ProShares

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March 24, 2020

Via Electronic Submission: rule-comments@sec.gov

Ms. Vanessa Countryman
Secretary
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Re: File No. S7-24-15

Dear Ms. Countryman:

ProShare Advisors LLC (together with its affiliated entities, "ProShares") appreciates the opportunity to submit its comments to the Securities and Exchange Commission (the "Commission" or the "SEC") on the above-referenced rule-making and supports the Commission's general desire to provide an updated and more comprehensive approach to funds' use of derivatives, within the limits of the Commission's statutory authority.

For the reasons described below, however, ProShares strongly opposes the unprecedented, unnecessary and harmful restrictions on investor choice that would result from the Commission's proposed "sales practice" rules for transactions in leveraged and inverse exchange-traded funds ("ETFs") and mutual funds (collectively, "Leveraged and Inverse Funds").

I. Background: ProShares and the Use of Leveraged and Inverse Funds

A. ProShares

ProShares is a leading provider of ETFs and mutual funds. Founded in 1997, ProShares today manages more than 250 funds with approximately $38 billion in assets under management. ProShares is the world's largest provider of Leveraged and Inverse Funds, managing more than 170 such funds with approximately $26 billion in assets under management.

B. History of Leveraged and Inverse Funds

First introduced in the United States in 1993 as mutual funds and launched as ETFs in 2006, Leveraged and Inverse Funds have been widely embraced by investors and have a long history of successful operation, including during periods of significant market volatility. Leveraged and Inverse Funds are available in the United States, Canada, eleven European nations, and five countries in Asia. Globally, more than $87 billion is invested in Leveraged and Inverse Funds, with approximately $52 billion invested in the United States.

Investors use Leveraged and Inverse Funds in a variety of beneficial ways, including to manage risk in volatile markets and to magnify gains more cost-effectively and efficiently than may be possible with other strategies. Leveraged and Inverse Funds operate based on clear daily investment objectives that are well understood by investors, who may responsibly choose to hold them for a single day or some longer period as part of their investment strategy.

ProShares' disclosure describing how Leveraged and Inverse Funds operate is extensive and robust and has been proven effective over time. Typical disclosures for Leveraged and Inverse Funds set forth the target leverage amount and daily objective in clear and concise terms and in a manner that allows investors and financial advisers to understand the distinct characteristics of Leveraged and Inverse Funds, including the effect of holding such funds for longer than a single day, so that they can make informed investment decisions. ProShares prominently discloses this information, along with each fund's principal investment strategies and risks, at the very beginning of each fund's prospectus. In addition, ProShares and other Leveraged and Inverse Fund sponsors have made significant efforts to publish and distribute materials designed to educate investors about the operation of Leveraged and Inverse Funds and to help investors and their financial advisers better understand the potential benefits and risks associated with the use of such funds as part of an overall investment portfolio.

II. The Proposed Rules for Leveraged and Inverse Funds Represent a Radical and Unmerited Departure from Longstanding Commission Policy and Would Harm Investors

A. The proposed rules establish a novel and unprecedented burden on individual investors to prove their capability to purchase a publicly traded security

The proposed rules applicable to Leveraged and Inverse Funds, despite their label, do not regulate a "sales practice" (or even "leverage"), but instead impose a "qualification" requirement on investors. Rather than address how products are *sold* to investors by an intermediary, they establish standards that investors must meet in order to *buy* them.[1]

[1] 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, Exchange Act Release No. 87,607, Advisers Act Release No. 5413, Investment Company Act Release No. 33,704, 85 Fed. Reg. 4446 (Jan. 24, 2020) (the "Release").

In marked contrast to the FINRA options rules cited in the Release, the proposal is not merely a restriction on "recommendations" or similar sales activities by a broker-dealer.[2] Instead, the Commission's proposal would prohibit transactions in Leveraged and Inverse Funds unless an *investor* can demonstrate the requisite level of "knowledge and experience" *even when making self-directed investment decisions*.[3] That critical distinction makes all the difference.

There is no precedent under the federal securities laws for imposing this type of "drivers test" on investor access to publicly traded securities. On the contrary, this form of merit regulation is inconsistent with the entire history of the federal securities laws, which were founded on the principle that the disclosure of accurate information is the strongest form of investor protection. Indeed, from the earliest years of federal securities regulation, it has been clear that the Commission's mission is not to protect investors from themselves, but rather to promote informed decision-making based on full and accurate disclosures to investors.[4]

The proposed restriction on investors' ability to purchase Leveraged and Inverse Funds also runs directly counter to the Commission's efforts to broaden retail investors' access to investment products.[5] The proposal would instead create a new barrier denying retail investors access to these securities, even though they have long shown the capability to use them for their intended purposes.

Even more remarkably, the proposed rules would disrupt the relationship of investment advisers and their clients. Specifically, the proposal would also prohibit investors from acquiring the products *through an expert investment adviser* if they do not personally have the requisite "knowledge and experience" – entirely defeating the very purpose of retaining an adviser in the first place. In other words, the rules would require the investor to pass the "driver's test" even when they have hired an Uber driver to get them to their destination.

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2 *See* Release at 4493.

3 The FINRA options rules upon which the Commission relies require a customer to meet a "knowledge and experience" test only in cases where broker-dealers make "recommendations" – *i.e.,* the FINRA rules, unlike the Commission's proposed rules, in fact impose requirements solely on a "sales practice." They do not require FINRA members to block access to a publicly traded security. FINRA Rule 2360(b)(19)(B). Moreover, given the very different role and authority of self-regulatory organizations under the federal securities laws, the rules of those organizations cannot be viewed as a reliable precedent upon which to base Commission regulation of broker-dealers (much less the imposition of new and unprecedented obligations on investment advisers).

4 Harvey L. Pitt, Chairman, U.S. SEC, Testimony Concerning Financial Literacy (Feb. 5, 2002), *available at* 2002 WL 198062, at *2 ("Ours is a disclosure-based system. And it is our job to promote clear, accurate, and timely disclosures—proactively."); Statement of David Schenker, Chief Counsel, SEC, *Investment Trusts and Investment Companies: Hearings Before the Subcomm. on Sec. & Exch. of the S. Comm. on Banking & Currency*, 76th Cong. 266 (1940) (""If [a fund is] going to be a speculative investment trust, and they disclose that fact to their investors, and the investors want to invest in that type of investment company, who are we to say, 'No, you shall not invest in that type of company?'").

5 For example, even in the absence of the disclosure protections available for registered securities offerings, the Commission in December 2019 proposed to amend the definition of "Accredited Investor" to "allow more investors to participate in private offerings." *See* SEC Press Release, SEC Proposes to Update Accredited Investor Definition to Increase Access to Investments (Dec. 18, 2019).

More generally, this radical departure from traditional regulatory policy highlights how the proposal – by rigidly singling out one product to meet a novel qualification requirement – is at odds with the Commission's efforts to establish more general requirements under Regulation Best Interest and its interpretation of the fiduciary standard for reviewing and assessing client needs. Further, if the proposed restrictions are imposed for these products, the Commission will inevitably find itself being asked to consider why it has not adopted similar rules for other products in the future – driving it toward a form of case-by-case evaluation of securities products outside its statutory mandate and inconsistent with its institutional role and capabilities.

B. The proposed rules are unnecessary – a solution in search of a problem

The Commission has presented no evidence that traditional disclosure is inadequate to meet the needs of investors in Leveraged and Inverse Funds. As noted above, existing disclosure fully identifies the one-day objective of Leveraged and Inverse Funds and the impact that has on investors who may hold the investment for longer periods. The sustained growth and success of these products in meeting investor needs – based on time-tested and transparent disclosure available in prospectuses and from many other sources – only confirms the lack of any basis for singling them out, particularly when compared to the many riskier and more complex instruments available in the marketplace.

Moreover, even if the Commission were able to proffer evidence that raised legitimate concerns about the adequacy of investors' understanding of existing disclosure, there are numerous reasonable alternatives that the Commission could and should have considered consistent with its administrative law obligations and its historical statutory and policy mandate. These include, for example, website disclosure or investor tools that could strengthen the already robust disclosure provided in prospectuses.

C. The proposed rules would only harm investors, not protect them

The proposed rules would deprive investors of a valuable and well-established tool for managing risk, particularly in the context of potentially volatile markets. The benefits of these products are widely attested in the thousands of individual and thoughtful comment letters that have been submitted to the Commission by investors who use Leveraged and Inverse Funds.

Investors use Leveraged and Inverse Funds for many purposes, including to increase buying power or target specific segments of the market, or to hedge market risk or reduce the risk of volatility. Investors can seek to achieve these aims, moreover, without putting additional money at risk beyond the purchase price of the fund.

Indeed, one of the foreseeable, if presumably unintended, consequences of adopting the proposed rules would be to encourage retail investors pursuing these same investment objectives to substitute potentially riskier and more complex alternatives, such as shorting, options, futures or margin accounts. In contrast to Leveraged and Inverse Funds, these alternatives may entail considerably greater complexity and may pose substantially greater economic risk to investors, including losses that exceed invested principal (even as the proposed

rules, which would not cover these alternatives, might implicitly offer investors a false sense of security about them).

III. The Commission Cannot Proceed with the Proposed Rules Consistent with Applicable Law

The proposed rules – unsurprisingly in light of their departure from longstanding Commission policy – cannot be reconciled with the Commission's statutory authority or its obligations under administrative law. As set out in the attached Memorandum of Law, the proposed rules are certain to fail for numerous reasons, including:

1. the Commission lacks statutory authority to adopt the proposed rules;

2. the proposed rules are arbitrary and capricious;

3. the proposed rules would reduce efficiency, stifle competition and deter capital formation; and

4. the costs of the proposed rules far exceed their benefits.

IV. Conclusion

Although ProShares appreciates the Commission's desire to review the framework for use of derivatives by registered investment companies, that review offers no basis for establishing an unprecedented new qualifications test for investors in Leveraged and Inverse Funds nor to take other actions outside the Commission's statutory authority. For the reasons described above and in the attached Memorandum of Law, adoption of the proposed rules would be bad public policy, inconsistent with the interests of investors and the markets, and contrary to the laws governing Commission rulemaking.

* * *

Once again, we appreciate the opportunity to share our views on this important issue. If you have any questions, please do not hesitate to contact Richard Morris, ProShares' General Counsel, at [redacted]

Sincerely yours,

Michael L. Sapir
Co-Founder and Chief Executive Officer

Attachment

cc: Walter J. Clayton, III, Chairman
Allison H. Lee, Commissioner
Hester M. Peirce, Commissioner

Elad L. Roisman, Commissioner
Dalia O. Blass, Director, Division of Investment Management
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Before the
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Use of Derivatives by Registered Investment Companies and Business Development Companies;	File No. S7-24-15
Required Due Diligence by Broker-Dealers and Registered Investment Advisers Regarding Retail Customers' Transactions in Certain Leveraged/Inverse Investment Vehicles	RIN 3235-AL60

MEMORANDUM OF LAW REGARDING THE SEC'S PROPOSED ACCESS RULES AND USE-OF-DERIVATIVES RULE

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March 24, 2020

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INTRODUCTION

This rulemaking puts the Securities and Exchange Commission on the brink of a massive expansion and fundamental transformation of its role in overseeing the securities markets. The proposed rule on the use of derivatives by registered investment companies and proposed "sales practices" rules for leveraged and inverse funds would—*for the first time ever in the Commission's history*—preclude investors from buying or selling a publicly traded security if they do not meet a government-established standard of competence based on factors including net worth. *See* Use of Derivatives By Registered Investment Companies, Exchange Act Release No. 87,607, Advisers Act Release No. 5413, Investment Company Act Release No. 33,704, 85 Fed. Reg. 4446 (Jan. 24, 2020) ("Proposing Release"). The proposed rules are not only a radical break with history, they are a solution in search of a problem that does not exist. The Commission identifies no problem or market failure that would warrant such heavy-handed intervention in our public markets. The rules would only harm investors by reducing choice, driving up costs, forcing investors into riskier alternatives, and ultimately undermining ordinary investors' confidence in the fairness of markets by sending the message that only the wealthy may access certain products. ProShare Advisors LLC (together with its affiliated entities, "ProShares") respectfully urges the Commission to withdraw the proposed rules, and to reaffirm its longstanding policy that all Americans have a right to access the full range of products available in our public markets.[1]

The Proposed Rules Are Unprecedented. The proposed rules are a stark departure from longstanding Commission policies in favor of equal access to markets and investor autonomy, and

[1] This Memorandum of Law is submitted on behalf of ProShare Advisors LLC and ProFund Advisors LLC, each an investment adviser; ProFunds Distributor, Inc., a broker-dealer; ProShare Capital Management LLC, a sponsor of leveraged and inverse funds; ProShares Trust, ProFunds, and Access One Trust, each a registered investment company; and ProShares Trust II, a trust offering leveraged and inverse ETFs.

they fling open the door for the Commission to place future restrictions on access to other public securities disfavored by the government. The Commission has *never before* barred investors from accessing a publicly offered security, as Commissioners Peirce and Roisman point out. *See* Hester M. Peirce & Elad L. Roisman, Comm'rs, U.S. SEC, Statement on the Re-Proposal to Regulate Funds' Use of Derivatives as Well as Certain Sales Practices pt. II.B (Nov. 26, 2019) ("Peirce & Roisman Statement"). The proposal is at odds with nearly 90 years of statutory and regulatory precedent—precedent that gives investors and their advisers the freedom to make their own investment decisions based on complete and accurate information. The Commission should not head down the dangerous path of picking who can and cannot participate in public markets.

The Proposed Rules Are Unnecessary. The proposed rules are a big-government solution in search of a problem. The Commission has adduced no evidence of a problem to be solved with respect to leveraged and inverse funds, much less an urgent need justifying the Commission's bluntly paternalistic proposal. Leveraged and inverse funds are time-tested, predictable, and transparent products whose benefits and risks investors well understand, and the Commission has nothing to support its contrary views. The Commission identifies no special risks to warrant disfavoring these funds relative to other, far riskier products such as volatile individual stocks, and it fails meaningfully to consider more effective and less burdensome alternatives such as enhanced disclosures—the traditional Commission remedy in keeping with its proper statutory role. The Commission fails to allow its other recently promulgated initiatives in this area, including Regulation Best Interest and the related interpretation on investment adviser standards of conduct (the "Fiduciary Interpretation"), to take effect before adding another layer of redundant, conflicting, and costly regulatory burdens.

The Proposed Rules Are Bad For Investors. At the end of the day, the proposed rules will only harm investors, not protect them. They will deprive millions of investors of a valuable financial tool, with conservative uses like hedging risk, that could benefit them. At the same time, the proposed rules will perversely drive investors to riskier alternative strategies for achieving their investment objectives, such as trading on margin or short selling stock. They will impose massive systemic costs that will predictably be passed on to investors, raising costs for them, with little or no offsetting benefits. And the rules will ultimately undermine Main Street investors' confidence in the integrity of markets by telegraphing that the wealthy have an unfair advantage with special access to certain financial products.

If the Commission does proceed with this ill-advised regulatory experiment, the proposed rules are certain to fail for numerous reasons.

The Commission Lacks Statutory Authority To Adopt The Proposed Rules. The so-called "sales practices" rules are in reality "access rules" that would restrict investors' ability to access leveraged and inverse funds. But the Commission lacks statutory authority to impose an "approval" requirement obligating investors to demonstrate that they have sufficient "knowledge and experience" to be capable of investing in a publicly traded security. This is not regulation of a "sales practice" or "leverage"; it is an entirely novel burden on individual investors to prove their capability to purchase a publicly available product—a "driver's test" for the investor, not a restriction on the sales activity of the broker-dealer or adviser or the capital structure of the underlying fund. The fact that the Commission has never imposed such limits on access to a publicly traded security is strong evidence that it has no such power.

The Commission's proposed rule on funds' use of derivatives also lacks statutory authority. Derivatives are not "senior securities" governed by section 18 of the Investment Company Act,

and the Commission's reliance on nebulous notions of statutory "purpose" cannot overcome that provision's clear text. Other textual limitations in section 18 also independently deprive the Commission of authority to promulgate the use-of-derivatives rule.

The Proposed Rules Are Arbitrary And Capricious. The proposed rules are arbitrary and capricious for a multitude of reasons. The Commission has demonstrated no real problem that the proposed rules will address. Moreover, the proposed access rules would restrict investors' ability to access publicly traded leveraged and inverse funds. Not only is this form of merit regulation contrary to the basic policy judgments reflected in our nation's securities laws, but it also departs from the Commission's own longstanding approach favoring open markets and allowing investors to make their own investment decisions in light of accurate information. The access rules also cannot be reconciled with the Commission's efforts to expand investor choice through amendment of the definition of "accredited investors." Although the Commission claims to be concerned with investors' ability to understand leveraged and inverse funds, the access rules would not advance investor understanding at all. On the contrary, the rules would have the counter-productive effect of forcing investors into more opaque, riskier, and more costly investment strategies. In addition, the proposed definition of "leveraged/inverse investment vehicle" is not tailored to the Commission's purported objectives because it includes funds that would satisfy the Commission's proposed limits on fund leverage risk, such as funds that seek returns of up to 150% of the underlying index, inverse funds, and even funds that seek to achieve returns of a smaller multiple than their underlying index. And the Commission failed to consider reasonable and less burdensome alternatives to the access rules, such as disclosure requirements. At a minimum, the Commission should allow time to observe how Regulation Best Interest and the related Fiduciary Interpretation operate in practice before taking any further action.

The Commission's proposed rule on funds' use of derivatives is also arbitrary and capricious. The use-of-derivatives rule relies heavily on "value at risk," or "VaR," as a measure of leverage risk. But VaR measures the risk of potential adverse market movements—not leverage risk—and the Commission has not demonstrated that its use in this context is appropriate. Indeed, just five years ago, the Commission said it was *not* an appropriate way to measure risk. The use-of-derivatives rule also mandates a series of percentage limits on VaR that have no rational basis. And the Commission cannot impose the general VaR limit as an alternative to the access rules because it has no reasonable basis to do so and such action would frustrate long-settled reliance interests.

The Proposed Rules Would Reduce Efficiency, Stifle Competition, And Deter Capital Formation. The proposed rules independently would violate the Exchange Act, the Investment Company Act, and the Investment Advisers Act because the rules do not promote efficiency, competition, and capital formation. The Commission admits that it cannot show otherwise, and this statutory violation also confirms that the proposed rules are arbitrary and capricious.

The Costs Of The Proposed Rules Far Exceed The Benefits. The Commission's economic analysis fails to show that the benefits of the proposed rules exceed the costs. In fact, the reverse is true. The Commission fails to consider the sufficiency of existing protections that address the Commission's stated concerns, and the Commission severely underestimates the actual costs of the proposed rules.

The Proposed Rules Are Bad Public Policy. The proposed rules would be bad public policy. The rules would open the door to a form of merit regulation that the SEC has long eschewed, and would exclude a class of investors from being able to access a category of products in our public markets. These innovations are at odds with the Commission's efforts at expanding investor

access in other contexts, and with the Administration's efforts to streamline or eliminate burdensome and costly regulations.

For these and other reasons, ProShares respectfully urges the Commission to abandon this unprecedented, unlawful, and unwise proposal. However, ProShares supports the Commission's general desire to provide an updated and more comprehensive approach to funds' use of derivatives, within the limits of the Commission's statutory authority. *See* Comment of ProShare Advisors LLC 1, File No. S7-24-15 (Mar. 28, 2016) ("ProShares 2016 Comment"). Thus, ProShares does not object to the Commission's stated intent to include leveraged and inverse funds within the scope of exemptive rule 6c-11. But the remainder of the Commission's proposal is marred by fatal legal and policy flaws, and should not be carried into effect.

BACKGROUND

A. ProShares

ProShares is a leading provider of exchange-traded funds ("ETFs") and mutual funds. ProShares was founded in 1997 as a mutual fund sponsor and launched its first ETF in 2006. As of February 29, 2020, ProShares manages more than 250 funds with approximately $38 billion in assets under management.

ProShares offers a broad spectrum of funds across a range of investment categories, including:

- *Core strategies*: Equity and fixed-income funds that can serve as replacements to core portfolio allocations, such as dividend growth funds and currency-hedged funds.
- *Alternative strategies*: Liquid alternative investment strategies designed to help manage risk or enhance returns, including managed futures funds and long/short funds.
- *Tactical investing tools*: Funds generally designed to be employed on a tactical basis to obtain specific market exposure, including leveraged and inverse funds.

ProShares is the world's largest provider of leveraged and inverse ETFs and mutual funds—the target of the proposed access rules. ProShares currently manages more than 170 such funds with approximately $26 billion in assets under management.

B. Leveraged and Inverse Funds

Leveraged and inverse funds are a category of index funds designed to deliver returns (before fees and expenses) equal to a specified multiple (or inverse multiple) of the return of a given benchmark, such as the S&P 500® Index, typically for one-day periods. Leveraged funds seek to deliver "magnified" or "leveraged" exposure (e.g., 2x) to their underlying benchmark. Inverse funds seek to deliver "short" or "inverse" exposure (e.g., -1x) to the underlying benchmark; they seek to have their value move in the opposite direction of their benchmark.

To achieve their daily investment objective, leveraged and inverse funds use a variety of derivatives, as do many other investment companies. Derivatives are financial instruments whose value relies on—or derives from—an underlying asset, such as a stock, bond, currency, interest rate, market index, or commodity. Typical derivatives include:

- Options: contracts that give the buyer the right—but not the obligation—to buy or sell an underlying asset and, conversely, obligate the seller to sell or buy that underlying asset at a specified price at a specified future date;
- Futures and forwards: standardized and non-standardized agreements, respectively, to buy or sell an asset at a specified price at a specified future date; and
- Swaps: agreements between two counterparties to exchange—or swap—the values or cash flows from one asset for another.

Derivatives such as these provide an efficient mechanism to gain precise exposure to a market, market segment, asset, or asset class, including for conservative purposes such as hedging. All manner of funds use derivatives. Far from comprising an esoteric threat to the fabric of the financial markets, derivatives are essential tools that play an important and established role in today's

marketplace. And leveraged and inverse funds use these products to consistently achieve the specified multiple stated in their daily investment objective.

Leveraged and inverse mutual funds were first introduced in the United States in 1993 and the first leveraged and inverse ETFs were launched by ProShares in 2006. Since then, leveraged and inverse funds, sometimes referred to as "geared funds," have been widely embraced by investors, including financial professionals, institutions, and self-directed investors. They have operated successfully for more than 25 years in a variety of market conditions, including periods of significant market volatility. Today, these funds are available in the United States, Canada, eleven European nations, and five countries in Asia. Globally, more than $87 billion is invested in leveraged and inverse funds, with approximately $52 billion invested in the United States. Billions of dollars in leveraged and inverse funds trade each day. This proven record and the broad market acceptance of leveraged and inverse funds demonstrate the inherent value of these products to investors.

As explained below, investors have long made their own decisions to successfully employ leveraged and inverse funds for a variety of beneficial purposes. In making these decisions, investors enjoy access to widely available information about the products, including extensive coverage by the media, research firms and other widely available sources, detailed disclosures from brokerage firms, and the robust disclosure that ProShares itself provides pursuant to existing legal and regulatory requirements.

1. Investors Use Leveraged And Inverse Funds In Beneficial Ways.

Investors typically use leveraged and inverse funds for tactical purposes or as part of an overall investment strategy. For example, leveraged funds may allow investors to magnify gains by increasing their exposure to a segment of the market they believe will increase in value. Leveraged funds also may allow investors to increase their buying power, freeing capital resources for

other purposes, such as increasing diversification or maintaining a cash reserve. An investor may use leveraged funds to obtain a target exposure to a segment of the market with less money at risk. Additionally, inverse funds may allow investors a cost-effective way to hedge, or protect against the risk that an asset they hold may lose value. In these and other ways, leveraged and inverse funds allow investors to pursue a variety of strategies to help manage risk, reduce volatility, and enhance returns by providing precise leveraged or inverse exposure to specified asset classes, markets, or market segments.

Leveraged and inverse funds have a strong track record of delivering performance that is consistent with their stated investment objective. In other words, they do exactly what they say they will do, which is to offer a stated multiple or inverse of the return of an underlying benchmark for a specified period of time. Leveraged and inverse funds have historically performed as designed in all market cycles, including the financial crisis of 2007–2009.

2. Leveraged And Inverse Funds Offer Investors Significant Comparative Benefits.

Leveraged and inverse funds offer investors significant benefits in comparison to alternative investment approaches. An investor's risk of loss from investing in leveraged and inverse funds is limited to the amount invested in the fund. In contrast, many of the other methods investors can use to obtain leverage or take a short position may have unlimited risk of loss. For example, when taking a short position (that is, selling a security one does not own with the expectation it will decline in value), an investor's risk of loss is theoretically infinite; there is no limit to how much the security could appreciate and thus no limit to the cost to cover the short position. Similarly, when an investor obtains leverage by borrowing money to purchase securities, the investor's

risk includes the obligation to repay the amount borrowed and therefore extends beyond the principal amount invested in the securities. Leveraged and inverse funds offer a limited and predictable risk of loss relative to these other strategies to achieve comparable investment objectives.

Leveraged and inverse funds also offer investors a consistent daily exposure to an underlying index. As described in greater detail below, leveraged and inverse funds with a daily investment objective reset their exposure to the underlying benchmark each day to maintain a level of exposure consistent with their stated investment objective. The daily objective multiple is fixed and clearly disclosed.

Furthermore, leveraged and inverse funds are less complicated and more convenient to purchase, sell, and track than many other traditional methods of obtaining leveraged and inverse exposure. For example, to achieve leveraged or inverse market exposure that is comparable to that of a leveraged or inverse fund, an investor may need to trade options, trade on margin, short sell stock, or invest in exchange-traded notes—all of which involve complexities not present in leveraged and inverse funds.[2] Leveraged and inverse funds offer the same or similar market exposure in a single security with the convenience of a single ticker symbol. By monitoring the ticker symbol for the leveraged and inverse ETF, investors can, for example: (1) assess the price of their investment at any moment during a trading day; and (2) use stop and limit orders to trade their

[2] Options trading, for example, "requires knowledge of unique terminology . . . [and] trading strategies." Comment of Jonathan Appelbaum, File No. S7-24-15 (Feb. 26, 2020). It also frequently involves the "simultaneous[]" purchase and/or sale of different options at different strikes. George M. Jabbour & Philip H. Budwick, *The Option Trader Handbook* 267 (2d ed. 2010). Even for experienced traders, this can be a "complex" endeavor, fraught with risk. Comment of Andrew Heiden, File No. S7-24-15 (Jan. 29, 2020).

investment, which could be difficult or impossible for other methods of obtaining comparable exposure. *See* Ex. 1, at 23–50 (Expert Report of James A. Overdahl, Ph.D., Delta Strategy Group) ("Overdahl Report") (evaluating the relative simplicity of leveraged and inverse funds).

Finally, leveraged and inverse funds may be more cost-effective than other means of obtaining leveraged or short positions, such as buying or selling securities in a margin account. The interest and other charges assessed by a broker in buying or selling securities in a margin account may exceed the cost of obtaining comparable exposure through a leveraged or inverse fund.

3. Leveraged And Inverse Funds Are Subject To The Same Regulations, And Have The Same Structure And Management, As Other Funds.

Leveraged and inverse funds are regulated and structured like other funds. Like all mutual funds and ETFs, leveraged and inverse funds are heavily regulated by longstanding federal securities laws and regulations, including the Investment Company Act of 1940, the Securities Act of 1933, and the Securities Exchange Act of 1934 (the "1934 Act" or "Exchange Act"). The marketing and sales of leveraged and inverse funds are also regulated by the Commission under the 1934 Act and by the Financial Industry Regulatory Authority ("FINRA"), the self-regulatory body for broker-dealers. Furthermore, leveraged and inverse funds are subject to the same disclosure requirements as other mutual funds and ETFs. These regulations require clear disclosures to ensure that investors are presented with full information about leveraged and inverse funds' attributes, investment objectives, and risks.

In addition, SEC-registered brokers offering and selling leveraged and inverse funds must comply with FINRA rules governing the offer and sale of mutual fund and ETF shares. "In particular, recommendations to customers must be suitable and based on a full understanding of the terms and features of the product recommended; sales materials related to leveraged and inverse ETFs must be fair and accurate; and firms must have adequate supervisory procedures in place to

ensure that these obligations are met." FINRA Notice 09-31, Non-Traditional ETFs, 2009 WL 1663507, at *1 (June 11, 2009).

In addition to being regulated in the same manner as other funds, leveraged and inverse funds are also managed like other index funds. Because leveraged and inverse funds are designed to deliver a multiple of the performance of an underlying benchmark for a designated period, there are no manager bets. This regulatory and disclosure framework provides robust protections for investors.

4. Leveraged And Inverse Funds Are Consistent, Constrained, And Transparent.

Leveraged and inverse funds use leverage and derivatives in a manner that is consistent, constrained, and transparent. Exposure to the benchmark is reset each day to a set multiple, there are no manager bets, and the daily objective multiple is fixed and clearly disclosed. This differentiates leveraged and inverse funds from other funds, whose use of derivatives is often based on a manager's subjective judgment. Moreover, "[t]he risks of leveraged products are actually simpler to understand than those of" many other investments, including common stocks. Comment of Professor James J. Angel 5, File No. S7-24-15 (Feb. 24, 2020) ("Angel 2020 Comment").

While leveraged and inverse funds have a distinctive feature—their daily investment objective—other financial products available to retail investors, such as other mutual funds and ETFs, also have distinctive features. *See* Ex. 1, at 38–50 (Overdahl Report). For example, leveraged loan funds invest in often complex assets that present unique risks of credit default, liquidity issues, potential issues regarding the future discontinuance of LIBOR, and offer fewer protections than other loans. *See* Leveraged Loan Funds: Investor Bulletin (Nov. 20, 2019), https://www.investor.gov/introduction-investing/general-resources/news-alerts/alerts-bulletins/investor-bulletins

/leveraged. Other funds also have complex features, such as opaque, subjective investment strategies that are not as easily understood by investors. An example from the category of alternative mutual funds is the Blackstone Alternative Multi-Strategy Fund, which is invested in four different strategies—Equity Hedge, Relative Value, Event Driven, and Macro. That fund also allocates assets to 14 sub-advisers, some of which are large hedge funds, for investment in a variety of other strategies. An investor would need to understand each strategy and each adviser's role in the overall fund to fully comprehend this product. *See* Ex. 1, at 41–42 (Overdahl Report). In addition, principal protected notes, defined outcome ETFs, exchange-traded notes, and ETFs with bespoke underlying indices also have unique features and complexities that distinguish them from other funds. *See id.* at 43–50.

A recent review by James J. Angel, Ph.D., CFA and Associate Professor of Finance at Georgetown University's McDonough School of Business, confirms research conducted by ProShares that shows the vast majority of leveraged and inverse funds have risk levels that are much lower than some people believe, and often comparable to or less than individual stocks. *See also* Comment of William F. Trainor, Jr., Ph.D., CFA and Professor of Finance at East Tennessee State University 1, File No. S7-24-15 (Mar. 16, 2020) ("Trainor Comment") (stating that leveraged and inverse funds "are also less risky than individual stocks"). A common way to assess the riskiness of an asset is to measure its volatility. Andrew Ang, *Asset Management* § 2.3 (2014); Frederick Rosenberg, *The Financial Plan*, 12-SPG PIABA B.J. 18, 18 (2005); *see also, e.g.*, Improving Descriptions of Risk By Mutual Funds and Other Investment Companies, Securities Act Release No. 7153, Exchange Act Release No. 35,546, Investment Company Act Release No. 20,974, 1995 WL 137089, at *5 (Mar. 29, 1995). Professor Angel found that "[t]he volatilities of the leveraged ETFs are often very similar to those of ordinary common stocks. This is because the underlying

indices are well diversified and thus have lower risk than individual securities due to the well-known risk-reducing properties of diversification." Comment of Professor James J. Angel 5, File No. S7-24-15 (Mar. 28, 2016) ("Angel 2016 Comment"); *see also* Angel 2020 Comment 4 ("At a volatility of the S&P 500 [Index] around 15%, a 3X leveraged [S&P 500 Index] product has a volatility of around 45%, which is easily within the range of typical common stocks. For comparison, note that Tesla has a volatility of 62%, Teva Pharmaceuticals 69%, and Twitter, 52%.").

For example, from its inception in 2006 through December 31, 2019, the ProShares 2x S&P 500® Index fund (ticker: SSO) was, on average, less volatile than approximately 40% of the individual stocks in the S&P 500® Index. The average volatility of this leveraged fund was less than 3% higher than the average volatility of the individual stocks in the S&P 500® Index for that same period.

5. Leveraged And Inverse Funds Operate Based On Clear Daily Investment Objectives.

A key feature of most leveraged and inverse funds is that they have a clear daily investment objective. This means they seek to provide their stated multiple (e.g., 2x) of the return of their underlying benchmark for one day but for no other period. (All ProShares leveraged and inverse funds have a single-day investment objective.) This straightforward aspect of leveraged and inverse funds differentiates them from other types of funds, which generally have investment objectives that are not time-constrained.

In order to ensure that the stated multiple for each fund remains consistent from day to day, ProShares adjusts the portfolio holdings of leveraged and inverse funds on a daily basis. This process, often referred to as "daily rebalancing," allows each fund to maintain a daily level of

exposure and risk consistent with its stated investment objective and is designed to ensure that a fund's leveraged exposure will not float unpredictably over time.[3]

6. Investors May Responsibly Hold Leveraged And Inverse Funds For Longer Than A Single Day.

Investors may responsibly choose to hold leveraged and inverse funds for periods longer than a single day. Short-term use of leveraged and inverse funds for longer than one day can and often does achieve a return close to the one-day objective. Investors can even keep their returns in line with the fund's daily objective over a longer period by rebalancing over time—that is, by trimming from or adding to their positions as the difference between the benchmark's return and the fund's return grows. Academic literature also shows that leveraged and inverse funds can usefully be incorporated into longer-term investment strategies. For example, studies have shown that "[a] daily re-leveraged buy and hold of the S&P 500 [Index] would have significantly outperformed the unleveraged strategy, by multiples in excess of the leverage factor. . . . [T]he 3x leveraged cumulative return since 1928 is an astonishing 290 times that of the unleveraged S&P 500 [Index]." Michael A. Gayed & Charles V. Bilello, *Leverage for the Long Run* 3 (2016); *see also* Trainor Comment 2 (detailing numerous academic studies that show leveraged and inverse funds "can not only be a buy-and-hold type of investment for the less risk-averse but can also be used by the more risk-averse for hedging and reducing risk exposure while still participating in upward moving markets").

Significantly, analysis of data from MorningstarDirect shows that between January 1, 2010 and December 31, 2019, all of the top twenty performing mutual funds and ETFs over the past

[3] While ProShares' leveraged and inverse funds rebalance their portfolios back to their stated multiple (e.g., 2x) on a daily basis, some leveraged and inverse funds rebalance on a monthly basis. A monthly rebalanced fund's exposure would be expected to deviate from its stated multiple (e.g., above or below 2x) between monthly rebalances.

decade were leveraged funds. Accordingly, although it behooves investors to be aware of the risks of holding leveraged and inverse funds for longer than a day, it is not unreasonable to do so as part of a longer-term investment strategy.

7. Leveraged And Inverse Funds Are Accompanied By Substantial Investor Disclosures And Other Safeguards.

As explained above, leveraged and inverse funds are subject to the same general disclosure requirements as other types of mutual funds and ETFs. These regulations require clear disclosures that ensure investors are presented with full information about leveraged and inverse funds' attributes, investment objectives, and risks. Investors also benefit from a system of informal mechanisms for disseminating information about leveraged and inverse funds, including educational efforts by fund providers, procedures imposed by broker-dealers requiring that investors acknowledge the unique features of these products before investing in them, and extensive coverage by the media, research firms, and other widely available sources.

Typical disclosures for leveraged and inverse funds set forth the target daily objective in clear and concise terms and in a manner that allows investors and investment advisers to understand the distinct characteristics of leveraged and inverse funds so that they can make informed decisions. ProShares prominently discloses this information, along with each fund's principal investment strategies and risks, at the very beginning of each fund's summary prospectus. An example of a typical summary prospectus is attached hereto as Exhibit 2 (hereinafter, "Summary Prospectus") and is available at https://www.proshares.com/funds/prospectus.html?ticker=SSO.[4]

[4] A Summary Prospectus is a concise, reader-friendly summary of key information about the fund that is provided to investors in the fund. *See* 17 C.F.R. § 230.498. In contrast, a statutory prospectus is the more detailed, long-form prospectus. An example of a statutory prospectus is available at https://www.proshares.com/media/prospectus/statutory_prospectus.pdf?param=1584900777447 (hereafter, "Statutory Prospectus").

Additional, detailed disclosures are also available on ProShares' website. *See Products*, ProShares, https://www.proshares.com/funds/#sort=Name&direction=asc&tab=literature (last visited Mar. 18, 2020) (offering fact sheets, profiles, summary and full prospectuses, statements of additional information, and annual and semiannual reports for each product).

ProShares' Summary Prospectuses clearly disclose the daily investment objective of each fund. Each fund's Summary Prospectus repeatedly emphasizes this daily objective, in bold type, beginning with the first sentence on the first substantive page. For example, in the first sentence on the first substantive page, in a section entitled "Important Information About the Fund," the Summary Prospectus states that the fund seeks to achieve a specified multiple of the underlying index only "for a single day" and then explains, in plain English and bold type, how the fund's performance may be impacted by the fund's daily investment objective. The relevant excerpt is shown on the following page:

2 :: ULTRA S&P500® SSO

Important Information About the Fund

ProShares Ultra S&P500 (the "Fund") seeks daily investment results, before fees and expenses, that correspond to two times (2x) the return of the S&P 500® Index (the "Index") **for a single day**, not for any other period. A "single day" is measured from the time the Fund calculates its net asset value ("NAV") to the time of the Fund's next NAV calculation. **The return of the Fund for periods longer than a single day will be the result of its return for each day compounded over the period. The Fund's returns for periods longer than a single day will very likely differ in amount, and possibly even direction, from the Fund's stated multiple (2x) times the return of the Fund's Index for the same period. For periods longer than a single day, the Fund will lose money if the Index's performance is flat, and it is possible that the Fund will lose money even if the level of the Index rises.** Longer holding periods, higher Index volatility and greater leverage each exacerbate the impact of compounding on an investor's returns. During periods of higher Index volatility, the volatility of the Index may affect the Fund's return as much as or more than the return of the Index.

Then, in the very next paragraph, the Summary Prospectus reinforces the potential adverse consequences of this feature, again in bold type using straightforward terms:

> **The Fund presents different risks than other types of funds. The Fund uses leverage and is riskier than similarly benchmarked exchange-traded funds that do not use leverage. The Fund may not be suitable for all investors and should be used only by knowledgeable investors who understand the consequences of seeking daily leveraged (2x) investment results, including the impact of compounding on Fund performance. Investors in the Fund should actively manage and monitor their investments, as frequently as daily. An investor in the Fund could potentially lose the full principal value of his/her investment within a single day.**

The immediately following section highlights each fund's particular daily investment objective for easy and unmistakable identification:

> **Investment Objective**
>
> The Fund seeks daily investment results, before fees and expenses, that correspond to two times (2x) the daily performance of the Index. **The Fund does not seek to achieve its stated investment objective over a period of time greater than a single day.**

Ex. 2, at 2 (Summary Prospectus).

As shown in these excerpts, ProShares clearly discloses the risks attendant to the daily investment objective of leveraged and inverse funds, including the fact that, over time, the returns of the fund may differ in amount and even direction from the daily investment objective of that fund. Investors are also told repeatedly and unambiguously that they may lose the full principal value of their investment in a single day.

In addition to providing this important information describing the key features of the funds, to further illustrate how the returns of a fund may deviate from its daily investment objective over periods of longer than a day, the Summary Prospectus also includes a color-coded table depicting, in numeric terms, potential deviations from a leveraged or inverse fund's stated multiple over time, depending on index performance and volatility.

- **Compounding Risk** – The Fund has a single day investment objective, and the Fund's performance for any other period is the result of its return for each day compounded over the period. This usually will differ in amount, and possibly even direction, from two times (2x) the daily return of the Fund's Index for the same period, before accounting for fees and expenses. Compounding affects all investments, but has a more significant impact on a leveraged fund. This effect becomes more pronounced as Index volatility and holding periods increase. Fund performance for a period longer than a single day can be estimated given any set of assumptions for the following factors: (a) Index volatility; (b) Index performance; (c) period of time; (d) financing rates associated with leveraged exposure; (e) other Fund expenses; and (f) dividends or interest paid with respect to securities in the Index. The chart below illustrates the impact of two principal factors – Index volatility and Index performance – on Fund performance. The chart shows estimated Fund returns for a number of combinations of Index volatility and Index performance over a one-year period. Actual volatility, Index and Fund performance may differ significantly from the chart below. Performance shown in the chart assumes: (a) no dividends paid with respect to securities included in the Index; (b) no Fund expenses; and (c) borrowing/lending rates (to obtain leveraged exposure) of zero percent. If Fund expenses and/or actual borrowing/lending rates were reflected, the Fund's performance would be different than shown.

Areas shaded darker represent those scenarios where the Fund can be expected to return less than two times (2x) the performance of the Index.

Estimated Fund Returns

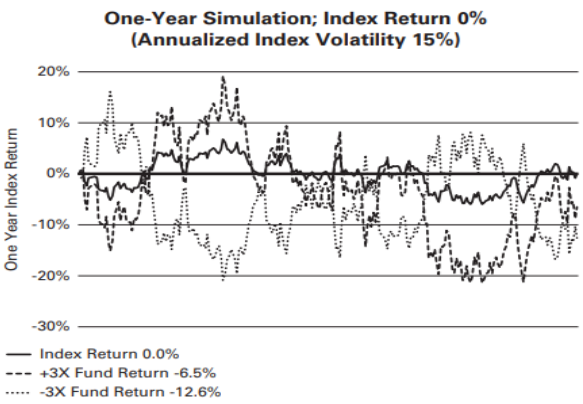
Index Performance		One Year Volatility Rate				
One Year Index	Two times (2x) the One Year Index	10%	25%	50%	75%	100%
-60%	-120%	-84.2%	-85.0%	-87.5%	-90.9%	-94.1%
-50%	-100%	-75.2%	-76.5%	-80.5%	-85.8%	-90.8%
-40%	-80%	-64.4%	-66.2%	-72.0%	-79.5%	-86.8%
-30%	-60%	-51.5%	-54.0%	-61.8%	-72.1%	-82.0%
-20%	-40%	-36.6%	-39.9%	-50.2%	-63.5%	-76.5%
-10%	-20%	-19.8%	-23.9%	-36.9%	-53.8%	-70.2%
0%	0%	-1.0%	-6.1%	-22.1%	-43.0%	-63.2%
10%	20%	19.8%	13.7%	-5.8%	-31.1%	-55.5%
20%	40%	42.6%	35.3%	12.1%	-18.0%	-47.0%
30%	60%	67.3%	58.8%	31.6%	-3.7%	-37.8%
40%	80%	94.0%	84.1%	52.6%	11.7%	-27.9%
50%	100%	122.8%	111.4%	75.2%	28.2%	-17.2%
60%	120%	153.5%	140.5%	99.4%	45.9%	-5.8%

Ex. 2, at 4.

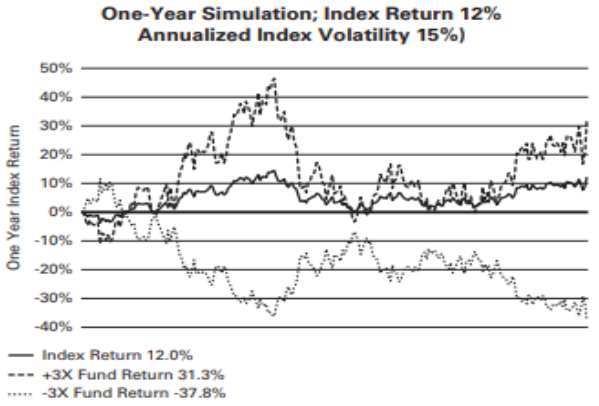
The Summary Prospectus also adds the caveat that this table does not exhaustively describe all risks, and directs interested investors to refer to the even more detailed information in the fund's Statutory Prospectus and Statement of Additional Information: "**For additional graphs and**

charts demonstrating the effects of Index volatility and Index performance on the long-term performance of the Fund, see 'Understanding the Risks and Long-Term Performance of Daily Objective Funds — The Impact of Compounding' in the Fund's Prospectus and 'Special Note Regarding the Correlation Risks of Geared Funds' in the Fund's Statement of Additional Information." Ex. 2, at 5.

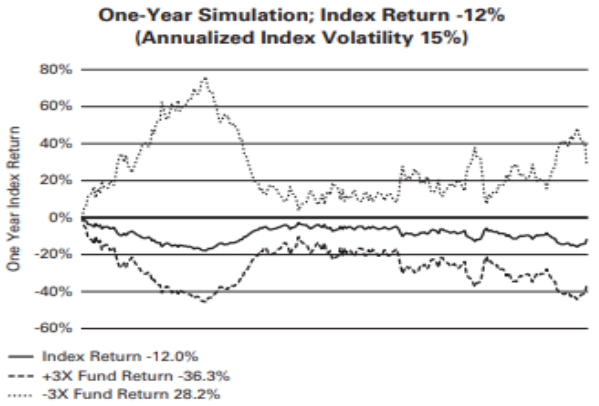
These cross-references direct interested investors to yet more detailed explanations and illustrations of the impact of compounding on fund performance and why leveraged and inverse funds "are unlikely to provide a simple multiple (i.e., -1x, 2x, -2x, 3x or -3x) of an index's performance over periods longer than a single day." ProShares Statutory Prospectus 638 ("Understanding the Risks and Long-Term Performance of Daily Objective Funds — The Impact of Compounding"). More specifically, this section of the Statutory Prospectus provides a series of simulations to illustrate how a fund's performance might deviate from a simple multiple of the index's performance over time based on the effect of index volatility.



The graph above shows a scenario where the index, which exhibits day-to-day volatility, is flat or trendless over the year (i.e., begins and ends the year at 0%), but the UltraPro ProShares (+3x) Fund and the UltraPro Short ProShares (-3x) Fund are both down.



The graph above shows a scenario where the index, which exhibits day-to-day volatility, is up over the year, but the UltraPro ProShares (+3x) Fund is up less than three times the index and the UltraPro Short ProShares (-3x) Fund is down more than three times the inverse of the index.



The graph above shows a scenario where the index, which exhibits day to day volatility, is down over the year, the UltraPro ProShares (+3x) Fund is down less than three times the index, and the UltraPro Short ProShares (-3x) Fund is up less than three times the inverse of the index.

See id. at 639–42. The Statutory Prospectus then sums up these detailed simulations by explaining, in plain English, "[w]hat it means for you" as an investor. *Id.* at 642. For investors who wish for even more detail, ProShares provides five additional pages of tables and explanation in the Statement of Additional Information "to isolate the effect of index volatility and index performance on

the return of a Geared Fund" over periods longer than a single day. ProShares Statement of Additional Information 35–40 (Oct. 4, 2019), *available at* https://www.proshares.com/resources/prospectus_reports.html ("Special Note Regarding the Correlation Risks of Geared Funds"); *see also* Ex. 1, at 26–35 (Overdahl Report) (analyzing ProShares' disclosures in detail).

Beyond the various disclosures and protections mandated by regulation, fund sponsors and financial intermediaries have voluntarily undertaken robust investor education programs designed to inform investors about the key features of leveraged and inverse funds. In particular, ProShares and other leveraged and inverse fund sponsors have made significant efforts to publish and distribute materials designed to educate investors about the operation of leveraged and inverse funds and to help investors and their investment advisers better understand the potential benefits and risks associated with the use of funds as part of an overall investment portfolio. For example, the "Education" section of ProShares' websites contains a number of publications written in plain English designed to help educate investors about the key features, uses, and risks of leveraged and inverse funds. In a typical publication, "Geared Investing: An Introduction to Leveraged and Inverse Funds," ProShares highlights important information about the use of leveraged and inverse funds:

> Leveraged and inverse investing is not for everyone.
>
> . . .
>
> Leveraged and inverse fund positions should be actively managed and monitored, as frequently as daily. Investors holding a geared fund longer than one day may want to rebalance on a regular basis to maintain consistent exposure.
>
> There are many ways to use leveraged and inverse funds, but, generally speaking, geared funds should not compose a large portion of most investors' portfolios.
>
> There are advantages, disadvantages, and risks with all geared investments. Carefully read the prospectus before investing in any geared fund to understand all the risks and benefits.

Many broker-dealers have also implemented enhanced procedures to ensure investors and their financial advisers understand the risk and benefits of leveraged and inverse funds. *See, e.g.*, Comment of Scott Shea, File No. S7-24-15 (Mar. 6, 2020) ("My broker Fidelity fully explained all the risks."); Comment of John Tran, File No. S7-24-15 (Feb. 20, 2020) ("Brokerage houses like Fidelity Investments have repeatedly post[ed] warnings about leveraged funds on their websites."); Comment of Sailav Kaji, File No. S7-24-15 (Feb. 29, 2020) (noting that Interactive Brokers has provided a "detailed explanation" of the products); Comment of William Bedell, File No. S7-24-15 (Feb. 4, 2020) (reproducing disclosure from Charles Schwab); Comment of Frendy Glasser, File No. S7-24-15 (Jan. 30. 2020) ("My brokerage firm Charles Schwab and every resource available provides ample warning . . . ."); Comment of Tom Stamos, File No. S7-24-15 (Jan. 30, 2020) ("My Brokerage, TD Ameritrade has a similar 'warning' on every purchase/sell page prior to execution.").

Last but not least, the media continues to provide an important source of information about leveraged and inverse funds and their benefits, risks, and appropriate uses. Media outlets of all types have written extensively about the benefits and risks associated with leveraged and inverse funds. Since the inception of leveraged and inverse funds, there has been extensive coverage by the media, and extensive writings from financial research firms and widely available online publications.

As just one example, a *Wall Street Journal* article titled "How Leveraged ETFs Work" provided a detailed description of the inner workings of 3x ETFs and how they perform under certain market conditions. Ari I. Weinberg, *How Leveraged ETFs Work*, Wall St. J. (Feb. 8, 2015), https://www.wsj.com/articles/how-leveraged-etfs-work-1423454476; *see also, e.g., infra* p. 79

n.20. Other Internet and media resources on leveraged and inverse funds have been widely available and readily accessible for many years. *See, e.g.*, James Chen, *Leveraged ETF*, Investopedia (Aug. 26, 2019), https://www.investopedia.com/terms/l/leveraged-etf.asp; *Leveraged ETFs*, Fidelity (2011), https://www.fidelity.com/learning-center/investment-products/etf/types-of-etfs-leveraged-etfs. Articles and resources like these offer important information on whether and how investors and their financial advisers should use these products, supplementing the significant amount of existing information available to investors who wish to learn about leveraged and inverse funds. *See, e.g.*, Comment of William Bedell, File No. S7-24-15 (Feb. 4, 2020) ("Ample warnings to the risks of holding leveraged ETFs long-term are available from third-party websites that everyday investors use to educate themselves: mere minutes on a search engine will provide results from Investopedia, The Balance, SeekingAlpha, and others."); Comment of Michael DeSiano, File No. S7-24-15 (Jan. 30, 2020) ("I have read many articles on leveraged funds . . . ."); Comment of Dale Conklin, File No. S7-24-15 (Mar. 1, 2020) ("There is great documentation explaining what these funds do online . . . ."); Comment of Simeon White, File No. S7-24-15 (Feb. 29, 2020) ("There is adequate information online regarding the risks of L I investments"); Comment of Puneet Bajaj, File No. S7-24-15 (Feb. 19, 2020) ("Ample education is available online.").

DISCUSSION

The Commission's proposed access rules and use-of-derivatives rule singling out leveraged and inverse funds for limitations on investor access are unprecedented, unnecessary, and bad for investors. The proposed rules are a big-government solution in search of a problem: there is zero evidence, and the Commission has adduced none, that investors cannot make their own decisions about whether and how to use these time-tested, valuable financial tools. The Commission has *never*, in the history of its existence, restricted access to an entire class of publicly traded financial

products based on its *own* assessment of the merits of those products, as opposed to simply ensuring that investors have the information they need to make educated choices.

That is because Congress never empowered the Commission to take the drastic steps being proposed in the access rules and the use-of-derivatives rule. Congress did not authorize the Commission to restrict investors' access to public securities through ancillary statutory provisions addressed to "sales practices." And the agency's questionable authority to regulate derivatives under section 18 has long been an open secret.[5] This massive expansion of authority would set a dangerous precedent: Today, it's leveraged and inverse funds that may be off limits to ordinary investors—tomorrow, it will be volatile stocks that the Commission deems "too risky" for average Americans. Moreover, the proposed rules would do nothing to further investor understanding of leveraged and inverse funds—the Commission's only asserted concern. Rather, they would only

[5] *See, e.g.*, Amy R. Doberman, *SEC Proposal on Investment Company Use of Derivatives—A Solution in Search of a Problem?*, 49 Rev. of Sec. & Commodities Regulation 101, 111 (2016) ("Section 18 makes no mention of derivatives . . . and was designed to simplify a fund's capital structure . . . . [T]here is a question as to whether it is a 'bridge too far' to connect the plain language of Section 18 with a far-reaching, dense, and extremely burdensome set of regulatory requirements as contemplated by Rule 18f-4."); Comment of Investment Company Institute 2 n.6, File No. S7-24-15 (Mar. 28, 2016) (noting that "legal experts question the SEC's authority to regulate derivatives under Section 18," because "that [] section was clearly intended to regulate a fund's capital structure, and not fund investments or trading practices"); Comment of WisdomTree 3, File No. S7-24-15 (Mar. 28, 2016) ("[T]he application of Section 18 to a fund's trading practices and portfolio holdings is far from obvious, given the plain language of the statute and the legislative history accompanying Section 18. . . . Section 18 was . . . clearly intended to regulate a fund's capital structure and not fund investments or trading practices."); Comment of Richard T. Prins, Skadden, Arps, Slate, Meagher & Flom LLP 8, File No. S7-24-15 (Mar. 28, 2016) ("The difficulty with [the Commission's] approach is that many of these instruments clearly are not senior securities and the Commission has no authority to expand Congress's definition of senior security to suit its own views as to what the term should mean."); Comment of David I. Cohen & Matthew J. Patterson 1, File No. S7-25-15 (Mar. 28, 2016) ("The problem with [the Commission's] assertion is that the bilateral swap agreements used by leveraged and inverse ETFs to provide amplified or inverse exposure to underlying indexes are not senior securities as defined in Section 18 of the Act."); *see also* Comment of Competitive Enterprise Institute 11, File No. S7-24-15 (Mar. 28, 2016) (explaining that the proposal is "contrary to the purposes of Section 18").

hurt investors—particularly middle-class and working-class people—by depriving them of access to these products and forcing them into riskier and more expensive ways to achieve their investment objectives. Imposing these harms on investors is especially unwarranted since the Commission just recently addressed many of the same concerns with Regulation Best Interest and the Fiduciary Interpretation. Those reforms should be allowed to take hold before the Commission makes this radical intervention in the market. The Commission should step back from the precipice of this ill-conceived and dangerous proposal.

In the discussion that follows, we show that the rules would violate the Administrative Procedure Act ("APA") if adopted. In Part I, we show that the proposed rules would exceed the Commission's statutory authority under both the sales practices statutes and section 18 of the Investment Company Act of 1940. In Part II, we explain how the proposed access rules and use-of-derivatives rule are arbitrary and capricious for numerous reasons. In Part III, we show that the Commission has failed to demonstrate that the proposed rules "promote efficiency, competition, and capital formation," as required by the Exchange Act, Investment Company Act, and Investment Advisers Act, and that their expected benefits exceed their costs. Finally, in Part IV, we explain why the proposed rules are unsound as a matter of public policy.

I. The Commission Lacks Statutory Authority To Adopt The Proposed Rules.

The Commission's proposal fails at the outset because the Commission lacks statutory authorization to adopt the proposed rules.

"[L]ike other federal agencies," the Commission "literally has no power to act . . . unless and until Congress confers power upon it." *Am. Library Ass'n v. FCC*, 406 F.3d 689, 698 (D.C. Cir. 2005) (omission in original) (quoting *La. Pub. Serv. Comm'n v. FCC*, 476 U.S. 355, 374 (1986)); *see, e.g.*, *SEC v. Sloan*, 436 U.S. 103, 116–17 (1978). And agencies must be especially scrupulous when they claim "to discover in a long-extant statute an unheralded power to regulate

'a significant portion of the American economy.'" *Util. Air Regulatory Grp. v. EPA*, 573 U.S. 302, 324 (2014) (quoting *FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 159 (2000)). An agency may not "bring about an enormous and transformative expansion" of its "regulatory authority without clear congressional authorization." *Id.*

Here, the Commission's proposed rules amount to an unprecedented power-grab with sweeping implications for the entire securities industry. Never, in the 86 years since the Commission was created, has the agency attempted to restrict transactions in a public security because of its own views on the merits of the security—let alone claimed authority to do so based on an ancillary statutory provision addressed to the "sales practices" of broker-dealers and investment advisers. Nor has the Commission ever promulgated a rule regulating derivatives under section 18 of the Investment Company Act of 1940. Yet the proposed rules would do both of these unprecedented things, flinging open the door to substantive regulation of any security the Commission may happen to disfavor, not just leveraged and inverse funds.

