application to trade them, even if it is largely pro forma. Requiring investors to stop for even a few minutes to think about

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127 Release at 189.
128 Id.
the risks associated with trading these vehicles may cause some investors to reconsider whether it makes sense for them to trade them, and that temporary pause may modify trading behavior in a way that easy access via a quick click of the mouse, as current law permits, would not. At the very least, it is a concept worth testing.

Conclusion

Funds’ misuse of derivatives and investors’ improper use of leveraged and inverse vehicles pose serious risks that deserve a serious regulatory response. The Commission has not proposed such a response. The proposal regarding funds’ use of derivatives would not meaningfully protect against the risk that funds engage in excessive speculation or the risk that they operate without sufficient assets to cover potential losses. This largely permissive and deferential approach amounts to little more than a paperwork exercise for funds. Given these deficiencies, it is clearly inconsistent with what Congress intended in Section 18 of the Investment Company Act. And while we commend the Commission for recognizing the need to address the risk that investors are misusing leveraged and inverse vehicles, the Commission has failed to provide any evidence that its proposed regulatory approach would reduce the risk that investors would continue to misuse leveraged and inverse vehicles. For these reasons, we urge the Commission to go back to the drawing board and propose a regulatory solution that adequately protects investors, rather than the deferential, “industry knows best approach” it has proposed here. As a necessary first step to achieve that goal, we also urge the Commission to actually undertake serious economic analysis rather than the shoddy job it has done here.

Respectfully submitted,

Micah Hauptman
Financial Services Counsel