The reason the Commission has never attempted to substitute its judgment for that of the informed investor is simple: Congress never gave it that power. As the Commission itself has long recognized, "[t]he laws and rules that govern the securities industry in the United States derive from a simple and straightforward concept: all investors, whether large institutions or private individuals, should have access to certain basic facts about an investment prior to buying it, and so long as they hold it." *What We Do*, SEC, https://www.sec.gov/Article/whatwedo.html (last visited Feb. 25, 2020). They do not permit the Commission to limit access to investments to a chosen few, regardless of the information available to investors. Because the proposed rules go well beyond "the power granted the Commission by Congress," they should be withdrawn. *Santa Fe*

Indus., Inc. v. Green, 430 U.S. 462, 473 (1977) (quoting *Ernst & Ernst v. Hochfelder*, 425 U.S. 185, 214 (1976)).

A. The Proposed Access Rules Exceed The Commission's Authority.

The proposed new rules 15*l*-2 and 211(h)-1, which the Commission euphemistically labels "sales practices rules," 85 Fed. Reg. at 4446, are in fact access limitations: they threaten to bar investors from purchasing or selling leveraged and inverse funds, irrespective of the sales practices employed by the broker-dealer or investment adviser and even when there is no "sale" at all. The proposed access rules, if adopted, would be a sharp break from the Commission's historical practice.

If there is any fixed star in the Commission's regulatory constellation, it is that any investor—rich or poor, professional or amateur—can freely and fairly access the products in our public markets, so long as they have basic information about the investment and the playing field is fundamentally fair. For example, in *New York Stock Exchange LLC*, the Commission stopped an exchange from granting a select group of customers access to market data just a few "single digit milliseconds" before the public at large. Exchange Act Release No. 67,857, 2012 WL 4044880, at *8 (Sept. 14, 2012) (citing Regulation NMS, Rule 603(a), 17 C.F.R. § 242.603(a)). And in *TherapeuticsMD, Inc.*, the Commission insisted that when "a public company discloses material, nonpublic information" to Wall Street insiders, it must immediately "disclose the information to the public" as well. Exchange Act Release No. 86,708, 2019 WL 3933685, at *5 (Aug. 20, 2019) (citing Regulation FD, 17 C.F.R. § 243.100(a)). In case after case, the Commission has reaffirmed its longstanding commitment to ensuring that our public markets remain just that—*public*. *See, e.g.*, Paul S. Atkins, Comm'r, U.S. SEC, Remarks Before the Portland Directors Institute Lewis & Clark Law School, 2006 WL 3389534, at *7 (Oct. 27, 2006) ("[g]overnment should not judge the

merit of products . . . [but] should keep barriers to entry low so that new entrants can test their ideas in the marketplace").

The Commission's policy has stayed true to a consistent trend of expanding investor access, both in and outside the public markets. In expanding investor access to crowdfunding opportunities, for example, the Commission recently required that transactions "occur over the Internet," so that "all investors," not just a select few, could have equal "access [to the] offering information." Crowdfunding, Securities Act Release No. 9974, Exchange Act Release No. 76,324, 80 Fed. Reg. 71,388, 71,395–96 (Nov. 16, 2015) (codified at 17 C.F.R. § 227.300(c)(4)).

The access rules depart starkly from this longstanding policy. For the first time in the Commission's 86-year history, the agency has proposed to "limit[]" (85 Fed. Reg. at 4492) investors from "attempting to buy or sell securities available in our *public* markets," regardless of the information available to them. Peirce & Roisman Statement pt. II.B. The access rules would bar any broker-dealer or investment adviser from executing an order for a leveraged or inverse fund unless the broker-dealer or investment adviser "specifically approve[s]" the customer, "in writing," based on a "reasonable basis for believing that the customer has such knowledge and experience in financial matters that he or she may reasonably be expected to be capable of evaluating the risks of buying and selling leveraged/inverse investment vehicles." 85 Fed. Reg. at 4558. As the Commission admits, under the access rules, many investors could "no longer transact in leveraged/inverse investment vehicles." *Id.* at 4524. The ban on sales would apply even if the broker-dealer or investment adviser is merely carrying out an investor's execution order in a ministerial fashion. The SEC concedes that the access rules would apply "where no recommendation or investment advice is provided." 85 Fed. Reg. at 4553.

The Commission points to "Exchange Act section 15(*l*)(2) and Advisers Act section 211(h)" as the source of authority for these unprecedented rules. 85 Fed. Reg. at 4492–93. But "Congress does not alter a regulatory scheme's fundamental details in vague terms or ancillary provisions." *Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 468 (2001). And as shown below, these provisions, which were enacted as part of a clean-up section tacked on to the Dodd-Frank Act regarding "Other Matters," do not remotely authorize the Commission to ban purchases and sales of securities.

1. The Proposed Access Rules Conflict With The Plain Statutory Text.

"[W]e begin," as we must, "with the text" of section 15(*l*)(2) of the Exchange Act and section 211(h) of the Advisers Act. *City of Clarksville v. FERC*, 888 F.3d 477, 482 (D.C. Cir. 2018) (citing *Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist.*, 541 U.S. 246, 252 (2004)); *see* Brief for Respondents at 46–50, *XY Planning Network, LLC v. SEC*, No. 19-2886 (2d Cir. Mar. 3, 2020), ECF No. 170 ("SEC *XY Planning* Brief") (embracing a close textual reading of the statutory section that enacted these provisions). These provisions, enacted as part of the Dodd-Frank Act, are identical: each authorizes the Commission to "promulgate rules prohibiting or restricting certain sales practices, conflicts of interest, and compensation schemes for brokers, dealers, and investment advisers." Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 913(g)(1), (2), 124 Stat. 1376, 1828–29 (2010) (codified at 15 U.S.C. §§ 78o(*l*)(2), 80b-11(h)(2)). The proposed access rules exceed this authority in two independent ways: they do not regulate "sales practices," and they require a new qualification process that goes beyond the limited power of "prohibiting or restricting" existing practices.

a) The Proposed Access Rules Do Not Regulate "Sales Practices."

The proposed access rules do not regulate "sales practices" within any recognizable meaning of that term. Instead, they "limit[]" (85 Fed. Reg. at 4511) investors' access to leveraged and

inverse products *irrespective* of the sales practices employed by the broker-dealer or investment adviser. The access rules therefore exceed the Commission's authority to regulate "sales practices."

The plain meaning of "sales practice" is a mode or method of making sales—here, the sale of securities and other services offered by brokers, dealers, and investment advisers. The word "sales" refers to "operations and activities involved in promoting and selling goods or services." *Webster's Third New International Dictionary* 2003 (1961) ("*Webster's Third*"). A "practice" is defined as "the usual mode or method of doing something." *Id.* at 1780. Taken together, these terms unambiguously refer to promotional methods employed in making sales of a good or service. The quintessential example of a sales practice is a broker or adviser *recommendation*.

This plain meaning of "sales practices" is consistent with its meaning in the context of public securities. When Congress enacted Dodd-Frank, it legislated against the background of a broad recognition that sales practices involve certain affirmative, promotional methods employed by brokers, dealers, and investment advisers, including the recommendation of securities. *See, e.g.*, *Siegel v. SEC*, 592 F.3d 147, 158 (D.C. Cir. 2010) (explaining that self-regulatory organization rule was designed "to protect customers from potentially abusive sales practices by ensuring that a registered representative has reasonable grounds for believing that his recommendation is suitable" (internal quotation marks omitted)); *Frederick C. Gartz*, Exchange Act Release No. 37,556, 1996 WL 454822, at *1 (Aug. 12, 1996) ("Gartz engaged in fraudulent sales practices. Gartz recommended and sold direct investments to customers for whom the investments were not suitable . . . ."); FINRA Notice 09-31, at *1 ("This *Notice* reminds firms of their sales practice obligations in connection with leveraged and inverse ETFs. In particular, recommendations to customers must be suitable . . . ."); *see also A.S. Goldmen & Co.*, Exchange Act Release No.

47,037, 2002 WL 31840963, at *2 (Dec. 19, 2002) (describing prohibited sales practices as "an aggressive cold-calling campaign," "misrepresentations and omissions of material facts," and "baseless price predictions"); *Hunter Adams*, Exchange Act Release No. 52,662, 2005 WL 2756710, at *1 (Oct. 25, 2005) (identifying "sales practices" as certain "high pressure sales tactics"); Mary L. Schapiro, Investor Protection: The Role of the SEC, the SROs, and the Industry in Preventing Sales Practice Abuses 3–4 (Oct. 9, 1992), https://www.sec.gov/news/speech/1992/100992schapiro.pdf (similar).

By contrast, sales practices have never been understood to encompass sales themselves, irrespective of the promotional methods employed. Many brokers provide execution-only services, for which the broker-dealer or investment adviser acts as a mere agent of the investor in carrying out a ministerial transaction. Those services have never been considered sales practices, because, unlike a recommendation, they have nothing to do with the broker-dealer or investment adviser's promotional methods. *See, e.g.*, Regulation Best Interest: The Broker-Dealer Standard of Conduct, Exchange Act Release No. 86,031, 84 Fed. Reg. 33,318, 33,319, 33,454 (July 12, 2019) (acknowledging distinction between "execution-only services" and those services "providing personalized investment advice," with "sales practices" rules targeting only the latter "recommendations provided by associated persons"); Study on Investment Advisers and Broker-Dealers: As Required by Section 913 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, at A-18 (Jan. 2011) (discussing "abusive sales practices" in terms of "recommending unsuitable securities," not with regard to execution-only services). Congress is presumed to be aware of that background understanding. *See, e.g.*, *Bragdon v. Abbott*, 524 U.S. 624, 645 (1998) ("When administrative and judicial interpretations have settled the meaning of an existing statutory provision,

repetition of the same language in a new statute indicates, as a general matter, the intent to incorporate its administrative and judicial interpretations as well.").

Congress could have authorized the SEC to prohibit or restrict certain "sales"—regardless of the accompanying practices—in the relevant provisions, but it did not. The fact that Congress has done so in other contexts proves that it "knew how to say so." *Union of Concerned Scientists v. U.S. Nuclear Regulatory Comm'n*, 824 F.2d 108, 115 (D.C. Cir. 1987). Congress, for example, made it "unlawful for any person . . . to effect any transaction" in any penny stock, unless certain requirements were satisfied. 15 U.S.C. § 78o(h)(1). Similarly, Congress barred "any person" from "purchas[ing] or sell[ing]" any security-based swap if the counterparty was "not an eligible contract participant." *Id.* § 77e(e). Congress did not use similar language in the sales practices provision, and that "choice of language"—"what Congress said" in some sections, and "what Congress did not say" in another—has "meaning." *Union of Concerned Scientists*, 824 F.2d at 155.

Had Congress authorized a ban on certain "sales," as in these other statutes, the Commission might have a more plausible argument that it could restrict sales of certain products. But "Congress generally acts intentionally when it uses particular language in one section of a statute but omits it in another." *Dep't of Homeland Sec. v. MacLean*, 574 U.S. 383, 391 (2015). Congress's choice of the term "sales *practices*," despite referring to "sales" in other provisions, forecloses the SEC's argument and powerfully indicates that the statute's focus is on the actions of the *seller*, not the qualities of the *security*.

The word "certain" preceding "sales practices" reinforces the limited nature of Congress's grant of rulemaking authority. Congress carefully delineated the Commission's rulemaking authority to proscribe discrete practices that contravene the public interest, not broad categories of transactions. This, too, shows that Congress did not confer sweeping authority to restrict or ban

the sale of whole categories of securities, regardless of the sales practice employed. *See El Al Israel Airlines, Ltd. v. Tsui Yan Tseng*, 525 U.S. 155, 173 (1999) ("Inclusion of the word 'certain' in the [Warsaw] Convention's title . . . accurately indicated that the [C]onvention is concerned with certain rules only, not with all the rules relating to international carriage by air." (second alteration in original) (internal quotation marks omitted)).

The immediate statutory context confirms the plain meaning of the text. The statutory provisions on which the Commission relies grant rulemaking authority to restrict "sales practices, conflicts of interest, and compensation schemes." 15 U.S.C. §§ 78o(*l*)(2), 80b-11(h)(2). Under the interpretive principle of *noscitur a sociis*, "words grouped in a list should be given related meanings." Antonin Scalia & Bryan A. Garner, *Reading Law: The Interpretation of Legal Texts* 195 (2012) (quoting *Third Nat'l Bank in Nashville v. Impac Ltd., Inc.*, 432 U.S. 312, 322 (1977)). Here, the phrases "conflicts of interest" and "compensation schemes" refer unambiguously to structural incentives that may encourage a broker-dealer or investment adviser to push an investor into an unsuitable transaction. *See, e.g.*, Regulation Best Interest, 84 Fed. Reg. at 33,454 (in a section titled "Elimination of Certain Sales Practices," requiring broker-dealers to "establish, maintain, and enforce written policies and procedures reasonably designed to identify and eliminate any sales contests, sales quotas, bonuses, and non-cash compensation that are based on the sale of specific securities or specific types of securities within a limited period of time," because "the conflicts of interest associated with these practices [] may create high-pressure situations for the associated persons of the broker-dealer to recommend a specific security over another"). Those concepts do not apply to situations in which a client directs a broker-dealer or investment adviser to execute a transaction without receiving any advice or recommendation. The placement of the

phrase "sales practices" in this series of concepts further confirms its plain meaning as limited to promotional methods.

In fact, it is not even clear that transactions involving leveraged and inverse funds involve any "sale" of a financial product at all. *See* Angel 2020 Comment 18. Major retail broker-dealers no longer charge commissions for equities trading, creating a structural incentive for broker-dealers to discourage trading. Self-Regulatory Organizations, Exchange Act Release No. 88,135, 2020 WL 605907, at *4 (Feb. 6, 2020) ("As reported in the media, many large retail brokers, such as Charles Schwab, TD Ameritrade, E-Trade Securities, Interactive Brokers and Fidelity, have lowered commission trading fees to zero. Nasdaq understands that these initiatives are placing pressure on retail brokers to find ways to reduce their operational costs as a means of offsetting their loss of retail trading commission revenues." (footnote omitted)); *see also* Lisa Beilfuss & Alexander Osipovich, *The Race to Zero Commissions*, Wall St. J. (Oct. 5, 2019), https://www.wsj.com/articles/the-race-to-zero-commissions-11570267802. And investment advisers sell advice, not products; they generally earn no additional compensation based on which financial product they recommend. This is a further reason why the limitation of access to leveraged and inverse funds cannot be shoehorned into the statutory language authorizing the regulation of "sales practices."

In short, the proposed access rules would unlawfully prohibit certain transactions from occurring at all, regardless of the sales practice employed and even where no recommendation or investment advice has occurred. But that transformative power is found nowhere in the sales practices statutes and is inconsistent with the well-established understanding of "sales practices."

b) The Proposed Access Rules Go Well Beyond "Prohibiting Or Restricting" Certain Sales Practices.

The proposed access rules also exceed the Commission's statutory authority because they go well beyond the limited power of "prohibiting or restricting" certain existing sales practices.

15 U.S.C. §§ 78o(*l*)(2), 80b-11(h)(2). The sales practices statutes do not authorize the Commission to compel additional practices for broker-dealers and investment advisers in conducting transactions involving leveraged and inverse funds.

The words "prohibiting and restricting" unambiguously impart only a negative power—the power to restrain how broker-dealers and investment advisers promote and recommend products and services to investors. *See Webster's Third*, *supra*, at 1813 (defining "prohibition" as "a declaration or injunction forbidding an action"); *id.* at 1937 (defining "restrict" as "to set bounds or limits to"). Those words immediately precede, and modify, the phrase "certain sales practices," thus making clear that the Commission may only "ban" existing practices, not condition sales on the implementation of new ones. *See Nat. Res. Def. Council, Inc. v. U.S. Consumer Prod. Safety Comm'n*, 597 F. Supp. 2d 370, 387 n.10 (S.D.N.Y. 2009) ("'Prohibition' and 'ban' have the same meaning in everyday use.").

The surrounding statutory context reinforces the plain meaning of "prohibiting and restricting." In a nearby statutory provision in Dodd-Frank, Congress authorized the Commission to "prohibit, or impose conditions or limitations on" the use of mandatory pre-dispute arbitration agreements. § 921(a), (b), 124 Stat. at 1841 (codified at 15 U.S.C. §§ 78o(o), 80b-5(f)). This shows that when Congress wanted to grant the Commission authority to impose conditions on an activity, Congress "knew how to say so." *Union of Concerned Scientists*, 824 F.2d at 115. However, Congress withheld the power to "impose conditions or limitations" on sales practices, and that decision must be respected. *See MacLean*, 574 U.S. at 391. The Commission therefore lacks power, under its sales practices authority, to bar a firm from "accept[ing] an order" for a leveraged or inverse fund "unless the firm has complied with certain conditions." 85 Fed. Reg. at 4494.

Promulgating mandatory conditions of this type are not within the power to "prohibit[]" or "restrict[]" certain sales practices. 15 U.S.C. §§ 78o(*l*)(2), 80b-11(h)(2).

Similarly, Congress knows how to authorize the Commission to mandate new conduct by broker-dealers or investment advisers. To wit, a separate statutory provision authorizes the Commission to adopt rules that "require brokers and dealers to disclose" certain information to investors prior to effectuating transactions in penny stocks. 15 U.S.C. § 78o(h)(3)(A). This provision is significant here because it expressly addresses a category of public securities—penny stocks—and requires the Commission to address any particular investor-protection concerns with those securities by mandating enhanced disclosures. The sales practices provisions, in contrast, contain no language conferring any mandatory authority, much less any language authorizing the Commission to single out specific categories of securities.

For these reasons, the proposed access rules exceed the Commission's limited authority to prohibit or restrict certain sales practices.

2. The Legislative History And Broader Statutory Regime Confirm That The Proposed Access Rules Exceed The Commission's Authority.

The broader statutory context and legislative history confirm that the sales practices provisions are directed to limited practices engaged in by broker-dealers and investment advisers, not the legitimate sale or purchase of the products themselves. And these provisions were never intended to upset the relationship between financial professionals and their clients, as the proposed access rules would do.

The sales practices provisions were enacted in section 913 of the Dodd-Frank Act as part of a provision that Congress placed under the heading "Other Matters." § 913(g), 124 Stat. at 1828. The Dodd-Frank section in which that provision appears, section 913, instructs the Commission to "conduct a study" to evaluate the "legal or regulatory gaps" that exist between the

standards of care applicable to broker-dealers and investment advisers. § 913(b), 124 Stat. at 1824. And subsection 913(g), which contains the sales practices provision, simply authorizes the Commission to close this gap and ensure uniformity. *See* § 913(g)(1), 124 Stat. at 1828 (authorizing the Commission to set "the standard of conduct for [a] broker or dealer . . . [to] be the same as the standard of conduct applicable to an investment adviser" (codified at 15 U.S.C. § 78o(k)(1))).

Viewed against this background, the sales practices provisions simply facilitate the Commission's gap-closing efforts. As Representative Kanjorski explained, section 913 of Dodd-Frank allows the Commission to "issue new rules establishing that every financial intermediary who provides personalized investment advice to retail customers will have a fiduciary duty to the investor," and "[t]hrough this harmonized standard of care, both broker-dealers and investment advisers will place customers' interests first." 156 Cong. Rec. H5237 (daily ed. June 30, 2010). It is telling that the sales practices provisions received no legislative debate whatsoever—a strong indication that members of Congress understood the provisions to confer a limited rulemaking power to harmonize actual sales practices, not to regulate financial products. *Cf.* SEC *XY Planning* Brief at 54–57 (analyzing significant legislative debate and commentary on *other* provisions of Dodd-Frank section 913).

Congress enacted the sales practices provisions against the backdrop of a firmly ingrained federal policy allowing all investors to freely access products in our public securities markets. The Commission itself has long acknowledged that it "does not evaluate the merits of any securities offering" or "determine whether a particular security is a 'good' investment." Investment Adviser Advertisements, Advisers Act Release No. 5407, 2019 WL 5869796, at *67 n.275 (Nov. 4, 2019) (internal quotation marks omitted); *accord, e.g.*, *Thomascolor Inc.*, Securities Act Release No. 3267, 1947 WL 25786, at *1 (Nov. 26, 1947); *What We Do*, SEC, *https*://www.sec.gov/Article

/whatwedo.html. Congress has also explicitly exempted securities issued by investment companies from any "merits" regulation under state blue-sky laws. *See* 15 U.S.C. § 77r(a)(3), (b)(2). Congress is presumed to have been aware of this legislative and regulatory backdrop when it enacted the sales practices provisions.

There is simply no indication from this context that Congress, in enacting the sales practices provisions, intended to authorize the Commission to take the radical and unprecedented step of limiting investors' access to public securities. Even if the Commission were to conclude that leveraged and inverse funds might cause investors to "experience large [] losses," 85 Fed. Reg. at 4492, it is more than doubtful that Congress would have granted the Commission authority to ensure that certain classes of investors "can no longer transact in leveraged/inverse investment vehicles," *id.* at 4524. That has never been the Commission's role. At the very least, Congress would need to express that transformative intent more clearly than it did in the sales practices provisions. *See Util. Air Regulatory Grp.*, 573 U.S. at 324 (holding an agency action "unreasonable because it would bring about an enormous and transformative expansion in [the agency's] regulatory authority without clear congressional authorization").

Moreover, construing the sales practices provisions to authorize the proposed access rules would upend the relationship between investors and their investment advisers. "The overall statutory scheme of the [Advisers Act] . . . establish[es] a federal fiduciary standard to govern the conduct of investment advisers, broadly defined." *Fin. Planning Ass'n v. SEC*, 482 F.3d 481, 490 (D.C. Cir. 2007) (citing *Transamerica Mortg. Advisors v. Lewis*, 444 U.S. 11, 17 (1979)). "This fiduciary duty is based on equitable common law principles and is fundamental to advisers' relationships with their clients under the Advisers Act." Commission Interpretation Regarding Standard of Conduct for Investment Advisers, Advisers Act Release No. 5248, 84 Fed. Reg. 33,669,

33,670 (July 12, 2019). This fiduciary relationship presumes that an investor will go to an investment adviser *because* the investor lacks the knowledge and understanding to make his or her own investment decisions. But under the access rules, clients would no longer be able to rely on their adviser's "superior expertise or knowledge." *Solomatina v. Mikelic*, 370 F. Supp. 3d 420, 434 (S.D.N.Y. 2019) (internal quotation marks omitted). They would need to demonstrate that they *personally* had the requisite "knowledge and experience," 85 Fed. Reg. at 4558—a requirement that turns the fiduciary relationship, and the Advisers Act itself, on its head. There is no indication that Congress ever meant to authorize the Commission to transform the fiduciary relationship in this manner through an ancillary provision addressed to sales practices.

Similar violence is done to the relationship between investors and broker-dealers. Broker-dealers engage "in the business of effecting transactions in securities for" their clients. 15 U.S.C. § 78c(a)(4)(A). As part of that business, broker-dealers "make recommendations—a form of advice they have been providing since before the federal securities laws were enacted." SEC *XY Planning* Brief at 8. Many "[r]etail investors seek" out such advice, *id.* at 1, and thus rationally "rely" on the broker's "expertise and knowledge," Regulation Best Interest, 84 Fed. Reg. at 33,339. And that is exactly what Congress expressly sought to promote in section 913 of Dodd-Frank. *See* § 913(b)(1), 124 Stat. at 1824 (addressing the "effectiveness of existing legal or regulatory standards of care for brokers, dealers, and investment advisers . . . for providing personalized investment advice and recommendations"). This context further shows that Congress, in enacting the sales practices provisions, did not authorize the Commission to require that investors demonstrate that they *personally* have the "knowledge and experience" (85 Fed. Reg. at 4558) that their broker-dealers are presumed to possess.

As the above examples demonstrate, the proposed access rules are fundamentally incompatible with the legislative history of the sales practices provisions and the larger statutory regime. This is more evidence that the Commission lacks statutory authority to adopt the access rules.

3. The Proposed Access Rules Raise Serious Constitutional Concerns About The Exercise Of Governmental Authority By Private Parties.

The proposed access rules also raise serious constitutional concerns, and the sales practices provisions should be construed to avoid those concerns. "When a statute delegates authority to a federal officer or agency"—here, the SEC—then "subdelegation to a subordinate *federal officer or agency* is presumptively permissible." *U.S. Telecom Ass'n v. FCC*, 359 F.3d 554, 565 (D.C. Cir. 2004) (emphasis added). The access rules, however, purport to delegate governmental authority—the asserted power of controlling access to public markets—to *private* entities and individuals—investment advisers and broker-dealers. That is unconstitutional. "[T]he cases recognize an important distinction between subdelegation to a *subordinate* and subdelegation to an *outside party*," holding the latter to be presumptively improper. *Id.* And without a "clear statement from Congress" to the contrary, the sales practices provisions must be read to prohibit—not to bless—such a delegation. *Solid Waste Agency of N. Cook Cty. v. U.S. Army Corps of Eng'rs*, 531 U.S. 159, 174 (2001) (construing an authorizing statute "to avoid the significant constitutional . . . questions raised" by the agency's "application of [its] regulations").

An agency may not delegate its public duties to private entities. *See, e.g.*, *Carter v. Carter Coal Co.*, 298 U.S. 238, 310–11 (1936); *Ass'n of Am. R.Rs. v. U.S. Dep't of Transp.*, 721 F.3d 666, 670–71 (D.C. Cir. 2013), *vacated on other grounds*, 575 U.S. 43 (2015); *Nat'l Ass'n of Regulatory Util. Comm'rs v. FCC*, 737 F.2d 1095, 1143 (D.C. Cir. 1984) (per curiam); *Sierra Club v. Sigler*, 695 F.2d 957, 962 n.3 (5th Cir. 1983). In *City of Dallas v. FCC*, for example, the FCC imposed a

general ban on in-region cable operators accessing open video systems; the Commission then empowered open video systems to, in their discretion, "grant access" to cable operators. 165 F.3d 341, 356–57 (5th Cir. 1999). The court invalidated this scheme. The FCC, in assigning a gatekeeping role to open video systems, impermissibly "delegat[ed]" governmental authority to private entities. *Id.* at 357 & n.23. As these cases recognize, the delegation of governmental power to private actors can have constitutional implications under both the non-delegation principle and the Due Process Clause of the Fifth Amendment. *See, e.g.*, *Carter Coal*, 298 U.S. at 311 (explaining that delegation "to private persons whose interests may be and often are adverse to the interests of others in the same business" is "clearly a denial of rights safeguarded by the due process clause of the Fifth Amendment"); *Ass'n of Am. R.Rs. v. U.S. Dep't of Transp.*, 821 F.3d 19, 23 (D.C. Cir. 2016) (holding that it "violates the Fifth Amendment's Due Process Clause [to] authoriz[e] an economically self-interested actor to regulate its competitors").

Here, in the name of "investor protection"—a quintessential governmental power—the Commission proposes to delegate to broker-dealers and investment advisers its claimed power to exclude investors from accessing certain public securities in our public securities markets. *See* 85 Fed. Reg. at 4524 (acknowledging the consequence that investors "can no longer transact in leveraged/inverse investment vehicles"). That raises difficult constitutional due process and non-delegation questions.[6] If the FCC had to "choose" for itself which cable operators would have "access" to open video systems, *City of Dallas*, 165 F.3d at 358, then the SEC—and not private

[6] This delegated gatekeeping power is particularly troubling in light of self-interested incentives that investment advisers and broker-dealers have to deny access to leveraged and inverse funds. Major retail brokers no longer charge commissions for equities trading, and therefore have financial incentives to discourage or deny investor trading. *See supra* p. 36. Furthermore, investment advisers and broker-dealers have powerful incentives to limit their liability and regulatory risk by denying access to leveraged and inverse funds. *See infra* pp. 94, 99.

broker-dealers and investment advisers—must choose which investors will have access to the market for leveraged and inverse funds, if such power exists.

To "avoid the significant constitutional" questions raised by the delegation of governmental authority to private entities, the Commission's rulemaking authority under the sales practices provisions should be construed narrowly to deny the Commission the power to regulate access to leveraged and inverse funds. *Solid Waste Agency*, 531 U.S. at 174.

4. The SEC's Reasoning With Respect To Statutory Authority For The Proposed Access Rules Is Fundamentally Flawed.

In light of the above analysis of the proposed access rules, the Commission's fleeting description of statutory authority in a lone footnote crumbles. *See* 85 Fed. Reg. at 4493 n.319. This footnote merely recites the language of 15 U.S.C. §§ 78o(*l*)(2) and 80b-11(h)(2), without pausing to consider its meaning, let alone explain how it applies to the proposed access rules. Thus, the Commission has not even *attempted* to construe its statutory authority for the access rules.

Moreover, nowhere in the 130,000-word release does the Commission even try to identify any broker-dealer or investment adviser's "sales practice" that the access rules are purportedly designed to address. The Commission discusses only "certain *fund practices*" that it claims elevate a product's "leverage-related risks" and therefore call for investor protection. *Id.* at 4448 (emphasis added). But "fund practices" are aspects of the product itself and involve the conduct of investment companies, *not* the "sales practices" of broker-dealers or investment advisers arguably used to sell it. The fact that the Commission has failed even to identify a sales practice engaged in by broker-dealers or investment advisers is proof positive that it lacks the claimed statutory authority.

The Commission's policy justifications for the proposed access rules underscore its lack of statutory authority to adopt them. The Commission admits that under the access rules, "no firm

may accept an order from or place an order for a retail investor to buy or sell shares of a leveraged/inverse investment vehicle . . . unless the firm has complied with certain conditions"—here, an elaborate account approval process. 85 Fed. Reg. at 4494. The Commission seeks to justify this sweeping prescriptive rule by asserting that leveraged and inverse funds' returns may be "different from what [an investor] anticipated." *Id.* at 4492. That rationale is arbitrary and capricious for reasons discussed in Part II, *infra*, but it also points out the Commission's basic lack of statutory authority to promulgate the access rules in the first place. Congress specifically addressed concerns about investor understanding in section 919 of Dodd-Frank, which authorizes the Commission to require various pre-trade disclosures. *See* 124 Stat. at 1837 (codified at 15 U.S.C. § 78o(n)(1)) (empowering the Commission to "issue rules designating documents or information that shall be provided by a broker or dealer to a retail investor before the purchase of an investment product or service by the retail investor"). Congress's inclusion of this specific, carefully tailored remedy in a nearby statutory provision is "strong evidence that Congress did *not* intend to authorize other remedies" for the same problem—"remedies that," by the Commission's implausible reading, Congress "simply forgot to incorporate expressly" here. *Sandoz Inc. v. Amgen Inc.*, 137 S. Ct. 1664, 1675 (2017) (quoting *Great-West Life & Annuity Ins. Co. v. Knudson*, 534 U.S. 204, 209 (2002)).

5. The Commission's Unexplained String Citation To Other Statutes Does Not Supply The Missing Authority For The Proposed Access Rules.

The final section of the Proposing Release cites a laundry list of additional statutory provisions as putative authority to issue the proposed access rules: "The Commission is proposing new rule 15*l*-2 under the authority set forth in sections 3, 3(b), 3E, 10, 15(*l*), 15F, 17, 23(a), and 36 of the Securities Exchange Act of 1934," and "new rule 211(h)-1 under the authority set forth in sections 206, 206A, 208, 211(a), and 211(h), and of [*sic*] the Investment Advisers Act of 1940."

85 Fed. Reg. at 4557. None of those miscellaneous provisions supplies the missing statutory authority.

The Commission does not discuss any of those provisions in the body of the Proposing Release, and for good reason: they are irrelevant. In this grab-bag of provisions, some merely supply definitions or the authority to define trade terms, which cannot support the Commission's substantive proposals. 15 U.S.C. § 78c(b). Others authorize exemptions from general statutory requirements, *id.* §§ 78mm, 80b-6a, but have no purchase where the Commission lacks prohibitory power to begin with, as discussed above. Some provisions simply prohibit fraud or misrepresentation, *id.* §§ 78j, 80b-6, 80b-8, or address only recordkeeping and not any of the substantive regulations proposed by the Commission, *id.* § 78q. Some apply only to swap dealers, which are not at issue here, and thus cannot support the Commission's broad initiative to regulate all derivatives. *Id.* §§ 78c-5, 78o-10. Finally, the Commission also cites the provisions granting it general authority to issue regulations in the public interest. *Id.* §§ 78w(a), 80b-11(a). But it is well established that "[a]n agency's general rulemaking authority does not mean that the specific rule the agency promulgates is a valid exercise of that authority," if a more specific limit applies. *Colo. River Indian Tribes v. Nat'l Indian Gaming Comm'n*, 466 F.3d 134, 139 (D.C. Cir. 2006); *see, e.g.*, *MCI Telecomms. Corp. v. Am. Tel. & Tel. Co.*, 512 U.S. 218, 231 n.4 (1994) (agencies "are bound, not only by the ultimate purposes Congress has selected, but by the means it has deemed appropriate, and prescribed, for the pursuit of those purposes"); *see also Util. Air Regulatory Grp.*, 573 U.S. at 324 (agencies may not "bring about an enormous and transformative expansion in [their] regulatory authority without clear congressional authorization"). Here, Dodd-Frank granted the Commission carefully specified authority to require disclosures for sales or limit certain sales practices.

And the Commission has offered no viable alternative basis for the access rules if (as explained above) its theory of statutory authority under the "sales practices" statutes fails.

* * *

Dodd-Frank's ancillary statutory provision authorizing the Commission to engage in limited regulation of certain "sales practices" does not include the unspoken and much broader power to restrict access to publicly traded securities. The statutory text, history, and context, along with the serious constitutional questions raised by the Commission's proposal, all lead to this conclusion. The proposed access rules would:

- restrict access to a public security;
- restrict brokers' ability to execute transactions; and
- weaken the fiduciary relationship between advisers and clients.

Each of these outcomes in itself would be revolutionary; in combination, they are a clear sign that the Commission has exceeded its statutory authority. Congress "does not, one might say, hide elephants in mouseholes." *Epic Sys. Corp. v. Lewis*, 138 S. Ct. 1612, 1626–27 (2018) (quoting *Whitman*, 531 U.S. at 468).

B. The Proposed Use-Of-Derivatives Rule Exceeds The Commission's Authority.

The proposed use-of-derivatives rule also exceeds the Commission's statutory authority under section 18 of the Investment Company Act of 1940. Derivatives simply are not "senior securities" under the unambiguous text of section 18. And other textual limitations in section 18 independently deprive the Commission of authority to promulgate the use-of-derivatives rule. The Commission's reliance on nebulous notions of statutory "purpose" cannot overcome the statute that Congress enacted.

1. The Use-Of-Derivatives Rule Conflicts With The Plain Statutory Text Of Section 18 Because Derivatives Are Not "Senior Securities."

Section 18, by its terms, applies only to "senior securities." The statute makes it "unlawful for . . . [a fund] to issue any class of senior security, or to sell any senior security of which it is the issuer." 15 U.S.C. § 80a-18(a)(1), (f)(1). This raises a fundamental question that has long swirled around the potential formal regulation of derivatives: What is a "senior security"? *See* Peirce & Roisman Statement pt. I n.1 (inviting "comment on this question"). On this question, the statute is unambiguous: it does not include the derivatives underlying leveraged and inverse funds.

a) Section 18 Excludes Derivatives From The Definition Of "Senior Security."

Again, "[w]e start with the text." *Am. Clinical Lab. Ass'n v. Azar*, 931 F.3d 1195, 1204 (D.C. Cir. 2019). Congress explicitly provided that "'Senior security' means [1] any bond, debenture, note, or similar obligation or instrument constituting a security and evidencing indebtedness, and [2] any stock of a class having priority over any other class . . . ." 15 U.S.C. § 80a-18(g). That definition is exclusive, as indicated by the use of the term "means." *See Groman v. Comm'r*, 302 U.S. 82, 86 (1937) ("[W]hen an exclusive definition is intended the word 'means' is employed . . . ."). In construing this definition, the words are given "their 'ordinary meaning . . . at the time Congress enacted the statute.'" *Wis. Cent. Ltd. v. United States*, 138 S. Ct. 2067, 2070 (2018) (omission in original) (quoting *Perrin v. United States*, 444 U.S. 37, 42 (1979)). The words "stock," "bond," "debenture," and "note" were included in the 1940 definition of "senior security" adopted by Congress. *See* Investment Company Act of 1940, ch. 686, § 18(g), 54 Stat. 789, 820. As demonstrated below, none of those terms includes investment in derivatives, nor are derivatives similar obligations or instruments. Rather, the statute unambiguously confines section 18 to the debt and equity securities that a fund issues to investors in exchange for capital invested in, or loaned to, the fund.

In 1940, the ordinary meaning of "stock" was "certificates of ownership" or "[s]hares" in a "business enterprise." *Webster's New International Dictionary* 2480 (2d ed. 1939). When that enterprise is an investment company or fund, the fund issues stock "evidencing a proprietary interest with respect to" the fund "[i]n exchange for the cash, property, or services contributed to" the fund. 3 *Investment Trusts and Investment Companies: Report of the Securities and Exchange Commission* 1564 (1940) ("3 *SEC Investment Company Report*"). In issuing stock, however, the fund is *not* engaging in typical derivatives transactions. For example, the fund is not—to compare a typical derivatives transaction (an option)—promising "to deliver . . . [a certain asset] within a certain time at a certain price if the holder [of the option] shall so demand." *Crowell's Dictionary of Business and Finance* 95 (1923); *see, e.g.*, *Kraebel v. State*, 242 N.Y.S. 726, 727 (N.Y. Ct. Cl. 1930) (describing, a decade before the Investment Company Act, the Ogden Investment Company's sale of a call option). Nor—to compare a different derivative (a future)—is the fund promising to purchase 5000 bushels of wheat at "some future month[]" in "the city of Duluth."[7] *State v. Duluth Bd. of Trade*, 121 N.W. 395, 397 (Minn. 1909) (reproducing the rules for futures trading);

[7] The futures traded in the early twentieth century were similar to the futures traded today. The Chicago Board of Trade adopted formal rules for futures trading as early as 1865. Jeffrey C. Williams, *The Origin of Futures Markets*, 56 Agricultural Hist. 306, 306 (1982). Under those rules, an investor could, as today, buy or sell futures with the intention of closing out its position before any physical delivery came due. Jerry W. Markham, *Law Enforcement and the History of Financial Market Manipulation* 17 (2014) (explaining that by the Civil War, investors could "speculat[e]" on commodity prices by opening and later offsetting futures positions, which "allowed the parties to pocket any gains or pay their losses without having to take delivery of the actual commodity"); *see also, e.g.*, *Lyons Milling Co. v. Goffe & Carkener*, 46 F.2d 241, 247 (10th Cir. 1931) (stating that an investor could purchase a futures contract with the intent to close it out "before delivery is due"); *Gettys v. Newburger*, 272 F. 209, 218 (8th Cir. 1921) (similar). Investors were settling futures positions with "a payment of monetary differences," Williams, *supra*, at 314, and even making "widespread use" of options on futures positions, as early as 1847, *id.* at 309—a century before the Investment Company Act was passed. *See also id.* at 314 n.39 ("Such settlements by the payment of differences were even more common in the 1850s.").

see also 85 Fed. Reg. at 4449 & n.19 (explaining that a fund "may use a derivative, such as commodity futures," to "obtain exposure" to certain assets); *Norling & Bloom Co. v. Exch. Tr. Co.*, 193 N.E. 1, 2 (Mass. 1934) (describing a trust company's trading of foreign currency futures). The stock issuance and the derivative investment are entirely different things.

Likewise, in 1940, the terms "bond, debenture, [or] note" each unambiguously referred to instruments issued in exchange for a promise to repay principal and interest on *loaned* funds. *See, e.g.*, *Starks v. Nat'l Bond & Mortg. Corp.*, 85 S.W.2d 1056, 1058 (Tex. Civ. App. 1935) (referring to the repayment of "the principal of the note evidencing the loan"); 3 *SEC Investment Company Report* 1564 ("In exchange for the funds loaned" to the fund, the fund issues "bonds or indentures," which "embody[] a promise to repay the principal at maturity and to pay interest in the meantime."). As with a stock, when a fund issues a bond, debenture, or note in exchange for loaned funds, it is not—to use the futures example—agreeing to buy wheat. Nor—to return to the options example—is the fund promising to deliver stock at an agreed price. *Crowell's Dictionary of Business*, *supra*, at 95. A fund's derivative investments are fundamentally different from the fund's issuances of bonds, debentures, or notes.

While some obligations that are not a "bond, debenture, [or] note" can still be a "senior security," a fund's investment in derivatives cannot. To qualify as a "senior security" under this test, an obligation that is not a "bond, debenture, [or] note" must be (1) "evidenc[e] [of] indebtedness," (2) "similar" to a bond, debenture, or note; and (3) a "security." 15 U.S.C. § 80a-18(g). But derivative investments fail two—and often three—prongs of this test. First, a derivative investment is not evidence of indebtedness. Just like a bond, debenture, or note, the "term 'evidence of indebtedness' contemplates a payment of a sum of money in the future for consideration presently received, and *not* an exchange in the future of securities or commodities for a sum of money," like

a typical option or future. *LTV Fed. Credit Union v. UMIC Gov't Secs., Inc.*, 523 F. Supp. 819, 830 (N.D. Tex. 1981) (emphasis added). Indeed, in 1940, the words "option," "future," and "evidence of indebtedness" were in common usage, and they plainly referred to distinct instruments. *See, e.g.*, Revenue Act of 1938, ch. 289, §§ 117(d)(1), 701(j), 52 Stat. 447, 502, 568 (addressing "any bond, debenture, note, or certificate or other evidence of indebtedness" separately from contracts for sale "for future delivery"); Revenue Act of 1934, ch. 277, §§ 117(d), 612, 48 Stat. 680, 715, 768 (same); Code of Law for the District of Columbia: Enacted March 3, 1901 §§ 869a, 869d, at 227, 228 (1911) (referring separately to "all evidences of debt . . . and options," and contracts for "future delivery"); Code of Georgia of 1933 §§ 20-506, 20-602, at 446, 447 (1935) (separately addressing "evidence of indebtedness" and "[a]ll contracts of sale for future delivery"). Courts likewise have held that options and futures are not "evidence of indebtedness." *See, e.g., Glazer v. Nat'l Commodity Research & Statistical Serv., Inc.*, 547 F.2d 392, 393 (7th Cir. 1977) (rejecting SEC's argument that options contracts were "evidence of indebtedness"); *Berman v. Dean Witter & Co.*, 353 F. Supp. 669, 671 (C.D. Cal. 1973) (rejecting proposition that futures contracts were "evidence of indebtedness").

Second, a derivative investment is not "similar" to a "bond, debenture, [or] note." 15 U.S.C. § 80a-18(g). Suppose a radio advertisement announces: "We sell bonds, debentures, notes, or similar obligations or instruments." No reasonable speaker of English would call in expecting (for example) to agree to deliver to the seller in six months some 5000 bushels of wheat at a warehouse in the City of Duluth. To be sure, such a derivative, like a bond, debenture, or note, comes with a "future payment obligation[]." 85 Fed. Reg. at 4451. But that could be said of almost any transaction, from buying pencils with a credit card to a standard purchase of stock in the secondary market, *see* Securities Transaction Settlement Cycle, Exchange Act Release No. 80,295, 82 Fed.

Reg. 15,564, 15,569 (Mar. 29, 2017) (explaining that "payment of funds and delivery of securities" occurs by "the second business day after the date of the contract"). The core similarity between a bond, debenture, and note is that each represents a capital raising transaction—an agreement where, in exchange for money presently received, the issuer promises to repay principal and interest. That is not "similar" to a derivative, which does not concern the repayment of capital, but sets some future transaction, like the delivery of a certain asset "within a certain time at a certain price if the holder [of the option] shall so demand." *Crowell's Dictionary*, *supra*, at 95 (defining a "call" option).

Third, and as detailed below (at 67–68), many derivatives are not "securities." *See, e.g.*, *SEC v. G. Weeks Secs., Inc.*, 678 F.2d 649, 652 (6th Cir. 1982) (holding that a traditional forward contract is not a security); *Moody v. Bache & Co.*, 570 F.2d 523, 525 (5th Cir. 1978) (explaining that courts "have widely agreed that a particular commodities futures contract is not in itself a security under the securities acts").

Even apart from the specific statutory definition at issue here, the general understanding of "senior security" at the time of passage confirms that section 18 addresses only the debt and equity that a fund issues or sells to raise capital, not the investments that the fund makes with that capital. *See Bond v. United States*, 572 U.S. 844, 861 (2014) ("In settling on a fair reading of a statute, it is not unusual to consider the ordinary meaning of a defined term . . . ." (citing *Johnson v. United States*, 559 U.S. 133, 136 (2010))). In the run-up to the Investment Company Act, the Commission defined "the term 'senior securities'" as the "bonds and preference stocks" issued by a fund. 3 *SEC Investment Company Report* 1576. That was consistent with contemporary usage. In the congressional hearings and debates prior to enactment of the Investment Company Act, congressmen and witnesses frequently spoke of "senior securities"—but always in the context of a fund

issuing debt or equity, never in terms of the fund *investing in derivatives*. *See, e.g.*, *Investment Trusts and Investment Companies: Hearings Before the Subcomm. on Sec. & Exch. of the S. Comm. on Banking & Currency*, 76th Cong. 266 (1940) ("*Hearing on S. 3580*") (statement of Sen. Taft) (referring to "buy[ing] a preferred stock" in terms of the "rate you would have to pay on that senior security").[8] This consistent and contemporaneous usage shows how the term senior securities was "understood by 'intelligent and informed people of the time.'" *PHH Corp. v. CFPB*, 881 F.3d 75, 132 (D.C. Cir. 2018) (Griffith, J., concurring) (quoting Antonin Scalia, *Common-Law Courts in a Civil Law System, in A Matter of Interpretation* 3, 38 (Amy Gutmann ed., 1997)).

The text of the relevant section titles in the Investment Company Act of 1940 further demonstrate that "senior securities" does not include investments in derivatives. *See INS v. Nat'l Ctr. for Immigrants' Rights, Inc.*, 502 U.S. 183, 189 (1991) ("[T]he title of a . . . section can aid in resolving an ambiguity in the legislation's text."). Section 18 is titled "Capital Structure." 54 Stat. at 817 (codified as amended at 15 U.S.C. § 80a-18). In 1940, as today, the "[d]efinition of 'Capital Structure'" was the capital "raised by" the fund "to devote to the [investment] purpose for which" the fund had "been formed." 3 *SEC Investment Company Report* 1564. Capital structure, in other words, referred unambiguously to the debt and equity "invested in a business." *Crowell's Dictionary*, *supra*, at 96; *see, e.g.*, *In re Memphis St. Ry. Co.*, 86 F.2d 891, 893 (6th Cir. 1936) ("The capital structure of the company consisted of mortgage bonds . . . and capital stock, preferred and common . . . ."); A Report of the Federal Communications Commission on the Investigation of the

[8] *See also id.* at 272 (statement of David Schenker, Chief Counsel, Sec. & Exch. Comm'n Inv. Trust Study) (describing the "senior security holder" as a bondholder, the person who wants his "principal back and a moderate return"); *id.* at 442 (statement of Cyril J.C. Quinn, Vice President, Tri-Continental Corp.) (discussing the "existence of senior securities" in terms of whether "I borrow money or sell preferred stock"); *id.* at 447 (quoting a hypothetical "satisfied holder of a good senior security": "I bought the bonds of the X Investment Co. and the preferred stock of the Y Investment Co.").

Telephone Industry in the United States, H.R. Doc. No. 340, at 72 (1939) (summarizing the "capital structure of the Bell System" by referencing only "equity" and "debt").[9] The phrase did not then, nor does it now, refer to a company's investment activities.

Had Congress wanted the prohibition on issuing "senior securities" to regulate "certain fund [investment] practices," 85 Fed. Reg. at 4448, Congress more logically would have placed the restriction in section 12 of the Investment Company Act, which governs the "Functions and Activities of Investment Companies," 54 Stat. at 808 (codified at 15 U.S.C. § 80a-12). Section 12 is where Congress, in fact, attempted to place a "[l]imitation on speculative and other activities" of investment companies. 86 Cong. Rec. 2846 (statement of Sen. Wagner). That section bars a fund from "purchas[ing] any security on margin," "participat[ing] on a joint . . . basis in any trading account in securities," and "effect[ing] a short sale of any security." 54 Stat. at 809 (codified at 15 U.S.C. § 80a-12(a)(1)–(3)). Section 12 would have been the place for Congress to limit funds' investment in derivatives, if that had been Congress's intent.

Similarly, if Congress had wished to give the Commission power to limit funds' investments in derivatives, it could have granted that power expressly, as it did with respect to short sales. In 1940, the Commission explained to Congress that there was "no reason why an investment trust should not be able to effect a short sale." 1 *Hearing on S. 3580*, *supra*, at 233 (statement of David Schenker, Chief Counsel, SEC). Nevertheless, Congress authorized the Commission to

[9] *See also, e.g.*, *Silver v. Scullin Steel Co.*, 98 F.2d 503, 506 (8th Cir. 1938) ("Its capital structure consisted of bonds, debentures, notes, preferred stock, and common stock."); *Denver Union Stock Yard Co. v. United States*, 57 F.2d 735, 745 (D. Colo. 1932) ("The petitioner introduced evidence that the capital structure of such a property as the petitioner's would involve bonds, preferred stock, and common stock . . . ."); *Gary v. Comm'r*, B.T.A.M. (P-H) P 38,131 (B.T.A. 1938) ("The corporation's capital structure at the time, as before, consisted of . . . common stock with no bonds nor preferred stock outstanding."); *Haass v. Comm'r*, 29 B.T.A. 900, 904 (1934) ("A recapitalization connotes a change or a readjustment in the capital structure, either by an increase or by a decrease of the outstanding capital stock and bonds.").

bar a fund from "effect[ing] a short sale of any security." 15 U.S.C. § 80a-12(a)(3). Congress's decision not to do so with respect to derivatives should be respected.

Indeed, had Congress really intended to limit funds' investments in derivatives, it "could easily have chosen clearer language." *NLRB v. SW Gen., Inc.*, 137 S. Ct. 929, 939 (2017). For example, if Congress wanted to restrict the "purchase[] . . . [of] futures," as the Commission claims, 85 Fed. Reg. at 4452 n.48, then Congress would not have cryptically referred to an obligation that is "similar" to a "bond," 15 U.S.C. § 80a-18(g)—an instrument that has never, in any context, been used to refer to a future. Congress could just as easily—and far more clearly—have referenced the products "commonly . . . known as 'futures'"—a phrase already appearing in the U.S. Code. Grain Futures Act, ch. 369, § 3, 42 Stat. 998, 999 (1922); *see also, e.g.*, Future Trading Act, ch. 86, 42 Stat. 187 (1921); United States Cotton Futures Act, ch. 255, 38 Stat. 693 (1914). So too with options. Instead of banking on the dubious proposition that anyone would think that an option was "similar" to a "bond," why not just say, the "Puts, Call, Spreads and Straddles . . . [that] are known collectively as 'Stock Options and Privileges'"? Owen Taylor, *Puts and Calls: How To Profit From Them* 7 (1933). These words were not unknown at the time of enactment. *See, e.g.*, *id.*; *Bd. of Trade of Kansas City v. Milligan*, 90 F.2d 855, 860 (8th Cir. 1937) (referring to "transactions commonly known to the trade as 'spreads' or 'straddles'"); *In re Little's Nomination*, 7 Pa. D. 580, 582 (Ct. Com. Pl. 1898) (discussing contracts "issued by a broker under names of 'puts,' 'calls,' and 'spreads'"). "'The fact that [Congress] did not adopt [either] readily available and apparent alternative strongly supports' the conclusion that" section 18 does not reach a fund's investment in derivatives. *SW Gen.*, 137 S. Ct. at 939 (alterations in original) (quoting *Knight v. Comm'r*, 552 U.S. 181, 188 (2008)).

b) Subsequent Congressional Enactments Further Demonstrate That Section 18's Definition Of "Senior Security" Excludes Derivatives.

Since the passage of section 18, Congress has taken numerous steps to cover derivatives within the scope of the term "security," but has never done so with respect to the separate definition of "senior security" at issue here, further demonstrating that section 18's definition of "senior security" excludes derivatives.

In 1940, the definition of "security" and the definition of "senior security" both included "note," "bond," "debenture," and "evidenc[e] [of] indebtedness." *See* § 2(a)(35), 54 Stat. at 790 (defining "security" (codified as amended at 15 U.S.C. § 80a-2(a)(36))); § 18(g), 54 Stat. at 820 (defining "senior security" (codified at 15 U.S.C. § 80a-18(g))). But in later years, Congress twice amended the definition of "security" to include various derivatives, while leaving the definition of "senior security" *unchanged*. *See* Pub. L. No. 106-554, § 209(a)(1), 114 Stat. 2763, 2763A-435 (2000) (adding any "security future"); Pub. L. No. 97-303, § 5, 96 Stat. 1409, 1409 (adding "any put, call, straddle, option"). Thus, if the words "bond," "debenture," "note," and "evidence of indebtedness" had already described derivatives, *see* 85 Fed. Reg. at 4450–51, then either the congressional amendments were superfluous or Congress intended the *same* words in the *same* statute to have *different* meanings.

Neither theory can be right. *See, e.g.*, *Intel Corp. Inv. Policy Comm. v. Sulyma*, No. 18-1116, 2020 WL 908881, at *6 (U.S. Feb. 26, 2020) ("When Congress acts to amend a statute, we presume it intends its amendment to have real and substantial effect." (quoting *Intel Corp. v. Advanced Micro Devices, Inc.*, 542 U.S. 241, 259 (2004))); *Gustafson v. Alloyd Co.*, 513 U.S. 561, 570 (1995) ("[I]dentical words used in different parts of the same act are intended to have the same meaning." (quoting *Dep't of Revenue v. ACF Indus., Inc.*, 510 U.S. 332, 342 (1994))). There is

only one plausible explanation: in 1940, as today, the words "bond," "debenture," "note," and "evidence of indebtedness" did not describe a fund's investment in derivatives.

Congress's amendments to the definition of "security" did not alter the definition of "senior security" *sub silentio*. A "senior security" means a "bond, debenture, note, or similar obligation or instrument constituting a security and evidencing indebtedness." 15 U.S.C. § 80a-18(g). As explained above, to qualify as a senior security under this definition, an obligation or instrument that is not a "bond, debenture, [or] note" must be (1) "similar" to a bond, debenture, or note; (2) a "security"; *and* (3) "evidenc[e] [of] indebtedness." *Id.* But if derivatives were evidence of indebtedness within the meaning of the statute, then Congress would not have needed to amend the definition of "security"—which has always included "evidence of indebtedness"—to add specific types of derivatives.

It has been argued that the definition of "senior security" should be read to encompass derivatives because "financial products like derivatives . . . did not exist at the time the Investment Company Act of 1940 . . . was passed." Comments of AFL-CIO, File No. S7-24-15, 2016 WL 11629358, at *1 (Mar. 28, 2016). That is factually incorrect and, in any event, legally improper. Derivatives existed and were in common use in 1940, as Congress was well aware. *See, e.g.*, Grain Futures Act, ch. 369, § 3, 42 Stat. 998, 999 (1922) (regulating the "[t]ransactions . . . commonly conducted on boards of trade and known as 'futures'"); 1 *Hearing on S. 3580*, *supra*, at 1023 (discussing the Grain Futures Act); *see also Bd. of Trade v. Olsen*, 262 U.S. 1, 10 (1923) ("Every member of a grain exchange who testified before [a Senate committee] acknowledged that there is at times excessive speculation and undesirable speculation in the futures markets." (quoting S. Rep. No. 212, at 4 (1921))); H.R. Rep. No. 681, at 1, (1912) (considering "some 25 or 30 bills" to "prevent illegitimate speculation" in the futures markets); Owen Taylor, *Puts and Calls: How To*

Profit From Them 14 (1933) (describing in detail how investors can "assume a big risk" by selling "option contracts . . . known as a Put and Call"). Congress could have referred to or described derivatives, but chose not to. And even if Congress were in a state of ignorance in 1940, it is the role of Congress, not the courts or the Commission, "to 'correct' the [statutory] text" in light of future developments. *Va. Dep't of Med. Assistance Servs. v. U.S. Dep't of Health & Human Servs.*, 678 F.3d 918, 926 (D.C. Cir. 2012).

2. The Legislative History Confirms That The Proposed Use-Of-Derivatives Rule Exceeds The Commission's Authority Under Section 18.

Because the text of section 18 is clear—as elucidated by subsequent legislative enactments—there is no need to proceed any further. The Supreme Court has repeatedly admonished that when construing a statute, courts and agencies always must begin—and often end—with the statute's plain text. *See, e.g.*, *Conn. Nat'l Bank v. Germain*, 503 U.S. 249, 253–54 (1992) ("[I]n interpreting a statute a court should always turn first to one, cardinal canon before all others. We have stated time and again that courts must presume that a legislature says in a statute what it means and means in a statute what it says there. When the words of a statute are unambiguous, then, this first canon is also the last: 'judicial inquiry is complete.'" (citations omitted)). As the Commission itself recently put it, "statutory interpretation 'begin[s] with the text,'" not with generalized "views of the statutory framework and congressional intent." Respondent's Brief of SEC at 29, *Nasdaq Stock Mkt. LLC v. SEC*, No. 18-1292 (D.C. Cir. May 6, 2019), 2019 WL 2006637 (alteration in original) (quoting *Am. Fed'n of Gov't Emps. Local 3669 v. Shinseki*, 709 F.3d 29, 33 (D.C. Cir. 2013)). And, here, the statutory text is also where the analysis should end.

Although legislative history should not determine a statute's interpretation, the legislative history here confirms what the plain text and subsequent enactments already make clear: section 18 governs a fund's issuance of debt or equity to investors, not the fund's portfolio investments,

including its investment in derivatives. By barring a fund from issuing "any bond, debenture, [or] note," or "any stock of a class having priority over any other class," 15 U.S.C. § 80a-18(g), Congress sought to restrict open-end investment companies' capital structure to only "one class of stock," common stock. 1 *Hearing on S. 3580*, *supra*, at 233 (statement of David Schenker, Chief Counsel, SEC). Congress was well aware that by including "in section 18 a provision regarding the future capital structure of investment companies," it was providing "that in the future an investment company can have one, and only one, type of security—common stock. Bonds, debentures, preferred stock are all to be legislated out of future existence." *Id.* at 376 (statement of Cyril J.C. Quinn, Vice President, Tri-Cont'l Corp.).

The reason for this restriction is equally clear in the legislative history. It was discussed at length in the congressional debates. It was detailed in a comprehensive report submitted by the Commission. And it had absolutely nothing to do with a fund's portfolio investments, much less its investments in derivatives. As the Commission explained at the time, "[a]ll investment companies" had issued "common stock." 3 *SEC Investment Company Report* 1565. "Some investment companies"—called "simple-structure companies"—had issued "common stock only and but a single class of common stock," *id.*, which was "frequently termed [a] 'junior securit[y],'" *id.* at 1576. Other companies—called "complex-structure companies," *id.* at 1565—had issued "senior securities," *id.* at 1576, consisting of priority classes "of common stock," or, in addition to common stock, "bonds, debentures, [or] preferred stock," *id.* at 1565. "The importance of this classification," the Commission elaborated, was "that in the single-security companies all the security holders [had] the same rights and privileges . . . and the same obligations and liabilities; whereas in the complex structure companies the several categories of security holders [had] widely differing rights and privileges, as well as varying obligations and liabilities." *Id.*

The "multiple-security capital structure" companies "made [abuse] possible." 3 *SEC Investment Company Report* 1566. The senior security holders—the investors holding preferred stocks and bonds—wanted "safety of their principal"; they were "interested in only such a margin of operating profit as [would] suffice to pay them the limited fixed annual return" that they were due. *Id.* In contrast, the junior security holders—the holders of regular common stock who controlled the funds—wanted "speculative advantages"; "all of the earnings except the fixed charges [payable to the senior securities] [would] inure to them." *Id.*

By 1940, this "conflict of interest" had become "accentuated." 3 *SEC Investment Company Report* 1594. The "sponsors and promoters" of investment companies had "frequently constituted themselves primarily the holders of only the" junior securities (the common stock); they were "apparently" then using the "senior securities . . . for the purpose of obtaining from the public the major part of the capital contribution" for the fund. *Id.* "In other words, the more you [the investment company] speculate, the more the benefit goes to the common stock holder [the fund's sponsor]. If you lose, the common-stock holder loses, too, but so does the other person"—i.e., the member of the public, who holds the senior securities—"and he has not a chance to make a cent. Their interest, in other words, is different." 1 *Hearing on S. 3580*, *supra*, at 242 (statement of Sen. Taft).

Section 18 was plainly aimed at this abuse—to "eliminate in the future the evils of complex capital structures." 86 Cong. Rec. 2846 (statement of Sen. Wagner). By restricting the debt and equity that a fund could issue to investors—that is, by restricting the issuance of senior securities—Congress ensured that investment companies would all be of the simple-structure type—they would "have one class of stock." 1 *Hearing on S. 3580*, *supra*, at 233 (statement of David Schenker, Chief Counsel, SEC). Section 18 had "nothing to do with whether or not the funds [each

investment company had] to invest [would] profit or lose." *Id.* at 442 (statement of Cyril J.C. Quinn, Vice President, Tri-Cont'l Corp.). All section 18 did was "prevent unfair dilution of stockholders' interest in the company," 86 Cong. Rec. 2846 (statement of Sen. Wagner)—a matter that is in no way impacted by a fund's investment decisions. This legislative history therefore confirms that section 18 does not confer the power to regulate funds' investments in derivatives.

3. The Commission's Purpose-Based Analysis Of Section 18's Definition Of "Senior Security" Fails.

The Commission, for its part, starts its discussion of section 18's definition of "senior security" not with the statutory text, but with a statement of "core purpose." 85 Fed. Reg. at 4450. The Commission concedes that its "views are based not so much" on the language of the statute, "but more upon the proposition" that its interpretation "fall[s] within the legislative purposes of Section 18." Securities Trading Practices of Registered Investment Companies, 44 Fed. Reg. 25,128, 25,131 (Apr. 27, 1979) ("Release 10666"); *see* 85 Fed. Reg. at 4551 (adopting "the same analysis").[10] The Commission then declares that virtually all derivatives transactions constitute the issuance or sale of a "senior security," and are thus barred by section 18. 44 Fed. Reg. at

[10] In the Proposing Release, the Commission relies on Release 10666 from 1979 and even purports to apply "the same analysis." 85 Fed. Reg. at 4451. But the Commission overstates the conclusions of Release 10666 and fails to reasonably explain (or even acknowledge) the novelty of its new approach. According to the Commission, Release 10666 found that certain transactions, such as firm commitment agreements, "involve the issuance of a senior security for purposes of section 18." *Id.* That is incorrect. The most the Commission would say in 1979 is that firm commitment agreements "*may* involve the issuance of an evidence of indebtedness," and "*if* [such] a firm commitment agreement is a security," then it "also *may* be a senior security." 44 Fed. Reg. at 25,131 (emphases added). As a result, a fund that enters "into such agreements *may* be in violation of Section 18(f)(1)." *Id.* (emphasis added); *see also id.* (offering similarly inconclusive analysis for standby commitment agreements). The Commission never decided that firm commitment agreements and other similar obligations *were* senior securities, and thus never ventured beyond a non-binding "general statement of policy." *Id.* at 25,128. The Commission fails to acknowledge, much less reasonably explain, its newfound confidence that certain transactions—and indeed, many more—are in fact senior securities.

25,131; *see* 85 Fed. Reg. at 4451 (applying "the same analysis to all derivatives transactions"). The Commission concludes that its novel restrictions on a fund's use of derivatives operates as a lawful, conditional "exemption . . . from section[] 18['s bar]." *Id.* at 4453 n.66; *see also* 15 U.S.C. § 80a-6(c) (exemptive authority). The Commission's purpose-driven argument fails.

"When the words of a statute are unambiguous," the "'judicial inquiry is complete.'" *Conn. Nat'l Bank*, 503 U.S. at 253–54. However passable the Commission's purposivist approach may have been in 1979, when it first divined section 18's "functional meaning," Release 10666, 44 Fed. Reg. at 25,131, that is not how courts and agencies construe statutes today. *See, e.g.*, *Va. Dep't of Med. Assistance*, 678 F.3d at 926 ("Our role is not to 'correct' the text so that it better serves the statute's purposes . . . ." (internal quotation marks omitted)); *Alexander v. Sandoval*, 532 U.S. 275, 287 (2001) (contrasting modern textualist interpretation with the "*ancien regime*" of "venturing beyond Congress's intent" that "held sway 40 years ago").

Even if vague notions of "purpose" were relevant, the Commission misconstrues the actual purpose of section 18. The Commission latches onto a single sentence in the statute: "[T]he interest of investors [is] adversely affected . . . when investment companies by excessive borrowing and the issuance of excessive amounts of senior securities increase unduly the speculative character of their junior securities." 15 U.S.C. § 80a-1(b)(7); *see, e.g.*, 85 Fed. Reg. at 4451 n.45 (relying on this provision to "inform [the Commission's] interpretation of the scope of the term 'senior security'"). The Commission then suggests that this sentence signifies a congressional desire to protect common stock holders from overly risky investments.

But that is just not true. As the Commission's Chief Counsel put it at the time: "If [a fund is] going to be a speculative investment trust, and they disclose that fact to their investors, and the investors want to invest in that type of investment company, who are we to say, 'No, you shall not

invest in that type of company?'" 1 *Hearing on S. 3580*, *supra*, at 233 (statement of David Schenker, Chief Counsel, SEC).

When Congress enacted the Investment Company Act, the "sponsors and promoters" of the funds held the common stock, not the investing public. 3 *SEC Investment Company Report* 1594. The public held the senior securities—the bonds and preferred stock. *Id.* ("[I]n the financing of investment companies, senior securities apparently have been used for the purpose of obtaining from the public the major part of the capital contribution, while the control of the enterprise has been retained by the sponsors with small proportionate investments through ownership of common stock."). So when Congress spoke of the "speculative character" of the common stock, 15 U.S.C. § 80a-1(b)(7), it was not commenting on the *riskiness* of that stock, but (as detailed above) on the "speculative *advantage*" that the stock had relative to the "senior securities" held by members of the public, 3 *SEC Investment Company Report* 1594 (emphasis added); *see also* Letter from Arthur Levitt, Chairman, U.S. SEC, to Edward J. Markey, Chairman, Subcomm. on Telecomms. & Finance of H.R. Comm. on Energy & Commerce (Sept. 26, 1994), 1994 WL 16515036, at *21 ("Senior securities tended to lead to speculative investment policies to the detriment of senior securityholders [sic] because the common stockholder/sponsors, who often had a relatively small investment at risk in the fund, looked to capital gains for profit."). Again, section 18 simply leveled the playing field by forcing all investors in open-end funds into the same class; that section had nothing to with a fund's investment strategy.

This is not to say that investing in derivatives cannot increase a fund's leverage, as can issuing senior classes of debt or equity. *See* 85 Fed. Reg. at 4450. But the assumption that two activities cause a similar effect (among other effects) does not imply that the power to regulate one activity includes the power to regulate the other. Sugary drinks and recess can both make children

hyperactive; that does not mean that a ban on the former is also intended to be a ban on the latter. Because a legislature can rationally target one activity over another, a purpose must always be described as concretely as possible, lest "generalized references to the 'remedial purposes' [of a law] . . . justify reading a provision more broadly that its language and the statutory scheme reasonably permit." *Aaron v. SEC*, 446 U.S. 680, 695 (1980).

So too here. While the issuance of senior securities—i.e., the sale of preferred stock and bonds to investors—and the investment in derivatives both can increase a fund's leverage, the issuance of senior securities raises additional, distinctive concerns about conflicts of interest, discussed above. Rather than focusing on all actions that create leverage risk, Congress rationally offered a "specific protection" from a discrete act—the issuance of senior securities—that raises a unique combination of concerns. Scalia & Garner, *Reading Law* 57. That is all section 18 addresses.

In all events, the Commission's theory that section 18 grants it broad authority to regulate "leverage" proves far too much. The Commission has acknowledged that, like an investment in derivatives, "margin purchases and short sales" may also "result in leverage." Letter from Arthur Levitt, *supra*, 1994 WL 16515036, at *20. Thus, the Commission has argued that section 18 must also authorize the agency to "regulate[] margin purchases and short sales." *Id.* at *20 n.64 (citing Guidelines for the Preparation of Form N-8B-1, Investment Company Act Release No. 7221, 1972 WL 125419 (June 9, 1972)). But a court must "construe a statute so that no provision is rendered inoperative or superfluous." *Miller v. Clinton*, 687 F.3d 1332, 1347 (D.C. Cir. 2012) (quoting *Laurel Baye Healthcare of Lake Lanier, Inc. v. NLRB*, 564 F.3d 469, 472 (D.C. Cir. 2009)). If section 18 covers margin sales and short sales, as the Commission assumes, that leaves nothing for section 12(a) to do—the section that governs both margins and short sales (15 U.S.C. § 80a-

12(a)). *See* Letter from Arthur Levitt, *supra*, at *20 n.64 (conceding that because the Commission "has regulated margin purchases and short sales under section 18," the Commission "has not adopted any rules under section 12(a)"). Thus, if taken to its logical limit, the Commission's understanding of section 18's "purpose" would lead to absurd and unacceptable consequences.

In short, the Commission must work within the bounds of the statute that Congress enacted, not the one it thinks Congress should have written. The statute that Congress wrote does not encompass derivatives as "senior securities," and airy notions of purpose cannot overcome that.

4. The Proposed Rule Exceeds The Commission's Section 18 Authority In Other Ways, Further Underscoring The Commission's Interpretative Mistakes.

In its quest to achieve the desired outcome, the Commission ignores other statutory text too. But "an agency may not rewrite clear statutory terms to suit its own sense of how the statute should operate." *Util. Air Regulatory Grp. v. EPA*, 573 U.S. 302, 328 (2014). The "need to rewrite clear provisions of the statute" further underscores that the Commission has "taken a wrong interpretive turn" in trying to regulate a fund's use of derivatives in the first place. *Id.*

Section 18 makes it unlawful only "to issue" or "to sell" a senior security. 15 U.S.C. § 80a-18(f)(1). It simply does not address "buys" or "purchases." The Commission is undeterred by such details: it reasons that "[n]ot viewing" the "purchase[]" of certain derivatives (like "futures and forwards") "as involving senior securities" would "frustrate the concerns [supposedly] underlying section 18," again relying on a purpose-based approach. 85 Fed. Reg. at 4452 & n.48. Therefore, the Commission declares that section 18 must reach "*all* derivatives transactions that create future payment obligations," *id.* at 4451 (emphasis added), including those that a fund "buys or sells," *id.* at 4452 n.48 (internal quotation marks omitted).

That is an unabashed rewriting of unambiguous statutory text. Congress knew how to use the words "buys" or "purchases." *See, e.g.*, 15 U.S.C. §§ 80a-3(c)(2)(B)(ii)(I) ("buy, sell, lend,

swap, or repurchase"), 80a-7(a)(1)(2) ("purchase, redeem, retire, or otherwise acquire or attempt to acquire"). Yet Congress chose not to include those words in the relevant portion of section 18. *See id.* § 80a-18(f)(1). Thus, even assuming *arguendo* that some derivatives were senior securities, the Commission's proposed use-of-derivatives rule still lacks statutory authority because it purports to bar purchases, not just issuance and sales. And if the proposed rule is necessary to avoid "frustrat[ing]" the Commission's understanding of the statutory purposes, perhaps it is the Commission's understanding—not the plain statutory text—that needs revision.

The use-of-derivatives rule's application to a fund's investment in exchange-listed derivatives is similarly baseless. *See, e.g.*, 85 Fed. Reg. at 4449, 4451 (acknowledging that "[d]erivatives are often characterized as either exchange-traded or over-the-counter," and claiming that section 18 applies to "all derivatives transactions"). Section 18 applies only to securities "issued" by a fund. *See* 15 U.S.C. § 80a-18(f)(1) (making it unlawful "to *issue* any class of senior security" or to "sell any senior security *of which [the fund] is the issuer*" (emphases added)). But exchange-listed derivatives are *not* issued by a fund; a registered clearing agent is the issuer. *See, e.g.*, Exemption for Standardized Options From Provisions of the Securities Act of 1933, Securities Act Release No. 8171, Exchange Act Release No. 47,082, 68 Fed. Reg. 188, 188 (Jan. 2, 2003) ("The Commission determined that the Options Clearing Corporation ('OCC') should be deemed to be the issuer of the standardized options to be listed on the Chicago Board of Options Exchange ('CBOE')."). And, again, if "[n]ot viewing" *all* derivatives transactions "as involving senior securities" would "frustrate" the Commission's understanding of section 18, 85 Fed. Reg. at 4452, then Congress's exclusion of a wide swath of derivatives from that section is a further clue that section 18 simply does not do what the Commission says.

The Commission claims that derivatives transactions fall within the "functional meaning of the term 'evidence of indebtedness.'" 85 Fed. Reg. at 4450; *see id.* at 4451 (applying the analysis to "all derivatives transactions"). But section 18 limits a "senior security" to only those evidences of indebtedness that "constitut[e] a security." 15 U.S.C. § 80a-18(g); *see supra* pp. 50, 52. Many of the derivatives transactions that the Commission tries to shoehorn into section 18 are not securities. For example, the proposed rule purports to cover commodity futures, *see* 85 Fed. Reg. at 4449 & n.19, but a commodity future is not a security.[11] The same goes for swaps,[12] broad-based index futures,[13] and many forwards.[14] These examples are further reason why the proposed

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[11] *See Moody*, 570 F.2d at 525 (explaining that courts "have widely agreed that a particular commodities futures contract is not in itself a security under the securities acts") (citing *SEC v. Cont'l Commodities Corp.*, 497 F.2d 516, 520 n.9 (5th Cir. 1974) (collecting cases)); *accord*, *e.g.*, *SEC v. Commodity Options Int'l, Inc.*, 553 F.2d 628, 632 (9th Cir. 1977); *Burton v. Heinold Commodities, Inc.*, 646 F. Supp. 360, 362 (E.D. Va. 1986) (collecting cases).

[12] The Investment Company Act's definition of "security" does not include "swaps," *see* 15 U.S.C. § 80a-2(a)(36), even though Congress added "swaps" to the Exchange Act's and the Securities Act's definitions of "security," *see* Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 761, 124 Stat. 1376, 1755 (2010) (amending 15 U.S.C. § 78c(a)(10) to include "security-based swap"); *id.* § 768, 124 Stat. at 1800 (similarly amending 15 U.S.C. § 77b(a)(1)). *But see* 85 Fed. Reg. at 4451 n.38 (incorrectly stating that the "Investment Company Act's definition of the term 'security' is *broader* than the term's definition in other federal securities laws" (emphasis added)).

Congress knew how to refer to "swaps" in the Investment Company Act. *See* Investment Company Act Amendments of 1996, Pub. L. No. 104-290, § 209, 110 Stat. 3416 (codified as amended at 15 U.S.C. § 80a-3(c)(2)(B)(ii)(I)) (exempting from the definition of "investment company" certain "market intermediar[ies]," which make markets in agreements or "option[s]" to "buy, sell, lend, *swap* or repurchase" (emphasis added)). Congress's failure to mention swaps there confirms their exclusion from section 18.

[13] The Investment Company Act defines "security" to include a "security future." 15 U.S.C. § 80a-2(a)(36). Because a "'security future' means a contract for sale for future delivery of a single security or of a narrow-based security index," *id.* § 78c(a)(55)(A), *see id.* § 80a-2(a)(52) (incorporating the quoted Exchange Act definition of "security future" into the Investment Company Act), the term "security" does not include a future on a broad-based security index.

[14] *See G. Weeks*, 678 F.2d at 652 (holding that a traditional forward contact is not a security); *Abrams v. Oppenheimer Gov't Secs., Inc.*, 737 F.2d 582, 588 (7th Cir. 1984) ("We concur . . . with the generally accepted proposition that [] forwards in and of themselves are not securities.").

use-of-derivatives rule far exceeds the Commission's statutory authority and rests on a fundamentally flawed reading of section 18.

5. The Commission's Unexplained String Citation To Other Statutes Does Not Supply The Missing Authority.

As with the proposed access rules, *see supra* Part I.A.5, the final section of the Proposing Release contains a string citation of additional statutory provisions to buttress the Commission's claimed authority to issue the proposed use-of-derivatives rule: "The Commission is proposing new rule 18f-4 under the authority set forth in sections 6(c), 12(a), 18, 31(a), 38(a), and 61 of the Investment Company Act of 1940." 85 Fed. Reg. at 4557. Once again, none of those miscellaneous provisions supplies the missing statutory authority.

Section 6(c), of course, merely authorizes the Commission to "exempt" regulated parties from the 1940 Act's other provisions—such as, in this case, section 18. 15 U.S.C. § 80a-6(c); *see, e.g.*, 85 Fed. Reg. at 4453 n.66. It has no application where the Commission lacks prohibitory power to begin with, as discussed above. Section 12(a), as the Commission itself notes, extends only to short sales. *Id.* at 4451 n.42; *see also supra* pp. 64–65. For that reason, it cannot support the Commission's broad proposal to govern derivatives. Section 31(a) purportedly provides authority for the proposed recordkeeping requirements, but not any of the substantive regulations in the Proposing Release. 15 U.S.C. § 80a-30(a). Section 38(a) provides the Commission's general authority "to make, issue, amend, and rescind such rules and regulations," *id.* § 80a-37(a), which does not authorize transgression of more specific statutory limits (such as section 18), *see Colo. River Indian Tribes*, 466 F.3d at 139, or provide the "clear congressional authorization" needed to justify a "transformative expansion" of the Commission's "regulatory authority," *Util. Air Regulatory Grp.*, 573 U.S. at 324. Finally, section 61 merely "makes section 18 of the Act applicable to [business development companies], with certain modifications" not relevant to the fundamental

issues addressed here. 85 Fed. Reg. at 4448 n.6; *see also id.* at 4450 & n.32. Accordingly, the Commission has identified no viable alternative basis for authorizing the use-of-derivatives rule.

* * *

For all of these reasons, the text, context, and history of section 18 unambiguously preclude the Commission from limiting funds' investments in derivatives. The Commission has not offered any statutory analysis, let alone a persuasive one, to overcome that conclusion. The Commission lacks statutory authority to adopt its proposed use-of-derivatives rule.

II. The Proposed Rules Are Arbitrary And Capricious Because They Are Unnecessary, Ineffective, And Counterproductive.

Even apart from the absence of statutory authority, the unprecedented proposed access rules and use-of-derivatives rule are unnecessary and will ultimately only hurt investors. The Commission has failed to meet its basic obligation of reasoned decisionmaking because, among other defects, it has not demonstrated a problem necessitating this extraordinary new regulatory restriction on the availability of leveraged and inverse funds. Moreover, both the proposed access rules and the use-of-derivatives rule are poorly tailored to the Commission's stated goal of promoting investor understanding, internally contradictory, adverse to the interests of investors, destructive of their relationships with financial professionals, and inferior to less burdensome alternatives such as enhanced disclosures that better align with the Commission's proper role in this area.

A. The Commission Has Not Demonstrated A Need For Placing Unprecedented Regulatory Burdens On Investors' Access To Leveraged And Inverse Funds.

The proposed access rules are a heavy-handed "solution" in search of a problem. Leveraged and inverse mutual funds have been available for more than 25 years, and leveraged and inverse ETFs have been available since before the financial crisis of 2007–2009. During this time,

leveraged and inverse funds have amassed a strong track record of delivering performance consistent with their stated investment objective, doing exactly what they say they will do. Globally, billions of dollars in leveraged and inverse funds are traded on a daily basis. Given this long history and extensive use, it is remarkable that the Commission does not identify even a single instance of a leveraged or inverse fund performing in an undisclosed way. But it is even more remarkable that the Commission has issued proposals that would bring about a sweeping transformation of the regulatory landscape for leveraged and inverse funds—and potentially many other securities—without any evidence or explanation as to why the changes are necessary. *See Nat'l Fuel Gas Supply Corp. v. FERC*, 468 F.3d 831, 843 (D.C. Cir. 2006) (Kavanaugh, J.) ("Professing that an order ameliorates a real industry problem but then citing no evidence demonstrating that there is in fact an industry problem is not reasoned decisionmaking.").

1. The Commission Has No Evidence That Investors Are Not Capable Of Understanding The Risks (And Benefits) Of Leveraged And Inverse Funds.

The Commission's primary justification for the proposed rules is an asserted concern that some investors supposedly are not *capable* of understanding that because a leveraged or inverse fund resets each day, its stated daily multiple (e.g., "2x") may not correspond to that multiple times the return of its underlying index over a period longer than a single day. *See* 85 Fed. Reg. at 4492, 4522. The Commission offers no reason to believe that customers cannot or do not understand this simple concept. *See* Ex. 3, at 6 (Expert Report of Craig M. Lewis, Ph.D., Madison S. Wigginton Professor of Finance, Owen Graduate School of Management, Vanderbilt University, and Senior Advisor, Patomak Global Partners) ("Lewis Report") ("This assertion is not supported by empirical data nor is there any quantification of the magnitude of this potential issue.").

Investors can understand the concept of compounding, and there is no evidence that they do not. In the first sentence of the first paragraph of the first substantive page of each Summary

Prospectus, ProShares discloses in the clearest possible terms that its funds "seek[] daily investment results" for "a single day, not for any other period." Three sentences later, the Summary Prospectus explains—in bolded text—that a "Fund's returns for periods longer than single day will very likely differ in amount, and possibly even direction, from the Fund stated multiple ([e.g.,] 2x) times the return of the Fund's Index." *See supra* p. 18; *see also* Request for Comments on Fund Names, 85 Fed. Reg. 13,221, 13,221 (Mar. 6, 2020) ("[I]nvestors should look closely at a fund's underlying disclosures."). Investors can read and understand "plain English." Comment of Mikhail Kotlikov, File No. S7-24-15 (Feb. 28, 2020); *see also, e.g.*, Comment of Ralph Shive, File No. S7-24-15 (Feb. 25, 2020) ("I can read a prospectus."); Comment of Lorenzo Di Michieli, File No. S7-24-15 (Feb. 19, 2020) ("Do [you] think I can't read[?]"); Comment of Ryan Wallace, File No. S7-24-15 (Dec. 16, 2015) ("It is quite insulting, in my opinion, to assume that retail investors cannot read . . . ."). The former Chief Economist of the Commission has opined that in proposing the access rules, the Commission must at least address, among other things, whether "existing prospectus and marketing material disclosures adequately educate investors." Ex. 3, at 6 (Lewis Report).

In the face of these unambiguous disclosures, the Commission offers no evidence that investors have a contrary understanding of how leveraged and inverse funds perform. Nor does it identify where investors might develop that hypothetical understanding. The Commission merely asserts that "[t]here is a body of academic literature providing empirical evidence that retail investors may not fully understand the risks inherent in their investment decisions." 85 Fed. Reg. at 4522. That assertion does not withstand scrutiny for a number of reasons.

First, the "academic literature" that the Commission invokes does not even purport to deal with the issue at hand: retail investors' understanding of leveraged and inverse ETFs. As the

Commission is forced to admit, the one study that it cites does not "address retail investors' inattention to investment risk or the unique dynamics of compounding of daily returns in the context of leveraged/inverse ETFs"—the actual subject of this rulemaking. *Id.* at 4522 & n.535 (citing Annamaria Lusardi & Olivia S. Mitchell, *The Economic Importance of Financial Literacy*, 52 J. Econ. Lit. 5 (2014)). Instead, it broadly discusses the general topic of financial literacy. To the extent this alleged support is even relevant, which it is not, the Commission's argument would apply to investor understanding of *all* securities and says nothing specific about investor understanding of leveraged and inverse funds that would justify the proposed access rules.

Moreover, rather than surveying retail investors, this study merely surveyed the understanding of average Americans viewed in broad cohorts—for example, "U.S. respondents aged 50 and older," "young respondents (ages 23–28)," and respondents "covering all ages." Lusardi & Mitchell, *The Economic Importance of Financial Literacy*, 52 J. Econ. Lit. at 7. Those cross-sections of the population at large likely are not representative of the typical *investor*, who has a "different" understanding profile "from the average U.S. citizen." Eugene A. Ludwig, Comptroller of the Currency, Statement Before the Subcomm. on Capital Markets, Sec. & Gov't-Sponsored Enters. of H.R. Comm. on Banking & Fin. Servs., on Bank Mutual Fund Sales, 15 OCC Q.J. 71, 76 (1996).

The Commission should not rely on inapposite studies that do not address the issue at hand and are based on data that are "not representative" and cannot plausibly "provide an appropriate basis for" the Commission's decision. *Masias v. EPA*, 906 F.3d 1069, 1079 (D.C. Cir. 2018); *see also, e.g.*, *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 544 (D.C. Cir. 1983) (rejecting proposed standard where data underlying agency's analysis were "not representative of what most individual small refiners [could] achieve"); Amendments to Regulation SHO, Exchange

Act Release No. 61,595, 2010 WL 675942, at *32 n.307 (Feb. 26, 2010) (discounting data that were "not representative of typical trading"); Fall River Power Co., Securities Act Release No. 3932, 1958 WL 55542, at *3 (June 4, 1958) (finding statement based on "nonrepresentative sample" to be "materially false and misleading").[15]

The Commission therefore *concedes* that it lacks empirical evidence that investors in leveraged and inverse funds do not understand or attend to the compounding of daily returns in those funds.[16] We also are unaware of any empirical evidence showing that investors in leveraged and inverse funds are confused by or incapable of understanding their features. The Commission should regulate based on evidence, not speculative leaps and unfounded fears. *See, e.g.*, *Sorenson Commc'ns, Inc. v. FCC*, 755 F.3d 702, 708–09 (D.C. Cir. 2014) (holding that agency action based on "sheer speculation" rather than "evidence" was arbitrary and capricious).

Perhaps the best empirical evidence on the question whether investors are confused or not comes from statements of leveraged and inverse fund investors themselves. In other rulemakings—including the Commission's recent promulgation of Regulation Best Interest in this

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[15] The Commission, at times, appears to conflate the "capab[ility] of evaluating the risks" of an investment—the actual focus of this rulemaking, 85 Fed. Reg. at 4492—with a "full[] understand[ing] [of] the effects of compounding returns over time," *id.* at 4522. An investor, however, can understand the former without mastering the latter. Just as a person can evaluate the risks of a "slippery when wet" warning without conquering the chemistry of water, an investor can evaluate the risks (and benefits) of a leveraged or inverse fund without running through the calculations on a computer. The Summary Prospectus clearly discloses in simple terms that the fund seeks its stated multiple only "for a single day, not for any other period of time," and that fund performance for periods longer than a single day will very likely differ from the fund's stated multiple, *supra* p. 18. Regardless, the Summary Prospectus, along with countless online resources, exhaustively describes compounding and the deviation of performance from a benchmark over time in terms that any investor is capable of understanding. *See supra* pp. 19–23.

[16] Additionally, as discussed below, *see infra* p. 91, the Commission's premise is flawed, among other reasons, because it has never been the standard that an investor must "fully understand" all risks inherent in a public security before investing in it. If that were the standard, most public securities would be off limits to most investors.

same regulatory space—the Commission has solicited and relied heavily on such investor statements. Regulation Best Interest, 84 Fed. Reg. at 33,320 n.13 (relying on "extensive" information from "various investor surveys and investor testing" conducted at the Commission's direction to assess consumer expectations); *see also, e.g.*, Press Release No. 12-12, SEC Seeks Public Comment for Financial Literacy Study Mandated By Dodd-Frank Act, 2012 WL 135942 (Jan. 18, 2012) (explaining that where, as here, issues "directly affect individual investors," the Commission is "especially interested in receiving comments from individual retail investors"); Selective Disclosure and Insider Trading, Securities Act Release No. 7881, Exchange Act Release No. 43,154, Investment Company Act Release No. 24,599, 65 Fed. Reg. 51,716, 51,718 (Aug. 24, 2000) (basing decision, in part, on "overwhelming support from investors"). The Commission should follow that policy here.

Thousands of investors in leveraged and inverse funds have submitted comments in this rulemaking. And as of the date of this memorandum of law, substantially all of the comments posted to the Commission's website thus far oppose the proposed rules. In fact, many hundreds of commenters have stated that they understand the risks of leveraged and inverse funds and that there is sufficient information available about them. *See, e.g.*, Comment of Joseph McEntee, File No. S7-24-15 (Feb. 27, 2020) ("I, and others who trade these leveraged products, know of the risks and how to use the assets. The prospectus of ETF's and other leveraged products already make them very clear."); Comment of James Vroom, File No. S7-24-15 (Jan. 30, 2020) ("I feel that ProShares . . . do[es] a good job of spelling out the risks associated with [its] offerings . . . ."); Comment of William Bedell, Ph.D., File No. S7-24-15 (Feb. 4, 2020) ("Ample warnings to the risks of holding leveraged ETFs long-term are available in their investment prospectuses: from the prospectus of ProShares Ultra SP500 these include volatility drag, tracking errors, and the potential

to lose the entirety of principle in a single day."); Comment of Michael Popiolek, File No. S7-24-15 (Jan. 30, 2020) ("I am fully aware of the risks, after all that is the purpose of the prospectus . . . ."); Comment of Tom Brunton, File No. S7-24-15 (Jan. 30, 2020) ("I'm a white collar professional who is perfectly capable of understanding the prospectus and the associated risks of leveraged and inverse funds."); Comment of Dennis Manuel, File No. S7-24-15 (Jan. 30, 2020) ("I know the risks and limits of the strategy [I am] using based on the prospectus."); Comment of Michael Wenzel, File No. S7-24-15 (Jan. 29, 2020) ("We can read the prospectus and understand the risks . . . ."). These investor comments are direct, empirical evidence of investor understanding, and they refute the SEC's asserted concern about investor understanding. The Commission cites no empirical evidence to support its contrary view. In similar situations, the Commission has abandoned contemplated rule changes when the evidence refutes the Commission's initial assumptions. *See, e.g.*, Asset-Backed Securities Disclosure and Registration, Securities Act Release No. 9638, Exchange Act Release No. 72,982, 2014 WL 4820167, at *90 (Sept. 4, 2014) (finding that additional disclosure requirement was not "necessary" because the Commission "did not receive any comments from investors suggesting that [such] disclosure . . . [was] necessary").[17]

[17] The Commission also has abandoned contemplated rule changes when information of "significant interest" to investors was "widely available through other sources." Enhanced Disclosure and New Prospectus Delivery Option for Registered Open-End Management Investment Companies, Securities Act Release No. 8998, Investment Company Act Release No. 28,584, 2009 WL 80303, *10 (Jan. 13, 2009). The Commission should follow that approach here. As numerous investors have confirmed, there "is more than enough information out there on the internet for anyone to make an informed decision regarding" leveraged and inverse funds. Comment of Arthur Tchakedjian, File No. S7-24-15 (Jan. 29, 2020); *see also supra* p. 25. There is nothing left for the Commission to do. *See* Enhanced Disclosure, 2009 WL 80303, at *10 (deciding "not to require" certain disclosures because of the "widespread availability" of "information from other sources").

Additional evidence supports the conclusion that investors can and do appreciate the risks (and the benefits) of leveraged and inverse funds. As the North American Securities Administrators Association, the oldest international investor protection association, recently explained, the "number of customer complaints, regulatory actions and arbitration awards or civil judgments regarding leveraged and/or inverse ETFs in recent years . . . *was low*." N. Am. Sec. Amin. Ass'n, NASAA Report on Broker-Dealer Policies & Procedures for Leveraged and/or Inverse Exchange-Traded Funds 16 (July 2019), https://www.nasaa.org/wp-content/uploads/2019/07/2019-BD-Study-of-Exchange-Traded-Funds-FINAL.pdf (emphasis added). For good reason. While other funds' use of derivatives may fluctuate significantly, face few constraints (other than a manager's subjective discretion), and be publicly disclosed only to a limited extent, leveraged and inverse funds' use of derivatives is consistent: exposure is reset each day to a set multiple. It is constrained: there are no manager bets. And it is transparent: the daily multiple is fixed and clearly disclosed. Leveraged and inverse funds are thus unlike *every example* cited by the Commission as justification for the proposed rules.

Take the LJM Preservation and Growth Fund, which suffered "considerable losses . . . when market volatility spiked" in February 2018. 85 Fed. Reg. at 4449. *That was not a leveraged or inverse fund*. Unlike a leveraged or inverse fund—whose returns "correspond to the performance of a market index," *id.* at 4491—the LJM fund's returns hinged on a manager's subjective, undisclosed bets. LJM would "opportunistically invest[]" by using "quantitative models" to "identify favorable option trading opportunities." Prospectus, LJM Preservation and Growth Fund (Feb. 28, 2017), https://www.sec.gov/Archives/edgar/data/1552947/000158064217001225/ljm485b.htm. Whether or not investors could adequately understand LJM's approach, that fund's

unexpected failure in no way justifies singling out *leveraged and inverse funds* (which the LJM fund is not) for the Commission's proposed novel regulatory regime.

Indeed, every example cited by the Commission as justification for this package of unprecedented rules arose from an individual manager's subjective, undisclosed bet having gone awry. *See* 85 Fed. Reg. at 4449 n.22. Those examples have nothing to do with whether investors are capable of understanding the consistent, constrained, and transparent exposure offered by a leveraged or inverse fund.

- *OppenheimerFunds, Inc.*, Securities Act Release No. 9329, Exchange Act Release No. 67,142, Investment Company Act Release No. 30,099, 2012 WL 2024625, at *2 (June 6, 2012): managers took "advantage of what they believed was an attractive opportunity";

- *Claymore Advisors LLC*, Advisers Act Release No. 3519, Investment Company Act Release No. 30,308, 2012 WL 6608205, at *3 (Dec. 19, 2012): managers employed "two new strategies";

- *Fiduciary Asset Management, LLC*, Advisers Act Release No. 3520, Investment Company Act Release No. 30,309, 2012 WL 6608206, at *1 (Dec. 19, 2012): managers employed "two new derivatives strategies";

- *UBS Willow Management LLC*, Securities Act Release No. 9964, Advisers Act Release No. 4233, Investment Company Act Release No. 31,869, 2015 WL 6123024, at *1 (Oct. 19, 2015): managers employed a "material change in the investment strategy";

- *Team Financial Asset Management, LLC*, Securities Act Release No. 10,448, Advisers Act Release No. 4833, Investment Company Act Release No. 32,951, 2017 WL 6554186, at *1 (Dec. 22, 2017): same;

- *Mohammed Riad*, Exchange Act Release No. 84,919, Advisers Act Release No. 5091, Investment Company Act Release No. 33,338, 2018 WL 6722745, at *2 (Dec. 21, 2018): managers employed "two new types of derivative instruments";

- *Top Fund Management, Inc.*, Securities Act Release No. 9377, Exchange Act Release No. 68,524, Advisers Act Release No. 3526, Investment Company Act Release No. 30,315, 2012 WL 6642536, at *1 (Dec. 21, 2012): managers "pursued a strategy of buying options for speculative purposes contrary to [the fund's] stated investment policy."

The Commission offers no explanation, much less a reasonable explanation, for why unexpected losses in a series of actively managed funds that are not leveraged and inverse funds should somehow justify regulation of leveraged and inverse funds.[18]

2. Investors May Responsibly Choose To Hold Leveraged And Inverse Funds For More Than A Single Day And The Commission Has No Evidence To The Contrary.

The Commission also suggests that some investors may be holding leveraged and inverse funds for "long periods of time," 85 Fed. Reg. at 4492, and speculates that this may be inappropriate for some investors. The Commission is wrong.

As an initial matter, leveraged and inverse funds clearly *can* responsibly be held for more than a day. *See supra* Background Part B.6. For example, investors can and do use leveraged and inverse funds as invaluable tools for hedging an investment portfolio. Many investors use leveraged and inverse funds to make predictions about, or protect against, trending markets. *See, e.g.*, Comment of Keith Smith, File No. S7-24-15 (Feb. 29, 2020) (explaining how hedging with an inverse ETF has, in light of "the scare with the corona virus," enabled the investor to "offset losses in other areas due to the current selloff"); Comment of Roy Sowers, File No. S7-24-15 (Feb. 27, 2020) ("Today (2/27/20) is a great day to illustrate why contra funds are needed. SEF was up 4.6% today while most stocks declined. Using this fund as a hedge, I managed to be up 2.3% today. Without the ability to hedge with contra funds, my alternative would have been to sell

[18] Even if the Commission's examples were relevant to leveraged and inverse funds, the Commission confesses that the "examples [it] discuss[es] [] are extreme." 85 Fed. Reg. at 4450. In reality, "[f]unds rarely suffer such large and rapid losses." *Id.* In fact, "there are many other instances in which funds, by employing derivatives, have avoided losses, increased returns, and lowered risk." *Id.* The Commission should not disrupt an entire market—taking a beneficial product out of the hands of thousands of ordinary investors—on the off chance that the Commission's novel intervention might mitigate a few "rare[]," "extreme" occurrences. *Id.*

everything . . . ."). It is important that such investors have continued access to leveraged and inverse funds as hedging tools.

More generally, investors may use leveraged and inverse funds to take advantage of the way the funds perform over the longer term or to maintain a position over time with respect to an underlying benchmark. Investors, for example, can trim or add to their position in a leveraged or inverse fund to approximate the multiple of the performance of a benchmark over longer periods. Investors with a conviction about the volatility or direction of a benchmark can also use leveraged and inverse funds to seek to benefit from the effect of the compounding of the daily returns of the fund. *See, e.g.*, Comment of Leal Wai, File No. S7-24-15 (Jan. 29, 2020) ("This proposal . . . improperly restricts investors from taking part in high conviction ideas based on market conditions."). Thus, when an investor expects a low-volatility, trending period, she might choose to hold a leveraged or inverse fund without adjusting the position to potentially enhance her return, outperforming the index.

The longer-term success of leveraged and inverse funds is indisputable. The top twenty performing mutual funds and ETFs over the past decade were all leveraged funds. *See supra* pp. 15–16.[19] In light of that record of success over an extended period, it is impossible to conclude that it is somehow inappropriate for investors to hold leveraged and inverse funds for longer than a day. That the Commission should choose to credit these unfounded assertions now, when the evidence so clearly shows otherwise, strongly suggests that the Commission's asserted rationale

[19] Leveraged and inverse funds are also among the top performing funds over the last year, five years, and ten years. *See* Sumi Roy, *Best Performing ETFs of the Year*, ETF.com (Jan. 7, 2020), https://www.etf.com/sections/features-and-news/best-performing-etfs-year; *100 Highest 5 Year ETF Returns*, ETFdb.com, https://etfdb.com/compare/highest-5-year-returns/ (last visited Mar. 11, 2020); David Randall, *How Risky ETFs Won the Decade*, Reuters (Dec. 24, 2019); Sumit Roy, *Top Performing ETFs of All Time*, ETF.com (Oct. 30, 2017), https://www.etf.com/sections/features-and-news/top-performing-etfs-all-time.

for the proposed rules is pretense. *Cf. Dep't of Commerce v. New York*, 139 S. Ct. 2551, 2573–76 (2019).

Furthermore, objective academic literature shows that leveraged and inverse funds can usefully be incorporated into longer-term investment strategies. For instance, studies have shown that "[a] daily re-leveraged buy and hold of the S&P 500 [Index] would have significantly outperformed the unleveraged strategy, by multiples in excess of the leverage factor. . . . [T]he 3x leveraged cumulative return since 1928 is an astonishing 290 times that of the unleveraged S&P 500 [Index]." Gayed & Bilello, *Leverage for the Long Run* 3; *see also, e.g.*, *id.* at 13 (identifying a rotation strategy with leveraged and inverse funds that, if employed between 1928 to 2015, would have seen a $10,000 investment grow into $9 trillion); William J. Trainor Jr. et al., *A Portfolio of Leveraged Exchange Traded Funds* (Oct. 24, 2018), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3272486; Ian Ayres & Barry Nalebuff, *Diversification Across Time* (John M. Olin Center for Studies in Law, Economics, and Public Policy, Oct. 4, 2010); Jason S. Scott & John G. Watson, *The Floor-Leveraged Rule for Retirement* (Stanford Inst. for Econ. Policy Research, May 7, 2013). These studies show that it is not irrational to hold a leveraged or inverse fund for longer than a day, and utterly destroy the assumption that leveraged and inverse funds should never be held longer than one day.

The Commission's only cited support for the proposition that leveraged and inverse funds cannot properly be held for longer than one day is found buried in footnotes 312 and 314, and it amounts to no support at all. The Commission's primary citation is a ten-year-old paper prepared by the Securities Litigation and Consulting Group, *see* 85 Fed. Reg. at 4492 n.312, an organization whose work on behalf of the securities plaintiffs' bar has been dismissed as "unreliable," "unpersuasive," and "deeply flawed," *see In re Fed. Home Loan Mortg. Corp. (Freddie Mac) Secs. Litig.*,

281 F.R.D. 174, 182 (S.D.N.Y. 2012) (describing the expert testimony of Dr. Craig McCann, an author of the paper cited by the Commission); *see also* Ex. 4, Westlaw Expert Evaluator Report for Craig J. McCann 1 (counting 27 appearances on behalf of the plaintiffs' bar, as opposed to 3 for the defense). The paper asserts that "[t]he percentage of investors that we estimate hold [leveraged and inverse funds] longer than a month is quite striking." Ilan Guedj, Guohua Li, & Craig McCann, *Leveraged ETFs, Holding Periods and Investment Shortfalls* 12 (Securities Litigation & Consulting Group, 2010) ("GLM Paper"), *available at* https://www.slcg.com/pdf/workingpapers/Leveraged%20ETFs,%20Holding%20Periods%20and%20Investment%20Shortfalls.pdf. But the paper concededly lacks evidence for that "estimate," because the "holding periods are not publicly available." *Id.* at 10. And even if the paper could point to data, the Commission has not even attempted to "ascertain[] the accuracy of the data contained in the study or the methodology used to collect" it, rendering any "reliance on [the] report" arbitrary and capricious. *City of New Orleans v. SEC*, 969 F.2d 1163, 1167 (D.C. Cir. 1992) (citing *Home Health Care, Inc. v. Heckler*, 717 F.2d 587, 592 (D.C. Cir. 1983)).

The GLM paper attempts to make up for the missing data with estimation, but the methodology for its estimation is fatally flawed for three independent reasons. First, the paper relies on a trading model built on assumptions that "are simply not grounded in any generally accepted theory or empirical evidence of how investors actually behave." Ex. 1, at 13 (Overdahl Report). As a result of these methodological flaws, "courts have generally found [such models] unreliable for estimating actual trading activity," *id.* at 15, and have excluded them from evidence under Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). Indeed, one of the paper's authors, Dr. McCann, has previously acknowledged that these models

have "[n]o empirical basis," were "never tested," and are "not accepted in the scientific community," because "[n]one of the trading models [has] any scientific reliability." Craig McCann, *Securities Class Action Damages* 17, 23 (Securities Litigation & Consulting Group, Inc., Dec. 1, 2002), *available at* https://www.slcg.com/pdf/workingpapers/Securities_Class_Action_Damages.pdf (underlining in original).

Adding to the unreliability of the GLM paper's methodology, the authors chose an inappropriate benchmark—investing in a margin account—against which to estimate the supposed "investment 'shortfall'" from investing in leveraged and inverse funds. Ex. 1, at 16 (Overdahl Report). As discussed in the attached report of Dr. James Overdahl, margin accounts follow an entirely different investment strategy than leveraged and inverse funds, and the authors of the GLM paper fail to account for the fundamentally different returns of leveraged and inverse funds. *See id.* at 17–18. The GLM paper therefore fails to select and justify an appropriate benchmark to evaluate leveraged and inverse funds.

Second, to the extent the GLM paper has any basis at all, that information is now a decade out of date. It "would be patently unreasonable for" the Commission to rely on such stale information. *Nat. Res. Def. Council, Inc. v. Herrington*, 768 F.2d 1355, 1408 (D.C. Cir. 1985) (so holding for "data *half* a decade old" (emphasis added)); *see also, e.g.*, *Sierra Club v. EPA*, 671 F.3d 955, 965 (9th Cir. 2012) (overturning as arbitrary and capricious an agency's action for failing to consider newer "data [that] told a different story than that told by the earlier data"). Further, the funds studied in the paper represent a small sample of the leveraged and inverse ETF market at that time and are not representative of the broader leveraged and inverse market; they certainly are not representative of the leveraged and inverse ETF market today. Moreover, the time period studied in the paper (2007–2009) represents an exceptional period for financial markets that does

not accurately capture broader market conditions over time, or the performance of leveraged and inverse funds under various market conditions. *See* Ex. 1, at 18–22 (Overdahl Report).

Third, the GLM paper's results do not support the Commission's inference that the estimated holding periods represent a problem or market failure in need of regulation. As discussed above, longer holding periods may be used appropriately and successfully as part of investors' strategies. *See supra* pp. 15–16, 78–80. Neither the cited paper nor the Commission has any evidence to show that any longer-term investments, assuming they existed, were not appropriately managed and ultimately beneficial to the investor. *See* Ex. 1, at 23 (Overdahl Report).

In sum, the Commission damages its credibility by purporting to rely on such an outdated, unreliable, and biased paper. In light of the many flaws and unanswered questions in the GLM paper, it provides no legitimate basis for the broad, proscriptive, and unprecedented rules that the Commission is now proposing.

The Commission also cites a comment letter submitted by the Consumer Federation of America in 2016 asserting that "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, a significant number of shares are held for several days, if not weeks." 85 Fed. Reg. at 4492 n.314 (quoting Comment of Consumer Federation of America 3, File No. S7-24-15 (Mar. 28, 2016)). As noted, however, it is simply false that leveraged and inverse funds "are not meant to be held longer than one day."[20] Most leveraged and inverse funds have daily rebalancing and are designed to return a specified multiple over a one-day period, but that does not mean that leveraged and inverse funds cannot or

[20] The basis for the Consumer Federation of America's contention—that "it's a near mathematical certainty that [an] investor [in a leveraged or inverse fund] will lose her entire investment"—is absurd. Comment of Consumer Federation of America 3. If an investor, for example, purchased the ProShares UltraPro QQQ ten years ago, she would not have lost her entire investment. Far from it. She would have earned a return of 1,330%. Randall, *supra* n.19.

should not be held for longer periods. *See supra* Part II.A.2. Regardless, the Consumer Federation of America comment letter lacks any basis for its factual premise that "a significant number of shares are held for several days, if not weeks." The only source for that dubious proposition is the baseless, flawed, and decade-old paper by the transparently biased Securities Litigation and Consulting Group, discussed above. *See* Comment of Consumer Federation of America 3 & n.8. This source thus adds no new information. In any event, the Commission itself acknowledges that the Consumer Federation of America comment letter is contradicted by another comment submitted by Rafferty Asset Management, showing an average holding period ranging from 1.18 days to 4.03 days over a six-year period, which suggests that investors in leveraged and inverse funds are actively managing their investments. *See* 85 Fed. Reg. at 4492 n.314 (citing Comment of Rafferty Asset Management, LLC 9, File No. S7-24-15 (Mar. 28, 2016)).

In a footnote, the Commission also cites the Commission's own paraphrasing of two comments—one of which the Commission attributes to the wrong entity—submitted in a different rulemaking. *See* 85 Fed. Reg. at 4492 n.312 (citing Exchange-Traded Funds, 84 Fed. Reg. 57,162, 57,169 n.78 (Oct. 24, 2019) ("ETFs Adopting Release")).[21] According to the Commission, those comments support the proposition that investors must be holding leveraged and inverse funds for inappropriate periods because the investors are supposedly "confus[ed]" by the funds' daily investment objective. *Id.* Neither letter, however, cites any evidence to support that claim. *See* Comment of CFA Institute 7, File No. S7-15-18 (Nov. 15, 2018); Comment of Nasdaq, Inc. 5, File No. S7-15-18 (Sept. 28, 2018). That is not surprising, because ProShares discloses in the clearest

[21] The Commission claims that its adopting release for the ETF Rule was "discussing [a] comment letter[] submitted by the Consumer Federation of America." 85 Fed. Reg. at 4492 n.312. In fact, the Commission was discussing a comment letter submitted by the "CFA Institute." ETFs Adopting Release, 84 Fed. Reg. at 57,169 n.78; *see* Comment of CFA Institute, File No. S7-15-18 (Nov. 15, 2018).

possible terms that its funds "seek[] daily investment results . . . for a single day, not for any other period," and that fund performance for periods longer than a single day will very likely differ from the fund's stated multiple. *Supra* p. 18. Investors understand that basic fact and plan accordingly, as firsthand comments in *this* rulemaking confirm. *See, e.g.*, Comment of Paul Leiter, File No. S7-24-15 (Feb. 19, 2020) ("I understand what to expect out of these types of funds . . . ."); Comment of Dirk Hobman, File No. S7-24-15 (Mar. 3, 2020) ("I am well aware of the risks of these funds, including the fact that they are reset daily . . . ."); Comment of Louis B. O'Bryan, File No. S7-24-15 (Jan. 20, 2016) ("I fully realize the risks of using leveraged ETFs and how they work. They reset on a daily basis, meaning that they do not correspond to a 2x or 3x gain or loss over the course of more than one day.").[22] At any rate, the letters cited by the Commission advocate for enhanced disclosures (which ProShares does not object to)—*not* the heavy-handed access rules that the Commission proposes. *See* Comment of CFA Institute, *supra*, at 7; Comment of Nasdaq, *supra*, at 5.

The Commission's smattering of other cited authorities are nothing more than citations to cautionary statements issued by FINRA and the Commission itself. *See* 85 Fed. Reg. at 4492 nn.312, 313.[23] But those statements do not cite any empirical support for their claims. And because the Commission effectively acknowledges that it lacks empirical evidence that investors are

[22] Indeed, leveraged and inverse funds are *more* likely to perform in accordance with investor expectations than are actively managed funds. The Summary Prospectus for a ProShares leveraged or inverse fund states that the fund will seek a return "that correspond[s] to [a stated multiple] times the return of [an index] for a single day." *Supra* p. 18. Each day, the fund is consistently managed to return the specified multiple. In contrast, actively managed funds typically state that they strive to beat their benchmark over a longer time horizon, but they generally fall short. Bob Pisani, *Active Fund Managers Trail the S&P 500 for the Ninth Year in a Row in Triumph for Indexing*, CNBC (Mar. 15, 2019), https://www.cnbc.com/2019/03/15/active-fund-managers-trail-the-sp-500-for-the-ninth-year-in-a-row-in-triumph-for-indexing.html.

[23] The Commission cites FINRA Notice 09-31 for the purported proposition that "leveraged/inverse ETFs are typically not suitable for retail investors who plan to hold these products

holding leveraged and inverse funds for inappropriate periods of time, the Commission cannot rely on the FINRA and Commission statements to bootstrap a justification for its stated concern.[24]

3. The Commission Does Not—And Cannot—Justify The Need For The Proposed Access Rules Based On Any Inherent Riskiness Of Leveraged And Inverse Funds.

For all of its misunderstanding of leveraged and inverse funds, it is notable that the Proposing Release does *not* say or suggest that leveraged and inverse funds are inherently risky, or that they somehow create risks for the markets. Any suggestion that leveraged and inverse funds are inherently risky would be unfounded and untenable.

Leveraged and inverse funds have performed in a predictable and transparent manner, exactly as promised, for more than a quarter century in a wide variety of market conditions with no evidence of exceptional risks to investors and no adverse consequences for markets. *See, e.g.*, Ivan T. Ivanow & Stephen L. Lenkey, *Are Concerns About Leveraged ETFs Overblown?* (Fin. & Econ. Discussion Series, Divs. of Research & Statistics and Monetary Affairs, Fed. Reserve Bd., Nov. 19, 2014) (concluding that risk-based concerns about leveraged ETFs are unfounded).

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for more than one trading session." 85 Fed. Reg. at 4492 n.312. But the Commission ignores more recent FINRA guidance, which omits the patently incorrect statement that leveraged or inverse funds cannot rationally be held for more than a single day. *See* FINRA Notice 12-03 (addressing leveraged and inverse funds, but *not* stating that such funds cannot rationally be held for longer than a single day). Perhaps more importantly, the Commission ignores evidence that investors can rationally hold leveraged and inverse products for longer than a single day. *See supra* Part II.A.2; Ex. 1, at 8 (Overdahl Report) (analyzing historical performance of longer-term holding).

[24] The Commission also cites various enforcement actions, all concerning suitability. *See* 85 Fed. Reg. 4492 n.315. But suitability is a function of a particular investor's circumstances, needs, and objectives. So a finding that a certain trade was unsuitable for a given investor on a given day says nothing about the product in general—any product can be used in the wrong way. *See, e.g.*, Ned R. Somers, No. 00-21, 2000 WL 340260, at *2–3 (N.Y.S.E. Feb. 8, 2000) (finding that certain stock trades were unsuitable); Jeffrey Wilgus, No. 92-22, 1993 WL 135793, at *5 (N.Y.S.E. Feb. 12, 1993) (same). Moreover, enlisting broker-dealers to police the appropriateness of trades in certain products, as the Commission proposes to do, is in no way a rational response to the concern that those same broker-dealers have misused those same products.

If anything, the vast majority of leveraged and inverse funds have risk levels that are often comparable to or less than individual stocks. As Professor Angel has explained, "[t]he volatilities of the leveraged ETFs are often very similar to those of ordinary common stocks. This is because the underlying indices are well diversified and thus have lower risk than individual securities due to the well-known risk-reducing properties of diversification." Angel 2016 Comment 5; *see also* Angel 2020 Comment 4 ("At a volatility of the S&P500 [Index] around 15%, a 3X leveraged product has a volatility of around 45%, which is easily within the range of typical common stocks. For comparison, note that Tesla has a volatility of 62%, Teva Pharmaceuticals 69%, and Twitter, 52%."). Since its inception in 2006, for example, the ProShares 2x S&P 500® Index fund was, on average, *less* volatile than approximately 38% of the individual stocks in the S&P 500® Index. Thus, an investor often faces *more* risk by investing in household-name stocks than by owning a leveraged or inverse fund. *See* Trainor Comment 1 (explaining that issuers of common stock with high debt-to-equity ratios "use leverage by a magnitude greater than" leveraged and inverse funds).

Even "supposedly safe" funds can produce returns that may differ from investor expectations, as recent experience shows. *E.g.*, Brian Chappatta, *Bond ETFs Will Never Be the Same After Coronavirus*, Bloomberg (Mar. 23, 2020), https://www.bloomberg.com/opinion/articles/2020-03-23/coronavirus-bond-etfs-will-never-be-the-same-after-this-crisis. Yet the Commission is not proposing a special, burdensome set of rules for those funds, as it is for leveraged and inverse funds. The proposed rules cannot be justified on the basis of any concerns about exceptional risk around leveraged and inverse funds, and the Commission makes no attempt to do so.

B. The Proposed Access Rules Are Arbitrary And Capricious For A Multitude Of Additional Reasons.

Besides being wholly unnecessary, the proposed access rules are arbitrary and capricious in a multitude of other ways. As we have explained, the Commission is proposing to block a group

of Americans from purchasing certain securities in our public markets for the first time in its history. That revolutionary proposal cannot be squared with the Commission's longstanding commitment to open public markets and investor autonomy. In addition, the access rules themselves are deeply flawed and will do nothing to advance the Commission's stated goal of investor understanding, and will only hurt investors by potentially forcing them into far riskier and more expensive ways of achieving their investment objectives. The Commission certainly should not impose a new and burdensome suite of rules so fast on the heels of Regulation Best Interest and the Fiduciary Interpretation. And in its rush to propose the access rules, the Commission fails to adequately consider reasonable, less restrictive alternatives and the substantial reliance interests of the investors, investment companies, broker-dealers, and investment advisers who have planned their affairs around the availability of leveraged and inverse funds.

1. The Proposed Access Rules Cannot Be Squared With The Commission's Longstanding Commitment To Open Public Markets And Investor Autonomy.

The proposed access rules are antithetical to the Commission's longstanding commitment to open public markets and investor autonomy. *See, e.g., Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117, 2126 (2016) ("[A]n '[u]nexplained inconsistency' in agency policy is 'a reason for holding an interpretation to be an arbitrary and capricious change from agency practice.'" (second alteration in original) (quoting *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 981 (2005))). In numerous contexts, the Commission has consistently rejected attempts to make access to any part of our public markets a matter of privilege. For example, the Commission has rebuffed calls to give "certain select investors . . . earlier and better access" to material, nonpublic information about publicly traded companies than other investors. *Siebel Sys., Inc.*, Exchange Act Release No. 46,896, 2002 WL 31643027, at *5 (Nov. 25, 2002). In doing so, the Commission "expressed its view that *all* investors or potential investors should have *equal access*

to the same information at the same time, regardless of status." *Id.* (emphases added); *see* 17 C.F.R. §§ 243.100–103; *see also* Press Release No. 02-75, SEC Announces Free, Real-Time Public Access to EDGAR Database, 2002 WL 1068600 (May 30, 2002) (providing "the public with free, real-time access" to a database of corporate filings in order "to level the playing field for all investors" (quoting Chairman Harvey L. Pitt)).

The Commission has taken the same position with respect to stock quotes. While some have argued that paying, Wall Street insiders should have access to quote data "before" it is "sen[t] . . . [to] the consolidated [public] feeds," the Commission has insisted that "exchanges distribute market data on terms that are . . . 'not unreasonably discriminatory.'" *New York Stock Exchange*, 2012 WL 4044880, at *2 (quoting 17 C.F.R. § 242.903(a)). The Commission has made clear that those on Main Street deserve the same "ready access" as those on Wall Street. *Id.* at *1 (internal quotation marks omitted).

The proposed access rules depart from the open, level-playing-field policy that the Commission has strived to maintain. They transform the ability to invest in publicly traded leveraged and inverse funds from a right into a privilege. And by limiting access to publicly traded leveraged and inverse funds to those who qualify for this special, government-dispensed privilege, the Commission has constructed the same "disparity in access" that it has (rightly) rejected elsewhere. *Siebel Sys.*, 2002 WL 31643027, at *5.

The public markets do not exist for a "certain select" group of investors—those with a Commission-approved "status." 2002 WL 31643027, at *5. The public markets exist for all investors, and should remain open to all. *See, e.g.*, Jay Clayton, Chairman, U.S. SEC, Remarks at the Economic Club of New York (July 12, 2017), https://www.sec.gov/news/speech/remarks-economic-club-new-york (touting how the Commission's regulations have become "an incredibly

powerful, efficient, and reliable means of making investment opportunities available to the general public").

And ever since the 1930s, it has been clear that the Commission's mission is not to protect investors from themselves, but rather to promote informed decisionmaking based on disclosures: "If [a fund is] going to be a speculative investment trust, and they disclose that fact to their investors, and the investors want to invest in that type of investment company, who are we to say, 'No; you shall not invest in that type of company'?" 1 *Hearing on S. 3580*, *supra*, at 233 (statement of David Schenker, Chief Counsel, SEC); *see also*, *e.g.*, Securities Act Release No. 598, 1935 WL 28958, at *1 (Dec. 10, 1935) ("The Commission wishes to take this occasion to emphasize again that registration of a security does not imply quality of merit. The Commission is an office for the registry of information on securities. It does not pass on the merits of securities."); Harvey L. Pitt, Chairman, U.S. SEC, Testimony Concerning Financial Literacy (Feb. 5, 2002), *available at* 2002 WL 198062, at *2 ("Ours is a disclosure-based system. And it is our job to promote clear, accurate and timely disclosures—proactively."); Paul. S. Atkins, Comm'r, U.S. SEC, Recent Experience with Corporate Governance in the USA (June 26, 2003), *available at* 2003 WL 21515877, at *5 (the SEC "is a disclosure-based agency, not a merit regulator"); Laura S. Unger, Comm'r, U.S. SEC, Securities Law and the Internet (July 28, 2000), *available at* 2000 WL 1161254, at *2 (the SEC is "a disclosure-based agency"). There is no precedent for the Commission to presume that investors who choose to purchase a particular product—leveraged and inverse funds—lack the capacity to understand what they are doing, given their ready access to basic facts about the products and the way they work.

But the access rules would prevent investors from purchasing these products unless the investors can demonstrate, to the satisfaction of their broker-dealers or investment advisers based

on a government-prescribed test, that "a reasonable basis [exists] for believing" that they can "reasonably be expected to be capable of evaluating the risks of buying and selling leveraged/inverse investment vehicles," 85 Fed. Reg. at 4558—*regardless* of the availability of information about how leveraged and inverse funds work and the risks associated with them. The notion that an investor in a public security must prove that she is mentally capable of purchasing a financial product in the public market—and that the broker-dealer or investment adviser must keep records of the fact—is insulting and unworthy of a Commission long dedicated to promoting open markets and investor autonomy.

The Commission frets that investors "generally" "may not fully understand the risks inherent in their investment decisions," 85 Fed. Reg. at 4522 & n.535, but, as explained above, it has no actual evidence that this is so for any appreciable number of investors in leveraged and inverse funds. *See supra* Part II.A.1. And the same could be said of some investors in virtually *any* public security. Does the Commission really think that all investors "fully understand the risks inherent" in investing in an Internet startup, or a small-cap biotechnology company, or even Tesla Motors? Until this rulemaking, the nanny-state fear that some investors might not fully understand all risks has never stopped the Commission from treating adults like adults: presuming that, with adequate disclosures, investors in our public markets are fully capable of evaluating the risks and respecting their freedom to make an informed decision. *See, e.g.*, Comment of Mac Lucas, File No. S7-24-15 (Jan. 30, 2020) ("[I am] not a child, I am an adult and capable of making informed decisions on my own.").

It is particularly arbitrary for the Commission to single out leveraged and inverse funds for this dramatic regulatory departure. Compared to many public securities, leveraged and inverse funds are remarkably consistent, constrained, and understandable. Their Summary Prospectuses

painstakingly identify the investment risks in the first paragraph of the first substantive page, *see supra* p. 18, as many investors have already told the Commission, *see supra* Part II.A.1. They have performed according to their design over an extended period in a variety of market conditions. They are far easier to research and understand than many other financial products or even publicly traded companies. And any investor losses in leveraged and inverse funds are limited to the value of the investment, unlike many other methods of getting similar exposure, which may have an unlimited risk of loss, such as shorting securities or indices. So why does the Commission single out leveraged and inverse funds for this uniquely disfavored treatment in our public markets? The Commission offers no rational basis for doing so.

Nor could it. The risks that the Commission identifies for leveraged and inverse funds are no different from risks that the Commission routinely accepts for other freely traded products. For example, the Commission cites a study that reports that "only a small percentage of Americans (21 percent) knew about the inverse relationship between bond prices and interest rates." Lusardi & Mitchell, *The Economic Impact of Financial Literacy* 12, *cited with approval in* 85 Fed. Reg. at 4522 n.535. The Commission has never attempted to limit our public bond markets or the offering of investment companies that primarily invest in bonds to those investors who "may reasonably be expected to be capable of evaluating the risks of buying and selling" bonds. *Id.* at 4558. Indeed, that would be antithetical to the Commission's longstanding policies of open public markets and investor freedom. Instead, the Commission has relied on disclosure. The issuer must "[i]ndicate the interest rate . . . of each class of security offered." 17 C.F.R. § 229.1102(f). And if the transaction is "effected on the basis of yield," then the broker must disclose the "dollar price calculated from the yield." *Id.* § 240.10b-10(a)(6)(ii). The rest is left to the investor, who is presumed to be

"an adult who understands what [he is] doing." Comment of Victor Guettlein, File No. S7-24-15 (Jan. 30, 2020).

The same approach should continue to apply for leveraged and inverse funds. The Commission fails to adequately justify its departure from the longstanding policies of open public markets and investor autonomy for leveraged and inverse funds.

2. The Proposed Access Rules Will Not Advance The Stated Goal Of Investor Understanding.

Even if the Commission were justified in its concern that investors do not understand leveraged and inverse funds, the proposed access rules will do nothing to advance the cause of investor understanding. The rules require that a broker-dealer or investment adviser form a "reasonable basis for believing that the investor has such knowledge and experience in financial matters that he or she may reasonably be expected to be capable of evaluating the risks of buying and selling leveraged/inverse investment vehicles." 85 Fed. Reg. at 4496. But that standard is hopelessly convoluted and subjective. The only guidelines that the Commission proposes are a series of factors that have little or nothing to do with an investor's actual capacity to understand the risks of investing in leveraged and inverse funds. And the Commission fails to provide any guidance on how broker-dealers and investment advisers are supposed to weigh and evaluate those factors.

The Commission's general standard is unworkable. For example, the standard imposes a confusing double "reasonableness" requirement that will be nearly impossible to implement in any consistent manner. Even if a broker-dealer could determine whether a customer could "reasonably be expected to be capable" of understanding leveraged and inverse funds, what does it mean to have a "reasonable basis" for concluding that a customer could "reasonably be expected" to be capable? Does this reasonable-squared language require double the reason? The potential for confusion is compounded by the standard's use of passive voice. The Commission's test turns on

whether a customer can "reasonably be expected to be capable" of understanding the risks. But from whose perspective is the reasonableness of the expectation to be judged—a customer, a broker-dealer, someone else?

Even if these metaphysical questions could be answered, other questions abound. For example, how can a broker-dealer or investment adviser—short of administering an IQ test or a reading comprehension examination—form a "reasonable basis" for "reasonably . . . expect[ing]" what a customer is "*capable*" of understanding? The Commission provides no answers to these questions, and merely adds its own questions to the mix. *See, e.g.*, 85 Fed. Reg. at 4496 (wondering "[h]ow . . . broker-dealers currently analyze the information they collect under" the FINRA options framework—the framework on which the proposed rule is supposedly based). This confusing, vague, and inherently subjective standard will be difficult if not impossible to administer, and the accompanying uncertainty and specter of liability will incentivize many broker-dealers and investment advisers to disallow leveraged and inverse funds altogether.

The factors that the Commission proposes also have no rational relation to investor understanding. The first factor that the Commission identifies is "Investment objectives (e.g., safety of principal, income, growth, trading profits, speculation) and time horizon." 85 Fed. Reg. at 4494. This information says nothing about an investor's "financial knowledge and experience," much less whether the investor is "reasonably expected to be capable of evaluating the risks of buying and selling leveraged/inverse investment vehicles." Investors can have more than one investment objective, and the Commission does not explain how a given objective for a particular investor would be correlated with an ability to understand the risks of leveraged and inverse funds. While one investor may use a leveraged or inverse fund for pure "speculation," another investor may use

the exact same product to hedge downside risk (e.g., "safety of principal"). *Compare, e.g.*, Comment of Brian Vandersall, File No. S7-24-15 (Jan. 30, 2020) ("I find leverage[d] and inverse funds to be a valuable hedge in my overall portfolio."), *with* Comment of William T. Parker, Sr., File No. S7-24-15 (Jan. 29, 2020) ("Leveraged ETFs allow investors like me access to leveraged returns . . . ."). Information about "time horizon" also is meaningless because investors can and do use leveraged and inverse funds rationally for both short-term and longer-term investment objectives. *See supra* Part II.A.2. At best, this factor will lead broker-dealers and investment advisers to draw subjective conclusions from ambiguous investor responses.

The second factor is "employment status (name of employer, self-employed or retired)," 85 Fed. Reg. at 4494, and it is no more enlightening. Suppose one investor answers: "Employed – Manufacturing Co." Another investor answers: "Employed – Broker-Dealer Co." How do those answers allow a firm to evaluate whether each investor is "capable of evaluating the risks"? *Id.* at 4495. Such an open-ended question invites investment advisers and broker-dealers to engage in stereotyping on the basis of industry or employer, which is a dangerous (and inaccurate) game for the Commission to encourage: the CFO of a manufacturing company, for example, may be more likely to be "capable of evaluating the risks" than a non-finance employee of a broker-dealer. But even when considered at that level, there are still more questions. Is a non-finance employee *in*capable of understanding the risks? At least certain members of the Commission apparently (and rightly) do not think so. *See* Hester M. Peirce, Comm'r, U.S. SEC, Statement at Open Meeting on Amending the "Accredited Investor" Definition (Dec. 18, 2019), https://www.sec.gov/news/public-statement/statement-2019-12-18-peirce-accredited-investor (acknowledging the many investors "whose weeks are spent earning money and weekends spent figuring out how best to invest

it"). The Commission should not invite baseless, discriminatory speculation along the lines of jobs and titles.

An investor's status as a retiree also says nothing about the ability to understand the risks of investing in leveraged and inverse funds. Being retired is not a sign of financial illiteracy. *See, e.g.*, Comment of Louis Hewitt, File No. S7-24-15 (Jan. 30, 2020) ("I am a retired cpa with an mba and make my own decisions."). Nor does being retired speak to the suitability of investing in leveraged and inverse funds; these products may rationally be used for conservative purposes, such as hedging. *See, e.g.*, Comment of Robert Fulks, File No. S7-24-15 (Jan. 30, 2020) ("I use [leveraged and inverse funds] extensively to hedge retirement accounts against market fluctuations. Since we cannot sell short in retirement accounts, there is no other practical way to hedge retirement accounts against market fluctuations in periods of high market volatility. Without access to these funds, you will greatly increase the market risk in retirement accounts." (emphasis removed)).

Similarly, estimated "annual income from all sources," "net worth," "liquid net worth," and the "[p]ercentage of the customer's estimated liquid net worth that he or she intends to invest in leveraged/inverse investment vehicles" are wildly off the mark. 85 Fed. Reg. at 4494. Needless to say (except that this proposal requires us to say it), being rich does not make you financially smart. Investors who "spend their days cruising around in a Ferrari that Daddy bought them," Peirce, Statement at Open Meeting on Amending the "Accredited Investor" Definition, *supra*, are no more "capable of evaluating the risks of buying and selling" a certain product, 85 Fed. Reg. at 4494, than are the "investors whose weeks are spent earning money and weekends are spent figuring out how best to invest it," Peirce, Statement at Open Meeting on Amending the "Accredited

Investor" Definition, *supra*. In fact, the Commission itself recently acknowledged that wealth is an inadequate measure of financial sophistication. *See infra* Part II.B.3.[25]

The final factor is the only one that even approaches the asserted investor-understanding goal: "investment experience and knowledge (e.g., number of years, size, frequency and type of transactions) regarding leveraged/inverse investment vehicles, options, stocks and bonds, commodities, and other financial instruments." 85 Fed. Reg. at 4494. But this factor is overbroad and burdensome, and it, too, will not reliably predict whether an investor is capable of understanding leveraged and inverse funds. *Id.* Suppose an investor has relied on the advice of her investment adviser to trade $1,000 worth of options, once a month, for five years. What does that say about whether the investor *herself* is "capable of evaluating the risks of buying and selling leveraged/inverse investment vehicles"? *Id.* The Commission does not explain how brokers-dealers or investment advisers are expected to make that determination.

Not only are these factors largely untethered from the proposed standard that focuses on understanding, but the Commission exacerbates the vagueness and arbitrariness of the test by failing to tell broker-dealers and investment advisers how they are supposed to evaluate and weigh the information that investors provide in response to these questions. The Commission says only

[25] The Commission's focus on an investor's existing wealth will deprive young investors—who often have limited wealth—of the ability to optimize their portfolios across time. "Most investors do not have all of their wealth upfront and thus are liquidity constrained when young." Ian Ayres & Barry Nalebuff, *Diversification Across Time*, 39 J. Portfolio Mgmt. 73, 76 (2013). Thus, even "if investors are well diversified across assets, they are insufficiently diversified across time"; they "have too much invested in stock late in their life and not enough early on." *Id.* at 73. Leverage can fix that. By employing a "leveraged lifecycle strategy, one that starts with a leveraged stock allocation and gradually decreases leverage to ultimately become unleveraged near retirement," investors can more efficiently manage their risk across time, substantially decreasing the volatility of total returns at retirement. *Id.* at 73–74. A ProShares leveraged ETF offers a competitive way for investors to achieve their desired amount of exposure, *id.* at 77, and the Commission should not take steps to deprive younger investors of this tool.

that the determination must "be based on all of the relevant facts and circumstances," whatever that means. 85 Fed. Reg. at 4494. But the Commission provides no guidance on what weight each factor should receive, or whether additional factors may be considered, or whether a sliding-scale approach may be appropriate. Broker-dealers and investment advisers are left to work out these conundrums for themselves.

Requiring broker-dealers and investment advisers to ask a series of intrusive questions about a client's wealth would put firms in the awkward position of potentially offending or alienating their clients. *See, e.g.*, Comment of Jeffrey Brown, File No. S7-24-15 (Jan. 29, 2020) ("I take great offense when any organization wants to restrict my ability to trade investment instruments or assess my competency surrounding those instruments."). This intrusion would undermine the fiduciary relationships protecting investors, *see infra* Part II.B.4.c, and could further induce firms to stop offering leveraged and inverse funds at all.[26]

The Commission's vague and subjective standards would also needlessly invite discrimination. Other regulators have already flagged the same type of "[v]ague or unduly subjective . . . criteria" that the Commission proposes as "[i]ndicators" of potential discrimination. Comptroller of the Currency, Fair Lending: Comptroller's Handbook 25 (Jan. 2010). Vague standards leave room for unconscious bias to creep into a firm's decisionmaking. *See* Melissa Hart, *Subjective Decisionmaking and Unconscious Discrimination*, 56 Ala. L. Rev. 741, 745–49 (2005). That is

[26] The Commission asks whether the access rules should also "apply to a mutual fund principal underwriter's transactions with any retail investor who is purchasing fund shares directly from the fund." 85 Fed. Reg. at 4497. The answer is no. These "limited-purpose broker-dealer[s] . . . provide[] discrete administrative services to fund shareholder accounts." Comment of Investment Company Institute 28, File No. S7-07-18 (Aug. 7, 2018). And that function "does not lend itself to regulatory requirements designed for full-service broker-dealers." *Id.* Requiring such limited-purpose brokers to comply with the proposed access rules would impose substantial and unjustifiable costs.

so even with computerization. The use of weak proxies—for example, net worth as a proxy for the capability to understand—can cement discriminatory outcomes into place, as scholarly research has recently confirmed. *See* Robert Bartlett et al., Consumer-Lending Discrimination in the FinTech Era (Nov. 2019); Susan Smith Blakely, *Credit Opportunity for Women: The ECOA and Its Effects*, 1981 Wis. L. Rev. 655 (explaining how inquiries into "marital status" enabled discrimination in lending until the Equal Credit Opportunity Act banned such inquiries).

To identify just one example, inquiring into household income necessarily will touch on marital status, a topic that has a long and unfortunate history of discrimination in the financial services industry. For many decades, unmarried women were denied access to banking and financial services because of their marital status. Now, they risk being denied access to leveraged and inverse funds through the weak proxy of income and net worth. The SEC should not create the conditions for such discrimination. It should not adopt a test that predictably will lead to the same type of discrimination that other regulators and members of Congress are rightly working to stamp out. *See* Letter from Elizabeth Warren & Doug Jones, U.S. Senators, to Jerome H. Powell, Chairman, Board of Governors of the Federal Reserve, et al. (June 10, 2019).

In short, the access rules would require broker-dealers and investment advisers to quiz investors on a series of open-ended, highly sensitive personal questions, and then engage in speculation and stereotyping to determine whether the investors meet a subjective standard without any guidelines for assessment. This exposes firms to potential liability no matter what they do, with suits for discrimination (in the case of denials) or for investment losses (in the case of approvals) almost guaranteed to follow. In the best-case scenario, this is a pointless check-the-box exercise that only serves to increase administrative burden. Otherwise, it leads to leveraged and inverse funds becoming less accessible or even entirely unavailable to investors. But in either scenario,

the test does not advance the objective of investor understanding one bit. That is arbitrary and capricious.

3. The Commission's Proposed Amendments To The Definition of "Accredited Investor" Cannot Be Reconciled With The Commission's Unprecedented Approach To Leveraged And Inverse Funds.

Just nine days after publishing the proposed access rules, the Commission published proposed amendments to the definition of "accredited investor" designed to expand investor access to unregulated, nontransparent, and less liquid products in the *private* markets. *See* Amending the 'Accredited Investor' Definition, Securities Act Release No. 10,734, Exchange Act Release No. 87,874, 85 Fed. Reg. 2574, 2607 (Jan. 15, 2020) ("Accredited Investor Definition") (explaining that investors in the private markets "may bear a heightened risk that management may take actions that reduce the value of their stakes," "may experience reductions in liquidity," and may find "it difficult . . . to diversify"). The Commission's proposal to expand access to private markets is laudable, but it stands in sharp contrast to the access rules' approach of limiting access to the *public* markets.

In its proposal to amend the "accredited investor" definition, the Commission rightly distanced itself from reliance on "wealth . . . as a proxy for financial sophistication." Accredited Investor Definition, 85 Fed. Reg. at 2579. Because the Commission no longer believes that "wealth should be the sole means of establishing financial sophistication," its new proposal "would create new categories of individuals and entities that would qualify as accredited investors irrespective of their wealth." *Id.* But that salutary development cannot be reconciled with the Commission's embrace of the same outdated and unfair thinking in the proposed access rules, which impose new and unprecedented requirements for broker-dealers and investment advisers to consider wealth. *See* 85 Fed. Reg. at 4494 (stating that a "firm must seek to obtain, at a minimum, certain information," including "net worth," and that the firm's determination must be "[b]ased on

its evaluation of *this* information" (emphasis added)). There is no justification, let alone a rational justification, to kill off the wealth-equals-sophistication stereotype in one set of regulations, while simultaneously promoting it in another.

The Chairman's analysis further underscores the incompatibility of the two approaches. He explains that "Main Street investors generally have access to only . . . our public markets," and are thus missing out on the full "breadth" and "depth" of the investment opportunities our economy has to offer. Jay Clayton, Chairman, U.S. SEC, Remarks to the Economic Club of New York (Sept. 9, 2019), https://www.sec.gov/news/speech/speech-clayton-2019-09-09. For that reason, the Chairman concludes that the Commission "should . . . increase the type and quality of opportunities for . . . Main Street investors in our private markets." *Id.* That (again) is a laudable goal. But it is fundamentally inconsistent with the proposed access rules, which will decrease the investment opportunities available to Main Street investors. The Commission has not explained how these disparate approaches can be reconciled.

4. The Proposed Access Rules Will Create Harmful, Counterproductive Consequences For Investors.

By "limit[ing]" access to leveraged and inverse funds, 85 Fed. Reg. at 4511, the proposed access rules will create harmful, counterproductive consequences for investors, depriving them of a useful financial tool, driving them toward riskier and more expensive products, interfering with their relationships with investment advisers and broker-dealers, and ultimately undermining public confidence that average people have an equal chance at succeeding in the market as those who are already wealthy.

a) The Proposed Access Rules Will Take A Legitimate Investment Tool With Conservative Uses Away From Ordinary Investors.

The proposed access rules will needlessly make it more difficult for investors to benefit from the use of leveraged and inverse funds not only to enhance returns but for conservative uses

like hedging their accounts, as numerous individual investors have already told the Commission. *See, e.g.*, Comment of Robert Fulks, File No. S7-24-15 (Jan. 30, 2020) ("I use [leveraged and inverse funds] extensively to hedge retirement accounts against market fluctuations."); Comment of Richard O'Donnell, File No. S7-24-15 (Jan. 29, 2020) ("I suspect that the bull market will not continue much longer. In that situation, inverse funds and leveraged funds may represent my only chance to keep my head above water. Please don't take away my tools."); Comment of Javier F. Ordonez, Jr., File No. S7-24-15 (Feb. 8, 2020) ("Inverse investment vehicles are important to me as they allow me and many others to protect our portfolio from downturns in the market. When the market went down in 2008 and 2009 I was able to protect my portfolio with inverse ETF's . . . ."); Comment of Jed Carter, File No. S7-24-15 (Jan. 30, 2020) ("[T]hese funds make it possible to hedge against losses in my retirement accounts."); Comment of Peter Peterson, File No. S7-24-15 (Feb. 19, 2020) ("I will hedge a $100,000 bond portfolio with a $10,000 rising rates inverse fund, to provide me with a modicum of protection against an increase in interest rates. If anything, the proposed rule (#S7-24-15) will INCREASE my portfolio risk, because it will reduce my ability to utilize this particular strategy.").

And "[b]y eliminating or restricting one of the tools [an investor] can use" to hedge, "the SEC would actually be causing *more* risk to [his or her] total portfolio, not less." Comment of Robert Merkley, File No. S7-24-15 (Jan. 29, 2020) (emphasis added). That makes no sense in light of the Commission's desire to protect investors.

b) The Proposed Access Rules Will Perversely Force Investors To Embrace Riskier, More Costly Strategies.

Restricting access to leveraged and inverse funds will perversely force investors to pursue riskier, more costly strategies to achieve their investment strategies. If leveraged and inverse funds become less accessible (or even inaccessible), investors may be forced to adopt more expensive

and less effective hedging techniques. *See, e.g.*, Comment of Blake Pedersen, File No. S7-24-15 (Jan. 29, 2020) ("I am an individual investor who uses these funds to reduce risk and enhance the returns in my portfolio. They allow me to access hedging techniques that I otherwise would have to go through an expensive and arduous process to use."); Comment of Andrew Heiden, File No. S7-24-15 (Jan. 29, 2020) ("A rule like this would effectively push a good portion of leveraged ETF investors toward the riskier and more complex alternatives like options or direct margin borrowing."); Comment of Sari Marks, File No. S7-24-15 (Feb. 19, 2020) ("Without the availability of [leveraged and inverse] etfs, an investor's recourse would be to buy put options or sell call options, or sell short. These alternatives are far more risky and volatile than the outright purchase of fund etfs."). That is surely "the opposite of what the SEC" is trying to do. Comment of Robert Merkley, File No. S7-24-15 (Jan. 29, 2020).

And to get the same or similar leveraged or inverse market exposure as a leveraged or inverse fund, an investor would need to trade options, trade on margin, short sell stock, or invest in exchange-traded notes. *See, e.g.*, 85 Fed. Reg. at 4519 (explaining that investors "may instead invest in . . . exchange-traded notes"). But these strategies are more complex and harder to implement than buying or selling a single leveraged or inverse fund. *See, e.g.*, Ex. 1, at 35–50 (Overdahl Report) (describing the complexities of buying and selling options, leveraged loan funds, alternative mutual funds, principal protected notes, defined outcome ETFs, exchange-traded notes, and exchange-traded funds with bespoke underlying indices); Self-Regulatory Organizations, Exchange Act Release No. 45,479, 2002 WL 276225, at *2 n.5 (Feb. 26, 2002) (explaining that a standard options play, a straddle, requires the simultaneous purchase of "a number of call option contracts" and a "number of put option contracts"); Comment of Frank Ellis, File No. S7-24-15 (Feb. 20, 2020) (stating that the "personal management of a margin account . . . places a great

burden on small, individual investors"—a burden that "is removed by the ability to invest in leveraged ETF's," which frees the investor of "concern about margin calls and high interest rates"); Comment of Wendell Stewart, File No. S7-24-15 (Feb. 21, 2020) (commenting that leveraged and inverse funds are a more "convenient" tool, with less "costs and potential headaches," than "[b]uying stock on margin, as well as selling short"). These strategies are also more costly and risky. *See, e.g.*, Comment of Dustin Rue, File No. S7-24-15 (Feb. 19, 2020) ("Leveraged funds are actually a much cheaper way to use leverage than Margin.").

An exchange-traded note ("ETN"), for instance, can offer the exact same return profile as a leveraged or inverse ETF. *See* Ex. 1, at 47–48 (Overdahl Report). The primary difference is that ETNs include an additional layer of credit risk. Unlike an ETF, an ETN does not hold any assets and thus exposes the holder "to the credit risk of the issuing financial institution." Cornerstone Research, Exchange-Traded Funds 4, https://www.cornerstone.com/Publications/Research/Exchange-Traded-Funds. Yet the Commission does not explain why it is proposing to apply the access rules to leveraged and inverse ETFs, but not to leveraged and inverse ETNs. The Commission should not drive investors in this counterproductive direction. *See, e.g.*, Michael J. Venuto, CIO, Toroso Investments LLC, File No. S7-24-15 (Mar. 28, 2016) ("I am concerned that if [leveraged and inverse funds] were no longer available in the ETF structure, investors for whom traditional leverage is cost prohibitive will [] turn to the structured product and ETN market. This would be a step backward in my opinion, in that these products are often opaque and obscure higher fees. Investors, like myself, want a liquid, transparent and cost effective way to express leveraged and/or inverse opinions. The ETF structure is uniquely designed to provide those benefits, but if that was no longer available, I fear investors will turn to less efficient and less client friendly products.").

The Commission ignores other costs and risks of alternative leveraged and inverse investment strategies. Suppose an investor thinks a downturn is imminent. Without the ability to purchase an inverse fund, the investor—either to speculate or to hedge—may short sell stock. But that is expensive, *see* Jonathan Macey, *Getting the Word Out About Fraud*, 105 Mich. L. Rev. 1899, 1912 n.61 (2007) ("[T]raders who sell short must pay daily accruing interest for the shares they borrow . . . ."), and raises its own questions about investor understanding. Furthermore, unlike a leveraged or inverse fund, where an investor's risk of loss is capped at the value invested, "[s]hort selling presents the potential for unlimited risk because . . . short sales present the possibility of infinite losses." Comment of Peter J. Chepucavage, Plexus Consulting LLC, File No. S7-05-11, 2011 WL 1352033, at *1 (Feb. 28, 2011); *see also* Comment of Donald W. Clements, File No. S7-24-15 (Jan. 30, 2020) (urging the Commission to reject the proposed access rules because the "average investor cannot short stocks in a safe manner"); Comment of Bala Kothan, File No. S7-24-15 (Feb. 21, 2020) (stating that "inverse ETFs are better than naked short selling which has unlimited downside"). Similar concerns arise with options trading. *See, e.g.*, Comment of Douglas Stewart, File No. S7-24-15 (Jan. 30, 2020) ("These Exchange Traded Funds assist the small investor in either increasing or hedging the exposure of the portfolio in a more efficient method than . . . options . . . ."); Comment of Arkady Lyubarsky, File No. S7-24-15 (Feb. 19, 2020) ("In my opinion investing in leveraged and inverse ETF and ETN has much more favorable risk profile than trading options. Historical prices for leveraged and inverse ETF and ETN are freely available to retail investors (Yahoo Finance, for example). Therefore investors can quantitatively analyze possible risks associated with use of these products. No such information is available for a huge universe of options.").

Investors also face greater risk from trading on margin, which the Commission admits is an obvious alternative way for investors to obtain leverage. *See* 85 Fed. Reg. at 4519 (stating that investors "may instead . . . trade on margin to achieve leverage"). Suppose an investor purchases $50 of stock. In a margin account, the investor will pay only $25; the broker will loan the investor the other half. *See* 12 C.F.R. §§ 220.4(b)(1), 220.12(a). This creates the very real possibility that the investor will lose *more* than his or her initial investment—a risk that does not exist with a leveraged or inverse fund. Suppose the $50 stock drops to $25. If an investor had fully paid for the stock, he would lose only half his investment. But in a margin account, where the investor put up only half the initial purchase price, the investor would lose everything—and then some. The $25 price decline wipes out the investor's initial deposit. The investor, however, still owes the broker interest for the loan. And to satisfy the required maintenance margin, the investor must swiftly deposit $6.25 into the account. *See* FINRA Rule 4210(c)(1). If the investor fails to do so, the broker will "force[] [him] to sell" the stock in his account—at the worst possible time: "when falling stock prices [have already] reduce[d] the value of [his] securities." Investor Bulletin: Understanding Margin Accounts (May 14, 2018), https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_marginaccount. Simply put, trading on margin "can be very risky." *Id.* And as the Commission admits, it is "not appropriate for everyone." *Id.*; *see also* Ex. 1, at 17–18 (Overdahl Report) (discussing margin fees and the requirement to post additional collateral).

By "restricting" investors from "buy[ing] or sell[ing] shares of" leveraged and inverse funds, 85 Fed. Reg. at 4529—as the proposed rules admittedly do—the Commission will cause many investors to turn to margin. And even though margin trading is far riskier than owning a leveraged or inverse fund, and raises the same investor understanding concerns about compounding interest accruals that leveraged and inverse funds supposedly do, there are no significant access

restrictions to opening a margin account. Customers will do so if they cannot purchase leveraged and inverse funds. *See, e.g.*, Comment of Lisa Park, File No. S7-24-15 (Feb. 20, 2020) ("Many investors use leveraged funds as a safer alternative to margin loans. Margin loans are even riskier than leveraged funds because with margin, it is possible to lose much more than your initial investment. Unless the SEC wants to push more investors to take out margin loans, the SEC should withdraw this proposed rule.").

There is no explanation, much less a reasonable explanation in the name of consumer protection, for erecting a series of access barriers to leveraged and inverse funds that will funnel investors into other, far riskier products.

The harm caused by the Commission's proposal would not end there, limited to the investors who would "no longer" be able to "transact in leveraged/inverse investment vehicles." 85 Fed. Reg. at 4524. Far from it. By "limit[ing]" access to leveraged and inverse funds, *id.* at 4492, the proposed access rules would "lead to a reduction in investment" in those funds, which would cause "the liquidity of [the] products [to] decline," *id.* at 4528. A loss of liquidity would widen the funds' bid-ask spreads. *See, e.g.*, Self-Regulatory Organizations, Exchange Act Release No. 69,706, 2013 WL 2456221, at *8 (June 6, 2013); *cf.* Self-Regulatory Organizations, Exchange Act Release No. 66,765, 2012 WL 1155115, at *4 (Apr. 6, 2012). And that would drive up the transaction costs for any investors who still had access to these funds. *See, e.g.*, Joint Industry Plans, Exchange Act Release No. 74,892, 2015 WL 2088898, at *37 (May 6, 2015); Release No. 69,706,

2013 WL 2456221, at *8. Thus, not only would the Commission's proposal push countless investors into riskier and more costly products, it would raise the costs for any investors who remained. The Commission's failure to consider and address these harms is arbitrary and capricious.[27]

c) The Proposed Access Rules Will Disrupt The Adviser-Client Relationship And Prevent Investment Advisers From Exercising Their Best Judgment On Behalf Of Certain Clients.

The proposed access rules will create an unprecedented disruption of the relationship between investment advisers and their clients. Investors hire professional investment advisers to manage their portfolios *precisely because they want to rely on an expert's understanding and judgement instead of their own*. Investors go to financial advisers so that they do *not* have to understand all of the many features and risks of their investments. The proposed rules would turn this relationship on its head by requiring clients to prove to their investment advisers that they are capable of understanding a strategy (i.e., investing in leveraged or inverse funds) that the adviser believes to be in their best interest. This simply makes no sense. It is analogous to a rule that an Uber driver cannot take a passenger to her destination unless she can demonstrate she is capable of driving the car.

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[27] The proposed access rules would also irrationally prohibit companies from addressing the asserted problem. The Commission claims to be concerned that investors do not understand the implications of the daily rebalancing of leveraged and inverse funds. *See* 85 Fed. Reg. at 4522 n.535 (positing that investors "do not always understand the compounding of returns, which may directly apply in the context of the daily compounding feature of leveraged/inverse ETFs"). But the proposed use-of-derivatives rule and access rules, if adopted, would mean that "[m]ost leveraged/inverse funds could not . . . [be] offer[ed] . . . in their current form" absent compliance with "a set of alternative requirements" including the access rules. *Id.* at 4492. And those alternative requirements apply only to funds that qualify as a "leveraged/inverse investment vehicle," *id.* at 4560, which must (per the Commission's definition) rebalance after "a predetermined period of time," *id.* at 4558. The proposed rules therefore would ban the creation of *non*-rebalancing leveraged or inverse funds to address the supposed problem of investors not understanding the daily rebalancing feature of leveraged and inverse funds. Thus, the proposed rules would irrationally prohibit companies from fixing the asserted problem. Not only would the proposed rules fail to cure the Commission's concern, they would carve it into stone.

The proposed rules would also interfere in an unprecedented manner with investment advisers' fiduciary duties. An investment adviser is a fiduciary with a "duty of care and a duty of loyalty" owed to the investor. Fiduciary Interpretation, 84 Fed. Reg. at 33,669. A fiduciary owes an "overarching" duty to, "at all times, serve the best interest of its client." *Id.* at 33,671. But the access rules potentially will bar an investment adviser from acting in what he believes to be the best interest of his client unless "*the customer* has [the requisite] knowledge and experience" with respect to leverage and inverse funds. 85 Fed. Reg. at 4558 (emphasis added). The proposed rules would thus interfere with the core obligations and duties of investment advisers to their clients. *See, e.g.*, Comment of National Association of Active Investment Managers 1–2 (submitted by Matthew Spangler), File No. S7-24-15 (Mar. 20, 2020) ("NAAIM Comment") (explaining that although NAAIM members, as "fiduciaries to their clients," use leveraged and inverse funds to "manag[e] risk in client portfolios," the proposed access rules may force NAAIM members to "simply quit using [these funds] with the portion of [their] client base where they may offer the greatest value"); Comment of Financial Services Advisory (submitted by Jim Applegate), File No. S7-24-15 (Mar. 20, 2020) (investment adviser explaining that leveraged and inverse funds "play an important role in the proprietary investment strategies we use to protect client portfolios"). The Commission should not take this counterproductive step, but should *encourage* investors to rely on the protective fiduciary relationship.[28]

[28] The Commission admits that the proposed access rules will burden investment advisers more than other financial service providers, *see* 85 Fed. Reg. at 4493—a burden that may increase the price of investment advisory services relative to other services. On the margin, then, the proposed rules will push investors from the most protective relationship the law has to offer (the fiduciary relationship), to other, less protective arrangements. *See Bus. Roundtable v. SEC*, 647 F.3d 1144, 1151 (D.C. Cir. 2011) (the SEC must "view a cost at the margin").

d) The Proposed Access Rules Will Erode Middle- And Working-Class Confidence In The Market And Exacerbate Wealth Inequality.

The many arbitrary and illogical features of the proposed access rules will have the effect of excluding (or appearing to exclude) Main Street investors from accessing leveraged and inverse funds, thus eroding middle- and working-class confidence in the market and exacerbating wealth inequality.

The Commission has long recognized that perceived disparities in market information and access can undermine investor confidence. If certain investors believe that others have an unfair edge, then the disadvantaged investors may very well recede from the market. To function properly, the market requires fairness in fact and in appearance. In the context of selective disclosures, for example, the Commission has explained:

> The inevitable effect of selective disclosure . . . is that individual investors lose confidence in the integrity of the markets because they perceive that certain market participants have an unfair advantage. . . . [And thus, by] foster[ing] fairer disclosure of information to all investors, [the Commission can] increase investor confidence in market integrity. By enhancing investor confidence in the markets . . . [the Commission can] encourage widespread investor participation in our markets, enhancing market efficiency and liquidity, and more effective capital raising.

Selective Disclosure and Insider Trading, 65 Fed. Reg. at 51,731; *see also, e.g.*, *New York Stock Exchange*, 2012 WL 4044880, at *8 (equal access to pricing data); *Mizuho Secs. USA LLC*, Exchange Act Release No. 83,685, 2018 WL 3528370, at *9 (July 23, 2018) (misuse of material nonpublic information).

Here, for the first time ever, the Commission is proposing to block a group of investors from purchasing certain securities "in our public markets," Peirce & Roisman Statement pt. II.B, largely on the basis of income, *see* 85 Fed. Reg. at 4494. If that does not signal to certain investors—particularly middle- and working-class—that they do not have equal access to our public markets, it is hard to imagine what would. And that is exactly the message being received, loud

and clear. *See, e.g.*, Comment of Susan Berglund, File No. S7-24-15 (Jan. 30, 2020) (describing the proposed rules as "[j]ust another attempt by big money to squash the average person"); Comment of David Deutsch, File No. S7-24-15 (Jan. 30, 2020) ("It seems an unfair possibility that average investors would be unable to take advantage of leverage while wealthy investors [could] . . . . This rule would favor the rich while treating average, educated investors unfairly . . . ."); Comment of Henry Jackson, File No. S7-24-15 (Jan. 30, 2020) (noting that the rules will create the "general public perception that 'the poor' are being prevented from accessing the instruments 'the rich' are using to get richer because 'the rich run this country and won't give us a chance'"); Comment of Scott Allore, File No. S7-24-15 (Jan. 30, 2020) ("By taking away the right to research and buy leveraged stocks, you engage in class warfare in which the rich can continually get richer and the poor remain poor."); Comment of Gary Jones, File No. S7-24-15 (Jan. 30, 2020) ("Another example of trying to tip the scales even further in favor of the rich, and lock out the middle class and smaller investors . . . ."); Comment of Rajneesh Gupta, File No. S7-24-15 (Jan. 29, 2020) ("It will allow only the rich and powerful to take advantage of these funds.").

The Commission should not alienate thousands of middle- and working-class investors from the markets—not only for the sake of the markets, but for the investors themselves, who may very well be discouraged from participating in what they view as a rigged game.

5. The Proposed Definition Of "Leveraged/Inverse Investment Vehicle" Is Unreasonably Overbroad And Nonsensical.

In proposing to require that "leveraged [and] inverse investment vehicles" be subject to the access rules, the Commission claims to be providing a conditional exemption from the general 150% VaR limit. But the definition of "leveraged/inverse investment vehicle" is not tailored to that stated purpose because it would include funds that *already* satisfy the 150% VaR limit and therefore do not need an exemption.

The Proposing Release acknowledges that "[m]ost leveraged/inverse funds could not satisfy the limit on fund leverage risk in proposed rule 18f-4 because they provide leveraged or inverse market exposure exceeding 150% of the return or inverse return of the relevant index." 85 Fed. Reg. at 4492. To allow these funds to remain in business, the Commission proposes "a set of alternative requirements" that create a higher cap and incorporate the proposed access rules. *Id.* But the Commission then deviates from this stated objective by defining "leveraged/inverse investment vehicle" to encompass all funds that seek to "provide investment returns that correspond to the performance of a market index by a specified multiple, or to provide investment returns that have an inverse relationship to the performance of a market index." *Id.* at 4558. Apparently, any "specified multiple" will qualify for the Commission's definition.

The proposed definition of "leveraged/inverse investment vehicle" goes well beyond the Commission's stated purpose of creating an alternative limit for leveraged and inverse funds exceeding 150% VaR. For example, a -1x fund falls within the definition of "leveraged/inverse investment vehicle," even though it satisfies the Commission's "limit on fund leverage risk." 85 Fed. Reg. at 4492. Therefore, a -1x fund would be subject to the onerous access rules, even though the Commission says that those rules are part of a "set of alternative requirements" for funds that "would *fail*" the leverage limits. *Id.* at 4492 & n.318 (emphasis added). The access rules would also encompass 1.5x and 1.25x funds, for example. Indeed, the Commission's proposed definition of "leveraged/inverse investment vehicle" is so broad that it would cover funds that seek to achieve returns on a periodic basis that are less than the return of their benchmark index. An example would be a fund that seeks to achieve a 0.5x (or inverse 0.5x) daily target multiple. Such funds do not need an exemption from the Commission's 150% VaR limit, so it makes no sense to subject such funds to the access rules.

At the very least, if the Commission persists in imposing VaR limits—and it should not, *see infra* Part II.C—then any fund that satisfies that limit (whether inverse, leveraged, or not) should remain accessible to all investors in the public markets. There is no rational reason to subject funds that satisfy the Commission's VaR limit to the access rules. Indeed, by the Commission's own lights, there should be no "investor protection concerns that underlie section 18" left to "address." 85 Fed. Reg. at 4492. The Commission's insistence on imposing the access rules across the board smacks of an ulterior motive—an unstated hostility to leveraged and inverse funds.

6. The Commission Has Failed To Give Adequate Consideration To Reasonable And Less Restrictive Alternatives.

The Proposing Release failed to consider the obvious alternative to the access rules of enhanced disclosure requirements. *See* 85 Fed. Reg. at 4532. It should have done so because the SEC "is a disclosure-based agency, not a merit regulator." Atkins, Recent Experience with Corporate Governance, 2003 WL 21515877, at *5. In recognition of this role, Congress expressly gave the Commission the power to require enhanced disclosures, an alternative that is consistent with the proper role of the Commission. *See* 15 U.S.C. § 78o(n)(1) ("[T]he Commission may issue rules designating documents or information that shall be provided by a broker or dealer to a retail investor before the purchase of an investment product or service by the retail investor."). Indeed, the Commission typically turns to disclosure to address investor-protection concerns. *See, e.g.*, 17 C.F.R. §§ 229.10–229.1305.

The Commission's silence on enhanced disclosures as an alternative to the access rules is presumably because the prospectuses for leveraged and inverse funds already have excellent disclosures that fully inform investors of all pertinent risks. *See, e.g.*, Ex. 2 (Summary Prospectus disclosure); *In re ProShares Tr. Sec. Litig.*, 728 F.3d 96, 102 (2d Cir. 2013) (holding that

ProShares' "prospectuses adequately warned the reasonable investor"). There are even additional disclosures available on ProShares' website, including a detailed Statement of Additional Information, as well as educational materials. *See supra* pp. 20–23. In these circumstances, it is evident that the Commission's real motivation is not to enhance investor understanding, but to restrict investor access.

The Proposing Release does acknowledge enhanced disclosures as an alternative to the use-of-derivatives rule, but quickly dismisses that possibility out of hand without any meaningful discussion. The Proposing Release devotes only a single paragraph to the topic, noting that enhanced disclosures "may be less effective" than the proposed use-of-derivatives rule without ever explaining why that is so. 85 Fed. Reg. at 4532. The Proposing Release contains no discussion of ways in which disclosures might be made more effective, such as through additional website disclosure or interactive web-based tools that could show potential investors hypothetical fund returns given different holding periods, index performance, and index volatility. The Commission should give meaningful consideration to enhanced disclosure requirements before adopting a broadly prescriptive set of rules that could force many leveraged and inverse funds from the market.

The Commission failed to consider other reasonable, less restrictive alternatives to the proposed access rules. The attached report of Professor Craig Lewis identifies numerous straightforward alternative approaches, such as keeping the proposed carve-out for leveraged and inverse funds up to 300% without imposing further access rules. *See* Ex. 3, at 18–19 (Lewis Report) (documenting multiple "less burdensome alternatives" that the Commission "should have also considered"). Yet the Commission failed even to mention any less burdensome options. That was error because, as the Commission's "own guidance details," the Commission must "identify and

discuss reasonable potential alternatives" before attempting to impose new and burdensome regulations. *Id.* at 18 (quoting Current Guidance on Economic Analysis in SEC Rulemakings (Mar. 16, 2012), https://www.sec.gov/divisions/riskfin/rsfi_guidance_econ_analy_secrulemaking.pdf).

7. The Commission Must Also Consider The Substantial Reliance Interests Engendered By The Existing Regulatory Regime.

The Commission must also consider the reliance interests of the many constituencies who will be harmed by the proposed access rules. *See Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117, 2125–27 (2016). Those constituencies include investors, investment companies, broker-dealers, and investment advisers, who have ordered their affairs based on the availability of leveraged and inverse funds.

Foremost, the Commission gave short shrift to the reliance interests of the millions of investors who may no longer be able to trade leveraged and inverse funds. *See, e.g.*, Comment of Ron Moore, File No. S7-24-15 (Jan. 30, 2020) ("[L]everaged and inverse funds are an important part of my investment strategy. . . . These funds offer a quick method of creating leverage and offsetting risks in a conveniently accessible market. . . . [M]y financial well being would be severely affected by not having access to these valuable investment instruments."); Comment of Jason Timmes, File No. S7-24-15 (Feb. 19, 2020) ("Leveraged and inverse funds are important to me, and are an important component of my overall portfolio. I like the enhanced performance of these funds, and as part of my diversified portfolio, the overall risk profile is in line with my expectations."); Comment of John Scott, File No. S7-24-15 (Jan. 29, 2020) ("I have built an entire investment system utilizing leveraged and unleveraged funds. Curtailing my ability to purchase leveraged funds would severely hurt me."); Comment of David Ledbetter, File No. S7-24-15 (Jan. 29, 2020) (describing a portfolio that "is built around a leveraged investment plan" that he has "spent copious amounts of time researching and balancing"). Many broker-dealers and investment

advisers may simply stop offering leveraged and inverse funds to their customers because the costs of offering them under the proposed rules would outweigh the benefits. Those costs include the attendant regulatory burdens, costs of compliance, and interference with client relationships. That is to say nothing of the litigation risk. The proposed access rules are an invitation for regulators and plaintiffs' lawyers to second-guess a firm's account-approval (and denial) decisions.

The Commission also failed to consider the reliance interests of investment companies, fund advisers, and sponsors of leveraged and inverse funds. Investment companies and sponsors that create leveraged and inverse funds have devoted significant resources into marketing funds and creating prospectuses and other materials that promote investor understanding. Similarly, fund advisers have devoted significant resources to building trust and goodwill with clients. The access rules would undermine those reliance interests by imposing unwarranted new burdens and making leveraged and inverse funds less accessible, including to the investment advisers who have relied on these products for twenty-seven years.

In particular, investment companies and the investing public have long relied on the Commission's findings that the trading of leveraged and inverse ETFs is consistent with the public interest and the securities laws. On multiple occasions, the Commission has found, pursuant to section 6(c) of the Investment Company Act of 1940, that granting exemptions for new leveraged and inverse ETFs "is appropriate in the public interest and consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the Act." *E.g.*, ProShares Trust, Investment Company Act Release No. 28,014, 2007 WL 4104249, at *1 (Oct. 17, 2007); *accord* Rafferty Asset Management, LLC, Investment Company Act Release No. 28,434, 2008 WL 4825973, at *1 (Oct. 6, 2008). Likewise, "[a]fter careful review, the Commission" has repeatedly found "that [an] Exchange's proposal to list and trade [certain leveraged and inverse

ETFs] is consistent with the Exchange Act and the rules and regulations thereunder applicable to a national securities exchange." Self-Regulatory Organizations, Exchange Act Release No. 86,532, 2019 WL 3530382, at *3 (July 31, 2019); *accord, e.g.*, Self-Regulatory Organizations, Exchange Act Release No. 57,884, 2008 WL 2387272, at *7 (May 30, 2008); Self-Regulatory Organizations, Exchange Act Release No. 55,117, 2007 WL 148707, at *9 (Jan. 17, 2007); Self-Regulatory Organizations, Exchange Act Release No. 54,040, 2006 WL 1896703, at *10 (June 23, 2006). The putative investor-protection concerns cited in the proposal as justification for the proposed rules are at odds with the numerous prior findings by the Commission that the operation of leveraged and inverse funds is "appropriate in the public interest and consistent with the protection of investors and the purposes fairly intended by the policy and provisions of the Act." ProShares Trust, 2007 WL 4104249, at *1. The Commission should provide evidence and an explanation for its dramatic departure from its prior findings.

The Commission also has failed to account for broker-dealers' reasonable expectation that one major initiative—Regulation Best Interest—would not be followed abruptly by another, on the same topic. As discussed below, the costs of complying with two inconsistent regulatory schemes will fall most heavily on small broker-dealers, forcing many of these firms to stop offering leveraged and inverse funds, and in all likelihood, on investors themselves. *See infra* pp. 150–51.

Finally, the Commission frequently allows and even encourages investors to rely on the financial sophistication of their representatives. The proposed access rules depart from this sensible policy and require an individual investor to personally understand leveraged and inverse products, regardless of whether that investor has knowingly delegated investment decisions to a professional adviser. The rules thus undermine investors' reliance on their professional advisers, and in turn damage the relationship between investment advisers and their clients. *See, e.g.*, Comment

of Paul Murphree, File No. S7-24-15 (Jan. 30, 2020) ("stop interfering with my relationship with any trade advisor"). The Commission fails to consider the reliance interests of investment advisers and investors in that fiduciary relationship.

8. The Recently Promulgated Regulation Best Interest And Fiduciary Interpretation Need Time To Work.

Scarcely six months ago, the Commission issued significant new rules and guidance aimed at ensuring that broker-dealers and investment advisers are making recommendations in the best interests of their customers. *See* Regulation Best Interest, 84 Fed. Reg. 33,318; Fiduciary Interpretation, 84 Fed. Reg. 33,669. The Commission should give that regulatory initiative time to work in practice before launching a new suite of rules that impose different and conflicting standards.

The Commission issued Regulation Best Interest and the Fiduciary Interpretation "after years of deliberation." Peirce & Roisman Statement pt. II.B. These regulatory actions expressly address leveraged and inverse funds. *See* Regulation Best Interest, 84 Fed. Reg. at 33,324, 33,376 & nn.594, 596, 33,419 & n.980; Fiduciary Interpretation, 84 Fed. Reg. at 33,674 & n.39. Presumably the Commission expects those rules and interpretations to be effective in practice. So why does the Commission immediately burden broker-dealers and investment advisers with a new set of standards governing the same fiduciary relationships for leveraged and inverse funds? The Commission offers no explanation, let alone a reasonable one. To the contrary, the Commission *admits* that the "benefits" of the access rules will "be reduced, to the extent that they overlap with the effects of investment advisers' or broker-dealers' existing requirements or practices." 85 Fed. Reg. at 4522. The access rules will only lead to confusion and regulation-fatigue among broker-dealers and investment advisers.

Regulation Best Interest creates a standard of care that overlaps with, but is different from, the qualification standard under the proposed access rules. Regulation Best Interest requires "broker-dealers to make recommendations that are in the best interest of a customer, 'based on [the customer's] investment profile and the potential risks, rewards, and costs associated with the recommendation.'" Peirce & Roisman Statement pt. II.B (alteration in original) (quoting 84 Fed. Reg. at 33,491). If the regulation works as intended, there is no reason to suppose that broker-dealers will recommend leveraged and inverse funds to investors for whom such products are inappropriate. And if the Commission is concerned that some investors might still trade in leveraged and inverse funds without a broker-dealer recommendation, the Commission should wait to see who those investors are before leaping to the premature conclusion that they must need government protection and proposing unprecedented restrictions on retail investors' access to these products. After all, investors are at liberty to decide for themselves whether to seek a broker-dealer's recommendation or go it alone. If the investor decides to seek the recommendation, he or she will receive the benefits of Regulation Best Interest. If the investor decides to go it alone, the investor presumably has concluded that he or she is capable of evaluating the risks. The only category of investor that the access rules would "protect," therefore, are investors who are not capable of evaluating *whether* they are "capable of evaluating" the risks of leveraged and inverse funds. There is no evidence that less sophisticated investors would charge ahead without the benefit of some professional guidance.

Regulation Best Interest also stands in serious tension with the access rules in material respects. For example, Regulation Best Interest "appropriately recognizes that customers may rely on" a broker-dealer's "investment expertise and knowledge." 84 Fed. Reg. at 33,339. Yet the access rules say the opposite: they turn, not on a broker-dealer's knowledge, but on whether "*the*

customer has . . . knowledge and experience in financial matters." 85 Fed. Reg. at 4558 (emphasis added). If a customer hires a broker-dealer—who, per Regulation Best Interest, must make a "recommendation [] in the best interest of [the] retail customer," 84 Fed. Reg. at 33,326—then the customer should be able to "rely on" the broker-dealer's experience, *id.* at 33,339.

Regulation Best Interest also magnifies the administrative burdens imposed by the access rules. Like the access rules, Regulation Best Interest requires the collection of a body of information to determine a customer's investment profile. But the information that must be collected under each set of rules is different. Under Regulation Best Interest, the broker-dealer must collect, among other items, "the retail customer's age, other investments, financial situation and needs, tax status, investment objectives, investment experience, investment time horizon, liquidity needs, risk tolerance, and any other information the retail customer may disclose to the broker." Regulation Best Interest, 84 Fed. Reg. at 33,378; *cf.* 85 Fed. Reg. at 4494 (stating that a "firm must seek to obtain" a different body of information). It is not clear why the access rules require the collection of a different set of information.

For similar reasons, the Commissions should await the results of its recent guidance on the fiduciary duty of investment advisers before assuming that more prophylactic measures are needed for investors who purchase leveraged and inverse funds based on the advice of an investment adviser. *See* Fiduciary Interpretation, 84 Fed. Reg. 33,669. "Investment advisers . . . typically provide ongoing, regular advice and services in the context of broad investment portfolio management." Regulation Best Interest, 84 Fed. Reg. at 33,319. An investment adviser already "must base its advice to a client on a reasonable understanding of the client's objectives, requiring the adviser to make a reasonable inquiry into the client's financial situation, level of financial sophis-

tication, investment experience, and financial goals." Peirce & Roisman Statement pt. II.B (internal quotation marks omitted); *see* Fiduciary Interpretation, 84 Fed. Reg. at 33,673. The Commission should allow investment advisers to apply the new interpretive guidance, and assess its effectiveness, before imposing new access rules that restrict investment advisers' advice to clients.

At the very least, the potential for redundancy or conflict between these brand-new initiatives in the same area represents an "important aspect of the problem" facing the Commission, which the Commission may not ignore. *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

9. The Commission Cannot Rationalize Its Proposed Rules Merely By Stating That They Are "Modeled" After Standards Adopted By A Self-Regulatory Organization In Another Era.

The Commission's attempt to co-opt and repurpose FINRA's option rules as the basis for the proposed access rules is fundamentally unsound.

First and foremost, the FINRA options rules require a customer to meet a "knowledge and experience" test only in cases where broker-dealers make "recommend[ations] to a customer." FINRA Rule 2360(b)(19)(B). Nothing in the FINRA regime allows a broker-dealer to block a customer's access to a publicly traded product of her choice, as the Commission's proposed access rules would do. That critical distinction makes all the difference.[29]

[29] The Commission repeatedly asserts that the proposed access rules "are modeled after [the] current FINRA options account approval requirements" in FINRA Rule 2360(b)(16). 85 Fed. Reg. at 4493 (citing FINRA Rule 2360(b)(16)); *see also id.* at 4493 n.325 (also citing FINRA Rule 2360(b)(16)). That is not true. The standard the Commission adopts—that firms must "ha[ve] a reasonable basis for believing that the customer has such knowledge and experience in financial matters that he or she may reasonably be expected to be capable of evaluating the risks of" certain transactions, 85 Fed. Reg. at 4558—is lifted *verbatim* from a *different* provision—a provision that the Commission never even mentions. The language actually comes, not from Rule 2360(b)(*16*)—the rules on "Diligence in Opening Accounts," as the Commission claims—but from Rule 2360(b)(*19*), the rules on "Suitability." The difference is significant: FINRA itself has made clear

To the extent the Commission followed FINRA's lead, the Commission did "not act rationally when it blindly tether[ed] its decisionmaking to that of" FINRA, "because such faith in another [entity's] decisionmaking fail[ed] to account for the very real possibility that the other [entity] [had] acted improperly or irrationally." *Foster v. Mabus*, 895 F. Supp. 2d 135, 148 (D.D.C. 2012); *see also, e.g.*, *ABM Onsite Servs.-W., Inc. v. NLRB*, 849 F.3d 1137, 1146 (D.C. Cir. 2017) ("[A]n agency cannot avoid its duty to explain a departure from its own precedent simply by pointing to another agency's unexplained departure from precedent."); *Nat. Res. Def. Council, Inc. v. Herrington*, 768 F.2d 1355, 1413 (D.C. Cir. 1985) ("DOE may not rely without further explanation on an unelaborated order from another agency."). The SEC must articulate its own independent reasons for why the prior rules are appropriate in a different and novel context.

The Commission's reliance on FINRA is particularly irrational here, where FINRA crafted the cited options rules forty years ago in response to conditions in the options markets at that time. *See* Self-Regulatory Organizations, Exchange Act Release No. 16,460, 45 Fed. Reg. 1954 (Jan. 9, 1980), *approved*, Exchange Act Release No. 16,807, 1980 WL 26858 (May 15, 1980). The Commission does not adequately explain how those conditions apply to the market for leveraged and inverse funds. Among other things, investors have access to far more information today; they can instantaneously pull up a product's Summary or Statutory Prospectus on the Internet and can easily Google discussions of product characteristics (including postings on the SEC's own website). The Commission does not explain, much less reasonably explain, why FINRA's options framework is appropriate to leveraged and inverse funds in light of *today's* environment.

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that the suitability rules impose a different, stricter standard than the account-opening rules. *See, e.g.*, FINRA Notice 05-59, Structured Products, 2005 WL 2230334, at *3 (Sept. 12, 2005).

Moreover, despite the Commission's suggestion that leveraged and inverse funds have certain "similarities to options," 85 Fed. Reg. at 4493, it offers no convincing evidence of this similarity. Its sole citation to support this assertion, *id.* at 4512 n.469, is a 2019 "Economics Note" from the Division of Economic and Risk Analysis ("DERA"), but this note's analysis "is misleading and flawed" both in its assumptions and in its overstatement of purported similarities between leveraged and inverse funds and options, Ex. 3, at 7 (Lewis Report). The DERA note claims that the "returns to holding an option have similar characteristics" to the returns of holding a leveraged or inverse ETF. Economics Note: The Distribution of Leveraged ETF Returns 2 (Nov. 2019) ("DERA Note"). But the similar characteristic that the DERA note cites—"the skewness of the payoff distribution," *id.* at 6—is "a function of DERA's modeling choices" and would apply to "all assets," Ex. 3, at 10 (Lewis Report). This is not a rational basis to "single out" leveraged and inverse funds. *Id.* at 11. Moreover, the gross return distribution of options that are "typically traded . . . does not closely resemble the gross return distribution" of leveraged and inverse funds, thus further undermining the DERA note's comparison of leveraged and inverse funds to options. *Id.* at 13. For these reasons, "the SEC has not provided evidence that the return distribution of leveraged/inverse funds are similar or comparable to the return distribution of options, or that an option-like framework is appropriate for regulating the sales of leveraged/inverse funds." *Id.* at 14.

The Commission's inability to demonstrate similarities between options and leveraged and inverse funds is not surprising. Options of all kinds are complex in ways that leveraged and inverse funds are not, and these distinctions are particularly pronounced for more exotic forms of options. *See* Ex. 1, at 35–38 (Overdahl Report). The many differences between leveraged and inverse funds and options show why FINRA's options framework is not appropriate for leveraged and inverse

funds. For example, when writing an option, there is a risk that the investor will lose more than his initial investment—something that cannot happen to the purchaser of a leveraged or inverse fund. *See also supra* pp. 105–06.

Lastly, FINRA is not the SEC. FINRA is a self-regulatory organization governed by a wholly distinct set of statutory constraints and objectives. *See* 15 U.S.C. §§ 78o-3, 78s. As a self-regulatory body it is both empowered and expected to adopt rules directed at a far broader range of concerns than those which the Commission is expected or authorized to address under the federal securities laws. *See, e.g.*, *Karsner v. Lothian*, 532 F.3d 876, 880 (D.C. Cir. 2008) (explaining that FINRA serves in part "as a professional association, promoting the interests of it[s] members" (alteration in original) (quoting *NASD v. SEC*, 431 F.3d 803, 804 (D.C. Cir. 2005))); *D.L. Cromwell Invs., Inc. v. NASD Regulation, Inc.*, 279 F.3d 155, 162 (2d Cir. 2002) (as "a private actor, not a state actor," FINRA's predecessor was not subject to the same restrictions as the SEC (quoting *Desiderio v. NASD, Inc.*, 191 F.3d 198, 206 (2d Cir. 1999))); *United States v. Shvarts*, 90 F. Supp. 2d 219, 222 (E.D.N.Y. 2000) ("It is beyond cavil that [FINRA's predecessor] is not a government agency; it is a private, not-for-profit corporation. It was not created by statute. None of its directors are government officials or appointees. It receives no government funding, and not being part of the government or owing its existence to the government, its actions cannot be imputed to the government . . . ."), *abrogated on other grounds by United States v. Coppa*, 267 F.3d 132 (2d Cir. 2001). It is not enough for the Commission to say that the scope of its rules is rational because they are modeled on a FINRA rule that grows out of this distinct regime. Indeed, whereas broker-dealers are at least subject to FINRA oversight, investment advisers are governed under an entirely distinct statutory scheme that falls outside FINRA's jurisdiction. The Commission must

do more to explain why decades-old FINRA rules for options are an appropriate framework for regulating investment advisers.

C. The Proposed Use-Of-Derivatives Rule Is Arbitrary And Capricious.

The Commission's proposed Rule 18f-4, governing the use of derivatives, is equally arbitrary and capricious. Rule 18f-4 repeatedly relies on a metric, value at risk ("VaR"), that is not a measure of leverage risk at all, and thus runs counter to the evidence before the agency. Making matters worse, the Commission imposes a series of arbitrary VaR limits—on the relative VaR of funds that invest in derivatives in general, on the absolute VaR of funds without an appropriate reference index, and on the relative VaR of leveraged and inverse funds specifically (conditioned on the applicability of the access rules). These limits have no evidentiary support and would force many funds to cease or alter their operations. The Commission also may not, as an alternative to the proposed framework for leveraged and inverse funds, simply extend its proposed general VaR limit to cover these funds as well. And the Commission may not withdraw exemptive relief for existing leveraged and inverse funds. In short, Rule 18f-4 would impose unprecedented and arbitrary burdens on funds, and should be withdrawn.

1. The Use-Of-Derivatives Rule's Heavy Reliance On Value At Risk Is Arbitrary And Capricious.

The Commission proposes Rule 18f-4 to place general "limit[s] on fund leverage risk," 85 Fed. Reg. at 4453, but the metric it chooses for defining those limits—value at risk—is not a measure of leverage risk at all. The Commission has never used VaR for this purpose and has no basis to construe section 18 as justifying this novel requirement. The Commission has previously acknowledged that VaR is not a measure of leverage risk, and its application in this context would lead to irrational results. The Commission should reconsider its arbitrary use of VaR in this context.

First and foremost, the Commission's reliance on VaR is not rationally tied to the asserted regulatory purpose of limiting fund leverage risk associated with derivatives. The Commission proposes "to use VaR tests to limit fund leverage risk associated with derivatives." 85 Fed. Reg. at 4469. But leverage risk, in the context of derivatives, is "the risk that derivatives transactions can magnify the fund's gains and losses." *Id.* at 4460. The Commission admits that VaR is not a measure of leverage or borrowing: "VaR is not itself a leverage measure." *Id.* at 4469. As the Commission recognizes, VaR measures general *market risk*—the "risk from potential adverse market movements . . . , or the risk that markets could experience a change in volatility that adversely impacts fund returns and the fund's obligations and exposures." *Id.* at 4460. The concepts of market risk and leverage risk are wholly separate and distinct, and other regulations of the Commission and other agencies recognize that VaR is a measure of market risk, not leverage. *See, e.g.*, 12 C.F.R. § 1277.5; 17 C.F.R. § 229.305; 2015 Proposing Release, 80 Fed. Reg. at 80,915–17; *see also* Ex. 3, at 28 (Lewis Report) ("The main drawback with [the Commission's] approach is that there are other aspects of a fund that are unrelated to leverage that also could increase its VaR.").

Nor does *relative* VaR measure leverage risk. Despite the Commission's assertion that VaR "can be used to analyze whether a fund is using derivatives transactions to leverage the fund's portfolio," 85 Fed. Reg. at 4469, a fund's VaR relative to an index does not necessarily say anything about whether or to what extent a fund is using derivatives or leverage. The Commission admits the weakness of this connection: "If a fund is using derivatives and its VaR exceeds that of the designated reference index, this difference *may* be attributable to leverage risk"—but not necessarily or even likely as compared to other factors. *Id.* at 4471 (emphasis added). For example, a fund could have a high VaR relative to an index without using any derivatives or leverage at all (such as could be the case with an actively managed or smart beta fund), by using a relatively

limited amount of derivatives, or by using types of leverage that do not trigger the proposed restrictions (e.g., certain borrowing). In other words, a fund's relative VaR can fluctuate significantly for reasons having nothing at all to do with leverage risk.

The Commission's 2015 proposal specifically rejected a relative VaR test as an appropriate measure of leverage. The 2015 proposal noted, among other reasons, relative VaR would not accurately address the leverage risk concerns that (supposedly, *see supra* Part I.B) justify regulation in this area under section 18. As the Commission explained then: "A relative VaR test . . . could be viewed as a limitation on risk or volatility generally—as opposed to a limitation on the issuance of senior securities—because it would measure the VaR of a fund's portfolio, including non-senior securities investments, against a hypothetical reference portfolio, and such non-senior securities investments could cause the fund to fail a relative VaR test." 2015 Proposing Release, 80 Fed. Reg. at 80,918. Not only does *high* relative VaR not necessarily denote high leverage risk, as noted above, but *low* relative VaR does not necessarily denote low leverage risk. As the Commission explained in 2015, "a fund might be able to use strategies that may not produce significant measurable amounts of VaR during normal market periods, but which employ derivatives exposures at a level that could subject a fund to a significant speculative risk of loss if markets become stressed." *Id.* at 80,923; *see also* 85 Fed. Reg. at 4470 (admitting that "a fund's use of derivatives transactions may pose other risks (such as counterparty risk and liquidity risk) that VaR does not capture").

In its new proposal, the Commission acknowledges its altogether different judgment of relative VaR from just five years ago, *see* 85 Fed. Reg. at 4530 n.606, but nonetheless still fails to explain its departure from its previous reasoned rejection of that test as an inappropriate tool to measure leverage. That failure is especially troubling given the Commission's acknowledgment

of the proposed VaR regime's substantial costs, which range from causing some funds to "incur associated trading costs" to "los[ing] investors" or even causing funds to "cease operating, [and] incur costs associated with unwinding the fund." *Id.* at 4519.

Further, the reliability of VaR as a measure of *any* kind of risk has been disputed. The Commission itself "[r]ecogniz[es] VaR's limitations": for example, "two funds with the same VaR level could differ significantly in the magnitude and relative frequency of extreme losses." 85 Fed. Reg. at 4516, 4519. As Commissioners Jackson and Lee note, "the proposal relies heavily on value at risk," but "[t]he reliability of VaR as a risk metric is the subject of significant debate." Robert J. Jackson, Jr. & Allison Herren Lee, Comm'rs, U.S. SEC, Statement on Proposed Rules on Funds' Use of Derivatives (Nov. 26, 2019) ("Jackson & Lee Statement"). The Commission should not impose on an entire industry a questionable standard, and especially one that it previously rejected, without doing more to justify that the standard is suitable in this novel context.

Thus, the proposed VaR limits would not achieve the posited regulatory purpose. For example, one of the Commission's cited justifications for issuing the proposed rules is the implosion of an actively managed fund, LJM Preservation and Growth Fund, which, unlike leveraged and inverse funds, did not use derivatives in a manner that was consistent, constrained, and transparent. But the proposed VaR limits would have done nothing to prevent LJM's demise because that fund's VaR based on three years of historical data was below the proposed 150% relative VaR limit. *See* Angel 2020 Comment 14–15. Moreover, the LJM fund, which was not a leveraged or inverse fund, failed because of the subjective and undisclosed bets that its manager placed on volatility, not because of leverage risk. *See supra* pp. 76–77. The relative VaR limits cannot prevent similar failures in the future.

The proposed VaR limits may even increase systemic risk. Because the rules create an artificial limit on the amount of risk a portfolio manager may undertake, the portfolio manager can no longer use his or her best judgment to execute the fund's investment strategy. Instead the portfolio manager will be forced to only select securities that correspond to the risk profile of the fund's reference index. This will create artificial homogeneity among investment products, which has been known to exacerbate a financial crisis. *See, e.g.*, Erik F. Gerding, *Code, Crash, and Open Source*, 84 Wash. L. Rev. 127, 184 (2009) ("Too much homogeneity among risk-management strategies of financial institutions can increase systemic risk."); Brett H. McDonnell, *Meeting Lowered Expectations*, 10 U. St. Thomas L.J. 449, 455 (2012) ("[T]oo much homogeneity in how all corporations function could be a source of systemic risk when flaws in the process cause all companies to respond to a given stress in the same way."); *cf.* Money Market Fund Reform, Securities Act Release No. 9408, Advisers Act Release No. 3616, Investment Company Act Release No. 30,551, 2013 WL 11134175, at *127 (June 5, 2013) (rejecting regulatory scheme because, among other reasons, in would "create homogeneity in the financial regulatory scheme" and "could increase systemic risk"). Moreover, a "fundamental problem with value-at-risk modeling practice" is that it "often underestimate[s] or completely overlook[s] the correlation of losses among various assets pooled together . . . . High correlation of losses—when it rains, it pours—undermines the foundations of diversification and risk pooling on which effective risk management depends." Gerding, 84 Wash. L. Rev. at 172.

Moreover, emerging scholarship increasingly identifies overreliance on VaR as one of the contributors to the 2007–2009 financial crisis. The Commission notes—and does not rebut—the many "risk literature critiques of VaR (especially since the 2007–2009 financial crisis)." 85 Fed.

Reg. at 4470; *see also* 2015 Proposing Release, 80 Fed. Reg. at 80,918 (recognizing that "significant attention has been given (especially since the 2007–2009 financial crisis) to the limitations of VaR and the risks of overreliance on VaR as a risk management tool"); *id.* at 80,919 (noting "the risks and limitations of relying on VaR as a risk measure"). The cited academic sources put the point somewhat more bluntly. For example: "Criticism of banks' VaR measures became vociferous during the financial crisis as 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." James O'Brien & Pawel J. Szerszen, *An Evaluation of Bank VaR Measures for Market Risk During and Before the Financial Crisis* 1, Fed. Reserve Bd. Staff Working Paper 2014–21 (Mar. 7, 2014), *available at* https://www.federalreserve.gov/pubs/feds/2014/201421/201421pap.pdf; *see also, e.g.*, Gerding, 84 Wash. L. Rev. at 142 ("One particular problem faced by value-at-risk models is 'fat tails,' or potential large-magnitude, low-probability losses."); Chris Downing et al., *Portfolio Construction and Tail Risk*, 42 The Journal of Portfolio Management 1, 88 (Fall 2015) ("as a risk concept, [VaR] has a number of shortcomings, not the least of which is that for especially fat-tailed return distributions the VaR threshold value might appear to be low, but the actual amount of value at risk is high because VaR does not measure the mass of distribution beyond the threshold value").

Indeed, VaR has been held up as a specific example of the kind of prescriptive regulation to *avoid* in light of the lessons of the 2007–2009 financial crisis:

> If courts or governmental agencies tried to impose specific oversight practices, they would run a great risk of imposing bad ones. For example, consider the widespread pre-crisis use of value at risk models as the key quantitative measure of risk. Value at risk has its uses, but it turns out to be conceptually flawed, particularly in how it ignores low-probability but high-potential-damage sources of risk. *Had courts or agencies gone too far in imposing a requirement to rely on value at risk, they would have made the financial crisis even worse*.

McDonnell, 10 U. St. Thomas L.J. at 454–55 (emphasis added) (footnotes omitted); *see also* Christopher L. Culp et al., *Value at Risk: Uses and Abuses*, 10 J. Applied Corp. Fin. 26, 26 (Jan. 1998) (concluding that VaR "would have been of only limited value in averting [the 1993–1995 'great derivatives disasters'] and, indeed, actually might have been *misleading* in some of them"). Particularly given the Commission's stated concern with guarding against events of "extreme" volatility, 85 Fed. Reg. at 4450, it makes little sense to place overwhelming reliance on a measure whose "general shortcoming" is its particular inaccuracy "in a period of financial turmoil," because it "understate[s] risk in a period [of] market instability," O'Brien & Szerszen 24; *cf.* 85 Fed. Reg. at 4520 (acknowledging that *relative VaR* also may not adequately address crisis conditions, because the designated reference index's volatility will also likely increase during such times). And though the Commission purports to rely on the Basel Committee on Banking Supervision's 1996 treatment of VaR, 85 Fed. Reg. at 4476 n.231, it fails to note that much more recently, in 2016, "the Basel Committee on Banking Supervision has recommended moving away from VaR models to more robust expected shortfall models," Jackson & Lee Statement n.12. The Commission must do much more to square its proposal to use VaR with the extensive literature documenting the limitations of that metric.[30]

The Commission falls back on one virtue that VaR may have: its supposed ease of measurement "across diverse types of instruments that may be included in a fund's portfolio." 85 Fed. Reg. at 4469. But just because something is easy to measure does not mean or even imply that

[30] This concern is far from theoretical. As discussed below and illustrated in Exhibit 5, the VaR of many widely used indices has increased significantly over a very short period of time in light of the current market volatility associated with the coronavirus pandemic. Funds based on such indices or investing in similar securities could quickly and unexpectedly find themselves exceeding the Commission's mandated VaR limits. In that event, funds may be required to exit positions in distressed markets.

you are measuring the right thing. *Cf. Vieth v. Jubelirer*, 541 U.S. 267, 297 (2004) (plurality opinion) ("No test—yea, not even a five-part test—can possibly be successful unless one knows what he is testing *for*."). The Commission should not embrace the principle of the drunkard searching for his keys under the streetlight—not because he lost his keys there, but because "that's where the light is."[31] If VaR "does not provide a complete picture of a fund's financial risk exposures," among other flaws, then it is of little help that this flawed tool "yield[s] a simple yet general measure." 85 Fed. Reg. at 4514; *see* Culp, 10 J. Applied Corp. Fin. at 35 (despite "facilitating the consistent measurement of risk across distinct assets and activities," "reliance on VAR can result in serious problems when improperly used").

Ironically, despite the proposed use-of-derivatives rule's exclusive reliance on VaR as "the only methodology to establish an outside limit on funds' leverage risk," the Commission inconsistently insists that it "do[es] not believe" that VaR tests "should be the sole component of a derivatives risk management program," and that it "do[es] not intend to encourage risk managers to over-rely on VaR as a stand-alone risk management tool," in light of the measure's numerous shortcomings catalogued above. 85 Fed. Reg. at 4470. But what is sauce for the goose is sauce for the gander: the Commission should forebear from "over-relying" on VaR as the central pillar of its *own* risk-management architecture—for all the reasons it is unwise for funds themselves to over-rely on VaR.

Finally, as with the access rules, the Commission has failed to give adequate consideration to reasonable alternatives to its VaR tests. *See* Ex. 3, at 18–19 (Lewis Report) (noting the Com-

[31] *See* David H. Freedman, *Why Scientific Studies Are So Often Wrong: The Streetlight Effect*, Discover Magazine (Dec. 9, 2010).

mission's failure to consider "at least five reasonable alternatives . . . which would be less burdensome"). For example, rather than impose a blunt VaR limit, the Commission could simply require funds to more clearly disclose in their prospectuses the extent to which they will use derivatives or leverage, or if their VaR exceeds a specified limit. The Commission rejects enhanced disclosure requirements out of hand, fearing that they "may be less effective" than the broadly prescriptive VaR limits, 85 Fed. Reg. at 4532, but the Commission never discusses the relative merits of requiring funds to disclose their use of derivatives or leverage, or their use of VaR. That is a glaring oversight, given that the Commission frequently relies on disclosure in other contexts—and has unquestioned statutory authority to regulate fund disclosures. The Commission should explain why a similar approach would be inadequate here.

2. The 150% Relative VaR Test Is Arbitrary And Capricious.

Exacerbating the Commission's arbitrary selection of VaR as the measure of leverage risk, the Commission proposes a limit on a fund's relative VaR set arbitrarily at 150%. As Commissioners Peirce and Roisman noted with respect to the proposed hard limit on leveraged and inverse funds' returns, *see infra* Part II.C.4, such hard caps are "a direct mechanism to restrict investors' access to geared products that might otherwise seek to exceed this limit" and are a "blunt, overly-paternalistic approach to investor protection." Peirce & Roisman Statement pt. II.A. The Commission has offered no evidence that a higher limit than 150% relative VaR would not serve the Commission's objectives just as well and with less cost to the industry. *See Comcast Corp. v. FCC*, 579 F.3d 1, 8 (D.C. Cir. 2009) (rejecting the FCC's 30% subscriber cap as arbitrary and capricious because the agency failed to "examine[] the relevant data and articulate[] a satisfactory explanation for its action" (alterations in original) (quoting *Fresno Mobile Radio, Inc. v. FCC*, 165 F.3d 965, 968 (D.C. Cir. 1999))).

The Commission's only explanation for selecting the 150% relative VaR test is that this cap is "similar to" an unrelated borrowing limit: "the way that section 18 limits a registered open- or closed-end fund's ability to borrow from a bank (or issue other senior securities representing indebtedness for registered closed-end funds)." 85 Fed. Reg. at 4474. But any comparison between section 18's borrowing limits and relative VaR is apples-to-oranges. As discussed above, *see supra* Part I.B, section 18 is addressed to remedying investment companies' complex capital structures and the conflicts of interest that arise because of them. It is *not* addressed to the risks that arise from the manner in which investment companies invest their portfolio assets. The Commission offers no evidence suggesting that section 18's borrowing limit is appropriately imported into this altogether different context.[32]

Rather than rely on evidence, the Commission conducts an inapt thought experiment to justify its relative VaR limit:

> In proposing a 150% limit, we first considered the extent to which a fund could borrow in compliance with the requirements of section 18. For example, a mutual fund with $100 in assets and no liabilities or senior securities outstanding could borrow an additional $50 from a bank. With the additional $50 in bank borrowings, the mutual fund could invest $150 in securities based on $100 of net assets. This fund's VaR would be approximately 150% of the VaR of the fund's designated reference index.

85 Fed. Reg. at 4474. The thought experiment reveals the fundamental flaw in the Commission's understanding of how VaR reflects the impact of leverage including borrowing. The SEC seeks to overcome the measure's limitations by comparing a fund's VaR to the VaR of a designated reference index, on the theory that the riskiness of an unlevered index is a good proxy for how much risk an unlevered fund would have had. 85 Fed. Reg. at 4469. But that theory rests on the

[32] Fund borrowing may, under certain circumstances, increase VaR, but that is not always the case. For example, if a fund borrows and uses the proceeds of that borrowing to create an effective hedge, the overall VaR of the portfolio could theoretically decrease.

assumption that the fund's VaR (before borrowing) would be equivalent to the VaR of the fund's designated reference index. *Id.* at 4474. That assumption is demonstrably incorrect.

The VaR of a portfolio is the product of the assets it holds, which rarely correspond exactly to the components of an index (unless it is an index fund using full replication or a highly correlated index tracking strategy). This is particularly likely to be the case for actively managed funds. For example, on a given day, an actively managed fund may invest in instruments that have significantly more or significantly less risk than the risk of its reference index. If a fund invests in any subset of the index, the fund's VaR is likely to exceed the index's VaR, because the index is inherently more diversified than a subset of the index, and diversification generally reduces VaR. *See* Philippe Jorion, *Value at Risk: The New Benchmark for Managing Financial Risk* 62 (3d ed. 2006); Khurshid M. Kiani, *Relationship Between Portfolio Diversification and Value at Risk: Empirical Evidence*, 12 Emerging Markets Review 443 (2011).

To illustrate this concept, we constructed a hypothetical portfolio that seeks to outperform the S&P 500® Index by selecting 10 component securities that the portfolio manager expects will appreciate relative to the index.[33] Since the portfolio may invest in any securities that the portfolio manager believes will outperform the S&P 500® Index, the appropriate designated reference index would likely be the S&P 500® Index. We calculated the VaR of the hypothetical portfolio for the three-year period ending June 28, 2019, to correspond to the period used by the Commission. *See* 85 Fed. Reg. at 4475 & n.218. The absolute VaR of our hypothetical portfolio over that period was 16.95%, substantially more than the 8.64% absolute VaR of the S&P 500® Index over that

[33] For simplicity, we selected 10 companies from the S&P 500® Index with the lowest non-zero price-to-earnings ratio as reported on February 20, 2020.

same period. Further, the relative VaR of the hypothetical portfolio, *without leverage*, against the Index was 196%.

The divergence increases still further if we extend our hypothetical portfolio to the example the Commission uses to justify the 150% VaR limit: the hypothetical fund with $100 in assets and no liabilities that borrows an additional $50. *See* 85 Fed. Reg. at 4474. Such a hypothetical portfolio would have an absolute VaR of 23.17%, assuming the borrowings were invested consistent with the strategy outlined above. The portfolio's relative VaR against the index would be 294%. Even using this simple example, it is clear that this hypothetical portfolio's VaR is not "approximately 150% of the VaR of the fund's designated reference index." *Id.* This example, based on analysis of historical data, shows that relative VaR is an unsuitable measure for leverage risk because a fund's relative VaR can far exceed the proposed 150% relative VaR test for reasons having nothing to do with the fund's leverage risk.

The Commission also fails to adequately explain why a higher relative VaR test would be less appropriate. For example, the Commission purports to rely on the European Union framework applicable to UCITS funds when doing so suits its purposes. *See, e.g.*, 85 Fed. Reg. at 4469 n.180, 4475 & n.222; 4482–83 & n.264, 4512. Yet it offers no explanation for departing from the UCITS framework's 200% relative VaR test—which the Commission mentions only in a request for comment. *Id.* at 4475. It hardly bespeaks reasoned decisionmaking that the Commission neglected to discuss and distinguish the primary existing precedent for the relative VaR test—the central pillar of the new use-of-derivatives rule. Simply asserting that the selected levels are "designed to provide what we believe is an appropriate degree of flexibility for funds to use derivatives," *id.* at 4474, is insufficient.

3. The 15% Absolute VaR Limit Is Arbitrary And Capricious.

The alternative 15% absolute VaR limit is also arbitrary and capricious. Limiting the overall risk exposure of a fund is not narrowly tailored to the Commission's stated goal of limiting *leverage* risk. As discussed above, VaR is a measure of risk and not a measure of leverage.

Additionally, a fund with no leverage exposure at all may have an absolute VaR that exceeds 15%, as Exhibit 5 makes clear. In addition, funds with portfolios that approximate the constituents of some well-known and widely-used indices—including the Russell 2000® Index and the S&P SmallCap 600® Index— and that borrow as permitted by section 18 would have absolute VaRs that exceed the proposed absolute VaR limit. Even a portfolio composed of securities from the Nasdaq-100® Index would, with section-18-compliant borrowing, barely squeak by the proposed test during a period of relatively low volatility. Conversely, a fund with extensive leverage may have an absolute VaR below 15%, as could be the case with a leveraged treasury fund. Indeed, our hypothetical portfolio outlined above has a VaR of 16.95% without leverage. *See supra* Part II.C.2. In selecting the 15% absolute VaR limit, the Commission relied on the same faulty analysis it used to equate the borrowing limits of section 18 to a 150% relative VaR test. 85 Fed. Reg. at 4475. This determination fails for the same reason.

This incongruous outcome is exacerbated by the Commission's unreasonable choice to rely on the S&P 500® Index as a proxy for the riskiness of all markets. *See* 85 Fed. Reg. at 4475. The Commission bases this determination to use the S&P 500® Index on the bizarre assumption that investors equate the risk of their investment in funds to the risks of "broad-based large capitalization equities indexes such as the S&P 500 [Index]," because "[m]any investors may [] understand the risk inherent in these indexes as the level of risk inherent in the markets generally." *Id.* The Commission provides no evidence for this assumption, however, and it strains credulity to believe that investors are incapable of distinguishing the risks inherent in the funds at issue here from the

risks of large-capitalization U.S. equity markets. Using a single, ill-fitting metric to limit the risk-taking behavior of a diverse industry, based on an unsubstantiated assumption that investors are unable to understand basic facts about markets, is the very definition of arbitrary. *See also, e.g.*, Ex. 3, at 30 (Lewis Report) (explaining that the Commission needs to "provide more information regarding the absolute VaR threshold").[34]

The absolute VaR limit differs from the 150% relative VaR limit, among other reasons, by allowing certain funds to use a number calculated from the S&P 500® Index as of a certain historical period in lieu of an index more tailored to their investment strategies. But the entire premise of the alternative requirement to rely on absolute VaR is that a fund is "*unable* to identify an appropriate designated reference index"—including, of course, the S&P 500® Index. 85 Fed. Reg. at 4475 (emphasis added). It is therefore irrelevant that "many funds do" use the S&P 500® Index as a benchmark, *because that index is appropriate for them*. The Commission offers no analysis of the particular characteristics of funds that lack a suitable reference index. Such funds are bound to be idiosyncratic by definition, and it is irrational to tie them to the "standard" index when they are singled out by their non-standard features. If the Commission lacks sufficient information to reasonably regulate these unusual entities, it should engage in further study before imposing burdens that it cannot expect to measure.

[34] The recent market volatility further illustrates the arbitrary nature of the SEC's 15% absolute VaR limit. As Exhibit 5 demonstrates, in more volatile market conditions the absolute VaR of portfolios may increase substantially and rapidly. The absolute VaR of the S&P 500® Index itself rose from 10.03% to 14.02% between March 11 and March 17, 2020, and would now barely satisfy the SEC's absolute VaR test on an unlevered basis.

4. The 300% Hard Limit On Leveraged And Inverse Funds' Returns Is Arbitrary And Capricious.

The Commission's proposal to limit leveraged and inverse funds to seek no more than 300% of the return (or inverse of the return) of the underlying index, as an alternative limit conditioned on the applicability of the proposed access rules, is likewise arbitrary and capricious. 85 Fed. Reg. at 4497–98; *see also id.* at 4454 (explaining the link in the Commission's proposal between the access rules and the 300% limit). The Commission's only explanation for settling on the hard 300% limit is that the Commission "does not have experience with leveraged/inverse funds that seek returns above 300%." *Id.* at 4498. But this is not a sufficient reason to foreclose all such products.[35]

The proposed 300% hard limit is especially irrational, because it would bar funds that the Commission's other limits—proposed in this same rulemaking—would deem acceptable. Consider a fund that seeks 400% the return of a 3–7 year treasury bond index. That fund would have a lower VaR than the S&P 500® Index itself, but would still fail the proposed test. Or consider a fund that seeks 7x the return of a Treasury Inflation-Protected Securities (TIPS) index or 6x the return of a junk bond index—well above the 300% hard limit. Such funds would *pass* the absolute VaR test, and thus, according to the Commission, would "approximate the level of risk" that investors generally "understand" and "choose to undertake." 85 Fed. Reg. at 4475. Yet these same funds would fail the proposed 300% hard limit. That is arbitrary and capricious.

[35] The Commission also suggests that leveraged and inverse funds' rebalancing activity "may have adverse effects" on the markets for the funds' constituent assets, 85 Fed. Reg. at 4498, but acknowledges that the empirical evidence of such a connection is contradictory and "inconclusive," *id.* at 4528. The absence of any conclusive evidence of a connection between fund rebalancing and the price and volatility of the fund assets further confirms the arbitrariness of the Commission's proposed 300% limit.

Here, too, the Commission engages in a sleight of hand: although the term "300 per centum" appears in section 18, *see* 15 U.S.C. § 80a-18(f)(1), that term is the exposure limit for bank borrowing and has nothing to do with risk. And, more fundamentally, section 18 has nothing whatsoever to do with investor understanding of risks, including the risks associated with compounding. The Commission should abandon its arbitrary 300% limit.

5. The Commission Cannot Impose The General Use-Of-Derivatives Rule As An Alternative To The Access Rules.

The Commission suggests that, as an alternative, it might simply require leveraged and inverse funds to comply with the 150% limit. 85 Fed. Reg. at 4532. But this alternative proposal would be equally unauthorized and arbitrary and capricious. Among other things, it would put most leveraged and inverse funds out of business or require them to massively reconfigure their business operations. That is no doubt part and parcel of the effort to force the unauthorized and arbitrary proposed access rules into the regulatory regime for leveraged and inverse funds.

The Commission admits that "under this alternative, leveraged/inverse funds that seek investment results in excess of this limit would either have to significantly change their investment strategy or liquidate." 85 Fed. Reg. at 4532. The Commission's alternative approach would decimate the market for leveraged and inverse funds, destroying investor choice and failing to take account of numerous reliance interests. The Commission rightly rejects this option, but the Commission cannot adopt this option even if it does not adopt the access rules. As discussed above, the SEC lacks statutory authority to impose such draconian measures on funds' use of derivatives. *See supra* Part I.B. Furthermore, for reasons discussed above, the 150% VaR test is arbitrary and capricious. *See supra* Part II.C.2.

6. Withdrawing Exemptive Relief For Existing Leveraged And Inverse Funds Would Be Arbitrary And Capricious.

Finally, the Commission cannot revoke ProShares' and other leveraged and inverse funds' exemptive relief, approved almost 15 years ago, from certain provisions of the Investment Company Act. *E.g.*, *ProShares Trust*, Investment Company Act Release No. 27,394 (June 13, 2006); *see also* ETFs Adopting Release, 84 Fed. Reg. at 57,166. When a "prior policy has engendered serious reliance interests," those interests "must be taken into account." *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (citing *Smiley v. Citibank (S.D.), N.A.*, 517 U.S. 735, 742 (1996)). "It would be arbitrary or capricious to ignore such matters." *Id.* Here, the Commission has not justified—and cannot justify—revoking exemptions that ProShares and its investors have relied on for nearly 15 years. *See supra* Part II.B.7 (cataloguing reliance interests). The Commission has long granted ProShares (among others) exemptive relief. And the Commission "is bound to respect the governance of a final administrative decision for the particular matter there determined." *Greater Bos. Television Corp. v. FCC*, 463 F.2d 268, 291 (D.C. Cir. 1971); *see also Hirschey v. FERC*, 701 F.2d 215, 219 (D.C. Cir. 1983) (harboring "no doubt but that the equities favor" a party who had "detrimental[ly] reli[ed] on the grant of [an] exemption once it became final").

Here, the Commission's proposal expressly acknowledges that ProShares and others "rely upon exemptive relief from the Commission that permits them to operate leveraged/inverse ETFs." 85 Fed. Reg. at 4513; *see also id.* at 4491 n.308, 4499 n.357, 4509. But it fails to account for the proposal's effect to grossly upset these deeply entrenched reliance interests. The Commission asserts "that the costs to leveraged/inverse ETFs associated with rescinding their existing exemptive relief would be minimal," as "existing leveraged/inverse ETFs would be able to continue op-

erating" subject to the proposed alternative requirements for leveraged and inverse funds, including the 300% hard limit on a fund's returns and the access rules. *Id.* at 4524. But as discussed below, *see infra* Part III.B, this treatment of the costs and benefits is legally inadequate because it ignores many real costs from the proposed rules, including the risk that broker-dealers and investment advisers will stop offering leveraged and inverse funds altogether, *see supra* pp. 98, 115–16, 117; *infra* pp. 150–51.

ProShares has no objection to the Commission's stated goal of "promot[ing] a level playing field by allowing any sponsor (in addition to the sponsors currently granted exemptive orders) to form and launch a leveraged/inverse ETF." 85 Fed. Reg. at 4455. Indeed, ProShares' solicitude for this initiative has been a matter of public record for nearly four years, since its comment on the 2015 proposal. *See* ProShares 2016 Comment 1. But that goal can be accomplished in such a way as to avoid decimating the existing markets for leveraged and inverse funds that have grown up in reliance on the Commission's decades-long exemptive relief regime. The Commission should be in the business of leveling *up*, not down.

III. The Proposed Rules Are Unlawful For Additional Reasons.

Both the proposed access rules and use-of-derivatives rule independently run afoul of other statutory restrictions on the Commission's rulemaking authority. The proposed rules cannot be implemented because: (A) they will not promote the required statutory objectives of efficiency, competition, and capital formation; and (B) their costs outweigh their benefits.

A. The Proposed Rules Will Reduce Efficiency, Stifle Competition, And Deter Capital Formation.

The Exchange Act, Investment Company Act, and Investment Advisers Act require the Commission to determine whether a rulemaking will "promote efficiency, competition, and capital formation." 15 U.S.C. §§ 78c(f), 80a-2(c), 80b-2(c). The Exchange Act additionally prohibits any

rulemaking that "would impose a burden on competition not necessary or appropriate in furtherance of the purposes" of the statute. *Id.* § 78w(a)(2). Neglecting these statutory duties also constitutes an arbitrary and capricious failure to consider statutorily required factors. *See Bus. Roundtable v. SEC*, 647 F.3d 1144, 1148 (D.C. Cir. 2011) (citing *Pub. Citizen v. Fed. Motor Carrier Safety Admin.*, 374 F.3d 1209, 1216 (D.C. Cir. 2004)).

To fulfill those responsibilities, the Commission must produce a reasoned evaluation of the costs and ramifications of new regulation. An "estimate" of costs, the United States Court of Appeals for the District of Columbia Circuit has explained,

> would be pertinent to [the Commission's] assessment of the effect the condition would have upon efficiency and competition, if not upon capital formation . . . . [U]ncertainty may limit what the Commission can do, but it does not excuse the Commission from its statutory obligation to do what it can to apprise itself—and hence the public and Congress—of the economic consequences of a proposed regulation before it decides whether to adopt the measure.

Chamber of Commerce v. SEC, 412 F.3d 133, 144 (D.C. Cir. 2005).

The Commission's superficial discussion of efficiency, competition, and capital formation, 85 Fed. Reg. at 4527–29, indicates that the Commission is dramatically underestimating the harmful "economic consequences" of its proposed rules. As we explain below—and as we will describe in addressing cost-benefit analysis in Part III.B—the proposed rules will raise costs along several dimensions that the Commission has failed to account for. The result will be the imposition of an undue burden on capital formation that will provide few if any offsetting benefits to investors.

It bears emphasis that the Commission's failure to address these aspects of efficiency, competition, and capital formation in the Proposing Release meaningfully constrains the Commission's manner of addressing them later in this rulemaking. Under the notice-and-comment requirements of the APA, an agency cannot develop a rule using secret data, which means that "the most critical

factual material that is used to support the agency's position" must be "made public in the proceeding and exposed to refutation." *Chamber of Commerce v. SEC*, 443 F.3d 890, 900 (D.C. Cir. 2006) (internal quotation marks omitted). The "information that must be revealed for public evaluation" includes "the technical studies and data upon which the agency relies." *Id.* at 899 (internal quotation marks omitted). Consequently, the Commission is foreclosed from "extensive reliance upon extra-record materials in arriving at its cost estimates" concerning the proposed rules, unless it provides "further opportunity for comment" on those materials and the Commission's analysis of them. *Id.* at 901. In other words, if the Commission decides to adopt the proposed rules, and it relies on new data to support its analysis of efficiency, competition, and capital formation, then the Commission must re-open the comment period so as to avoid violating the requirements of 5 U.S.C. § 553(c).

1. The Commission's Concession That It Is "Unable" To "Reasonabl[y] Estimate" The Effects On Efficiency, Competition, And Capital Formation Is Fatal.

A cross-cutting flaw in the Commission's analysis of efficiency, competition, and capital formation is its *conceded abandonment* of any attempt to reasonably evaluate the effects of its proposed rules. The Commission frankly admits, at the outset, that "we are unable to quantify the effects on efficiency, competition, and capital formation *because we lack the information necessary to provide a reasonable estimate*." 85 Fed. Reg. at 4527 (emphasis added). That should have been the end of this rulemaking.

The Commission violates its statutory duties where—as it *admits* here—"it did nothing to estimate and quantify the costs it expected companies to incur . . . . Because the agency failed to 'make tough choices about which of the competing estimates is most plausible, [or] to hazard a guess as to which is correct,' . . . it neglected its statutory obligation to assess the economic consequences of its rule." *Bus. Roundtable*, 647 F.3d at 1150 (alteration in original) (quoting *Pub.*

Citizen, 374 F.3d 1221); *see also id.* at 1148–49 ("[T]he Commission acted arbitrarily and capriciously for having failed once again . . . adequately to assess the economic effects of a new rule. Here the Commission inconsistently and opportunistically framed the costs and benefits of the rule; failed adequately to quantify the certain costs or to explain why those costs could not be quantified; neglected to support its predictive judgments; contradicted itself; and failed to respond to substantial problems raised by commenters.").

The Commission states in conclusory fashion that it is "unable to predict how the proposed rules, amendments, and form amendments would change investors' propensity to invest in funds and ultimately affect capital formation." 85 Fed. Reg. at 4527. But it entirely fails to "explain *why* those [effects] could not be quantified." *Bus. Roundtable*, 647 F.3d at 1149 (emphasis added). And "[m]ore fundamentally, given the proportion of the burdens on competition and investors associated with this single decision, a fuller analysis was warranted. A general statement . . . does not satisfy the requirement of reasoned decisionmaking when, by the Commission's own estimates, billions of dollars are on the line." *Am. Petroleum Inst. v. SEC*, 953 F. Supp. 2d 5, 23 (D.D.C. 2013). Here, even the Commission's own overly conservative calculations estimate the total industry costs to implement the proposed access rules at *2.4 billion dollars in the first year alone*—among numerous other substantial annual and one-time costs. 85 Fed. Reg. at 4523; *see also, e.g.*, *id.* at 4515, 4520 (conservatively estimating total first-year industry costs of $311,041,500 to implement the risk-management program, plus $127,260,000 additional annual industry costs to comply with the VaR requirements).

If the Commission could not even decide whether its massive new regulatory initiative would further the required statutory objectives, it should have stayed its hand. This conceded failing alone requires that the proposal be abandoned, and the Commission go back to the drawing

board. This fundamental flaw also produces more specific problems with the Commission's "qualitative" analysis of efficiency, competition, and capital formation, 85 Fed. Reg. at 4528, and the related cost-benefit analysis, as discussed below.

2. The Commission's Failure To Assess The Existing State Of Efficiency, Competition, And Capital Formation Is Also Fatal.

Separately, the Commission's analysis of efficiency, competition, and capital formation fails because it entirely neglects to "make any finding on the existing level of [efficiency, competition, and capital formation] in the marketplace." *Am. Equity Inv. Life Ins. Co. v. SEC*, 613 F.3d 166, 178 (D.C. Cir. 2010). "The SEC could not accurately assess any potential increase or decrease" in efficiency, for example, "because it did not assess the baseline level" under the existing regime, making it impossible to make a reasoned assessment of any change. *Id.*

Here, the Commission's analysis of efficiency, competition, and capital formation makes no findings at all as to the existing state of each factor. Its separate cost-benefit analysis includes a brief reference to the "Economic Baseline" of the fund industry, but this high-level sketch of the industry also does not discuss the current state of efficiency, competition, and capital formation. 85 Fed. Reg. at 4511–12. Moreover, the Commission's own requests for comments reveal its ignorance on the most basic questions about the current state of the industry. *See, e.g., id.* at 4533 ("How many broker-dealers provide customers the ability to buy or sell interests in leveraged/inverse investment vehicles? How many investment advisers place orders to buy or sell leveraged/inverse investment vehicles for their advisory clients? How many retail investor accounts with broker-dealers and investment advisers trade leveraged/inverse investment vehicles?"). Without "an appropriate economic baseline against which to measure the impact of [its] proposed rules," the Commission cannot possibly offer a reasoned explanation for its decision. Ex. 3, at 14 (Lewis Report); *see id.* at 14–17 (exhaustively documenting the Commission's failure to develop

an adequate economic baseline for investors, fund sponsors, broker-dealers, or investment advisers).

3. The Commission's Analysis Of The Specific Factors Of Efficiency, Competition, And Capital Formation Is Otherwise Inadequate.

Moving to the specific factors of the analysis of efficiency, competition, and capital formation, the Commission fares no better.

a) The Commission Concededly Failed To Find The Proposed Rules Will Improve Efficiency.

To begin, the Commission concededly did not find that the rules will improve *efficiency* even in loose, "qualitative" terms: "Overall, the effect of the proposed rules and amendments on funds['] use of derivatives transactions is ambiguous." 85 Fed. Reg. at 4527 n.585. To reach that non-determination, the Commission weighed various contrary possible effects, possibilities, and contingencies of unspecified magnitude and likelihood—and then threw up its hands. On the one hand, the Commission admits that the proposed access rules could "reduce investments in leveraged/inverse investment vehicles, to the extent that some retail investors would not be approved by their broker-dealer or investment adviser to transact in leveraged/inverse investment vehicles or to the extent that some retail investors would be deterred by the time costs and delay introduced by the account-opening procedures." *Id.* at 4528. This reduction in investment, the Commission further concedes, may cause the "liquidity of these products [to] decline as a result." *Id.* On the other hand, the proposed rules "*may* make derivatives use more efficient for *certain* funds," at least "[t]o the extent that" certain factual postulates (which the Commission does not even attempt to prove) obtain in the real world. *Id.* at 4527 (emphases added); *see also id.* at 4519 ("Due to a lack of data regarding current investor expectations about fund risk, however, we are unable to predict which of the two effects would more likely dominate the other.").

One component of the Commission's efficiency analysis is particularly illogical and should be afforded no weight on the "pro" side of the ledger under binding precedent. The Commission repeatedly conjectures that its drawing of a "bright-line limit" (meaning the VaR regime) may improve efficiency, because "[t]o the extent that funds are more comfortable with managing their derivatives exposures to a clear outside limit, the proposed rule *could* improve the efficiency of fund's portfolio risk management practices." 85 Fed. Reg. at 4527 (emphasis added); *see also id.* at 4519, 4527 n.585, 4529. But it offers no citation for, or elaboration of, this highly counterintuitive proposition (that arbitrarily limiting something will encourage funds to use it). Besides, this reasoning could be used to justify *any* limit, and does not specifically relate in any way to the particular limitations elected by the Commission. For that reason, the D.C. Circuit has already rebuffed a previous attempt by the Commission to rely on a close related line of reasoning in its efficiency, competition, and capital formation analysis:

> The SEC concluded that enacting the rule would resolve the present uncertainty prevailing over the legal status of [fixed indexed annuities (FIAs)]. The SEC reasoned that the rule "will bring about clarity in what has been an uncertain area of law."
>
> . . .
>
> This reasoning is flawed. The lack of clarity resulting from the "uncertain legal status" of the financial product is only another way of saying that there was not a regulation in place prior to the adoption of Rule 151A determining the status of those products under the annuity exemption of § 3(a)(8). The SEC cannot justify the adoption of a particular rule based solely on the assertion that the existence of a rule provides greater clarity to an area that remained unclear in the absence of any rule. Whatever rule the SEC chose to adopt could equally be said to make the previously unregulated market clearer than it would be without that adoption. Moreover, the fact that federal regulation of FIAs would bring "clarity" to this area of the law is not helpful in assessing the effect Rule 151A has on competition [or efficiency]. Again, creating a rule that resolves the "uncertain legal status" of FIAs might be said to improve competition. But that conclusion could be asserted regardless of whether the rule deems FIAs to fall within the SEC's regulatory reach or outside of it. Indeed, the SEC would achieve a similar clarity if it declined outright to regulate FIAs. [The statute] does not ask for an analysis of whether *any*

> rule would have an effect on competition. Rather, it asks for an analysis of whether the *specific rule* will promote efficiency, competition, and capital formation. The SEC's reasoning with respect to competition supports at most the conclusion that any SEC action in this area could promote competition, but does not establish Rule 151A's effect on competition. [The statute] requires more than this.

Am. Equity, 613 F.3d at 177–78 (citations omitted). So too here. The Commission's all-purpose appeal to "regulatory clarity" cannot supply the required reasoned justification for the *particular* rules proposed here.

In sum, the Commission has totally abdicated its duty to estimate the overall effect of the proposed rules, in even the loosest, most qualitative terms. By its own admission, the Commission is flying blind.

b) The Proposed Rules Will Stifle Competition.

With respect to competition, the Commission's top-line conclusion is the enigmatic (and tautological) statement that "[c]ertain aspects of the proposed rules and amendments may have an impact on competition." 85 Fed. Reg. at 4528. Retreating from this stratospheric level of abstraction, however, the Commission concedes the more specific point that the proposed access rules will "limit certain customers or clients from buying or selling shares of certain leveraged/inverse investment vehicles." *Id.*

The Commission nevertheless claims that this will "increase competition," because throwing up barriers here will cause "spillover" into other investments. 85 Fed. Reg. at 4528. But that is nonsense. Restricting consumer choice so that customers reallocate their investments from leveraged and inverse funds to other products will increase *concentration* in those other products; competition will decrease. *See, e.g.*, Multiple Trading of Standardized Options, Exchange Act Release No. 26,870, 1989 WL 550695, at *12 (May 26, 1989) (acknowledging that restricting investors' "marketplace choice" will have "anti-competitive effects" (internal quotation marks

omitted)); *see also* Eleanor M. Fox, *Economic Concentration, Efficiencies and Competition: Social Goals and Political Choices*, 46 Antitrust L.J. 882, 894 (1977) (discussing the "inverse correlation between concentration and competition").

What is more, it is particularly ironic for the Commission to cite approvingly the effect of its rule to drive investors to equally risky or even *riskier* products, such as "alternative investment vehicles, exchange-traded notes, [] structured products," or "trad[ing] on margin"—all of which "can provide leveraged market exposure but would not be subject to the VaR-based limit on fund leverage risk of rule 18f-4." 85 Fed. Reg. at 4519. Far from supporting the Commission's proposed rules, this "spillover" effect specifically highlights the incoherence of the proposal's single-minded attack on leveraged and inverse funds, while leaving ample opportunity for other, riskier products. The Commission cannot save its rule by pointing to purported competitive effects that directly contradict the rationale underlying the Commission's proposal. *See, e.g.*, *Bus. Roundtable*, 647 F.3d at 1148–49 (the Commission acts unlawfully by "inconsistently and opportunistically fram[ing] the costs and benefits of the rule" and "contradict[ing] itself").

The Commission further admits that certain broker-dealers and investment advisers may, as a result of the proposed access rules, "be at a competitive disadvantage." 85 Fed. Reg. at 4528–29. Smaller broker-dealers and investment advisers will bear the brunt of the cost of complying with these rules. *See id.* at 4554 ("We expect that economies of scale among larger firms could result in cost reductions for larger firms."). This disparate impact will hinder small firms' ability to compete with the larger, more established firms. Consolidation in the industry will only exacerbate the anti-competitive effects of the access rules. *See* Press Release, The Charles Schwab Corporation to Acquire TD Ameritrade (Nov. 25, 2019), https://pressroom.aboutschwab.com/press-release/corporate-and-financial-news/charles-schwab-corporation-acquire-td-ameritrade.

As a result, many broker-dealers and investment advisers who currently offer leveraged and inverse funds may stop offering them.

c) The Commission Concededly Failed To Find The Proposed Rules Will Promote Capital Formation.

As with efficiency, the Commission failed to make even the basic finding that the proposed rules will promote capital formation. Offering only two scant paragraphs of purported analysis, the Commission concedes that it is "unable to predict how the proposed rules, amendments, and form amendments would change investors' propensity to invest in funds and ultimately affect capital formation," and "unable to determine whether the proposed rules and amendments would lead to an overall increase or decrease in fund assets," or any other net effect. 85 Fed. Reg. at 4527, 4529.

In fact, however, the balance sheet runs entirely *against* capital formation. The Commission identifies only *one* possible aspect of its rules as promoting capital formation: the possibility that "investors may be more inclined to invest in funds as a result of increased investor protection arising from any decrease in leverage-related risks." 85 Fed. Reg. at 4529. This suggestion is misguided on its own terms, because the access rules and VaR limits in the use-of-derivatives rule will not in fact further the regulatory purposes of investor protection and reducing leverage risk, as discussed above. *See supra* Parts II.B–C. But more fundamentally, it cannot outweigh the *four* specific countervailing ways in which the Commission recognizes the proposed rules will *reduce* capital formation:

1) "some investors may reduce their investments in certain funds that [] increase their use of derivatives";
2) "[t]he proposed rule may also decrease the use of reverse repurchase agreements, similar financing transactions, or borrowings by some funds";

3) "[t]he proposed rule may also . . . reduce some funds' ability to invest the borrowings obtained through reverse repurchase agreements"; and

4) "the proposed sales practices rules may reduce capital formation in asset markets directly connected with covered leveraged/inverse investment vehicles," because "[b]y restricting the accounts of customers or clients seeking to buy or sell shares of a leveraged/inverse investment vehicle, the proposed rules may produce net capital outflows from retail investors."

85 Fed. Reg. at 4529.

Indeed, this list actually underestimates the proposed rules' negative impact on capital formation. The Commission acknowledges that "broker-dealers and investment advisers may decide to pass the[] compliance costs on to their customers." 85 Fed. Reg. at 4523–24. But the Commission fails to account for the risk that in the new $0-commission environment, broker-dealers and investments advisers may drop leveraged and inverse funds entirely. The Commission also fails to account for the risk that its restrictions will prevent new and innovative products from coming on the market or the risk that the proposed rules with decrease the liquidity of leveraged and inverse funds, with resultant negative impact on markets and fund investors. Altogether, there can be no doubt that the rules will impose an adverse effect on capital formation.

B. The Commission's Cost-Benefit Analysis Is Fundamentally Flawed.

In addition to the statutory requirements analyzed above, the Paperwork Reduction Act and Regulatory Flexibility Act require that the Commission undertake a thorough and accurate analysis of the costs that the proposed rules would impose on regulated entities and the economy as a whole. The APA, for its part, requires that this economic analysis be reasonable and substantiated, and that the conclusions that the Commission draws from the economic analysis have a reasoned, rational basis in the data the Commission gathers. Guidelines issued by the Commission further

require that the data used in such regulatory analysis be "accurate, reliable and unbiased," that it be carefully reviewed by subject matter experts and appropriate levels of management, and that there be "adequate disclosure about underlying data sources, quantitative methods of analysis and assumptions used, to facilitate reproducibility of the information, according to commonly accepted scientific, financial or statistical standards, by qualified third parties." U.S. Securities and Exchange Commission, Final Data Quality Assurance Guidelines (modified July 18, 2019), *available at* http://www.sec.gov/about/dataqualityguide.htm.

Here, however, the Commission concedes that it lacks the ability to reasonably estimate important components of the cost-benefit balance; entirely ignores other aspects of the problem, such as the sufficiency of existing protections; and provides estimates of the proposed rules' costs and burdens that are inadequate and far too low. The costs that will be imposed by the proposed rules far outweigh any purported benefits identified by the Commission.

1. The Commission's Conceded Failure To Calculate Costs And Benefits Is Fatal.

The Commission's economic analysis is replete with frank admissions that it lacks the necessary data to estimate key components of the costs the proposed rules will impose.[36] As with the

[36] *See, e.g.*, 85 Fed. Reg. at 4497 ("[D]o commenters have data or information on the percentage of leveraged investment vehicles' investors who are natural persons, and how natural persons use these investment products (*e.g.,* how long do these investors hold the products)?"); *id.* at 4513 ("[W]e are unable to quantify certain economic effects because we lack the information necessary to provide reasonable estimates. In some cases, it is difficult to predict how market participants would act under the conditions of the proposed rules. For example, we are unable to predict whether the proposed derivatives risk management program requirement and VaR-based limit on fund leverage risk may make investors more or less likely to invest in funds that would be subject to these requirements or the degree to which these requirements may affect the use of derivatives by these funds."); *id.* ("The share of these costs borne by funds, their advisers, and investors depends on multiple factors, including the nature of competition between advisers, and investors' relative sensitivity to changes in fund fees, the joint effects of which are particularly challenging to predict due to the number of assumptions that the Commission would need to make."); *id.* at 4515 ("we do not have data to determine how many funds already have a program in place that would substantially satisfy the proposed [use-of-derivatives] rule's requirements"); *id.* at 4519

Commission's abdication of its duty to assess the effect of the proposed rules on efficiency, competition, and capital formation, this error is fatal.

The Commission has admittedly not considered, much less meaningfully attempted to assess the economic implications of, numerous costs of the proposed rules. For customers who will no longer be able to trade leveraged and inverse funds, for example, the Commission failed to estimate: (1) how many investors fit into that category; (2) the income those investors would have earned with leveraged and inverse funds, *see* Ex. 3, at 22 (Lewis Report) (discussing "why investors may prefer holding leveraged/inverse funds"); (3) the losses those investors would have avoided by hedging with leveraged and inverse funds, *see id.* at 26; (4) the increased fees and transaction costs associated with products that those investors will trade in lieu of leveraged and inverse funds, *see id.* at 25–26; (5) the losses that those investors will suffer as a result of transi-

("Due to a lack of data regarding current investor expectations about fund risk, however, we are unable to predict which of the two effects [increased or decreased investment in funds] would more likely dominate the other."); *id.* at 4520 n.521 ("As we do not have data that would allow us to quantify the costs and benefits that define the tradeoff for any particular fund of changing its use of derivatives in order to qualify for the limited user exception, we are unable to quantify how many funds would make this choice."); *id.* at 4521 n.528 (same); *id.* at 4521 ("we do not have data to determine how many funds already have such policies and procedures in place that would substantially satisfy the proposed [limited-derivatives user]-rule's requirements"); *id.* at 4523 n.546 ("we do not have data that would allow us to determine the[] numbers" of "broker-dealers that have retail client accounts that invest in leveraged/inverse investment vehicles as well as the numbers of existing and new customer accounts with these broker-dealers that would require approval for trading in these products"); *id.* at 4523 n.548 (same); *id.* at 4524 n.551 ("The share of these costs passed on to investors by investment advisers or broker-dealers would depend on multiple factors, including the nature of competition between investment advisers and broker-dealers as well as investors' relative sensitivity to changes in fees, the joint effects of which are inherently impossible to predict."); *id.* at 4527 ("[W]e are unable to quantify the effects on efficiency, competition, and capital formation because we lack the information necessary to provide a reasonable estimate. For example, we are unable to predict how the proposed rules, amendments, and form amendments would change investors' propensity to invest in funds and ultimately affect capital formation."); *id.* at 4529 ("we are unable to determine whether the proposed rules and amendments would lead to an overall increase or decrease in fund assets").

tioning to more complicated products, such as options, *see id.*; and (6) the disadvantages of shorting stocks and using margin, and the potential for unlimited losses from such investment strategies, *see id.* The Commission also failed to estimate numerous other costs, including the "time costs" for all the customers who will need to answer more account-opening questions, 85 Fed. Reg. at 4524; the increased transaction costs for all investors due to a decrease in the liquidity of leveraged and inverse funds, *see supra* p. 107; the increased per-investor costs for leveraged and inverse funds due to a decrease in the assets under management of leveraged and inverse funds (with the associated decrease in economies of scale, *see* 85 Fed. Reg. at 4515), *see also* Ex. 3, at 27 (Lewis Report) (noting that the Commission failed to estimate "the number of retail investors who likely would be excluded by" the proposed access rules); and the losses arising from the overconfidence of investors who were approved for trading leveraged and inverse funds, *see infra* p. 160. For shareholders remaining in the funds, the Commission failed to consider the reduced liquidity and potentially higher bid-ask spreads as a result of lower asset levels in leveraged and inverse funds caused by the proposed access rules.

The Commission also admits that it lacks the data necessary to calculate key *benefits* of its proposed rules. *See* 85 Fed. Reg. at 4515 ("we do not have data to determine how many funds already have a program in place that would substantially satisfy the proposed [use-of-derivatives] rule's requirements"); *id.* at 4521 ("we do not have data to determine how many funds already have such policies and procedures in place that would substantially satisfy the proposed rule's requirements" for limited derivatives users). Nor has the SEC adequately addressed whether there is a market failure or otherwise demonstrated the need for the proposed rules. *See* Ex. 3, at 3–17, 21–23 (Lewis Report). In particular, the SEC's failure to identify and quantify any problematic sales practices fatally undermines its cost-benefit analysis with respect to the proposed access

rules. "Without any such data, it is impossible to estimate the expected benefits from the proposed rules." *Id.* at 22. If there is no need for those rules, there can be no benefits to outweigh the billions of dollars in costs.

2. The Commission's Analysis Fails To Consider The Sufficiency Of Existing Protections.

Additionally, the Commission's "analysis is incomplete because it fails to determine whether, under the existing regime"—including existing SEC and FINRA regulations and enforcement actions—"sufficient protections exist[] to enable investors to make informed investment decisions." *Am. Equity*, 613 F.3d at 179.

The most glaring absence in the proposal is the Commission's near-total silence on the impact of its other major recent regulatory initiatives in this area. Though one might not know it from reading this new Proposing Release, less than one year ago the Commission, after "careful review and consideration" of nearly 6,000 comments, "adopt[ed] a new rule 15*l*–1 under the Exchange Act ('Regulation Best Interest') that will improve investor protection by . . . enhanc[ing] the broker-dealer standard of conduct beyond existing suitability obligations, and aligns the standard of conduct with retail customers' reasonable expectations." Regulation Best Interest, 84 Fed. Reg. at 33,318–19. At the same time, the Commission issued interpretive guidance comprehensively updating and clarifying the standard of conduct for investment advisers. Fiduciary Interpretation, 84 Fed. Reg. 33,669.

Like Commissioners Peirce and Roisman, "[w]e struggle with the rationale for adding [the access rules] into our regulatory regimes that govern broker-dealers and investment advisers—regimes [the Commission] comprehensively updated and clarified, after years of deliberation, only a handful of months ago." Peirce & Roisman Statement pt. II.B. The Proposing Release, however, does not struggle with the issue at all. The Proposing Release's sole substantive reference to the

matter is its curt and unreasoned statement that "[c]ompliance with the proposed rules would *not* supplant or by itself satisfy other broker-dealer or investment adviser obligations, such as a broker-dealer's obligations under Regulation Best Interest or an investment adviser's fiduciary duty under the Advisers Act." 85 Fed. Reg. at 4493. The Commission cites these other initiatives for a handful of background points, but entirely omits any discussion of their overlap from the cost-benefit analysis for the new proposal. The Commission also fails to address the compounded costs of compliance for broker-dealers already making substantial technological and business practice changes to comply with the new requirements of Regulation Best Interest beginning on June 30, 2020.

The Commission does "acknowledge," in studiously general terms, that the access rules' "benefits may be reduced, to the extent that they overlap with the effects of investment advisers' or broker-dealers' existing requirements or practices." 85 Fed. Reg. at 4522. But the acknowledgment extends to one conclusory sentence only: the Commission does not attempt to quantify or evaluate the extent and manner in which they *do* overlap. And it does not even *acknowledge* the more troubling possibility of conflict between the two regimes. *See supra* Part II.B.8; *see also* Ex. 3, at 23 (Lewis Report) ("Another key discussion missing from the proposed rule is a detailed comparison of the proposed [access] rules to Reg BI . . . .").

3. The Commission Vastly Underestimates The Costs Of Compliance.

The estimated costs that the Commission does acknowledge are misleading and far too low, and the Commission inexplicably departs downward from its own reasoned estimates without explanation. *See* Ex. 3, at 24–25 (Lewis Report). For example, the Commission claims that broker-dealers and investment advisers will draft all the necessary policies and procedures in five hours. 85 Fed. Reg. at 4523 & n.539. That is implausible. And given that the Proposing Release exceeds 130,000 words in length, so, too, is the Commission's estimate that a compliance attorney

need only devote *one hour* to drafting a fund's policies and procedures to ensure compliance. *Id.* Moreover, the Commission fails to consider that employees will need to read and be trained on the policies and procedures. The Commission does not estimate any costs from developing, implementing, and tracking training; nor does the Commission estimate any costs from the training itself. *See, e.g.*, NAAIM Comment 2 ("Staff and investment advisor representatives would need significant training . . . .").

The Commission's other estimates also seem to have been pulled out of a hat. The calculations in the 2015 Proposing Release provide an instructive comparison. For example, in 2015, the Commission's "staff estimate[d] that the one-time operational costs necessary to establish and implement a VaR test would range from $60,000 to $180,000 per fund." 2015 Proposing Release, 80 Fed. Reg. at 80,966 (footnote omitted); *see also id.* at 80,990. Those figures were "based . . . on staff experience and outreach, as well as consideration of recent staff estimates of the one-time and ongoing systems costs associated with other Commission rulemakings" *id.* at 80,964 n.570, and were attributed to specifically enumerated expenditures: "(1) Developing and implementing policies and procedures to comply with the proposed rule's [VaR] requirement . . . ; (2) planning, coding, testing, and installing any system modifications relating to the VaR test; and (3) preparing training materials and administering training sessions for staff in affected areas," *id.* at 80,966.

In the current proposal, by contrast, the Commission drastically reduced those figures without any explanation, "estimat[ing] that the one-time operational costs necessary to establish and implement a VaR calculation model consistent with the proposed limit on fund leverage risk would range from $5,000 to $100,000 per fund." 85 Fed. Reg. at 4550. The Commission offers no reason why its new proposal slashes the lower end of the range for this cost *by a factor of twelve*, and

nearly halves the upper end of the range—surely counterintuitive and suspect estimates, given inflation rates in the five intervening years since its last proposal.

IV. In All Events, The Proposed Rules Are Unsound As A Matter Of Public Policy.

The Commission's proposed use-of-derivatives rule and access rules are unsound as a matter of public policy. They would set the Commission on a brand new course of merit regulation that it is ill-equipped to handle. They would erect barriers to our public securities markets and eliminate investment choices, all out of a misguided desire to "protect" investors that will only hurt them. And they would create a burdensome and expensive new regulatory scheme that clashes with existing regulations at a time when our federal government is working hard to streamline and reduce regulatory burdens. Apart from the myriad legal problems with the proposal, the Commission should abandon this unnecessary and unprecedented regulatory experiment based on first principles of good government.

The Commission's unprecedented proposed rules tread on dangerous new territory. The proposed rules selectively target leveraged and inverse funds for disfavored regulatory treatment because of the perceived (or misperceived) qualities of the products themselves. But the Commission should not be—and it is not designed or prepared to be—in the business of assessing the relative merits of various financial products. Since its creation nearly nine decades ago, the Commission has held true to the ideal that "[t]he SEC does not pass upon the merits or give its approval to any securities offered." SEC Office of Investor Education and Advocacy, Updated Investor Bulletin on Regulation A (May 24, 2019); *see also* SEC Division of Corporation Finance, Fast Answers on Registration under the Securities Act of 1933 (Sept. 2, 2011) ("The SEC does not evaluate the merits of offerings, nor do we determine if the securities offered are 'good' investments."); *Hearing on S. 3580*, *supra*, at 233 (statement of David Schenker, Chief Counsel, SEC)

("If [a fund is] going to be a speculative investment trust, and they disclose that fact to their investors, and the investors want to invest in that type of investment company, who are we to say, 'No; you shall not invest in that type of company'?"). Simply put, the Commission does not and should not pick winners and losers in our financial markets.

The Commission's foray into merit regulation bears significant risks, including the risk that investors will develop a false sense of security from the proposed rules' arbitrary limits. Both the use-of-derivatives rule and the access rules foster such investor complacency.

With respect to the use-of-derivatives rule, investors may erroneously (but rationally) believe that the Commission exempted certain securities from the proposed VaR limits because those securities were somehow less risky or "safer." As shown above, that is not necessarily true, and investors laboring under that erroneous assumption can seriously misjudge the risk in their portfolios. *See supra* pp. 9–10.

With respect to the access rules, investors may think—again, wrongly but rationally—that the account approval process for leveraged and inverse ETFs signals the Commission's view that unrestricted products are not complex. That, too, would be a mistake. As discussed above, many other products are equally or more complex than leveraged and inverse funds. *See supra* pp. 10–13. The Commission should not lull investors into a false sense of security by creating an arbitrary barrier to buying and selling leveraged and inverse funds in this way.

The efficiency and resilience of our markets are due in large part to the Commission's restraint. By traditionally eschewing the burdensome micromanaging favored by some prudential banking regulators, the Commission has generally kept our markets free and dynamic. Without burdensome pre-approval regimes weighing down innovation, businesses have introduced a wide array of financial products to cater to the diverse needs and objectives of the investing public. *See*

Ziven Scott Birdwell, *The Key Elements for Developing a Securities Market to Drive Economic Growth*, 39 Ga. J. Int'l & Comp. L. 549, 535 (2011). That is how it should be. In a "fully developed market" like ours—with "analysts and advisers who could analyze information if it were made publicly available"—there is no need for the type of "merit-based regulation" the Commission is proposing here, "in which the regulator takes some responsibility for assessing the quality of a proposed offering." Presidents Comm. of the Int'l Org. of Sec. Comm'ns, Resolution on IOSCO Objectives and Principles of Securities Regulation and Methodology for Assessing Implementation of the IOSCO Objectives and Principles of Securities Regulation 110 n.138 (2017). That "approach is generally associated with developing markets." *Id.*

A well-meaning desire for "investor protection" does not justify the Commission abandoning that ideal now. Eliminating choice and restricting access may be a form of "investor protection," but it is also a form of paternalism that sacrifices important ideals underlying our public markets. The fact that individual investors are free to take risks in pursuit of rewards is what makes our public markets the envy of the free world. *See, e.g.*, Comment of George Higgs, File No. S7-24-15 (Feb. 28, 2020) (arguing as "a Combat Veteran" who "fought for freedom" that the SEC's misguided proposal "goes against free trade and the American way of life"). Let's keep them that way. The proposed rules "would set a terrible precedent in subjecting investment vehicles already listed on American stock exchanges to new arbitrary rules for middle-class investors to purchase them." John Berlau, *Don't Let the SEC Snatch Funds from Middle-Class Investors*, Wash. Times (Feb. 17, 2020). Today it's leveraged and inverse funds; tomorrow it will be volatile stocks that

the Commission deems "too risky" for average Americans.[37] Allowing this camel's nose under the tent portends significant unknown risks and should be halted before it proceeds any further.

Consistent with this historical role of the Commission, the public markets are and have always been just that—*public*. Every investor should have access to our public markets. Individuals are capable of evaluating investment risks for themselves. As long as risks are properly disclosed, the Commission should let investors and their designated advisers make investment decisions for themselves. The Commission should not be in the troubling business of deciding who is "capable of evaluating the risk associated" with certain financial products, or limiting certain publicly traded products to a designated elite.

The proposed rules undermine not only the ideals that animate our public markets, but also the Commission's actions in other areas to expand investor options, such as the proposed amendments to the "accredited investor" definition. As Chairman Clayton recently explained, the Commission has "focused a significant part [of its] regulatory agenda on advancing policies designed to *promote access and choice* for Main Street investors, including more recently focusing on ways to increase access to the private markets." *Opening Remarks at the Inaugural Meeting of the Asset Management Advisory Committee* (Jan. 14, 2020) (emphasis added). Or as Commissioner Roisman recently put it, the Commission "need[s] to *maximize* the investment choices available to people." *Statement at the Inaugural Meeting of the Asset Management Advisory Committee* (Jan. 14, 2020) (emphasis added); *see also* Press Release No. 2013-227, SEC Issues Proposal on Crowdfunding (Oct. 23, 2013) (advertising Chair White's desire to create a "thriv[ing]" crowdfunding

[37] For example, in light of the recent market volatility, market segments that the SEC's arbitrary 15% VaR limitation would have deemed "too risky" a year ago are a relative safe haven today. *See, e.g.*, Ex. 5 (illustrating the impact of recent market volatility on sector indexes including biotechnology and precious metals).

market to "provide additional investment opportunities for investors" (internal quotation marks omitted)). The proposed rules do the opposite: they restrict choice and opportunity.

In addition, the proposed rules are contrary to the Administration's broader effort to cut back on unnecessary and burdensome regulation. As the President has recognized, an "ever-growing maze of regulations, rules, [and] restrictions has cost our country trillions and trillions of dollars, millions of jobs, countless American factories, and devastated many industries." *President Donald J. Trump Is Following Through On His Promise To Cut Burdensome Red Tape and Unleash the American Economy* (Oct. 17, 2018), https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-following-promise-cut-burdensome-red-tape-unleash-american-economy/. Accordingly, it is now "the policy of the United States to alleviate unnecessary regulatory burdens placed on the American people." Executive Order No. 13,777, 82 Fed. Reg. 12,285, 12,285 (Mar. 1, 2017).

The proposed rules are an unnecessary regulatory burden. They do not address any real problem. They would harm investors by reducing choice and increasing costs. And they would inflate the powers of an administrative agency in unprecedented and transformative ways that will inevitably lead to ever-expanding merit regulation of publicly traded securities, eventually taking the "free" out of our free markets.

CONCLUSION

We respectfully submit that the Commission should not proceed with the proposed rules. As we have shown, the proposed rules are an unprecedented, unauthorized, unwarranted, and ultimately harmful intervention in the public securities markets. The Commission should not start down the perilous path of denying investors access to publicly traded financial products based on

its own view of their merit, and instead allow existing protections, including the newly promulgated Regulation Best Interest, the time to succeed on their own terms.

Respectfully submitted,

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Exhibit 1

The SEC's Proposed "Sales Practices Rules" for Leveraged and Inverse Funds

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He acknowledges financial support from ProShare Advisors, LLC. All views are his own and do not necessarily reflect the views of Delta Strategy Group.

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I. Overview of the Rule

1. On November 25, 2019 the Securities and Exchange Commission ("SEC" or "Commission") re-proposed Rule 18f-4 under the Investment Company Act of 1940 with a stated goal of providing an updated and more comprehensive approach to regulating the use of derivatives by registered investment companies. Among other things, the proposed rule would limit the use of derivatives and financial commitment transactions entered into by mutual funds, exchange-traded funds ("ETFs") and closed-end funds, as well as business development companies ("BDCs").[1] The proposed rule would also require funds to monitor and manage derivatives-related risks with the purported goal of improving investor understanding of the products and to address sales practices with respect to certain leveraged investment vehicles, in particular, leveraged and inverse ETFs.[2] The so-called "sales practices rules" would require broker-dealers and investment advisors to "exercise due diligence in approving a retail customer's or client's account to buy or sell shares of certain 'leveraged/inverse investment vehicles.'"[3] As written, this rule appears to apply to all trades, including trades that are unsolicited and trades by investment advisers in discretionary accounts.

2. In reviewing the proposed rule and the staff analysis cited as the justification for the rule, I find that the SEC's investor protection concerns are not adequately supported. I also find that the SEC has not shown that the complexities of leveraged and inverse funds are comparable to those of options or why the options sales framework is the appropriate one to apply. In addition, I note that the SEC does not require similar rules for a number of other retail investment products that I would characterize as at least as, or more, complex than leveraged or inverse funds. Specifically, I find that:

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[1] The majority of leveraged and inverse funds today are leveraged and inverse ETFs. Throughout my analysis, I make statements about leveraged and inverse ETFs that may apply to all leveraged and inverse funds.

[2] "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," Securities and Exchange Commission, Release No. 34-87607, November 25, 2019 ("SEC Proposed Rule"), available at https://www.sec.gov/rules/proposed/2019/34-87607.pdf.

[3] SEC Proposed Rule, pp. 1–2.

a. The SEC does not show that retail investors hold leveraged and inverse funds for extended periods or that investors would be harmed by holding leveraged and inverse funds over a longer holding period. The SEC staff asserts this based on a single paper[4] that has the following flaws:
    i. Reliance on unscientific trading models with well-known limitations to estimate investors' holding periods.
    ii. A flawed methodology that benchmarks leveraged and inverse fund returns against a non-rebalancing strategy despite the fact that leveraged and inverse funds explicitly seek a rebalancing strategy.
    iii. Extrapolation based on a sample that is unrepresentative of the current market for leveraged and inverse funds.
b. It is not appropriate to apply an options sales framework to leveraged and inverse funds since leveraged and inverse funds do not have the same complexities as options. Sales practices rules for option products were adopted to reflect this option-specific complexity. For example, options have time-varying leverage while leveraged and inverse funds maintain constant leverage.
c. There are many products that are not subject to similar sales practices rules despite being at least as, or more, complex than leveraged and inverse funds. These include: (i) leveraged loan funds, (ii) alternative mutual funds, (iii) principal protected notes, (iv) defined outcome ETFs, (v) corporate bonds, (vi) some exchange-traded notes, and (vii) ETFs with bespoke indices to be more complex than leveraged and inverse funds.

II. Background of Leveraged and Inverse Funds

3. Leveraged funds are a cost-effective and easily accessible tool designed to deliver a daily[5] percentage return that is equal to a multiple of the return of an underlying index. For

[4] Guedj, Ilan, Guohua Li, and Craig McCann, "Leveraged and Inverse ETFs, Holding Periods, and Investment Shortfalls," *The Journal of Index Investing*, Vol. 1, No. 3, 2010 ("GLM"), pp. 45–57. The SEC's proposed rule is silent on evidence of holding periods on other leveraged funds besides ETFs. SEC proposed rule, p. 179.

[5] For simplicity, I discuss leveraged and inverse funds as having a daily investment objective. There are some products that have investment objectives over long periods, for example, some funds have monthly investment objectives.

example, if the S&P returned 1% on a given day, the objective of a leveraged fund with a leverage factor of two, or "2X," would be 2%.

4. Inverse funds seek to deliver a daily return equal to the opposite of the return from an underlying index. An inverse fund provides short market exposures for investors who might otherwise be unable to establish short positions or who may simply prefer to utilize an inverse product. A fund can be both leveraged and inverse, meaning that it seeks to deliver daily returns that are a multiple of the opposite of the underlying index's daily return. For example, if the S&P 500 returned 1% on a given day, a 2X inverse fund's objective would be -2%. These products can appeal to investors who seek to establish positions based on their forecast of market moves as well as those who seek to manage the risk from existing exposures.

5. The first leveraged and inverse mutual funds were made available to the investing public by Rydex in 1993. Thirteen years later, ProShares followed with the first leveraged ETFs in 2006.[6] Today, there are 286 leveraged and inverse funds. They are widely traded and hold approximately $40.0 billion in net assets.[7] Leveraged and inverse funds have become popular products used by investors to manage risk or gain exposure to movements in the underlying index.

6. The SEC's re-proposed rule questions the suitability of leveraged and inverse funds for retail investors and proposes new sales practices rules for these products. One issue raised by the SEC is the degree to which retail investors adequately understand the rebalancing characteristics of leveraged and inverse funds.[8] Previously, the SEC and the Financial Industry Regulatory Authority ("FINRA") had issued a joint alert citing confusion by individual investors about the performance objectives of leveraged and inverse ETFs, stating that some investors may have "the expectation that the ETFs may meet their stated daily performance objectives over the long term as well."[9]

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[6] "Rydex Mutual Funds," *Money-Zine*, October 25, 2019; "Speech by SEC Staff: Remarks Before the 4th Annual Art of Indexing Summit," Andrew J. Donohue, September 20, 2006.

[7] SEC Proposed Rule, p. 257. Of these, 164 are leveraged and inverse ETFs, 105 leveraged and inverse mutual funds and 17 exchange listed commodity- or currency-based trusts or funds. These funds have $33.9, $4.9, and $1.2 billion in net assets respectively.

[8] SEC Proposed Rule, p. 288.

[9] "Leveraged and Inverse ETFs: Specialized Products with Extra Risks for Buy-and-Hold Investors," Securities and Exchange Commission, August 1, 2009, available at https://www.sec.gov/investor/pubs/leveragedetfs-alert.htm. I have seen no evidence nor has the SEC presented any, that retail investors believe that leveraged and inverse funds will meet their target multiple of the benchmark index over periods of longer than one day.

III. It is Incorrect to Compare Funds with Rebalancing Strategies to Funds with Non-Rebalancing Strategies

7. Before discussing the proposed rule specifically, it is important to understand that returns of rebalancing strategies, such as leveraged and inverse funds, and the returns of non-rebalancing strategies, such as those discussed by the SEC, are different. As I will explain later, comparing rebalancing and non-rebalancing strategies is inappropriate.

A. Returns of Non-Rebalancing Strategies

8. To understand the rebalancing characteristics of leveraged and inverse funds, it may first be helpful to consider an investor in a margin account. Because borrowing is "fixed," the exposure to the underlying index faced by an investor changes as the degree of leverage changes as returns are generated.[10] For example, an investor could initially invest $10,000 in a margin account and borrow an additional $10,000 in order to purchase $20,000 worth of securities. Such an investor would have an initial leverage factor of 2. Suppose that the investor experiences a return of 10 percent in the next week, meaning that the portfolio value has increased by $2,000 from $20,000 to $22,000. The equity portion of the account has increased to $12,000. The leverage in the portfolio is now equal to $22,000 divided by $12,000, that is, 1.83X. Over this investment horizon, the cumulative return on the equity in the portfolio has increased 20 percent which is in line with the initial leverage factor of 2X.

9. If the investor wished to preserve the initial 2X leverage for the portfolio (which has now drifted to 1.83X), he would need to rebalance the portfolio by purchasing more securities. If the investor chooses not to rebalance, then his portfolio will consist of an exposure of $22,000 with $12,000 in equity. Suppose the portfolio further increases by 10 percent the following week, where now the value of the portfolio has increased to $24,200 and the equity in the portfolio has increased to $14,200 (that is $10,000 in initial equity, plus a return of $2,000 in the first week and $2,200 in the second week).

10. The leverage factor has again decreased, from 1.83X to 1.7X ($24,200/$14,200). The return on the initial exposure of $20,000 is 21% (that is, a $4,200 return on an initial exposure of

[10] The example in this section is adapted from Raymund Wong and Kara Hargadon, "Rebalancing Act: A Primer on Leveraged and Inverse ETFs," NERA Economic Consulting, October 7, 2009.

$20,000), while the return on equity portion of the portfolio is twice the portfolio return or, 42% (that is, a $4,200 return on an initial $10,000 equity investment).

11. However, the leverage of the portfolio is less than it was initially. The leverage in this portfolio is now 1.7X rather than the 2X that was the initial leverage. This decline in the leverage factor when the portfolio is not rebalanced is related to the return of the underlying equity investment.

12. However, the two-week holding period returns do not tell the whole story. If we focus on the investor's return in only the second week, that return is 18.3 percent (i.e. ($14,200-$12,000)/$12,000), which is the $2,200 profit divided by the $12,000 equity after the first week. This return is only 1.83X the return in the second week instead of the 2X which was the initial exposure. In evaluating the performance of the investment, we can see that the portfolio produced 2X the 21% return on the initial equity over the two weeks, but the portfolio also produced a return on the equity in the portfolio over the second week of 1.83X times the 10% return on the exposure in the portfolio over the second week.

13. If the value of the portfolio had declined rather than increased, the rebalancing math would have showed that the decrease in value of the securities would have led to a higher leverage ratio. The initial $10,000 of equity in the portfolio will initially experience greater negative returns than the returns on the entire $20,000 value of the portfolio of securities.

B. Returns of Rebalancing Strategies

14. Now suppose that the investor did choose to rebalance. Suppose that in the second week the investor borrowed an additional $2,000 and purchased an additional $2,000 of securities. Equity would remain at $12,000, but total exposure would increase to $24,000. This preserves the original leverage ratio of 2X. Assuming the account experiences the same 10% return over the second week, the exposure in the portfolio would increase to $26,400 (equal to a 10% increase on the $24,000 of exposure), while the equity in the account increases to $14,400 (equal to the initial $10,000 in equity plus the returns of $2,000 and $2,400 over the two weeks). The return on the equity over the second week is equal to the $2,400 gain in equity divided by the $12,000 initial equity at the beginning of the second week, which is 20 percent, or twice the 10 percent return on the portfolio exposure. However, returns over the two-week period do not

equal twice the cumulative return of the index. The cumulative return of the index is 21% and the cumulative return of the strategy is 44% ($4,400/$10,000).

15. As Wong and Hargadon have observed, the examples above illustrate a trade-off between preserving the initial leverage ratio and maintaining the cumulative return ratio. There are advantages and disadvantages to either decision. Returns of leveraged funds are more akin to investing in a margin account with rebalancing. Leveraged funds likely yield returns closer to the desired degree of leverage from period to period than a margin account that does not rebalance. For example, an investor choosing a strategy involving a simple margin account without rebalancing will experience returns in the second half of the period that are substantially less than twice the returns on the underlying index. If this investor had purchased a leveraged fund, he would have experienced returns in both sub-periods that are close to twice the index return.

C. The Returns of Rebalancing Strategies Can Be Larger or Smaller than a Non-Rebalancing Strategy

16. The SEC appears to be concerned that investors may not understand that rebalancing strategies and non-rebalancing strategies will result in different returns. The proposed rule notes that a daily reset "can result in performance over longer holding periods that differs significantly from the leveraged or inverse performance of the underlying reference index over those longer holding periods."[11] Similarly, they rely on a paper that estimates investment "shortfall" which is measured by comparing the returns of leveraged ETFs and a costless non-rebalancing strategy.[12]

17. If an investor chooses to hold leveraged or inverse funds over longer periods of time, their cumulative return can be less than or greater than the cumulative return on the benchmark times the leverage factor. Whether a particular investor receives higher returns investing in a rebalancing strategy (i.e., leveraged and inverse funds) or a non-rebalancing strategy depends on the price path of the underlying security and the holding period.[13]

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[11] SEC Proposed Rule, p. 178. The concern expressed by the SEC is that "buy-and-hold investors in a leveraged/inverse fund who have an intermediate or long-term time horizon…may experience large and unexpected losses or otherwise experience returns that are different from what they anticipated." SEC Proposed Rule, pp. 178–179.

[12] See Section IV for a more complete discussion of this paper.

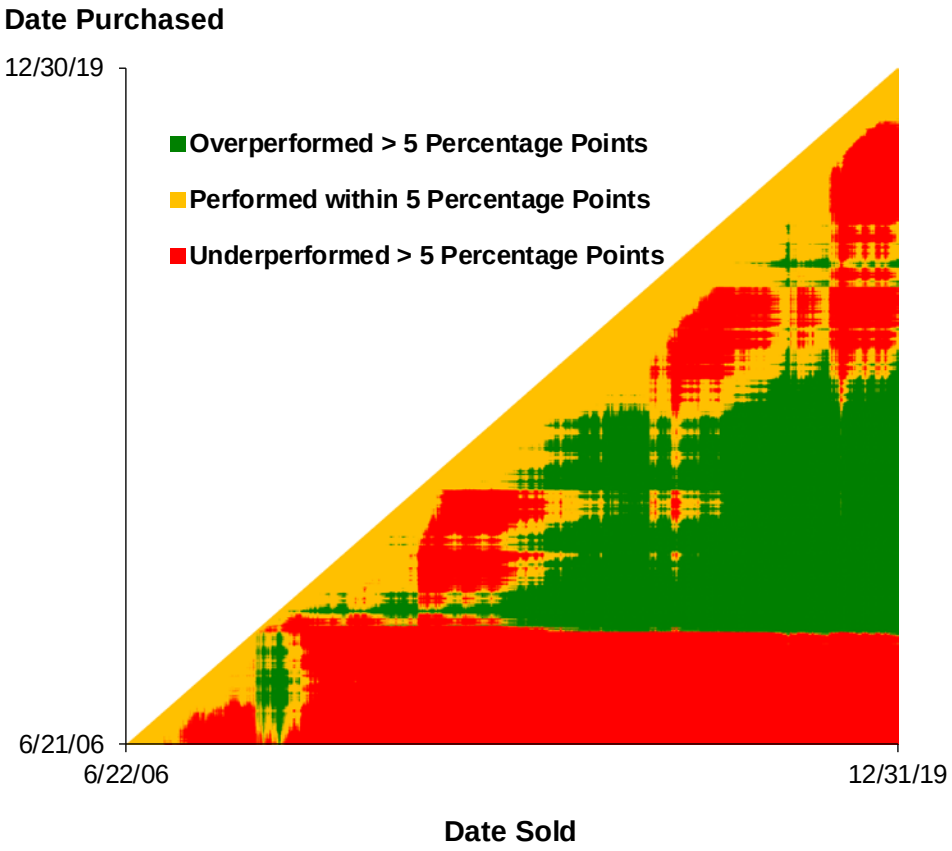
[13] The key to determine which strategy receives a higher return is generally related to the amount the underlying asset oscillates between positive and negative returns and the sizes of the oscillations. Prospectus disclosures for leveraged and inverse funds provide good insight into this dynamic

18. In order to see empirically whether investors generally would receive a higher return from investing in leveraged funds and inverse funds or a non-rebalancing strategy, I examine two example funds: (i) ProShares Ultra S&P 500, which is a 2X leveraged ETF; and (ii) ProShares Short S&P 500, a -1X inverse ETF. I find that while there are long periods of time when the leveraged fund underperforms the non-rebalancing strategy, there are also long periods of time where the leveraged fund outperforms the rebalancing strategy.[14]

19. Figure 1 shows the returns of ProShares Ultra S&P 500 versus twice the cumulative S&P 500 return over different holding periods. Each pixel on the graph represents a combination of purchase and sale dates. The yellow pixels show the combinations of purchase and sale dates where the leveraged fund returns were within five percentage points of the non-rebalancing strategy returns. The red pixels represent purchase and sale date combinations where the leveraged fund returns underperformed the non-rebalancing strategy by more than five percentage points, and the green pixels represent purchase and sale date combinations where the leveraged fund returns outperformed non-rebalancing strategy returns by more than five percentage points.

[14] This analysis will understate the amount of time a leveraged fund outperforms a margin account since I assume the margin account is costless to use however in reality margin accounts will have fees and expenses. Fees and expenses for leveraged ETFs are compounded in their returns.

Figure 1: ProShares Ultra S&P 500 Return Versus Twice the Cumulative S&P 500 Return

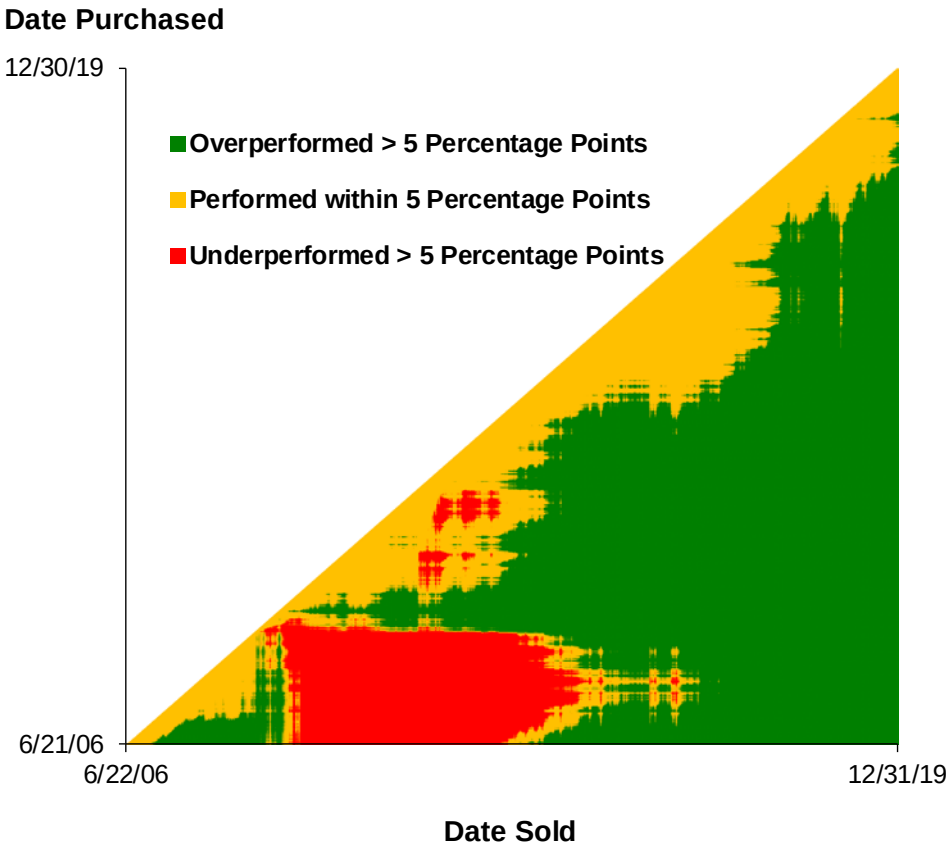


20. As Figure 1 illustrates, depending on the purchase and sale date, a rebalancing strategy can outperform a non-rebalancing strategy. The yellow dots are clustered along the diagonal line. This is unsurprising. Shorter holding periods will generally cause these strategies to track closely since there is less time for differences in compounding to affect returns. For example, over a one-day horizon these strategies should be identical (except for potential differences in fees). The graph also shows that, over all possible holding periods, an investor in this leveraged fund was slightly more likely to underperform a non-rebalancing strategy than outperform (41% of the time and 33% of the time, respectively). However, even over long periods of time, there is potential for outperformance using leveraged ETFs. For example, if an investor purchased a leveraged fund on March 2, 2009 and held through 2019, they would have earned more than twice the return than if they had followed the non-rebalancing strategy.

21. Examining the inverse fund tells a similar story. Figure 2 compares the ProShares Short S&P 500 Return versus the inverse of the cumulative S&P 500 return. As with Figure 1, the

yellow pixels are concentrated on the diagonal line as expected. In this example, the returns to an inverse fund were generally higher than those of a non-rebalancing portfolio. The inverse fund outperformed the non-rebalancing portfolio by more than five percent 61% of the time and underperformed by more than five percent 12% of the time.

Figure 2: ProShares Short S&P 500 Return Versus Inverse of Cumulative S&P 500 Return



22. To summarize , the returns of a rebalancing portfolio, like a leveraged fund, can differ from a non-rebalancing portfolio over long holding periods. The direction of the difference can go either way and depends on the price path of the underlying security and holding period examined.

IV. The SEC Does Not Have a Sound Basis for Assuming Long Holding Periods in Leveraged and Inverse ETFs

23. The SEC does not have a sound basis for their investor protection concerns since their only evidence is a paper that is critically flawed. The SEC's stated basis for proposing new sales practices rules for leveraged and inverse funds apparently stems from a concern that investors may not fully understand the risks of holding these products beyond the short term. The SEC cites analysis from its Division of Economic and Risk Analysis showing hypothetical return distributions of leveraged and inverse ETFs over holding periods ranging from one month to one year. Missing from the SEC's rulemaking record is any evidence of the actual holding periods currently used by investors in leveraged and inverse products. Missing also from the record is any evidence that longer holding periods are inappropriate for investors who intend to monitor and actively manage their portfolios.

24. Evidence on actual holding periods used by investors for leveraged and inverse funds is not publicly available. In place of actual evidence, estimates have been derived. For example, an analysis prepared by S.P. Kothari estimates the average holding period of eight Direxion ETFs as between 1.2 and 4.0 days from May 1, 2009 to July, 31 2015.[15] While this study finds an average holding period of a matter of days, it does not estimate the distribution of holding periods, i.e. how long does each investor hold the fund.

25. The SEC appears to be concerned that some investors hold these funds too long. Put another way, the SEC is concerned about the distribution of holding periods. For the estimates of the distribution of holding periods, the SEC's proposed rule cites estimates from a paper prepared by Ilan Guedji, Guohua Li, and Craig McCann ("GLM").[16] This paper was also cited in a June 2018 statement by SEC Commissioner Robert Jackson. He referenced this paper when discussing his concerns about some investors holding leveraged and inverse ETFs for "longer than they should."[17]

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[15] Comment Letter by Rafferty Asset Management, LLC re: Use of Derivatives by Registered Investment Companies and Businesses, March 28, 2016, Exhibit 3.

[16] SEC Proposed Rule, footnote 312. The SEC's proposed rule is silent on evidence of holding periods on other leveraged funds besides ETFs.

[17] Statement of Commissioner Robert J. Jackson, Jr. on Proposed Rules Regarding Exchange Traded Funds (ETFs), June 28, 2018.

26. For a small sample of leveraged and inverse ETFs, GLM does two things, first it estimates a distribution of leveraged and inverse fund holding periods, and then estimates the investment "shortfall" to investors of holding these funds for more than a few days. GLM finds that "[a]ll five ETFs in our sample have a substantial percentage of holding periods longer than a month…[and] [m]ore than 8% of investors in [two leveraged and inverse ETFs] appear to hold the ETF longer than a quarter."[18] The authors base their estimate of holding period distributions on a method used in connection with securities class action litigation to infer investors' holding periods from observed trading volume. In order to evaluate potential costs to investors of a long-term investment in leveraged and inverse ETFs, GLM uses their holding period estimates to calculate the difference between investing in leveraged and inverse ETFs "compared to if they had directly leveraged or shorted the underlying ETF in a margin account."[19] They term this difference the investment "shortfall."[20] GLM finds that investors can lose 3 percent of their investment in less than three weeks, corresponding to an annual "shortfall" of 50 percent.[21]

27. In this section, I analyze the reliability and robustness of the GLM study to determine whether it provides a credible estimate of investor holding periods in leveraged and inverse ETFs and credibly measures investment "shortfalls." Such an analysis is important in determining whether the SEC has a reasoned basis for exercising their rulemaking authority given that the SEC justification for the proposed sales practices rules for leveraged and inverse funds is that some retail investors may inappropriately hold these products for long periods.

28. My analysis, detailed below, indicates that the findings in GLM are not a reliable basis for the SEC's proposed sales practices rules. I discuss below that the results in GLM are not obtained with a reliable method. In addition, the GLM results do not imply that there is a problem with investors' understanding of the risks of holding leveraged and inverse funds over longer investment horizons. Finally, their results also fail to account for investors who intend to monitor and actively manage their portfolios and those who may appropriately choose to hold leveraged and inverse funds over longer investment horizons.

[18] GLM, p. 51.
[19] GLM, p. 49.
[20] GLM, p. 52.
[21] GLM, p. 52.

A. Trading Models Are Unreliable When Used to Estimate Holding Periods

29. Trading models do not reliably estimate holding periods for different types of investors. Trading models are sensitive to a variety of assumptions that are difficult to ground in the data, since data on an individual's trading activity is generally not publicly available. For these reasons, they have been viewed with suspicion by the courts and even one of the GLM's authors called them "unscientific."

1. Trading Model Mechanics

30. The trading model used by GLM to estimate holding periods is a two-trader model. This model assumes that there are two types of traders with different levels of trading activity. For example, one type of trader may be "high activity," while a second trader type may be "low-activity." Shares outstanding and daily trading volume are then allocated across each trader type. Without justification, GLM assumes that 80% of the shares and 20% of the volume are allocated to the low activity trader and 20% of the shares and 80% of the volume are allocated to the high activity trader.[22]

31. After shares and trading volume are allocated across each trader type, a "propensity-trading model" (or "PTM") is applied to each trader. A threshold assumption underlying the PTM is that each ETF share is viewed as being equally likely to trade. In the authors' example, if there are 1 million shares outstanding and 100,000 shares are observed to have traded each day, then, for example, market makers may hold 200,000 shares and do 80 percent of the daily trading whereas individual investors may hold 800,000 shares and do 20 percent of the daily trading. Applying a PTM to the market maker implies that if the market maker trades 80,000 shares per day, this means that 40 percent of the active trader's shares are sold each day (80,000/200,000). This implies that 32,000 of the 80,000 shares bought on day t are sold on day t+1 leaving 48,000 remaining shares. The model implies that 40 percent of these remaining shares (or 19,200) are sold on day t+2 leaving 28,800 shares remaining. On day t+3, 40 percent of the 28,800 shares remaining on day t+2 (11,520) are sold. This process is continued for day t+4, day t+5 and so on to estimate when the shares purchased on day t were sold. This process is

[22] GLM, pp. 50, 56.

repeated in order to estimate the distribution of holding periods for each day's estimated purchases. A similar calculation is performed for the traders labeled as individual investors. The separate PTM results for each trader type are then added together to determine the distribution of holding periods for each ETF. Because active and inactive traders are treated separately, the calculation, generally speaking, will result in longer estimated holding periods for the higher percentiles of the distribution than if all shares were grouped together.[23]

2. Trading Model Limitations

32. Trading models have several known limitations (whether they are applied to common stock shares or ETF shares). Chief among these limitations is the unsupported core assumption that each share is equally likely to trade (or equally likely to trade for each investor type). Individual investors as well as professional traders have their own motivations to trade, and it is very unlikely that the resulting trading activity spawned by these motivations will lead to equal trading activity. Second, the assumption of constant proportionality of trading across time is unsupported. There is no empirical evidence to support the notion that investors' trading activity is proportional to the fraction of trading volume relative to shares outstanding. Trading models assume that the trading activity of investors will be unchanged over time independent of market conditions. For example, the model does not allow for the possibility that an investor would rebalance their ETF exposure in response to market conditions. The assumptions underlying the trading models are simply not grounded in any generally accepted theory or empirical evidence of how investors actually behave.

3. Illustrative Examples of Trading Model Limitations

33. Different trading models can show very different estimated holding periods. Consider a simple example where we have a stock that has 50 shares outstanding and a daily trading volume

[23] For the purposes of this discussion, I have ignored the role that Authorized Participants ("APs") play in the ETF market. Trading models typically assume that the amount of shares bought by investors in a given day equals the amount of shares sold. APs represent a unique type of investor in the ETF market. For example, an AP can buy shares from an investor and redeem those shares to the ETF sponsor, however, this redemption would not be captured in the volume data.

of 10 shares. For the PTM and the two-trader models, I ran simulations over 10 days to illustrate the differences in distributions of holding periods.[24] I find that assumptions about investors' trading behavior can have many different results for the implied holding periods.

1. Propensity Trading Model: In a PTM, each share is equally likely to trade. In my simulation, the most any share traded was five times, which happened for three shares, while five shares, or 10% of the shares outstanding, did not trade over the 10-day period.
2. Two-trader Model: In a two-trader model, the volume and shares outstanding are split up and two PTMs are run. I calibrated the trading model to match the parameters used in GLM.[25] In this model, there were two shares that traded on all ten days and three additional shares that traded on nine of the ten days. There were 24 shares, almost half the shares outstanding, that never traded and 11 additional shares that only traded on a single day.
3. Long-term Holders: In this scenario, I assume that shares outstanding is perfectly split between shares that trade and those that do not. Thus, 10 shares, 20% of the shares outstanding, trade every day and 40 shares, 80% of the shares outstanding never trade.
4. Fixed-Term Holders: In this scenario, I assume that each share is held for exactly five days. Thus, every share is traded exactly twice during the 10-day period.

These examples all have the exact same trading volume and shares outstanding. The only difference is the assumptions that are applied to the observable characteristics. As this demonstrates, the trading model assumptions can have a large impact on the distribution of holding periods.

4. The Multiple Trader Assumption Necessarily Implies Longer Holding Periods

34. In order to run a trading model, GLM makes several assumptions. However, the authors do not adequately explain the basis for their assumptions. For example, the authors fail to explain how they choose the proportion of shares outstanding to attribute to high activity traders and low activity traders. Nor do they explain how they choose the level of trading volume they attribute to each type of trader. These choices are critical because they determine the authors'

[24] While 10 days is a short period, it is sufficient to demonstrate the sensitivity of the model to different assumptions.
[25] Specifically, I assumed that 20% of the shares outstanding and 80% of the volume was traded by a high activity trader, and 80% of the shares outstanding and 20% of the volume was traded by a low activity trader.

final result. Thus, the GLM approach is not grounded in any generally accepted theory of investor behavior and is based instead on vigorous assertion. Such an approach does not allow for the existence of ETF investors who monitor and actively manage their ETF position in response to market conditions. The authors arbitrarily attribute levels of trading activity to groups of traders that the authors designate. By arbitrarily classifying a portion of ETF investors as inactive with low turnover ratios, GLM increases the length of the average holding period. These choices will affect GLM's estimates of aggregate "shortfall."

5. Trading Models Have Been Found Unreliable in Legal Proceedings

35. In securities litigation, trading models are often used to aggregate damages for the purposes of settlement negotiations and mediation. However, in the few cases that have actually gone to trial, trading models have generally not been admitted into evidence since courts have generally found them unreliable for estimating actual trading activity. One of the first cases to exclude a trading model was in *Kaufman, et al v. Motorola, Inc., et al*. In this case the court rejected using a proportional trading model to estimate trading activity. It noted that the parties were unable "to actually test the reliability of the proportional trading model" and "in absence of such testing and in absence of any acceptance by the professional economists of the theory, it simply does not pass *Daubert* muster."[26] Similarly, courts have rejected multi-trader models for similar reasons. For example, in *Clarent Securities Litigation* the court expressed skepticism about the scientific nature of the trading models.[27] In *Broadcom Securities Litigation,* the use of a multi-trader model was rejected.[28] The court found that the multi-trader model "has not been tested against 'real world' conditions," and "has not been subject to the sort of critical peer review and publication that one would expect as a prerequisite for jury acceptance."[29] In conclusion, the court found that trading models have "questionable accuracy, [causing] … significantly questionable reliability"[30] and excluded them from consideration.

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[26] *Kaufman, et al. v. Motorola, Inc., et al.*, Order by Judge Robert W. Gettleman, September 19, 2000, p. 5.
[27] *In re: Clarent Corporation Securities Litigation*, Transcript of Jury Trial – Daubert Hearing, January 31, 2005, pp. 724–725.
[28] *In re: Broadcom Corporation Securities Litigation*, Ruling on Motions re Proof of Aggregate Damages, June 3, 2005.
[29] *In re: Broadcom Corporation Securities Litigation*, Ruling on Motions re Proof of Aggregate Damages, June 3, 2005, p. 5.
[30] *In re: Broadcom Corporation Securities Litigation*, Ruling on Motions re Proof of Aggregate Damages, June 3, 2005, p. 6.

36. In fact, one of the authors of the GLM study acknowledges the unreliability of trading models. In other work, Craig McCann, recognizes the limitations of proportional trading models saying that they have "no empirical basis, [were] never tested, [and are] not accepted in the scientific community."[31] He goes on to say that multiple trading models are "[n]o better supported in science than [proportional trading models]."[32] He concludes the presentation by saying "[n]one of the trading models [have] <u>any</u> scientific reliability."[33]

B. It is Inappropriate to Use Margin Accounts as a Benchmark to Measure Investment "Shortfall"

37. In order to benchmark an investment in leveraged and inverse funds, GLM considers the use of a margin account as a benchmark. Specifically, GLM uses estimated holding periods for a small sample of leveraged and inverse funds to calculate the difference between investing in leveraged and inverse ETFs and investing in a margin account to generate the same investment strategy, i.e., the investment "shortfall." This is unreliable since investing in a leveraged or inverse product is clearly different than investing in a margin account.

1. GLM's Investment "Shortfall" Measure Relies on an Unreliable Trading Model

38. GLM's estimates of investment "shortfall" are subject to the weaknesses of their holding period estimates, and the assumptions and limitations of the trading model. For example, their estimates do not allow for the possibility of investors rebalancing their leveraged and inverse ETF positions in response to market conditions.

39. I also note that GLM fails to describe the robustness of their results. Academic research published in peer-reviewed journals would typically provide a robustness analysis. The method of analysis they use is not detailed enough to allow the reader to determine how much their result would change from a stipulated change in their assumptions, such as, the share of individual investors in their partition, and the amount of trading activity attributed to these investors.

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[31] McCann, Craig, "Securities Class Action Damages," Securities Litigation & Consulting Group, December 1, 2002, p. 17.
[32] McCann, Craig, "Securities Class Action Damages," Securities Litigation & Consulting Group, December 1, 2002, p. 18.
[33] Emphasis in original. McCann, Craig, "Securities Class Action Damages," Securities Litigation & Consulting Group, December 1, 2002, p. 23.

2. Margin Accounts Are an Inappropriate Benchmark for Leveraged and Inverse Funds

40. GLM did not establish that a margin account is an appropriate benchmark. As discussed in Section III, rebalancing strategies, such as leveraged and inverse funds, have fundamentally different returns than margin accounts. Since GLM chooses to measure a margin account versus a leveraged ETF, they could find a "shortfall" even if the leveraged ETF perfectly hit its investment objective every single day.

41. Leveraged and inverse funds do not have the same investment objective as margin accounts and they closely track their objective. For example, the ProShares Short SmallCap600 ETF, which GLM studied, had a correlation of -0.99 with its benchmark in Q4 2019.[34] Leveraged and inverse fund disclosures prominently note their investment objectives are not like that of a non-rebalancing portfolio. For example, the Direxion Developed Markets Bear 3X fund, which is studied by GLM, under the "Overview" section on its website states:

> These leveraged ETFs seek a return that is 300% or -300% of the return of their benchmark index ***for a single day*****. The funds should not be expected to provide three times or negative three times the return of the benchmark's cumulative return for periods greater than a day.**[35] (emphasis in original)

There are similar disclosures on the websites for the other funds studied by GLM,[36] and more detailed disclosures in the prospectuses, all of which explain that over a longer period returns may deviate from the non-rebalancing strategy. GLM's alternative follows a different

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[34] ProShares Short SmallCap600, Fact Sheet, December 31, 2019. The correlation is measured as the daily change in NAV against the underlying index.

[35] "Direxion Daily MSCI Developed Markets Bull and Bear 3X Shares," Direxion, available at https://www.direxion.com/products/direxion-daily-developed-markets-bull-3x-etf.

[36] Only three of the five funds studied in GLM are still in existence, Direxion Developed Markets Bear 3X, Direxion 10-Year Treasury Bear 3X, and ProShares Short SmallCap600 Fund. The Direxion 10-Year Treasury Bear 3X ETF has an almost identical disclosure as the one quoted. The ProShares Short SmallCap600 Fund discloses at the top of its website "This short ProShares ETF seeks a return that is -1x the return of its underlying benchmark (target) for ***a single day***, as measured from one NAV calculation to the next. Due to the compounding of daily returns, holding periods of greater than one day can result in returns that are significantly different than the target return and ProShares' returns over periods other than one day will likely differ in amount and possibly direction from the target return for the same period. These effects may be more pronounced in funds with larger or inverse multiples and in funds with volatile benchmarks. Investors should monitor their holdings as frequently as daily. Investors should consult the prospectus for further details on the calculation of the returns and the risks associated with investing in this product." (emphasis in original) "ProShares Short SmallCap600," ProShares, available at https://www.proshares.com/funds/sbb.html.

investment strategy, and there is no reason to think it a reasonable alternative to a leveraged fund.

42. In addition to not establishing that a margin account is an appropriate benchmark, GLM also fails to consider certain aspects of margin accounts. For example, their benchmark appears to exclude consideration of known costs such as margin fees and does not account for posting additional collateral. Margin fees are likely to be large, and also increase with the length of the assumed holding period. In addition, the GLM analysis appears to assume that an investor would not need to post additional collateral if an investment performed poorly. The inclusion of these costs will likely substantially change the results in GLM.

C. GLM's Results Should Not Be Extrapolated to the Present-Day Because Its Sample Is Not Representative

1. Funds Studied in GLM Are Not Representative of Funds Today

43. As noted earlier, GLM studies five leveraged and inverse ETFs. The authors state that the five leveraged and inverse ETFs represent a cross-section of leveraged and inverse ETFs from three different issuers, with a variety of positive and negative leverages, tracking a variety of indices, including equity indices, broad indices and bond indices.

Table 1: Funds Studied in GLM

Issuer	Fund Name	Index	Leverage Factor	Turnover
Direxion	Developed Markets Bear 3X	MSCI EAFE	-3	18.1%
Direxion	10-Year Treasury Bear 3X	NYSE 10 Year Tresury	-3	5.5%
Rydex	Inverse 2X S&P Select Sector Health Care	AMEX Health Care Select	-2	2.9%
ProShares	Short Small Cap 600 Fund	CBOE S&P Small Cap 6000	-1	4.6%
ProShares	Ultra Russell 1000 Value Fund	Russell 1000 Value	2	3.7%
Simple Average				**7.0%**

As Table 1 shows, four of the five ETFs used in the GLM analysis are for inverse ETFs. While four of the five ETFs did track equity indices, they did not track the largest indices in the U.S. such as the S&P 500. GLM calculates that these five funds have daily turnover ratios that range between 2.9 and 18.1%.

44. In comparison, the largest ETFs today generally track broad-based equity indices and have more positive leverage factors than negative leverage factors. For example, the largest leveraged or inverse ETF today is ProShares UltraPro QQQ which seeks to deliver three times the Nasdaq 100 which consists of the 100 largest companies listed on the Nasdaq stock exchange.[37] Table 2 shows the 10 largest leveraged and inverse ETFs by assets under management as of March 6, 2020.

[37] "Leveraged ETF Channel," ETF.com, available at https://www.etf.com/channels/leveraged-etfs.

Table 2: Ten Largest Leveraged and Inverse ETFs

Issuer	Fund Name	Index	Leverage Factor	Turnover
ProShares	UltraPro QQQ	Nasdaq 100	3	27.4%
ProShares	Ultra S&P 500	S&P 500	2	7.4%
ProShares	Short S&P 500	S&P 500	-1	6.8%
ProShares	Ultra QQQ	Nasdaq 100	2	6.4%
ProShares	UltraPro Short QQQ	Nasdaq 100	-3	39.8%
Direxion	Daily Gold Miners Index Bull 3X Shares	NYSE Arca Gold Miners	3	18.8%
ProShares	UltraPro S&P 500	S&P 500	3	16.1%
ProShares	UltraShort S&P 500	S&P 500	-2	18.8%
Direxion	Daily Technology Bull 3X Shares	Technology Select Sector	3	6.1%
Direxion	Daily S&P 500 Bull 3X Shares	S&P 500	3	21.1%
Simple Average				**16.9%**

45. As Table 2 shows, eight of the 10 largest ETFs reference either the S&P 500 or the Nasdaq 100. None of the funds in the GLM sample reference either index. In fact, none of the reference indices in the GLM sample appear as a reference index for any of the top 10 ETFs today. Further, the leverage factors studied in GLM are also dissimilar to funds today. Seven of the 10 largest ETFs track a leveraged index whereas in the GLM sample only one of the five is a leveraged ETF and the rest are inverse ETFs.

46. Perhaps most importantly, the turnover ratio for funds today appears to be higher than during GLM's sample, thus, we would expect a shorter holding period even using GLM's methodology. Table 2 displays the turnover ratio for each fund in 2019. On average, the turnover ratio is more than twice that of the GLM sample (16.9% vs. 7.0%). As GLM notes, "[t]he daily turnover ratio is inversely related to the average holding period."[38] Therefore, even under GLM's methodology the average holding period of these ETFs would likely be substantially lower than what GLM calculated for their sample.

47. In addition to the other flaws in the GLM analysis, their sample of funds is not representative of leveraged and inverse ETFs today. Given this simple fact, any inference drawn from GLM and applied to the broader leveraged and ETF universe would be problematic.

[38] GLM, p. 51.

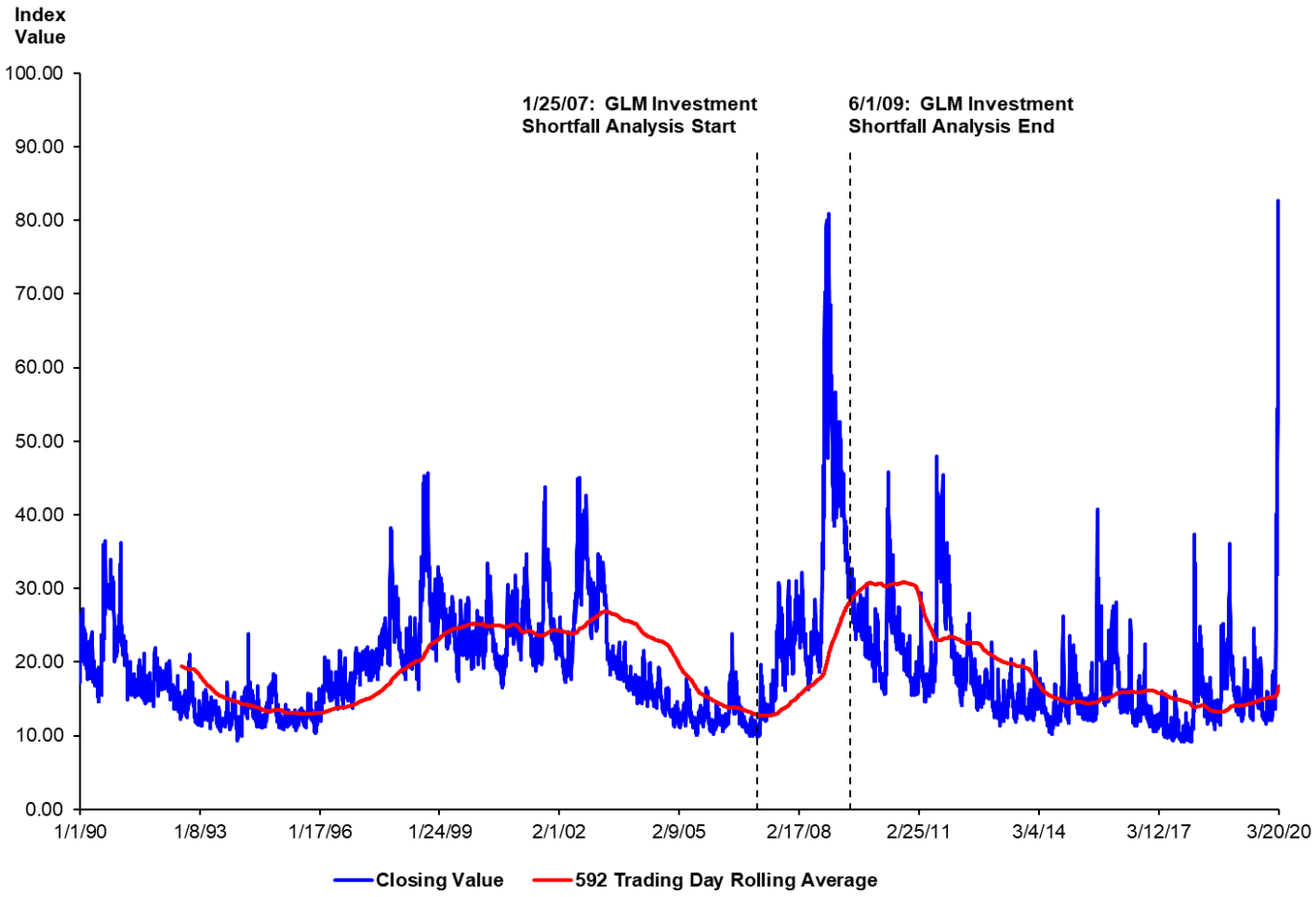
2. The Time Period Studied in GLM Skewed Their Findings

48. The time period studied in GLM was from a fund's inception date (which ranged from January 2007 to April 2009) to June 2009. This was in the middle of the financial crisis and may not be representative of broader market conditions over time.

49. The time period studied in GLM was a period of exceptionally high volatility. Figure 3 displays the daily closing value of the CBOE Volatility ("VIX") Index (a broad measure of market volatility) over a thirty-year span from 1990 to present day. It also displays a 592-trading day rolling average of the daily closing value, which is the length of the time period studied in GLM. As shown in Figure 3, the time period studied in GLM (the area between the dashed lines) includes the largest spike in the VIX Index. Because of this increase in volatility, the average value of the VIX Index over the time period studied in GLM is about 28. As Figure 3 shows, except very recently, there were no spikes of comparable size and the 592-trading day rolling average follows a downward trend.[39] All else equal, higher volatility would drive GLM's estimates of investment "shortfall" to be larger than during more normal market conditions. It is likely that GLM would have found different results had they performed their analysis over a different time period with lower volatility. Therefore, the conclusions in GLM are not representative of leveraged and inverse ETF performance in more typical market conditions.

[39] Because the red line is backward looking the recent spike in volatility has not noticeably impacted the rolling average, if volatility remains elevated, the red line will start to trend upwards.

Figure 3: CBOE Volatility Index: 1/1/90 – 3/20/20



50. The market volatility displayed during March 2020 in reaction to the Covid-19 pandemic represents another extreme volatility episode, as displayed in the figure above. Episodes of extreme market fluctuations are well understood to impact ETF performance over long holding periods as discussed above. However, the possibility of these episodes occurring is disclosed to investors. Investors are fully informed and can actively monitor and manage risk exposure related to volatility if they choose to hold a levered or inverse position for a long period.

51. In addition to changes in volatility, it is possible that the marketplace for leveraged and inverse funds has potentially changed in other ways. For example, more data on actual performance has become available and disclosures have evolved. As discussed below, many of the top performing funds in recent years were leveraged and inverse products. All of this indicates that GLM's conclusions about leveraged and inverse ETFs in 2009 are not applicable to leveraged and inverse ETFs more broadly.

D. It Is Not Necessarily Concerning if Some Investors Hold These Products for Longer Periods

52. In addition, the results of GLM do not imply that there is a problem with investors' understanding of the risks of holding leveraged funds over longer investment horizons. Their results fail to consider that investors could monitor and manage their portfolios and could also choose to hold leveraged or inverse funds over longer investment horizons. Longer holding periods in leveraged or inverse funds could be appropriate for investors who desire this exposure and who manage their accounts to meet their desired investment objectives.

53. Many leveraged and inverse funds offer high returns over longer investment horizons that investors may wish to capture by holding on to leveraged and inverse funds for periods longer than one day. In 2019, the top 20 best performing leveraged and inverse ETFs provided returns in excess of 50%, and the top performing fund provided a return of more than 230%.[40] Even over periods longer than one year, leveraged funds have performed well. According to ETF Database, many of the top 100 ETFs with the highest five-year returns are leveraged ETFs, with leveraged ETFs representing the top three highest returning funds.[41] From the beginning of 2010 through November 2019, several leveraged ETFs, such as the ProShares Ultra QQQ, posted gains in excess of 1,000%.[42] Some ETFs had even larger gains, for example ProShares UltraPro QQQ, returned over 4,000% from its inception in February 2010 through November 2019. Given the potential for large gains, it is entirely possible that a rational investor would elect to hold a leveraged fund for longer than one day.

V. Options and Other Exchange-Traded Assets Have Complexities that Leveraged and Inverse Funds Do Not

54. The SEC states that they have modeled the proposed "sales practices rules" for leveraged and inverse funds after the current FINRA options account approval requirements for broker-

[40] "Best Performing ETFs of the Year," ETF.com, January 7, 2020, available at https://www.etf.com/sections/features-and-news/best-performing-etfs-year.
[41] "100 Highest 5 Year ETF Returns," ETFdb.com, available at https://etfdb.com/compare/highest-5-year-returns/.
[42] "How risky ETFs won the decade – and why they might not repeat that performance," *Reuters*, December 24, 2019.

dealers ("FINRA Rule 2360(b)(16),(17)").[43] The FINRA rules governing options imply that a broker-dealer may not accept a customer's options trades if that customer's account is not approved for options trading.[44] The SEC has motivated its choice for sales rules in the spirit of the FINRA option rules "in part because leveraged/inverse investment vehicles, when held over longer periods of time, may have certain similarities to options."[45] This assertion is misleading. While leveraged and inverse funds may have "certain" similarities to options, the essence of what makes options unique does not apply to leveraged and inverse funds. Further, there are other retail products that have "option-like" characteristics that are not subject to the proposed sales practices rules and other products that I would consider complex in other dimensions that also are not subject to similar rules.

55. In this section, I provide a discussion of the SEC's characterization of, and concerns with, complex financial products, generally, and leveraged and inverse funds, specifically. Through a review of sample risk disclosures in a leveraged fund's prospectus, I observe that leveraged and inverse ETFs' characteristic feature, namely their one-day investment objective, is disclosed and explained to investors prominently.[46] These disclosures call into question the SEC's justification for the proposed rules based on the potential for investor misunderstanding of leveraged and inverse products.

56. I then discuss that, while leveraged and inverse funds may share certain features with options, the Commission has overlooked several distinguishing factors of leveraged and inverse funds when they compare them to options. I further discuss the differences between leveraged and inverse funds to several other complex exchange-traded assets onto which the SEC has not imposed option-like sales restrictions. Based on these discussions I conclude that the SEC's proposed sales rules for leveraged and inverse funds modeled on the FINRA option rules lacks justification and needs a more complete economic analysis.

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[43] SEC Proposed Rule, pp. 183–184. FINRA Rule 2360(b)(16),(17), available at https://www.finra.org/rules-guidance/rulebooks/finra-rules/2360.

[44] FINRA Rule 2360(b)(16),(17), available at https://www.finra.org/rules-guidance/rulebooks/finra-rules/2360.

[45] SEC Proposed Rule, pp. 183–184.

[46] Below I discuss the prospectus for the ProShares UltraPro S&P 500. I have also reviewed the prospectuses for several other large leveraged and inverse ETFs and find substantially similar language describing the one-day investment objective. See, e.g. Direxion Daily Gold Miners Index Bear 3X Summary Prospectus; ProShares Short S&P500 Summary Prospectus; ProShares UltraPro QQQ Summary Prospectus.

A. The SEC Has Expressed Concerns about the Proliferation of Complex Financial Products among Retail Investors

57. Advances in financial innovation and engineering have spurred the development of new and more sophisticated financial products. Against this backdrop, the SEC or its Commissioners have expressed concerns with the rapid proliferation of complex products into the hands of retail investors.[47] While the SEC has not defined what constitutes a "complex financial product," it has characterized several OTC and exchange-traded products as such. For example, in a public statement on February 23, 2018, Commissioner Stein commented on the complexity of a number of products such as exotic derivative structures like straddles, strangles, iron condors, iron butterflies, twin-win notes, worst of notes, buffered super track notes, and over-the-counter structured notes linked to bespoke indices.[48]

58. As of now, the SEC has not imposed any sales restrictions on ETNs, non-levered or inverse ETFs with bespoke indices or several other products that I discuss below. In what follows, I argue that leveraged and inverse funds are not more complex than these product types, calling into question the SEC's consistency in applying the proposed sales rules to leveraged and inverse funds.

B. Leveraged and Inverse Funds Disclose the Complexities the SEC Identifies and These Complexities Are Often Not Unique

59. The SEC motivates its proposed sales rules for leveraged and inverse funds by looking at leveraged and inverse ETFs. The SEC claims that the rules "are designed to help ensure that investors in these funds are limited to those who are capable of evaluating their characteristics—including that the funds would not be subject to all of the leverage-related requirements applicable to registered investment companies generally—and the unique risks they present."[49] In this section, I summarize the concerns the SEC and FINRA have raised in terms of the difficulties retail investors might have in understanding the product's unique features. I also

[47] "Remarks at SEC Speaks: Increasing Product Complexity: What's at Stake?" Kara M. Stein, SEC Commissioner, February 23, 2018, available at https://www.sec.gov/news/speech/stein-sec-speaks-increasing-product-complexity.
[48] "Remarks at SEC Speaks: Increasing Product Complexity: What's at Stake?" Kara M. Stein, SEC Commissioner, February 23, 2018, available at https://www.sec.gov/news/speech/stein-sec-speaks-increasing-product-complexity.
[49] SEC Proposed Rule, pp. 182–183.

review sample risk disclosures in leveraged and inverse fund prospectuses and observe that the risk implications of leveraged and inverse funds' characteristic feature, namely their one-day investment objective, is discussed extensively calling into question the SEC's justification for the proposed rules.

1. Features of Leveraged and Inverse Funds that the SEC Identifies as "Complex"

60. On August 1, 2009, the SEC and FINRA issued a joint investor alert characterizing leveraged and inverse ETFs as "complex products."[50] In listing out specific questions investors are encouraged to ask before a potential investment in a leveraged and inverse ETF, the SEC and FINRA emphasize five features of leveraged and inverse ETFs that ostensibly contribute to their complexity:[51]

1. **Leveraged and Inverse ETFs Have a One-Day Investment Objective:** The performance of leveraged and inverse ETFs can quickly diverge from the performance of the underlying index or benchmark, because leveraged and inverse ETFs reset each day.
2. **The Principal Investment Strategies of Leveraged and Inverse ETFs Involve Derivatives:** Leveraged and inverse ETFs can use a variety of techniques to achieve their stated objectives. For example, engaging in short sales and using swaps, futures contracts, and other derivatives can expose leveraged and inverse ETF to a host of risks.
3. **Leveraged and Inverse ETFs Have Tracking Error:** On any given trading day, there is a risk that not every leveraged and inverse ETF will meet its stated objective.
4. **Leveraged and Inverse ETFs May Have Tax Consequences:** Leveraged and inverse ETFs may be less tax-efficient than traditional ETFs.
5. **Leveraged and Inverse ETFs May be Costly:** Leveraged and inverse ETFs may be more costly than traditional ETFs.

2. Leveraged and Inverse Funds Disclose These "Complex" Features

61. It bears noting that all five features that the SEC and FINRA single out as central to the complexity of leveraged and inverse ETFs are subject to meaningful disclosures in leveraged and inverse ETF prospectuses. In several cases the features highlighted by the SEC and FINRA are

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[50] "Leveraged and Inverse ETFs: Specialized Products with Extra Risks for Buy-and-Hold Investors," Securities and Exchange Commission, August 1, 2009, available at https://www.sec.gov/investor/pubs/leveragedetfs-alert.htm.
[51] "Leveraged and Inverse ETFs: Specialized Products with Extra Risks for Buy-and-Hold Investors," Securities and Exchange Commission, August 1, 2009, available at https://www.sec.gov/investor/pubs/leveragedetfs-alert.htm.

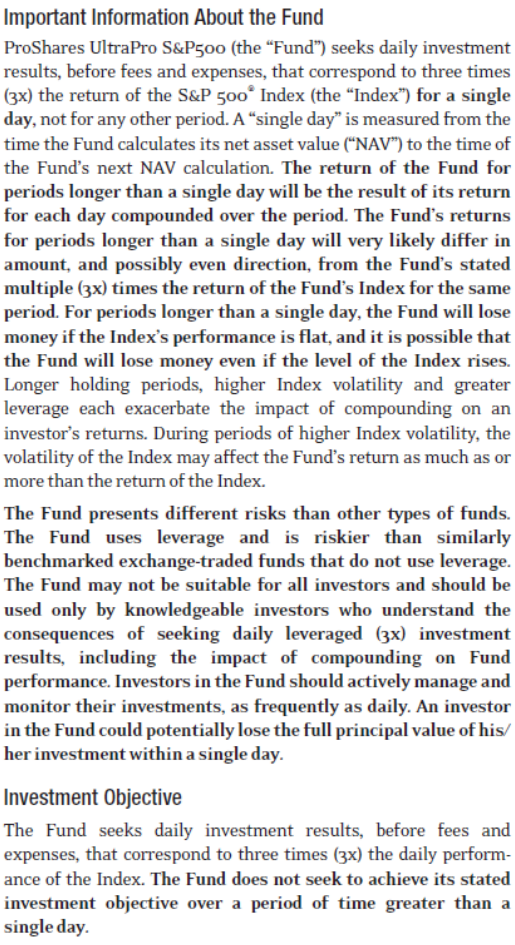
not unique to leveraged and inverse ETFs but are applicable to a range of investment products. In this section, I discuss the disclosures of leveraged and inverse ETFs and use ProShares' UltraPro S&P 500 as an example for these disclosures.[52] This fund "seeks daily investment results, before fees and expenses, that correspond to three times (3x) the return of the S&P 500® Index **for a single day**, not for any other period."[53]

a) The One-Day Investment Objective is Clearly Disclosed

62. Most importantly, the distinguishing feature that leveraged and inverse funds offer, namely their one-day investment objective, is disclosed prominently to investors. An investor does not need to read beyond the first page of the prospectus to find the following language (emphasis in original)[54]:

[52] I have also reviewed the prospectuses for several other large leveraged and inverse ETFs and find substantially similar language describing the one-day investment objective. See, e.g. Direxion Daily Gold Miners Index Bear 3X Summary Prospectus; ProShares Short S&P500 Summary Prospectus; ProShares UltraPro QQQ Summary Prospectus.
[53] ProShares Prospectus, October 1, 2019, p. 373. Emphasis in original.
[54] ProShares Prospectus, October 1, 2019, p. 373.

Figure 4: Upfront Disclosure of a Leveraged Fund's One-Day Investment Objective



Important Information About the Fund

ProShares UltraPro S&P500 (the "Fund") seeks daily investment results, before fees and expenses, that correspond to three times (3x) the return of the S&P 500® Index (the "Index") **for a single day**, not for any other period. A "single day" is measured from the time the Fund calculates its net asset value ("NAV") to the time of the Fund's next NAV calculation. **The return of the Fund for periods longer than a single day will be the result of its return for each day compounded over the period. The Fund's returns for periods longer than a single day will very likely differ in amount, and possibly even direction, from the Fund's stated multiple (3x) times the return of the Fund's Index for the same period. For periods longer than a single day, the Fund will lose money if the Index's performance is flat, and it is possible that the Fund will lose money even if the level of the Index rises.** Longer holding periods, higher Index volatility and greater leverage each exacerbate the impact of compounding on an investor's returns. During periods of higher Index volatility, the volatility of the Index may affect the Fund's return as much as or more than the return of the Index.

The Fund presents different risks than other types of funds. The Fund uses leverage and is riskier than similarly benchmarked exchange-traded funds that do not use leverage. The Fund may not be suitable for all investors and should be used only by knowledgeable investors who understand the consequences of seeking daily leveraged (3x) investment results, including the impact of compounding on Fund performance. Investors in the Fund should actively manage and monitor their investments, as frequently as daily. An investor in the Fund could potentially lose the full principal value of his/her investment within a single day.

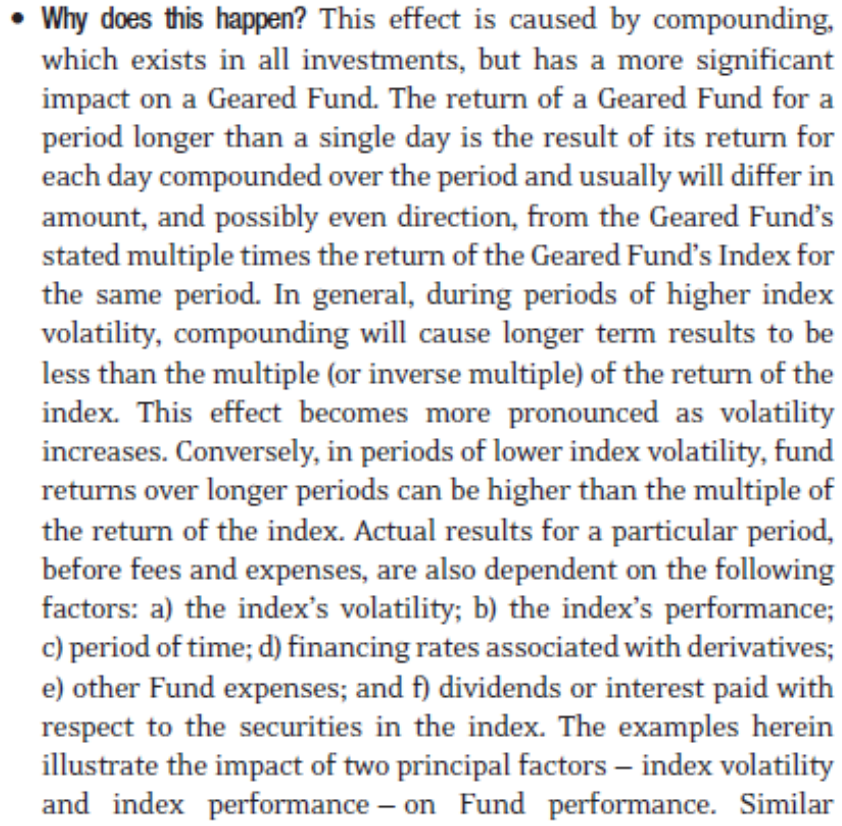
Investment Objective

The Fund seeks daily investment results, before fees and expenses, that correspond to three times (3x) the daily performance of the Index. **The Fund does not seek to achieve its stated investment objective over a period of time greater than a single day.**

The same prospectus also dedicates an entire section to explaining to investors ***why*** it is unlikely that a leveraged and inverse fund provides a simple multiple of an index's performance over periods longer than a single day:[55]

[55] ProShares Prospectus, October 1, 2019, p. 639.

Figure 5: Upfront Disclosure of Compounding Interest's Impact on a Leveraged Fund's Return



- **Why does this happen?** This effect is caused by compounding, which exists in all investments, but has a more significant impact on a Geared Fund. The return of a Geared Fund for a period longer than a single day is the result of its return for each day compounded over the period and usually will differ in amount, and possibly even direction, from the Geared Fund's stated multiple times the return of the Geared Fund's Index for the same period. In general, during periods of higher index volatility, compounding will cause longer term results to be less than the multiple (or inverse multiple) of the return of the index. This effect becomes more pronounced as volatility increases. Conversely, in periods of lower index volatility, fund returns over longer periods can be higher than the multiple of the return of the index. Actual results for a particular period, before fees and expenses, are also dependent on the following factors: a) the index's volatility; b) the index's performance; c) period of time; d) financing rates associated with derivatives; e) other Fund expenses; and f) dividends or interest paid with respect to the securities in the index. The examples herein illustrate the impact of two principal factors – index volatility and index performance – on Fund performance. Similar

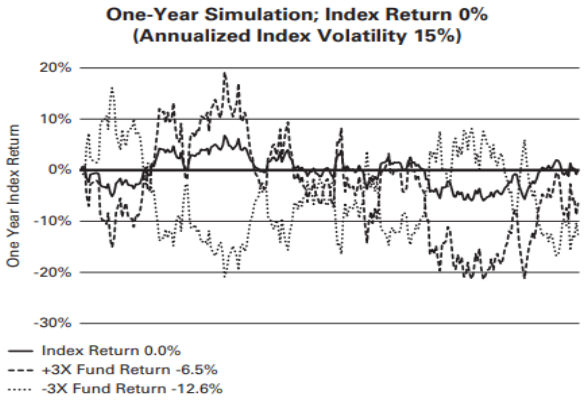
63. In order to further help investors understand the consequences of holding daily rebalanced funds for periods longer than a single day, the above disclosures are accompanied by illustrative graphs (Figure 6) showing the simulated hypothetical one-year performance of an index compared with the performance of a leveraged and inverse fund that perfectly achieves its investment objective.[56] These graphs demonstrate, for various levels of the index return (0%, 12%, and -12%) for periods longer than a single day, that a leveraged and inverse fund is likely to provide a return that underperforms or overperforms (but does not match) the index performance (or the inverse of the index performance) times the stated multiple in the fund's investment objective.

64. The prospectus also includes a chart (Figure 7) that displays various combinations of one-year index returns (-60% to 60%), and one-year volatility rates (10% to 100%), and the corresponding one-year return of a 3X leveraged fund.[57] The table indicates that a leveraged

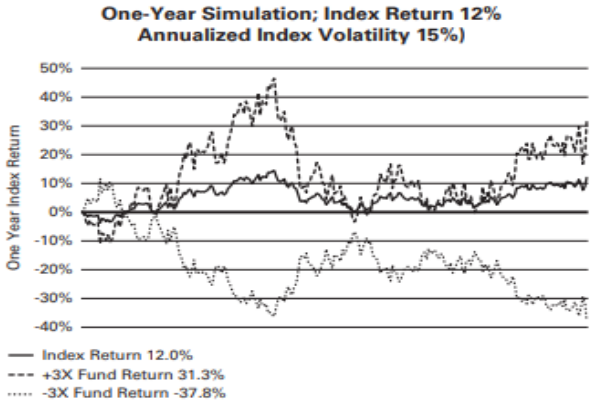
[56] ProShares Prospectus, October 1, 2019, pp. 639–640.
[57] ProShares Prospectus, October 1, 2019, p. 375.

fund varies from the one-year index performance times the stated multiple in the fund's investment objective.

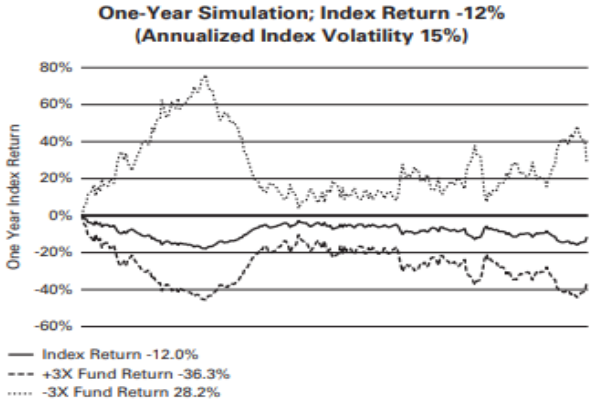
Figure 6: Sample Illustrations of the Implications of a Leveraged Fund's One-Day Investment Objective for its Returns Over Longer Horizons



The graph above shows a scenario where the index, which exhibits day-to-day volatility, is flat or trendless over the year (i.e., begins and ends the year at 0%), but the UltraPro ProShares (+3x) Fund and the UltraPro Short ProShares (-3x) Fund are both down.



The graph above shows a scenario where the index, which exhibits day-to-day volatility, is up over the year, but the UltraPro ProShares (+3x) Fund is up less than three times the index and the UltraPro Short ProShares (-3x) Fund is down more than three times the inverse of the index.



The graph above shows a scenario where the index, which exhibits day to day volatility, is down over the year, the UltraPro ProShares (+3x) Fund is down less than three times the index, and the UltraPro Short ProShares (-3x) Fund is up less than three times the inverse of the index.

Figure 7: Sample Chart Isolating the Effect of Index Volatility and Index Performance on the Return of a Leveraged Fund

Areas shaded darker represent those scenarios where the Fund can be expected to return less than three times (3x) the performance of the Index.

Estimated Fund Returns

Index Performance		One Year Volatility Rate				
One Year Index	Three times (3x) the One Year Index	10%	25%	50%	75%	100%
-60%	-180%	-93.8%	-94.7%	-97.0%	-98.8%	-99.7%
-50%	-150%	-87.9%	-89.6%	-94.1%	-97.7%	-99.4%
-40%	-120%	-79.0%	-82.1%	-89.8%	-96.0%	-98.9%
-30%	-90%	-66.7%	-71.6%	-83.8%	-93.7%	-98.3%
-20%	-60%	-50.3%	-57.6%	-75.8%	-90.5%	-97.5%
-10%	-30%	-29.3%	-39.6%	-65.6%	-86.5%	-96.4%
0%	0%	-3.0%	-17.1%	-52.8%	-81.5%	-95.0%
10%	30%	29.2%	10.3%	-37.1%	-75.4%	-93.4%
20%	60%	67.7%	43.3%	-18.4%	-68.0%	-91.4%
30%	90%	113.2%	82.1%	3.8%	-59.4%	-89.1%
40%	120%	166.3%	127.5%	29.6%	-49.2%	-86.3%
50%	150%	227.5%	179.8%	59.4%	-37.6%	-83.2%
60%	180%	297.5%	239.6%	93.5%	-24.2%	-79.6%

The foregoing table is intended to isolate the effect of Index volatility and Index performance on the return of the Fund and is not a representation of actual returns. For example, the Fund may incorrectly be expected to achieve a -60% return on a yearly basis if the Index return were -20%, absent the effects of compounding. As the table shows, with Index volatility of 50%, the Fund could be expected to return -75.8% under such a scenario. The Fund's actual returns may be significantly better or worse than the returns shown above as a result of any of the factors discussed above or in "Principal Risks – Correlation Risk" below.

b) The Use of Derivatives is Clearly Disclosed

65. Leveraged and inverse funds clearly disclose their use of derivatives. The ProShares UltraPro S&P 500 ETF discloses their use of derivatives under the heading "Principal Investment Strategies." The disclosure reads:

The Fund will invest principally in the financial instruments set forth below. The Fund expects that its cash balances maintained in connection with the use of financial instruments will typically be held in money market instruments.

- Equity Securities — The Fund invests in common stock issued by public companies.
- Derivatives — The Fund invests in derivatives, which are financial instruments whose value is derived from the value of an underlying asset or assets, such as stocks, bonds, funds (including exchange-traded funds ("ETFs")), interest rates or indexes. The Fund invests in derivatives as a substitute for investing directly in stocks in order to seek returns for a single day that are leveraged (3x) to the returns of the Index for that day. These derivatives principally include:
    - Swap Agreements — Contracts entered into primarily with major global financial institutions for a specified period ranging from a day to more than one year. In a standard "swap" transaction, two parties agree to exchange the return (or differentials in rates of return) earned or realized on particular predetermined investments or instruments. The gross return to be exchanged or "swapped" between the parties is calculated with respect to a "notional amount," e.g., the return on or change in value of a particular dollar amount invested in a "basket" of securities or an ETF representing a particular index.
    - Futures Contracts — Standardized contracts traded on, or subject to the rules of, an exchange that call for the future delivery of a specified quantity and type of asset at a specified time and place or, alternatively, may call for cash settlement.
- Money Market Instruments — The Fund invests in short-term cash instruments that have a remaining maturity of 397 days or less and exhibit high quality credit profiles, for example:
    - U.S. Treasury Bills — U.S. government securities that have initial maturities of one year or less, and are supported by the full faith and credit of the U.S. government.
    - Repurchase Agreements — Contracts in which a seller of securities, usually U.S. government securities or other money market instruments, agrees to buy the securities back at a specified time and price. Repurchase agreements are primarily used by the Fund as a short-term investment vehicle for cash positions.[58]

c) Tracking Error Is Inherent in All Funds and Clearly Disclosed

66. The SEC and FINRA note that "[t]here is always a risk that not every leveraged or inverse ETF will meet its stated objective on any given trading day."[59] This risk is not unique to leveraged and inverse ETFs but inherent to almost all passively managed funds. Further, this

[58] ProShares Prospectus, October 1, 2019, pp. 373–374.
[59] "Leveraged and Inverse ETFs: Specialized Products with Extra Risks for Buy-and-Hold Investors," Securities and Exchange Commission, August 1, 2009, available at https://www.sec.gov/investor/pubs/leveragedetfs-alert.htm.

risk is disclosed in the prospectuses. For example, the ProShares UltraPro S&P 500 fund discloses:

> The performance of an ETF may not track the performance of the Index due to embedded costs and other factors.[60]

Neither FINRA nor the SEC present any evidence that leveraged and inverse ETFs in fact suffer from tracking error issues

d) Potential Tax Consequences Are Not Unique to Leveraged and Inverse Funds and Are Clearly Disclosed

67. The SEC and FINRA highlight that "[l]everaged and inverse ETFs may be less tax-efficient than traditional ETFs."[61] This risk is not unique to leveraged and inverse funds but applicable to all funds who may realize short-term capital gains.[62] Further, whether a particular fund is tax-efficient or not is a question for that fund and is difficult to generalize to a broader population. For example, a Morningstar report analyzed the capital gains of fourteen ETF providers, one of which was ProShares, which provides over 140 funds.[63] Of the 140 funds, ProShares only estimated one with capital gains for 2019.[64] In contrast, one fund provider estimated that 12.5% of their funds would experience capital gains.

68. I understand that across all ProShares Trust 40-Act registered ETFs, there have been only 7 capital gains distributions over the last 10 years.

69. Further, the potential tax consequences are clearly disclosed in fund prospectuses. For example, the ProShares UltraPro S&P 500 fund discloses:

> Income and capital gains distributions you receive from the Fund generally are subject to federal income taxes and may also be subject to state and local taxes.

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[60] ProShares Prospectus, October 1, 2019, pp. 374–375.
[61] "Leveraged and Inverse ETFs: Specialized Products with Extra Risks for Buy-and-Hold Investors," Securities and Exchange Commission, August 1, 2009, available at https://www.sec.gov/investor/pubs/leveragedetfs-alert.htm.
[62] "Tax Efficiency Differences: ETFs vs. Mutual Funds," Investopedia, October 17, 2019, available at https://www.investopedia.com/articles/investing/090215/comparing-etfs-vs-mutual-funds-tax-efficiency.asp
[63] "Illuminating ETF Tax Efficiency," Morningstar, December 2019. "Product Guide," ProShares, November 2019, available at https://www.proshares.com/media/documents/proshares_product_list.pdf?param=1584830604932.
[64] From the report, I am unable to tell whether this was a leveraged or inverse ETF.

> The Fund intends to distribute income, if any, quarterly, and capital gains, if any, at least annually. ***Distributions for this Fund may be significantly higher than those of most ETFs.***[65] (emphasis added)

Even though the SEC and FINRA highlight taxes in their alert, the SEC barely mentions it in the proposed rule as a concern. Regardless, neither the SEC nor FINRA has shown that leveraged and inverse funds are less tax-efficient than traditional ETFs in either their investor alert or in the SEC's proposed rule.

e) Costs Are Clearly Disclosed

70. The SEC and FINRA claim that "[l]everaged or inverse ETFs may be more costly than traditional ETFs."[66] Whether an investment is more or less expensive than a "traditional ETF" is a question that is not unique to leveraged and inverse funds and can be different for each leveraged and inverse fund. The fees for leveraged and inverse funds are clearly disclosed. For example, the ProShares UltraPro S&P 500 fund discloses their fees on the first page of the prospectus:[67]

Fees and Expenses of the Fund

The table below describes the fees and expenses that you may pay if you buy or hold shares of the Fund.

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)	
Investment Advisory Fees	0.75%
Other Expenses	0.17%
Total Annual Fund Operating Expenses*	**0.92%**

In addition, they disclose that the fund "pays transaction and financing costs associated with the purchase and sale of securities and derivatives."[68]

71. Additionally, leveraged and inverse ETFs in many cases may offer a more cost effective approach than other strategies such as use of margin or shorting.

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[65] ProShares Prospectus, October 1, 2019, p. 378.
[66] "Leveraged and Inverse ETFs: Specialized Products with Extra Risks for Buy-and-Hold Investors," Securities and Exchange Commission, August 1, 2009, available at https://www.sec.gov/investor/pubs/leveragedetfs-alert.htm.
[67] ProShares Prospectus, October 1, 2019, p. 373.
[68] ProShares Prospectus, October 1, 2019, p. 373.

72. Leveraged and inverse fund prospectuses inform investors about the characteristic feature of leveraged and inverse funds' one-day investment objective, the funds' use of derivatives, their tracking error risk, their tax risks, and their expense profile. There is no evidence that there is a problem that needs to be solved in any of these areas.

C. Leveraged and Inverse Funds Are Not Complex in the Same Way Options Are

73. Options have many complex features that are not shared by leveraged and inverse funds. Even the most simple vanilla put and call options on generic underlying instruments are characterized by unique risks.[69] These features are even more pronounced for options on particular types of underlying instruments, and for exotic options (such as binary or barrier options) and strategies combining several options, such as straddles, strangles, etc.

74. Before describing some of the unique complexities of options, it is worth noting that many options are written on individual stocks rather than a basket of underlying interests.[70] This implies that equity options tend to have more idiosyncratic company-specific risk than investments that reference a basket of securities, like most funds.

75. However, even when options reference a diversified portfolio of underlying interests, their pay-offs are complex in ways that the pay-offs of leveraged and inverse funds are not. Most importantly, unlike the leverage in leveraged and inverse funds, the leverage embedded in option investments is time-varying. An additional feature of options, which arguably contributes to their complexity, is that they expose investors to different sources of risk depending on whether an investor holds or writes the option.[71] This asymmetric exposure arguably requires careful consideration from investors, especially when investors simultaneously hold and write multiple options.

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[69] "Characteristics and Risks of Standardized Options," Options Clearing Corporation, February 1994 (with 1997 through 2012 supplements), pp. 57–88.

[70] For instance, in 2016, approximately one third of all option volume on the CBOE was on single name equities rather than on an index or ETFs. "2016 CBOE Market Statistics," CBOE Global Markets, p. 4. Idiosyncratic risk for individual stocks can arise from corporate events, such as earnings results, management changes, and mergers and acquisitions.

[71] "Characteristics and Risks of Standardized Options," Options Clearing Corporation, February 1994 (with 1997 through 2012 supplements), pp. 57–67.

1. Unlike Most Leveraged and Inverse Funds, Options Have Time-Varying Leverage

76. Like leveraged and inverse funds, options are leveraged investments.[72] Unlike leveraged funds this leverage can change considerably over time.[73] Consider for example a vanilla call option on a stock. For a premium, which is only a percentage of what one would pay to own the stock outright, the option allows investors to fix the price at which they can purchase the stock in the future. By investing in options, as opposed to owning a security outright, investors can leverage their investment power. Importantly, however, the implied leverage of an options investment varies over the life of the investment as the price of the underlying interest varies. This is in stark contrast with the constant leverage that is implied in leveraged and inverse funds, which is reset daily to their disclosed leverage factor.

2. Holding Options Presents Risks That Leveraged and Inverse Fund Investors Do Not Face

77. Unlike investors in leveraged and inverse funds, option holders run the risk of losing the entire amount paid for the option in a relatively short period of time. This is especially true for options that are deep out-of-the-money. These options have a large probability of a -100% return and a small probability of a positive return.

3. Writing Options Presents Risks That Leveraged and Inverse Fund Investors Do Not Face

78. Unlike investors in leveraged and inverse funds, option writers face potentially unlimited downside risks. In other words, they can lose more than the capital allocated to their strategy. For example, suppose an investor has $250 and they believe the S&P 500 is overvalued. One way this investor could act on this belief would be to write options. They could hold the $250 in cash and write a six-month call on the S&P 500 with a strike price of $2,500. In this case, they

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[72] Formally, an option's leverage is summarized as the expected percent change in the value of the option for a given percentage change in the value of the underlying stock price, and often denoted by the Greek letter lambda, λ.

[73] The implied leverage of a leveraged and inverse fund is reset periodically. If an investor purchases a leveraged or inverse fund in between the reset periods the effective leverage will likely not be exactly the factor. However, the deviations in the implied leverage is usually quite small especially in daily reset funds. In contrast, implied leverage for options can vary dramatically over an option's life.

may receive $250 as a premium. If the S&P 500 trades at $3,000 in six months, the investor would have to pay $500, *i.e.*, the $250 premium and the $250 of capital. Their return on this strategy would be -100% since the investor would have to exhaust the amount of capital allocated to the strategy. However, if the S&P trades at $3,500 in six months, the investor would have to pay $1,000. They would be $500 short of this obligation since they only would have $500 available (the $250 premium and the $250 of initial capital) and would have to look to other sources to meet their obligation.

79. Another unique risk from writing options is "assignment risk."[74] Since American-style options can be exercised at any time before expiry, an investor writing either a call or put option is obligated to sell or buy the underlying asset at any time of the option holder's choosing. This can be especially complicated if the strategy being utilized is "uncovered," *i.e.*, the investor does not own the underlying security. Assignment risk is not a risk exhibited with leveraged and inverse funds.

4. Binary Options Present Special Risks that Leveraged and Inverse Fund Investors Do Not Face

80. Besides vanilla put and call options, retail investors also have access to more exotic options such as binary options. Binary options present their own set of risks in addition to those of simple options. Importantly, binary options have a discontinuous payoff, which presents its own set of considerations, and are considered especially risky if the option finishes near the money as small changes in the underlying price can have a big impact on the value of the option.

81. An example of a binary option is an option that pays off a fixed amount, say $100, if the underlying interest is above (or below) a specified threshold, and zero otherwise, as of a specific time. This option is more difficult to hedge than a vanilla call or put option. Since the payoff of this binary option is non-continuous, traditional hedging techniques such as purchasing or selling underlying securities or options with different strike prices do not work as well.[75]

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[74] See Kolb, Robert W., and James A. Overdahl, *Futures, Options and Swaps*, Fifth Edition (Malden, MA: Blackwell Publishing), 2007, p. 516.

[75] "Characteristics and Risks of Standardized Options," Options Clearing Corporation, February 1994 (with 1997 through 2012 supplements), p. 145.

82. If the underlying instrument is trading close to the strike of the binary option, investors are also exposed to the risk that a small change in the underlying asset value can have a large effect on the price of the option.[76]

D. The Proposed Sales Practices Rules Exclude Many Products That Are Just as Complex as Leveraged and Inverse Funds

83. Retail investors have access to a broad swath of financial products, many of which are regulated by the SEC.[77] There are many products which the SEC regulates that also may be complicated for investors to understand and are not subject to rules like the proposed sales practices rules. Among the products that have unique characteristics that the SEC regulates but are not subject to sales practices rules are, leveraged loan funds, alternative mutual funds, principal protect notes, defined outcome ETFs, corporate bonds, exchange-traded notes ("ETNs"), and ETFs that reference non-standard indices.

1. Leveraged Loan Funds

84. Leveraged loan funds are funds that purchase so-called "leveraged loans." Leveraged loans are typically loans made to a large company with a relatively low credit rating and/or a high level of debt.[78] For example, Leveraged Commentary & Data, a division of Standard & Poor's, defines a leveraged loan as one either given to a company with a credit rating of BB+ or lower, or one with a spread of 125 basis points over LIBOR that has been secured by a first or second lien.[79] Leveraged loans typically pay a higher rate of return than the debt of safer companies since leveraged loans are viewed as riskier.

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[76] "Characteristics and Risks of Standardized Options," Options Clearing Corporation, February 1994 (with 1997 through 2012 supplements), p. 146.
[77] For example, the SEC regulates stocks, bonds, index funds, mutual funds, options, and other securities. "The Laws That Govern the Securities Industry," available at https://www.sec.gov/answers/about-lawsshtml.html.
[78] "Leveraged Loan Funds – Investor Bulletin," Investor.gov, November 20, 2019, available at https://www.investor.gov/introduction-investing/general-resources/news-alerts/alerts-bulletins/investor-bulletins/leveraged.
[79] "Leveraged Loan Primer," S&P Global, available at https://www.spglobal.com/marketintelligence/en/pages/toc-primer/lcd-primer#sec1a.

85. The underlying assets in leveraged loan funds can be complex. The SEC highlighted four features of leveraged loans that investors should evaluate: (i) credit default; (ii) liquidity; (iii) fewer protections; and (iv) LIBOR.[80]

86. As noted above, leveraged loans are typically made to companies that have a low credit rating or a high credit spread. For this reason, these loans have a relatively high chance of defaulting. If a company defaults on its loan, there is a chance that the Leveraged Loan Fund may only receive a small amount of the principal it invested in the loan. This risk can be mitigated if the loan is secured by some sort of collateral, which many leveraged loans are. However, evaluating the probability of default as well as the recovery rates on the underlying loans can be complex.

87. Since leveraged loans are not publicly traded securities, they typically cannot be bought and sold as easily as other assets. Thus, liquidity risk is a larger concern in these funds than in many other funds. In addition, leveraged loans typically have long settlement periods. This can be problematic if the fund needs to raise cash quickly.

88. Leveraged loan agreements typically contain covenants that put restrictions on the borrower. In recent years, there has been an increase in so-called "covenant-lite" loans.[81] Covenant-lite loans offer fewer investor protections than traditional loans. Additionally, covenants pose another issue for investors in leveraged loan funds. Since loan agreements are typically not public, it is difficult for a retail investor to know all the covenants a particular loan is subject to (or not subject to).

89. Finally, leveraged loans typically pay a rate that is floating over LIBOR. However, LIBOR is expected to be discontinued after 2021.[82] For loans that do not mature before 2021, it is unclear what the reference rate will be or if a replacement rate is specified in the loan agreement. As the SEC notes, "[t]his uncertainty may impact the value and liquidity of these loans."[83]

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[80] "Leveraged Loan Funds – Investor Bulletin," Investor.gov, November 20, 2019, available at https://www.investor.gov/introduction-investing/general-resources/news-alerts/alerts-bulletins/investor-bulletins/leveraged.

[81] See, e.g., "Implications of the Growth in Covenant-Lite Loans," Bain Capital Credit, June 2019, available at https://www.baincapitalcredit.com/sites/baincapitalcredit.com/files/Credit_Market_Insights-Implications_of_Growth_in_Cov-Lite_Loans_060419.pdf.

[82] https://www.fca.org.uk/markets/libor.

[83] "Leveraged Loan Funds – Investor Bulletin," Investor.gov, November 20, 2019, available at https://www.investor.gov/introduction-investing/general-resources/news-alerts/alerts-bulletins/investor-bulletins/leveraged.

2. Alternative Mutual Funds

90. Alternative mutual funds encompass a wide range of investment objectives and strategies. As the SEC made clear in educational materials for alternative mutual funds, some "have similar investments and strategies to those of hedge funds."[84] Unlike hedge funds, which are only accessible to accredited investors,[85] alternative mutual funds are accessible to all retail investors.

91. There are many different types of alternative mutual funds with many different investment objectives. For example, Morningstar has seventeen different categories under their Alternative fund group.[86] These categories include diverse investment strategies such as: [87]

- Bear Market, which "attempt to take advantage of anticipated market or stock declines;"
- Market Neutral, which "attempt to reduce systematic risk …by matching short positions…against long positions;" and
- Options Writing, which "aim to generate a significant portion of their returns from the collection of premiums."

Since alternative mutual funds have such broad and diverse complexities, I will focus on three examples of the larger alternative mutual funds and discuss their complexities in more depth.

a) Calamos Market Neutral Income Fund

92. Calamos Market Neutral Income Fund ("CMNI Fund") is categorized as a "Market Neutral" fund by Morningstar[88] and had approximately $9.0 billion under management as of

[84] "Alternative Mutual Funds," Investor.gov, available at https://www.investor.gov/introduction-investing/investing-basics/investment-products/mutual-funds-and-exchange-traded-funds.
[85] "Investor Bulletin: Hedge Funds," Office of Investor Education and Advocacy, February 2013, available at https://www.sec.gov/investor/alerts/ib_hedgefunds.pdf.
[86] "The Morningstar Category Classifications," Morningstar, April 29, 2016, available at https://morningstardirect.morningstar.com/clientcomm/Morningstar_Categories_US_April_2016.pdf.
[87] "The Morningstar Category Classifications," Morningstar, April 29, 2016, available at https://morningstardirect.morningstar.com/clientcomm/Morningstar_Categories_US_April_2016.pdf.
[88] "Calamos Market Neutral Income A Analyst Rating," Morningstar, February 29, 2020, available at https://www.morningstar.com/funds/xnas/cvsix/risk.

December 31, 2019.[89] The fund utilizes two strategies: convertible arbitrage and hedged equity.[90] Convertible arbitrage is where the fund purchases a convertible bond and sells short the underlying equity.[91] Hedged equity involves building a long portfolio and then hedging the portfolio with options, primarily by writing call options and buying puts.[92] At the end of 2019, CMNI Fund had approximately 50% devoted to each strategy.[93]

93. For an investor to understand this fund, they would need to understand both strategies. To understand the hedged equity portion of the strategy, the investor needs to understand how options work and the risks associated with them, discussed in Section V.C. In addition, an investor would need to understand the risks of a convertible bond arbitrage strategy. This requires understanding the pricing of convertible bonds, which itself has many similarities to options.

b) Blackstone Alternative Multi-Strategy Fund

94. Blackstone Alternative Multi-Strategy Fund ("BAMS Fund") is categorized as a "Multialternative" fund by Morningstar[94] and, as of February 2020, had approximately $8.2 billion in fund assets.[95] The fund not only directly executes its strategies, it also allocates assets to a number of sub-advisors, which invest the assets in a variety different strategies.[96] As of February 2020, the BAMS Fund invested in four different strategies: (i) Equity Hedge; (ii) Relative Value; (iii) Event Drive; and (iv) Macro. The fund also allocated capital in "Multi-

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[89] "Calamos Market Neutral Income Fund Fact Sheet," Calamos Investments, December 31, 2019, available at https://www.calamos.com/globalassets/media/documents/product-literature/factsheet/calamos-market-neutral-income-fund-mutual-fund-fact-sheet.pdf.
[90] "Calamos Market Neutral Income Fund Fact Sheet," Calamos Investments, December 31, 2019, available at https://www.calamos.com/globalassets/media/documents/product-literature/factsheet/calamos-market-neutral-income-fund-mutual-fund-fact-sheet.pdf.
[91] "Convertible Arbitrage 101," Calamos Investments, available at https://www.calamos.com/contentassets/83db53d27eec47d684c8698cd9e696c3/convertible-arbitrage-101.pdf.
[92] "New On-demand Presentation Explains CMNIX Process, Results," Calamos Investments, July 10, 2018, available at https://www.calamos.com/blogs/investment-ideas/presentation-explains-cmnix-process-results.
[93] "Calamos Market Neutral Income Fund (CMNIX)," Calamos Investments, December 31, 2019, available at https://www.calamos.com/funds/mutual/market-neutral-income-cmnix.
[94] "Blackstone Alternative Multi-Strategy D Analyst Rating," Morningstar, February 29, 2020, available at https://www.morningstar.com/funds/xnas/bxmdx/risk.
[95] "Blackstone Alternative Multi-Strategy Fund Fact Sheet," Blackstone, February 29, 2020, available at https://www.bxmix.com/docs/librariesprovider7/literature/exposure-reports/bxmix-reporting-package-2-2020.pdf.
[96] "Blackstone Alternative Multi-Strategy Fund Fact Sheet," Blackstone, February 29, 2020, available at https://www.bxmix.com/docs/librariesprovider7/literature/exposure-reports/bxmix-reporting-package-2-2020.pdf.

Strategy" strategies. The fund also had 14 sub-advisors, many of which are large hedge funds. For example, two of the fifteen largest hedge funds, Two Sigma Advisers and D.E. Shaw, are sub-advisers for this fund.[97]

95. This fund is extremely complex. To understand the complexities, investors, at a minimum, would need to understand each strategy, each advisor's role, and the allocations to various asset classes and strategies.

c) BlackRock Event Driven Equity Fund

96. BlackRock Event Driven Equity Fund ("BEDE Fund") is categorized as a "Market Neutral" fund by Morningstar[98] and, as of December 31, 2019 had approximately $4.1 billion in assets.[99] The fund "primarily invest[s] in companies that have announced a material change or in companies that BlackRock expects to undergo a material change."[100] These could include events like "mergers and acquisitions, spinoffs and split-offs, financial or strategic restructurings, management changes, [and] synergistic acquisitions."[101] The fund may also invest "opportunistically across the capital structure using fixed income instruments."[102] This strategy also seeks to take a "low net, hedged approach" when investing around a corporate event.[103]

97. BEME Fund's strategy requires that the manager have additional insight into the probability of an event occurring over and above the market. If the manager did not have this insight, the returns on the fund would be negative. Thus, one of the key complexities from a retail investor's perspective is evaluating either the manager's insight or the models the manager uses to inform their strategies. This is extremely challenging for anyone, let alone a retail

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[97] "The largest managers of hedge funds," *Pensions & Investments*, September 16, 2018, available at https://www.pionline.com/special-report-hedge-funds/largest-managers-hedge-funds.
[98] "BlackRock Event Driven Equity Inv A Analyst Rating," Morningstar, February 29, 2020, available at https://www.morningstar.com/funds/xnas/balpx/risk.
[99] "BlackRock Event Driven Equity Fund Fact Sheet," BlackRock, December 31, 2019, available at https://www.blackrock.com/us/individual/literature/fact-sheet/bilpx-event-driven-equity-fund-factsheet-us09250j7349-us-en-individual.pdf.
[100] "BlackRock Event Driven Equity Fund Summary Prospectus," BlackRock, January 28, 2020, available at https://www.blackrock.com/us/individual/literature/prospectus/pro-breventdriven-inv-us.pdf.
[101] "BlackRock Event Driven Equity Fund Summary Prospectus," BlackRock, January 28, 2020, available at https://www.blackrock.com/us/individual/literature/prospectus/pro-breventdriven-inv-us.pdf.
[102] "BlackRock Event Driven Equity Fund Fact Sheet," BlackRock, December 31, 2019, available at https://www.blackrock.com/us/individual/literature/fact-sheet/bilpx-event-driven-equity-fund-factsheet-us09250j7349-us-en-individual.pdf.
[103] "Focus on capturing the value gap," BlackRock, June 2019, available at https://www.blackrock.com/us/individual/literature/brochure/an-intro-to-event-driven-investing.pdf.

investor with no access to the fund manager or any insight into what the model takes into account.

98. The alternative mutual funds category covers a wide variety of investment strategies. Even a single fund may utilize several different investment strategies, each of which is relatively complex. In addition, alternative funds are not a "cookie cutter" investment—in order to understand any given fund, one has to conduct research on the strategies employed. Many of these funds are complex in ways that leveraged and inverse funds are not.

3. Principal Protected Notes

99. Principal Protected Notes ("PPNs") are assets whose returns are based on the performance of an underlying index in non-linear ways. These assets are issued by financial institutions, have returns based on an underlying index (or composite of underlying indices), and typically have a fixed maturity. In general, the payoff structure of PPNs can be viewed as a composite of a bond and a series of derivatives.

100. To better understand the structure of the PPNs, consider the following example. On May 30, 2014, Barclays Bank issued "Buffered SuperTrack^{SM} Notes" that matured on May 30, 2019.[104] These notes had the Dow Jones Industrial average as their underlying index.[105] The payoff to the note holders at the end of May 30, 2019 took on three values:

1. If the Dow Jones was higher at maturity than it was on May 30, 2014, the notes returned the return on the Dow Jones.
2. If the Dow Jones had fallen between 0% and 20%, the notes returned 0%.
3. If the Dow Jones had fallen more than 20%, the notes returned the return on the Dow Jones less 20%.[106]

In this example, the Buffered SuperTrack Notes would be said to have an upside and downside "participation rate" of 100%, since the value of the investment increases and decreases proportionately to the index. It has a "fixed buffer" which means that its losses are reduced by

[104] "Barclays Bank PLC Preliminary Pricing Supplement," SEC EDGAR, May 27, 2014, available at https://www.sec.gov/Archives/edgar/data/312070/000119312514217464/d734905d424b2.htm.
[105] "Barclays Bank PLC Preliminary Pricing Supplement," SEC EDGAR, May 27, 2014, available at https://www.sec.gov/Archives/edgar/data/312070/000119312514217464/d734905d424b2.htm.
[106] For example, if the Dow Jones fell by 30%, the holder of the note would receive 10% (30%-20%).

20%, but the investor is not fully protected. Finally, this example has "point-to-point" calculation since the only values of the index that matter are the initial value of the index and the final value of the index. This PPN is also "uncapped" since there is potentially unlimited upside.

101. Even this relatively simple PPN has a number of complicated features. First, this payoff structure has many similarities to options; in fact, this structure could be replicated by an investor who buys a zero-coupon bond and an at-the-money call option, and then writes a put option at 80% of the value of the Dow Jones. Thus, it carries all the same risks as options on an index, which is discussed in greater detail in Section V.C. In addition, it has credit risk, since the asset is backed by the credit of the issuing institution, and liquidity risk, since it can only be sold to its issuer and not to other investors.

102. Often, PPNs have even more complex structures. For example, some PPNs have:

1. Multiple underlying indices: Some PPNs have returns calculated not on a single underlying index, but on multiple underlying indices. For example, one PPN issued by Citigroup had three underlying indices: the S&P 500, the EURO STOXX 50, and TOPIX, all of which were equally weighted.[107]
2. Non point-to-point index calculations: Some PPN have returns that depend on not only the closing value of an index, but also the path of returns. For example, a PPN issued by Wells Fargo had the ending index value calculated as the average of the index value on "the last trading day of each March, June, September and December, commencing March 2013 and ending December 2019."[108]
3. Knock-in features: Knock-in features change the payoff of the PPN when the underlying index crosses a threshold during the life of the note. For example, a PPN issued by Barclays in November 2011 had a knock-in level at 85% the initial value of the S&P 500.[109] The PPN would match the return of the S&P to investors unless it never hit its knock-in level, in which case it would either match the return of the S&P or return 3%, whichever was higher.[110]
4. Participation Rates that do not equal 100%: Some PPNs have upside (or downside) participation rates of greater than 100% (i.e. for each 1% increase (or decrease) in the underlying index there is a more than 1% increase (or decrease)

[107] "Citigroup Global Markets Holdings Inc. Preliminary Pricing Supplement," SEC EDGAR, January 31, 2019, available at https://www.sec.gov/Archives/edgar/data/200245/000095010319001366/dp101620_424b2-us1963583.htm.
[108] "Wells Fargo & Company Preliminary Pricing Supplement," SEC EDGAR, December 28, 2012, available at https://www.sec.gov/Archives/edgar/data/72971/000119312513000646/d459904d424b2.htm.
[109] "Barclays Bank PLC Preliminary Pricing Supplement," SEC EDGAR, November 4, 2010, available at https://www.sec.gov/Archives/edgar/data/312070/000119312510250256/d424b2.htm.
[110] "Barclays Bank PLC Preliminary Pricing Supplement," SEC EDGAR, November 4, 2010, available at https://www.sec.gov/Archives/edgar/data/312070/000119312510250256/d424b2.htm.

in the payoff of the PPN). For example, one PPN issued by Goldman Sachs had a participation rate of 150%.[111]

5. Capped Returns: Some PPNs limit the upside of their returns; even if the underlying index performs very well, investor returns can be capped. For example, the same PPN with a 150% participation rate also has a maximum return over the period of 51.5%.[112]

In addition, sometimes PPNs have "call provisions" that allow the issuer to redeem the note before maturity, and the tax treatment of PPNs can also be complicated.[113] Often, multiple features are present in a single PPN. With the exception of participation rates, none of these complexities are shared by leveraged or inverse funds.

4. Defined Outcome ETFs

103. Defined outcome ETFs share many of the same structural features as PPNs. All the current defined outcome ETFs have a capped return, a fixed buffer, and a single underlying index, similar to many PPNs.[114] Thus, these securities still have many of the same complexities as PPNs, most notably, they are equivalent to investing in a zero coupon bond and a basket of options. Thus, defined outcome ETFs have the same complexities as investing in a basket of options.

104. However, there are some differences between defined outcome ETFs and PPNs in terms of risks. Unlike PPNs, defined outcome ETFs do not have a credit risk component since they are not issued by a specific bank. Defined outcome ETFs trade on exchanges and thus can be sold to entities other than the issuer; therefore, the liquidity risk of a defined outcome ETF may be attenuated compared to PPNs.

105. In some ways, defined outcome ETFs have fewer complexities than PPNs and in other ways they have more complexities. One thing that makes PPNs potentially less complex than

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[111] "Goldman Sachs Group, Inc. Preliminary Pricing Supplement," SEC EDGAR, April 25, 2008, available at https://www.sec.gov/Archives/edgar/data/886982/000119312508091220/d424b2.htm.
[112] "Goldman Sachs Group, Inc. Preliminary Pricing Supplement," SEC EDGAR, April 25, 2008, available at https://www.sec.gov/Archives/edgar/data/886982/000119312508091220/d424b2.htm.
[113] "Investors Bulletin: Structured Notes," Securities and Exchange Commission, January 12, 2015, available at https://www.sec.gov/oiea/investor-alerts-bulletins/ib_structurednotes.html.
[114] "Innovator Defined Outcome ETFs: Product Table," Innovator Capital Management, available at http://www.innovatoretfs.com/define/etfs/.

defined outcome ETFs is that PPNs are typically purchased at issuance, but defined outcome ETFs trade continuously. Continuous trading can introduce other complexities since defined outcome ETFs have a target outcome over a specific period of time. For example, the Innovator S&P 500 Buffer ETF December Series has a starting cap of 13.35% and a starting buffer of 9.00%.[115] However, this cap and buffer apply to the December-to-December return and not intermediate returns. For example, consider an investor looking to purchase the ETF on March 17, 2020; the S&P had fallen by roughly 20% since December and the ETF price had also fallen alongside it. An investor, who invested in the ETF in mid-March, could potentially earn more than the cap from his or her investment, but the investment would not be protected from further losses since the buffer had already been exhausted. Investing midway through the objective period allows an investor not to have the same "cap" and "buffer" characteristics as an investor who invests at the beginning of an ETF's objective period.

5. Corporate Bonds

106. Corporate bonds are debt issued by companies. High-yield corporate bonds are a type of corporate bond that "offer[] a higher rate of interest because of its higher rate of default."[116] Corporate bonds, especially high-yield corporate bonds, have a variety of features that leveraged and inverse ETFs do not including default risk, potentially increased liquidity risk, covenants, non-standard payment terms, and call provisions.

107. Corporate bonds have default risk while leveraged and inverse ETFs generally do not.[117] Specifically, corporate bonds are exposed to the credit risk of the company that is issuing the bond and not just broader market conditions. This type of risk can be especially important for high-yield corporate bonds. In order to understand the credit risk inherent in a bond, an investor would need to understand that company's financials.

108. Corporate bonds may have increased liquidity risk compared to leveraged and inverse ETFs. Most corporate bonds trade over-the-counter and not on an exchange, which means that

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[115] "S&P 500 Buffer ETF December Series," Innovator Capital Management, available at http://www.innovatoretfs.com/etf/?ticker=bdec.

[116] https://www.sec.gov/files/ib_high-yield.pdf

[117] There may be a few leveraged and inverse ETFs that are exposed to credit risk, for example, the ProShares Ultra High Yield ETF is exposed to some credit risk. Since its benchmark index is the Markit iBoxx $ Liquid High Yield Index. https://www.proshares.com/funds/ujb_index.html

there is less visibility into pricing for the retail investor. In addition, if liquidity decreases in the market, an investor may not be able to sell their bond or have to pay a high price to do so.

109. Furthermore, there are a variety of legal provisions that are potentially in bond contracts that are not in leveraged and inverse ETFs. Specifically, these legal provisions can include:

1. Covenants: Some corporate bonds have covenants associated with them. These covenants can vary from bond to bond and restrict a company's activity. Covenants are usually beneficial to bondholders.[118]
2. Payment Terms: Some corporate bonds may allow issuers to skip interest payments or allow interest payments to be "payment-in-kind" under certain conditions.[119]
3. Call Provisions: Some corporate bonds may allow the issuer to "call" the debt, i.e. repay the debt immediately at par. These call provisions can be active only during certain periods of the bond and an investor may not be able to invest at a similar rate of interest if the bond is called.[120]

6. Exchange-Traded Notes

110. ETNs were developed in 2006 with the objective of providing retail investors with easier access to certain commodities and foreign exchange products.[121] Like ETFs, ETNs are traded on a stock exchange and track a benchmark index. Unlike ETFs, however, ETNs are structured as debt instruments. Specifically, ETNs are senior, unsecured debt issued by a bank, ETNs themselves do not actually own the underlying assets that their return tracks.

111. The debt structure of ETNs brings about several trade-offs. On one hand, by virtue of its debt structure, ETNs avoid costs associated with holding commodities, currencies and futures. ETN investors also avoid tracking-error, since an ETN's return is based on the promise of the issuing bank to pay the full value of the index at maturity, and it is not based on the ETN issuer's ability to accurately track the index. On the other hand, the debt structure of ETNs gives rise to additional risks that are either not present, or are less present, in traditional ETFs. Foremost,

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[118] https://www.sec.gov/files/ib_high-yield.pdf
[119] Payment in kind, or PIK, is when the bond makes interest payments in additional bonds rather than in cash. https://www.sec.gov/files/ib_high-yield.pdf
[120] https://www.sec.gov/files/ib_high-yield.pdf
[121] "Exchange-traded notes," Fidelity, available at https://www.fidelity.com/learning-center/investment-products/etf/types-etfs-etns.

investors in ETNs are exposed to the market risk and credit risk of the issuing bank. Since banks do default, these are important risks.[122]

112. This is especially noteworthy given that leveraged and inverse ETNs are also among the range of ETNs offered. Leveraged and inverse ETNs arguably require retail investors to internalize the same sources of underlying risks as leveraged and inverse ETFs except that ETN investors would also need to understand their exposure to the credit risk of the guarantors on the ETNs.

7. Exchange-Traded Funds with Bespoke Underlying Indices

113. Other complex assets that have drawn attention from the Commission include non-traditional index funds and exchange-traded funds with bespoke underlying indices. Such indices are built at the request and to the specifications of a single ETF sponsor in contrast to broad-based indices used by several asset managers and investors as benchmarks.[123] When ETFs reference bespoke indices, they are arguably characterized by an additional layer of complexity. FINRA describes this extra complexity as follows: "[I]nvestments tied to the performance of markets that may not be well understood by many investors."[124]

114. In an Investor Bulletin dated August 6, 2018, the SEC informs investors about the features and potential risks of these non-traditional ETFs.

> Some index mutual funds and exchange-traded funds (ETFs) use more complex or targeted investing strategies than have been traditionally associated with index funds. Unlike traditional index funds, which track a market index, these funds use custom-built indexes to select the fund's investments. By tracking a custom-built index, a non-traditional index fund may seek to achieve performance greater than a particular market

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[122] For example, Lehman Brothers issued ETNs and when Lehman Brothers went bankrupt investors in their ETNs lost their investment.

[123] "What Investors Should Know About 'Bespoke' Funds," *The Wall Street Journal*, November 16, 2016, available at https://www.wsj.com/articles/what-investors-should-know-about-bespoke-funds-1479311369.

[124] "Heightened Supervision of Complex Products," FINRA, Regulatory Notice 12-03, January 2012, available at https://www.finra.org/rules-guidance/notices/12-03.

or sector. Or, such a fund may seek exposure to securities based on factors like financial strength, or environmental, social and governance concerns.[125]

115. In the same bulletin, the Commission warns investors that some of the underlying dynamics of the benchmarks "may be difficult to understand because their methods for attempting to achieve returns may not be straightforward. For example, an index based on quantitative analysis or algorithms may involve complicated mathematical calculations and economic concepts."[126] The SEC highlights that "these funds may have some features of active management, including seeking to outperform the market" and that they "may have limited performance histories. It may not be clear how they will perform under different market conditions."[127] Furthermore, the Commission highlights that "these funds may behave very differently than the market and traditional index funds. Because non-traditional index funds may be less correlated to the market."[128]

116. The SEC also provides several examples of non-traditional index funds that investors should take time to understand. The examples include:

1. "Smart Beta," funds that track custom-built indices using "factors" that are believed to correlate with certain types of securities to outperform the market as a whole;
2. "Quant Funds," funds that track custom indices using advanced numerical methods like quantitative analysis or algorithms to select the fund's investments; and
3. "Environmental, Social and Governance (ESG) Funds," funds that track custom-built indices using ESG factors to select the fund's investments and thereby avoid investing in securities from issuers with questionable environmental policies, poor corporate governance, or poor diversity on their Boards[129]

[125] "Investor Bulletin: Smart Beta, Quant Funds and other Non- Traditional Index Funds," Office of Investor Education and Advocacy, August 6, 2018, available at https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_smartbeta.
[126] "Investor Bulletin: Smart Beta, Quant Funds and other Non- Traditional Index Funds," Office of Investor Education and Advocacy, August 6, 2018, available at https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_smartbeta.
[127] "Investor Bulletin: Smart Beta, Quant Funds and other Non- Traditional Index Funds," Office of Investor Education and Advocacy, August 6, 2018, available at https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_smartbeta.
[128] "Investor Bulletin: Smart Beta, Quant Funds and other Non- Traditional Index Funds," Office of Investor Education and Advocacy, August 6, 2018, available at https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_smartbeta.
[129] "Investor Bulletin: Smart Beta, Quant Funds and other Non- Traditional Index Funds," Office of Investor Education and Advocacy, August 6, 2018, available at https://www.sec.gov/oiea/investor-alerts-and-bulletins/ib_smartbeta.

117. Despite the Commission's awareness of the complexities of non-traditional index funds, the release has not imposed sales rules on them in the spirit of the proposed rules for leveraged and inverse funds, nor are they subject to other types of sales restrictions. This differential treatment of non-traditional index funds relative to leveraged and inverse ETFs is also particularly striking in light of recent comments from Dalia Blass, the Director of the SEC's Division of Investment Management. She raises additional concerns regarding the presence of potentially complex issues pertaining to the clarity of disclosures for these type of ETFs:[130]

> If a fund is tracking a bespoke or narrowly focused index, is the fund's disclosure clearly describing its strategy to investors? In recent years, investors have shown significant interest in index funds. They may even be shopping specifically for an index fund. Can an investor readily discern how decisions for the fund will be made, especially if the fund uses a bespoke index? An investor reading that a fund seeks to track an index is likely to assume something about the fund's management. It is worth asking, then, would a reasonable investor's expectations for that fund match how the fund actually operates? If not, then the fund may need to revisit how it characterizes its strategy.

118. Given the SEC's own Investor Bulletin and the Investment Management Division director's comments, one might argue that non-traditional index funds are at least as complex as leveraged and inverse funds for retail investors to fully understand. The SEC's decision to regulate the sales of leveraged and inverse funds and not the sales of non-traditional index funds thus appears arbitrary.

VI. Conclusion

119. The SEC's proposed sales practices rules seek to regulate access to leveraged and inverse funds. I find that the SEC's investor protection concerns are not supported by economic analysis and that the risks of leveraged and inverse funds are not comparable to options for which similar sales practices rules are in place. Therefore, I do not believe that the existing sales practices regime for options is a good model for leveraged and inverse funds. Specifically,

[130] "Keynote Address, ICI 2018 Mutual Funds and Investment Management Conference," Dalia Blass, SEC Director, Division of Investment Management, March 19, 2018, available at https://www.sec.gov/news/speech/speech-blass-2018-03-19.

a. The SEC does not show that retail investors hold leveraged and inverse funds for extended periods or that investors would be harmed by holding leveraged and inverse funds over a longer holding period if, as with all investments, investors monitor and manage them. The one paper cited is unreliable and does not provide a reasoned basis for the proposed sales practices rules.
b. Options have many complex characteristics that leveraged and inverse funds do not. The SEC has not shown that the complexities of leveraged and inverse funds are comparable to those of options or why the options sales framework is the appropriate one to apply.
C. There are many products that are not subject to similar sales practices rules and are just as complex, if not more so, than leveraged and inverse funds. The SEC has not proposed similar sales practices rules for these investment products or provided any reason for why it is focusing exclusively on leveraged and inverse funds.

Exhibit 2

ProShares®

SUMMARY PROSPECTUS
OCTOBER 1, 2019

SSO PROSHARES ULTRA S&P500

Beginning on January 1, 2021, as permitted by regulations adopted by the Securities and Exchange Commission, paper copies of the Fund's annual and semi-annual shareholder reports will no longer be sent by mail, unless you specifically request paper copies of the reports. Instead, the reports will be made available on the Fund's website (www.proshares.com), and you will be notified by mail each time a report is posted and provided with a website link to access the report.

If you already elected to receive shareholder reports electronically, you will not be affected by this change and you need not take any action. You may elect to receive shareholder reports and other communications from the Fund electronically anytime by contacting your financial intermediary (such as your brokerage firm).

Beginning on January 1, 2019, you may elect to receive all future reports in paper free of charge. Please contact your financial intermediary to request that you continue to receive paper copies of your shareholder reports. Your election to receive reports in paper will apply to all funds held in your account that you invest in through your financial intermediary.

SSO LISTED ON NYSE ARCA

This Summary Prospectus is designed to provide investors with key fund information in a clear and concise format. Before you invest, you may want to review the Fund's Full Prospectus, which contains more information about the Fund and its risks. The Fund's Full Prospectus, dated October 1, 2019, and Statement of Additional Information, dated October 1, 2019, and as each hereafter may be supplemented, are incorporated by reference into this Summary Prospectus. All of this information may be obtained at no cost either: online at ProShares.com/resources/prospectus_reports.html; by calling 866-PRO-5125 (866-776-5125); or by sending an email request to info@ProShares.com. The Securities and Exchange Commission has not approved or disapproved these securities or passed upon the adequacy of this Summary Prospectus. Any representation to the contrary is a criminal offense.

Important Information About the Fund

ProShares Ultra S&P500 (the "Fund") seeks daily investment results, before fees and expenses, that correspond to two times (2x) the return of the S&P 500® Index (the "Index") **for a single day**, not for any other period. A "single day" is measured from the time the Fund calculates its net asset value ("NAV") to the time of the Fund's next NAV calculation. **The return of the Fund for periods longer than a single day will be the result of its return for each day compounded over the period. The Fund's returns for periods longer than a single day will very likely differ in amount, and possibly even direction, from the Fund's stated multiple (2x) times the return of the Fund's Index for the same period. For periods longer than a single day, the Fund will lose money if the Index's performance is flat, and it is possible that the Fund will lose money even if the level of the Index rises.** Longer holding periods, higher Index volatility and greater leverage each exacerbate the impact of compounding on an investor's returns. During periods of higher Index volatility, the volatility of the Index may affect the Fund's return as much as or more than the return of the Index.

The Fund presents different risks than other types of funds. The Fund uses leverage and is riskier than similarly benchmarked exchange-traded funds that do not use leverage. The Fund may not be suitable for all investors and should be used only by knowledgeable investors who understand the consequences of seeking daily leveraged (2x) investment results, including the impact of compounding on Fund performance. Investors in the Fund should actively manage and monitor their investments, as frequently as daily. An investor in the Fund could potentially lose the full principal value of his/her investment within a single day.

Investment Objective

The Fund seeks daily investment results, before fees and expenses, that correspond to two times (2x) the daily performance of the Index. **The Fund does not seek to achieve its stated investment objective over a period of time greater than a single day.**

Fees and Expenses of the Fund

The table below describes the fees and expenses that you may pay if you buy or hold shares of the Fund.

Annual Fund Operating Expenses
(expenses that you pay each year as a percentage of the value of your investment)

Investment Advisory Fees	0.75%
Other Expenses	0.15%
Total Annual Fund Operating Expenses*	**0.90%**

* ProShare Advisors LLC ("ProShare Advisors") has contractually agreed to waive Investment Advisory and Management Services Fees and to reimburse Other Expenses to the extent Total Annual Fund Operating Expenses Before Fee Waivers and Expense Reimbursements, as a percentage of average daily net assets, exceed 0.95% through September 30, 2020. After such date, the expense limitation may be terminated or revised by ProShare Advisors. Amounts waived or reimbursed in a particular contractual period may be recouped by ProShare Advisors within five years of the end of that contractual period, however, such recoupment will be limited to the lesser of any expense limitation in place at the time of recoupment or the expense limitation in place at the time of waiver or reimbursement.

Example: This example is intended to help you compare the cost of investing in the Fund with the cost of investing in other funds.

The example assumes that you invest $10,000 in the Fund for the time periods indicated and then redeem all of your shares at the end of each period. The example also assumes that your investment has a 5% return each year and that the Fund's operating expenses remain the same. Although your actual costs may be higher or lower, based on these assumptions your approximate costs would be:

1 Year	3 Years	5 Years	10 Years
$92	$287	$498	$1,108

The Fund pays transaction and financing costs associated with the purchase and sale of securities and derivatives. In addition, investors may pay brokerage commissions on their purchases and sales of the Fund's shares. These costs are not reflected in the table or the example above.

Portfolio Turnover

The Fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover rate may indicate higher transaction costs and may result in higher taxes when the Fund's shares are held in a taxable account. These costs, which are not reflected in Annual Fund Operating Expenses or in the example above, affect the Fund's performance. During the most recent fiscal year, the Fund's annual portfolio turnover rate was 5% of the average value of its entire portfolio. This portfolio turnover rate is calculated without regard to cash instrument or derivatives transactions. If such transactions were included, the Fund's portfolio turnover rate would be significantly higher.

Principal Investment Strategies

The Fund invests in financial instruments that ProShare Advisors believes, in combination, should produce daily returns consistent with the Fund's investment objective. The Index is constructed and maintained by S&P Dow Jones Indices LLC. The Index is a measure of large-cap U.S. stock market performance. It is a float-adjusted, market capitalization-weighted index of 500 U.S. operating companies and real estate investment trusts selected through a process that factors in criteria such as liquidity, price, market capitalization and financial viability. The Index is published under the Bloomberg ticker symbol "SPX."

The Fund will invest principally in the financial instruments set forth below. The Fund expects that its cash balances maintained in connection with the use of financial instruments will typically be held in money market instruments.

- **Equity Securities** – The Fund invests in common stock issued by public companies.
- **Derivatives** – The Fund invests in derivatives, which are financial instruments whose value is derived from the value of an

underlying asset or assets, such as stocks, bonds, funds (including exchange-traded funds ("ETFs")), interest rates or indexes. The Fund invests in derivatives as a substitute for investing directly in stocks in order to seek returns for a single day that are leveraged (2x) to the returns of the Index for that day. These derivatives principally include:

- Swap Agreements – Contracts entered into primarily with major global financial institutions for a specified period ranging from a day to more than one year. In a standard "swap" transaction, two parties agree to exchange the return (or differentials in rates of return) earned or realized on particular predetermined investments or instruments. The gross return to be exchanged or "swapped" between the parties is calculated with respect to a "notional amount," e.g., the return on or change in value of a particular dollar amount invested in a "basket" of securities or an ETF representing a particular index.
- Futures Contracts – Standardized contracts traded on, or subject to the rules of, an exchange that call for the future delivery of a specified quantity and type of asset at a specified time and place or, alternatively, may call for cash settlement.

- Money Market Instruments – The Fund invests in short-term cash instruments that have a remaining maturity of 397 days or less and exhibit high quality credit profiles, for example:
  - U.S. Treasury Bills – U.S. government securities that have initial maturities of one year or less, and are supported by the full faith and credit of the U.S. government.
  - Repurchase Agreements – Contracts in which a seller of securities, usually U.S. government securities or other money market instruments, agrees to buy the securities back at a specified time and price. Repurchase agreements are primarily used by the Fund as a short-term investment vehicle for cash positions.

ProShare Advisors uses a mathematical approach to investing. Using this approach, ProShare Advisors determines the type, quantity and mix of investment positions that it believes, in combination, the Fund should hold to produce daily returns consistent with the Fund's investment objective. The Fund may invest in or gain exposure to only a representative sample of the securities in the Index or to securities not contained in the Index or in financial instruments, with the intent of obtaining exposure with aggregate characteristics similar to those of a multiple of the single day returns of the Index. In managing the assets of the Fund, ProShare Advisors does not invest the assets of the Fund in securities or financial instruments based on ProShare Advisors' view of the investment merit of a particular security, instrument, or company, nor does it conduct conventional investment research or analysis or forecast market movement or trends. The Fund seeks to remain fully invested at all times in securities and/or financial instruments that, in combination, provide leveraged exposure to the single day returns of the Index, consistent with its investment objective, without regard to market conditions, trends or direction. The Fund seeks investment results for a single day only, measured as the time the Fund calculates its NAV to the next time the Fund calculates its NAV, and not for any other period.

The Fund seeks to engage in daily rebalancing to position its portfolio so that its exposure to the Index is consistent with the Fund's daily investment objective. The time and manner in which the Fund rebalances its portfolio may vary from day to day at the discretion of ProShare Advisors, depending on market conditions and other circumstances. The Index's movements during the day will affect whether the Fund's portfolio needs to be rebalanced. For example, if the Index has risen on a given day, net assets of the Fund should rise (assuming there were no Creation Unit redemptions). As a result, the Fund's exposure will need to be increased. Conversely, if the Index has fallen on a given day, net assets of the Fund should fall (assuming there were no Creation Units issued). As a result, the Fund's exposure will need to be decreased.

Daily rebalancing and the compounding of each day's return over time means that the return of the Fund for a period longer than a single day will be the result of each day's returns compounded over the period, which will very likely differ in amount, and possibly even direction, from two times (2x) the return of the Index for the same period. The Fund will lose money if the Index's performance is flat over time, and the Fund can lose money regardless of the performance of the Index, as a result of daily rebalancing, the Index's volatility, compounding of each day's return and other factors. See "Principal Risks" below.

The Fund will concentrate its investments in a particular industry or group of industries to approximately the same extent as the Index is so concentrated. As of the close of business on May 31, 2019, the Index was not concentrated in an industry group.

Please see "Investment Objectives, Principal Investment Strategies and Related Risks" in the Fund's Prospectus for additional details.

Principal Risks

An investor in the Fund could potentially lose the full principal value of his/her investment within a single day.

- Risks Associated with the Use of Derivatives – Investing in derivatives may be considered aggressive and may expose the Fund to greater risks and may result in larger losses or smaller gains than investing directly in the reference asset(s) underlying those derivatives. These risks include counterparty risk, liquidity risk and increased correlation risk. When the Fund uses derivatives, there may be imperfect correlation between the value of the reference asset(s) underlying the derivative (e.g., the securities in the Index) and the derivative, which may prevent the Fund from achieving its investment objective. Because derivatives often require only a limited initial investment, the use of derivatives also may expose the Fund to losses in excess of those amounts initially invested. The Fund may use a combination of swaps on the Index and swaps on an ETF that is designed to track the performance of the Index. The performance of an ETF may not track the performance of the Index due to embedded costs and other factors. Thus, to the extent the Fund invests in swaps that use an ETF as the

reference asset, the Fund may be subject to greater correlation risk and may not achieve as high a degree of correlation with the Index as it would if the Fund only used swaps on the Index. Moreover, with respect to the use of swap agreements, if the Index has a dramatic intraday move that causes a material decline in the Fund's net assets, the terms of a swap agreement between the Fund and its counterparty may permit the counterparty to immediately close out the transaction with the Fund. In that event, the Fund may be unable to enter into another swap agreement or invest in other derivatives to achieve the desired exposure consistent with the Fund's investment objective. This, in turn, may prevent the Fund from achieving its investment objective, even if the Index reverses all or a portion of its intraday move by the end of the day. As a result, the value of an investment in the Fund may change quickly and without warning. Any costs associated with using derivatives will also have the effect of lowering the Fund's return.

- **Leverage Risk** – The Fund obtains investment exposure in excess of its assets in seeking to achieve its investment objective – a form of leverage – and will lose more money in market environments adverse to its daily objective than a similar fund that does not employ such leverage. The use of such leverage increases the risk of a total loss of an investor's investment. For example, because the Fund includes a multiplier of two times (2x) the Index, a single day movement in the Index approaching 50% at any point in the day could result in the total loss of an investor's investment if that movement is contrary to the investment objective of the Fund, even if the Index subsequently moves in an opposite direction, eliminating all or a portion of the earlier movement. This would be the case with any such single day movements in the Index, even if the Index maintains a level greater than zero at all times. In addition, the use of leverage may increase the volatility of the Fund and magnify any differences between the performance of the Fund and its underlying Index or benchmark.
- **Compounding Risk** – The Fund has a single day investment objective, and the Fund's performance for any other period is the result of its return for each day compounded over the period. This usually will differ in amount, and possibly even direction, from two times (2x) the daily return of the Fund's Index for the same period, before accounting for fees and expenses. Compounding affects all investments, but has a more significant impact on a leveraged fund. This effect becomes more pronounced as Index volatility and holding periods increase. Fund performance for a period longer than a single day can be estimated given any set of assumptions for the following factors: (a) Index volatility; (b) Index performance; (c) period of time; (d) financing rates associated with leveraged exposure; (e) other Fund expenses; and (f) dividends or interest paid with respect to securities in the Index. The chart below illustrates the impact of two principal factors – Index volatility and Index performance – on Fund performance. The chart shows estimated Fund returns for a number of combinations of Index volatility and Index performance over a one-year period. Actual volatility, Index and Fund performance may differ significantly from the chart below. Performance shown in the chart assumes: (a) no dividends paid with respect to securities included in the Index; (b) no Fund expenses; and (c) borrowing/lending rates (to obtain leveraged exposure) of zero percent. If Fund expenses and/or actual borrowing/lending rates were reflected, the Fund's performance would be different than shown.

Areas shaded darker represent those scenarios where the Fund can be expected to return less than two times (2x) the performance of the Index.

Estimated Fund Returns

Index Performance		One Year Volatility Rate				
One Year Index	Two times (2x) the One Year Index	10%	25%	50%	75%	100%
-60%	-120%	-84.2%	-85.0%	-87.5%	-90.9%	-94.1%
-50%	-100%	-75.2%	-76.5%	-80.5%	-85.8%	-90.8%
-40%	-80%	-64.4%	-66.2%	-72.0%	-79.5%	-86.8%
-30%	-60%	-51.5%	-54.0%	-61.8%	-72.1%	-82.0%
-20%	-40%	-36.6%	-39.9%	-50.2%	-63.5%	-76.5%
-10%	-20%	-19.8%	-23.9%	-36.9%	-53.8%	-70.2%
0%	0%	-1.0%	-6.1%	-22.1%	-43.0%	-63.2%
10%	20%	19.8%	13.7%	-5.8%	-31.1%	-55.5%
20%	40%	42.6%	35.3%	12.1%	-18.0%	-47.0%
30%	60%	67.3%	58.8%	31.6%	-3.7%	-37.8%
40%	80%	94.0%	84.1%	52.6%	11.7%	-27.9%
50%	100%	122.8%	111.4%	75.2%	28.2%	-17.2%
60%	120%	153.5%	140.5%	99.4%	45.9%	-5.8%

The foregoing table is intended to isolate the effect of Index volatility and Index performance on the return of the Fund and is not a representation of actual returns. For example, the Fund may incorrectly be expected to achieve a -40% return on a yearly basis if the Index return were -20%, absent the effects of compounding. As the table shows, with Index volatility of 50%, the Fund could be expected to return -50.2% under such a scenario. The Fund's actual returns may be significantly better or worse than the returns shown above as a result of any of the factors discussed above or in "Principal Risks – Correlation Risk" below.

The Index's annualized historical volatility rate for the five-year period ended May 31, 2019 was 13.36%. The Index's highest May to May volatility rate during the five-year period was 16.65% (May 31, 2016). The Index's annualized total return performance for the five-year period ended May 31, 2019 was 9.66%. Historical Index volatility and performance are not indications of what the Index volatility and performance will be in the future. The volatility of U.S. exchange-traded securities or instruments that reflect the value of the Index may differ from the volatility of the Index.

For additional graphs and charts demonstrating the effects of Index volatility and Index performance on the long-term performance of the Fund, see "Understanding the Risks and Long-Term Performance of Daily Objective Funds – The Impact of Compounding" in the Fund's Prospectus and "Special Note Regarding the Correlation Risks of Geared Funds" in the Fund's Statement of Additional Information.

- **Correlation Risk** – A number of factors may affect the Fund's ability to achieve a high degree of correlation with the Index, and there is no guarantee that the Fund will achieve a high degree of correlation. Failure to achieve a high degree of correlation may prevent the Fund from achieving its investment objective, and the percentage change of the Fund's NAV each day may differ, perhaps significantly in amount, and possibly even direction, from two times (2x) the percentage change of the Index on such day.

  In order to achieve a high degree of correlation with the Index, the Fund seeks to rebalance its portfolio daily to keep exposure consistent with its investment objective. Being materially under- or overexposed to the Index may prevent the Fund from achieving a high degree of correlation with the Index and may expose the Fund to greater leverage risk. Market disruptions or closure, regulatory restrictions, market volatility, illiquidity in the markets for the financial instruments in which the Fund invests, and other factors will adversely affect the Fund's ability to adjust exposure to requisite levels. The target amount of portfolio exposure is impacted dynamically by the Index's movements, including intraday movements. Because of this, it is unlikely that the Fund will have perfect leveraged (2x) exposure during the day or at the end of each day and the likelihood of being materially under- or overexposed is higher on days when the Index is volatile, particularly when the Index is volatile at or near the close of the trading day.

  A number of other factors may also adversely affect the Fund's correlation with the Index, including fees, expenses, transaction costs, financing costs associated with the use of derivatives, income items, valuation methodology, accounting standards and disruptions or illiquidity in the markets for the securities or financial instruments in which the Fund invests. The Fund may not have investment exposure to all securities in the Index, or its weighting of investment exposure to securities may be different from that of the Index. In addition, the Fund may invest in securities not included in the Index. The Fund may take or refrain from taking positions in order to improve tax efficiency, comply with regulatory restrictions, or for other reasons, each of which may negatively affect the Fund's correlation with the Index. The Fund may also be subject to large movements of assets into and out of the Fund, potentially resulting in the Fund being under- or overexposed to the Index and may be impacted by Index reconstitutions and Index rebalancing events. Any of these factors could decrease correlation between the performance of the Fund and the Index and may hinder the Fund's ability to meet its daily investment objective on or around that day.

- **Rebalancing Risk** – If for any reason the Fund is unable to rebalance all or a portion of its portfolio, or if all or a portion of the portfolio is rebalanced incorrectly, the Fund's investment exposure may not be consistent with the Fund's investment objective. In these instances, the Fund may have investment exposure to the Index that is significantly greater or less than its stated multiple. As a result, the Fund may be more exposed to leverage risk than if it had been properly rebalanced and may not achieve its investment objective.

In addition to the foregoing risks, the remaining principal risks are listed in alphabetical order below.

- **Counterparty Risk** – The Fund will invest in derivatives involving third parties (i.e., counterparties). The use of derivatives involves risks that are different from those associated with ordinary portfolio securities transactions. The Fund will be subject to credit risk (i.e., the risk that a counterparty is or is perceived to be unwilling or unable to make timely payments or otherwise meet its contractual obligations) with respect to the amount it expects to receive from counterparties to derivatives and repurchase agreements entered into by the Fund. If a counterparty becomes bankrupt or fails to perform its obligations, or if any collateral posted by the counterparty for the benefit of the Fund is insufficient or there are delays in the Fund's ability to access such collateral, the value of an investment in the Fund may decline. Listed futures contracts can be traded on futures exchanges without material counterparty credit exposure. After a trade is cleared, the exchange is the ultimate counterparty for all contracts, so the counterparty risk on a listed futures contract ultimately is the creditworthiness of the exchange's clearing corporation.

- **Early Close/Late Close/Trading Halt Risk** – An exchange or market may close early, close late or issue trading halts on specific securities or financial instruments. The ability to trade certain securities or financial instruments may be restricted, which may disrupt the Fund's creation and redemption process, potentially affect the price at which the Fund's shares trade in the secondary market, and/or result in the Fund being unable to trade certain securities or financial instruments. In these circumstances, the Fund may be unable to rebalance its portfolio, may be unable to accurately price its investments and/or may incur substantial trading losses. If trading in the Fund's shares halt, investors may be temporarily unable to trade shares of the Fund.

- **Equity and Market Risk** – Equity markets are volatile, and the value of securities, swaps, futures and other instruments correlated with equity markets may fluctuate dramatically from day to day. Equity markets are subject to corporate, political, regulatory, market and economic developments, as well as developments that impact specific economic sectors, industries or segments of the market. Further, stocks in the Index may underperform other equity investments. Volatility in the markets and/or market developments may cause the value of an investment in the Fund to decrease over short or long periods of time.

- **Index Performance Risk** – The Fund is linked to an Index maintained by a third party provider unaffiliated with the Fund or ProShare Advisors. There can be no guarantee or assurance that the methodology used by the third party provider to create

the Index will result in the Fund achieving positive returns. Further, there can be no guarantee that the methodology underlying the Index or the daily calculation of the Index will be free from error. It is also possible that the value of the Index may be subject to intentional manipulation by third-party market participants. The Index used by the Fund may underperform other asset classes and may underperform other similar indices. Each of these factors could have a negative impact on the performance of the Fund.

- **Intraday Price Performance Risk** – The intraday performance of shares of the Fund traded in the secondary market generally will be different from the performance of the Fund when measured from one NAV calculation-time to the next. When shares are bought intraday, the performance of the Fund's shares relative to the Index until the Fund's next NAV calculation time will generally be greater than or less than the Fund's stated multiple times the performance of its Index.
- **Large-Cap Company Investment Risk** – The Index and, by extension, the Fund are exposed to stocks of large-cap companies. Although returns on investments in large-cap companies are often perceived as being less volatile than the returns of companies with smaller market capitalizations, the return on large-cap securities could trail the returns on investments in smaller and mid-sized companies for a number of reasons. For example, large-cap companies may be unable to respond quickly to new competitive challenges, such as changes in technology, and also may not be able to attain the high growth rate of successful smaller companies.
- **Liquidity Risk** – In certain circumstances, such as the disruption of the orderly markets for the financial instruments in which the Fund invests, the Fund might not be able to acquire or dispose of certain holdings quickly or at prices that represent true market value in the judgment of ProShare Advisors. Markets for the financial instruments in which the Fund invests may be disrupted by a number of events, including but not limited to economic crises, natural disasters, excessive volatility, new legislation, or regulatory changes inside or outside of the U.S. For example, regulation limiting the ability of certain financial institutions to invest in certain securities would likely reduce the liquidity of those instruments. These situations may prevent the Fund from limiting losses, realizing gains or achieving a high correlation with the Index.
- **Market Price Variance Risk** – Investors buy and sell Fund shares in the secondary market at market prices, which may be different from the NAV per share of the Fund (i.e., the secondary market price may trade at a price greater than NAV (a premium) or less than NAV (a discount). The market price of the Fund's shares will fluctuate in response to changes in the value of the Fund's holdings, supply and demand for shares and other market factors. In addition, the instruments held by the Fund may be traded in markets on days and at times when the Fund's listing exchange is closed for trading. As a result, the value of the Fund's holdings may vary, perhaps significantly, on days and at times when investors are unable to purchase or sell Fund shares. ProShare Advisors cannot predict whether shares will trade above, below or at a price equal to the value of the Fund's holdings.
- **Non-Diversification Risk** – The Fund is classified as "non-diversified" under the Investment Company Act of 1940, as amended ("1940 Act"), and has the ability to invest a relatively high percentage of its assets in the securities of a small number of issuers susceptible to a single economic, political or regulatory event, or in financial instruments with a single counterparty or a few counterparties. This may increase the Fund's volatility and cause performance of a relatively smaller number of issuers or the credit of one or a relatively smaller number of counterparties to have a greater impact on the Fund's performance. Notwithstanding the Fund's status as a "non-diversified" investment company under the 1940 Act, the Fund intends to qualify as a "regulated investment company" ("RIC") accorded special tax treatment under the Internal Revenue Code, which imposes its own diversification requirements that are less restrictive than the requirements applicable to "diversified" investment companies under the 1940 Act.
- **Portfolio Turnover Risk** – The Fund may incur high portfolio turnover to manage the Fund's investment exposure. Additionally, active market trading of the Fund's shares may cause more frequent creation or redemption activities that could, in certain circumstances, increase the number of portfolio transactions. High levels of portfolio transactions increase brokerage and other transaction costs and may result in increased taxable capital gains. Each of these factors could have a negative impact on the performance of the Fund.
- **Tax Risk** – In order to qualify for the special tax treatment accorded a RIC and its shareholders, the Fund must derive at least 90% of its gross income for each taxable year from "qualifying income," meet certain asset diversification tests at the end of each taxable quarter, and meet annual distribution requirements. The Fund's pursuit of its investment strategies will potentially be limited by the Fund's intention to qualify for such treatment and could adversely affect the Fund's ability to so qualify. The Fund can make certain investments, the treatment of which for these purposes is unclear. If, in any year, the Fund were to fail to qualify for the special tax treatment accorded a RIC and its shareholders, and were ineligible to or were not to cure such failure, the Fund would be taxed in the same manner as an ordinary corporation subject to U.S. federal income tax on all its income at the fund level. The resulting taxes could substantially reduce the Fund's net assets and the amount of income available for distribution. In addition, in order to requalify for taxation as a RIC, the Fund could be required to recognize unrealized gains, pay substantial taxes and interest, and make certain distributions. Please see the Statement of Additional Information for more information.
- **Valuation Risk** – In certain circumstances (e.g., if ProShare Advisors believes market quotations do not accurately reflect the fair value of an investment, or a trading halt closes an exchange or market early), ProShare Advisors may, in its sole discretion, choose to determine a fair value price as the basis for determining the market value of such investment for such day. The fair value of an investment determined by ProShare Advisors may be different from other value determinations of

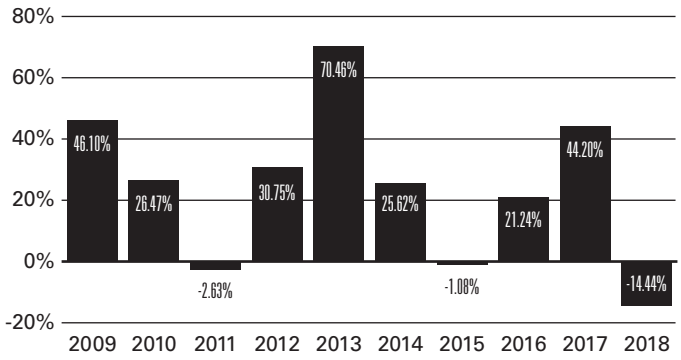
the same investment. Portfolio investments that are valued using techniques other than market quotations, including "fair valued" securities, may be subject to greater fluctuation in their value from one day to the next than would be the case if market quotations were used. In addition, there is no assurance that the Fund could sell a portfolio investment for the value established for it at any time, and it is possible that the Fund would incur a loss because a portfolio security is sold at a discount to its established value.

Please see "Investment Objectives, Principal Investment Strategies and Related Risks" in the Fund's Prospectus for additional details.

Investment Results

The bar chart below shows how the Fund's investment results have varied from year to year, and the table shows how the Fund's average annual total returns for various periods compare with a broad measure of market performance. This information provides some indication of the risks of investing in the Fund. In addition, the Fund's performance information reflects applicable fee waivers and expense limitations (if any) in effect during the periods presented. Absent such fee waivers/expense limitations, if any, performance would have been lower. Past results (before and after taxes) are not predictive of future results. Updated information on the Fund's results can be obtained by visiting ProShares.com.

Annual Returns as of December 31



Best Quarter (ended 9/30/2009): 32.16%
Worst Quarter (ended 9/30/2011): -28.17%
The year-to-date return as of the most recent quarter, which ended June 30, 2019, was 36.48%.

Average Annual Total Returns

As of December 31, 2018	One Year	Five Years	Ten Years	Since Inception	Inception Date
Before Taxes	-14.44%	13.20%	22.25%	9.54%	6/19/2006
After Taxes on Distributions	-14.57%	13.06%	22.10%	9.16%	—
After Taxes on Distributions and Sale of Shares	-8.43%	10.58%	19.41%	7.80%	—
S&P 500®#	-4.38%	8.49%	13.11%	8.03%	—

Reflects no deduction for fees, expenses or taxes. Adjusted to reflect the reinvestment of dividends paid by companies in the Index. "Since Inception" returns are calculated from the date the Fund commenced operations, not the date of inception of the Index.

Average annual total returns are shown on a before- and after-tax basis for the Fund. After-tax returns are calculated using the historical highest individual federal marginal income tax rates and do not reflect the impact of state and local taxes. Actual after-tax returns depend on an investor's tax situation and may differ from those shown. After-tax returns shown are not relevant to investors who hold shares through tax-deferred arrangements, such as a retirement account. After-tax returns may exceed the return before taxes due to a tax benefit from realizing a capital loss on a sale of shares.

Annual returns are required to be shown and should not be interpreted as suggesting that the Fund should or should not be held for longer periods of time.

Management

The Fund is advised by ProShare Advisors. Michael Neches, Senior Portfolio Manager, and Devin Sullivan, Portfolio Manager, have jointly and primarily managed the Fund since October 2013 and April 2018, respectively.

Purchase and Sale of Fund Shares

The Fund will issue and redeem shares only to Authorized Participants (typically broker-dealers) in exchange for the deposit or delivery of a basket of assets (securities and/or cash) in large blocks, known as Creation Units, each of which is comprised of 50,000 shares. Retail investors may only purchase and sell shares on a national securities exchange through a broker-dealer. Because the Fund's shares trade at market prices rather than at NAV, shares may trade at a price greater than NAV (a premium) or less than NAV (a discount).

Tax Information

Income and capital gains distributions you receive from the Fund generally are subject to federal income taxes and may also be subject to state and local taxes. The Fund intends to distribute income, if any, quarterly, and capital gains, if any, at least annually. Distributions for this Fund may be higher than those of most ETFs.

ProShares®

Investment Company Act file number 811-21114

ProShares Trust
7501 Wisconsin Avenue, Suite 1000E Bethesda, MD 20814
866.PRO.5125 866.776.5125
ProShares.com

Receive investor materials electronically:

Shareholders may sign up for electronic delivery of investor materials. By doing so, you will receive the information faster and help us reduce the impact on the environment of providing these materials. To enroll in electronic delivery,

1. Go to www.icsdelivery.com
2. Select the first letter of your brokerage firm's name.
3. From the list that follows, select your brokerage firm. If your brokerage firm is not listed, electronic delivery may not be available. Please contact your brokerage firm.
4. Complete the information requested, including the e-mail address where you would like to receive notifications for electronic documents.

Your information will be kept confidential and will not be used for any purpose other than electronic delivery. If you change your mind, you can cancel electronic delivery at any time and revert to physical delivery of your materials. Just go to www.icsdelivery.com, perform the first three steps above, and follow the instructions for cancelling electronic delivery. If you have any questions, please contact your brokerage firm.

Exhibit 3

The SEC's Economic Analysis of Leveraged/Inverse Funds

Craig M. Lewis, Ph.D.*

March 2020

* I am the Madison S. Wigginton Professor of Finance and Professor of Law at Vanderbilt University. I also am a Senior Advisor at Patomak Global Partners. This report was commissioned by ProShares.

Table of Contents

I. Introduction

1. This comment is with regard to the proposed rule, the "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" ("proposed rule").[1] I identify areas where the Securities and Exchange Commission's ("SEC") economic analysis is incomplete or flawed and other areas that require additional transparency and quantification. This comment focuses on the proposed treatment of leveraged/inverse exchange-traded funds ("ETFs") and mutual funds (collectively "leveraged/inverse funds"),[2] but also provides a number of observations about the proposed "Value-at-Risk" or "VaR" methodology.[3]

2. I find that the proposed rule does not present evidence of investor misunderstanding of the characteristics of leveraged/inverse funds. Therefore, the SEC has not shown an unmet investor need as a motivation for the proposed rule, nor has it demonstrated that investors would benefit, and if so, by how much, from the proposed rule. Furthermore, I find that the SEC's justification for the proposed rule, which compares leveraged/inverse funds to options, is flawed and misleading. Lastly, I find that the proposed rule neglects to consider many reasonable alternatives that may address the SEC's purported concerns but would be less burdensome to implement.

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[1] 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," Securities and Exchange Commission, Release No. 34-87607, November 25, 2019, available at https://www.sec.gov/rules/proposed/2019/34-87607.pdf ("SEC Proposed Rule").

[2] "The proposed sales practices rules would define a 'leveraged/inverse investment vehicle' to mean a registered investment company or an exchange-listed commodity- or currency-based trust or fund…, that seeks, directly or indirectly, to provide investment returns that correspond to the performance of a market index by a specified multiple, or to provide investment returns that have an inverse relationship to the performance of a market index, over a predetermined period of time." (SEC Proposed Rule, p. 184.)

[3] Value at Risk (VaR) measures the potential loss in value of a risky asset or portfolio over a defined period for a given confidence interval. For example, if the weekly VaR on an asset is $10 million (based on a 95% confidence level), there is only a 5% chance that the value of the asset will drop more than $10 million over any given week. The SEC recognizes that "VaR is not itself a leverage measure."

II. Overview of Relevant Portions of the Proposed Rule(s)

3. The proposed rule offers an updated approach for regulating the use of derivatives by mutual funds (other than money market funds), ETFs, registered closed-end funds, and business development companies. In particular, the SEC is concerned with practices that can "heighten leverage-related risks."[4] The proposed rule is "designed to require funds to manage the risks associated with their use of derivatives and to limit fund leverage risk."[5]

4. To this end, the rule prescribes a VaR-based limit on use of derivatives ("fund leverage rule").[6] It would require a fund's VaR to be less than 150% of the VaR of a reference index when a well-defined underlying benchmark is available.[7] In the absence of such a benchmark, the rule would impose an "absolute" VaR limit of 15%.[8]

5. For leveraged/inverse funds, the proposed rule provides an exception to these VaR limits but in doing so further proposes new "sales practices rules" that must be applied (without regard to whether such funds are compliant with the VaR limit).[9] Leveraged/inverse funds are products specifically designed to provide investors with leveraged, inverse or leveraged inverse exposure. For example, many leveraged/inverse funds are structured to provide two times (2x) the daily return of a specific benchmark. The proposed "sales practices rules" for leveraged/inverse funds require *all* broker-dealers and investment advisers to "approve the retail investor's account for buying and selling shares of leveraged/inverse investment vehicles pursuant to a due diligence requirement" and in doing so to "have a reasonable basis for believing that the retail investor has the financial knowledge and experience to be reasonably expected to be capable of evaluating the risks of buying and selling leveraged/inverse investment vehicles"[10] ("sales practices rules").

6. It is worth noting that these rules apply to more than sales practices (*e.g.*, recommended trades by brokers) as they also apply to unsolicited trades (which are not a "sale") and transactions made by advisers with full discretion. Since these proposed rules seek to regulate

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[4] SEC Proposed Rule, p. 11.
[5] SEC Proposed Rule, p. 12.
[6] Specifically, the SEC is re-proposing rule 18f-4 under the Investment Company Act of 1940. (SEC Proposed Rule, p. 1.)
[7] SEC Proposed Rule, pp. 98–99.
[8] The SEC claims that an "absolute" VaR test of 15% is approximately 150% of the S&P 500 Index's VaR. (SEC Proposed Rule, pp. 114–115.)
[9] For example, single inverse funds (-1x) would meet the 150% relative VaR test.
[10] SEC Proposed Rule, pp. 187–188. Specifically, the SEC is proposing new rule 15*l*-2 under the Securities Exchange Act of 1934 and new rule 211(h)-1 under the Investment Advisers Act of 1940. *See*, SEC Proposed Rule, pp. 181–182.

the access of investors to leveraged/inverse products in general, they are better characterized as "access rules." I also note that these proposed sales practices rules would apply to all leveraged/inverse funds, including those that would satisfy the VaR limit in the fund leverage rule proposed by the SEC.

7. A separate exception is provided for any "fund that either limits its derivatives exposure to 10% of its net assets or uses derivatives transactions solely to hedge certain currency risks and, in either case, that also adopts and implements policies and procedures reasonably designed to manage the fund's derivatives risks."[11]

III. Economic Analysis of the Proposed Sales Practices Rules

8. The "Current Guidance on Economic Analysis in SEC Rulemakings" articulates the SEC's approach to conducting high quality economic analysis in rulemakings.[12] It contains four substantive components that must be addressed:

i. the clear identification of a need for the rulemaking—the so-called "market failure"—and an explanation of how the proposed rule will meet that need;
ii. the characterization of an appropriate economic baseline against which to measure the proposed rule's likely economic impact ("in terms of potential benefits and costs, including effects on efficiency, competition and capital formation in the market(s) the rule would affect");[13]
iii. the identification and evaluation of reasonable alternatives to the proposed regulatory approach; and
iv. an assessment of the potential economic impact of the proposed rule and reasonable alternatives "by seeking and considering the best available evidence of the likely quantitative and qualitative cost and benefits of each."[14]

9. In this section, I discuss the SEC's work pertaining to each of the four components that an economic analysis must address.

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[11] SEC Proposed Rule, p. 32.
[12] "Current Guidance on Economic Analysis in SEC Rulemakings," Securities and Exchange Commission, March 16, 2012, available at https://www.sec.gov/divisions/riskfin/rsfi_guidance_econ_analy_secrulemaking.pdf ("Guidance on Economic Analysis in Rulemakings").
[13] Guidance on Economic Analysis in Rulemakings, p. 1.
[14] Guidance on Economic Analysis in Rulemakings, pp. 1–2, 4.

A. The SEC Does Not Provide Sufficient Evidence of an Unmet Investor Need as Motivation for the Proposed Sales Practices Rules

10. The SEC's guidance on rulemaking lists a number of potential justifications for the proposed rules which includes responding to market failures which market participants cannot solve such as "market power, externalities, principal agent-problems… and asymmetric information."[15] It also lists other justifications which include "'improving government processes,' interpreting provisions in statutes the Commission administers, and providing exemptive relief from statutory provisions."[16]

11. With respect to the proposed sales practices rules, the SEC states that they "are designed to address investor protection concerns with respect to leveraged/inverse funds."[17] The SEC adds that the rules are designed "to establish a single, uniform set of enhanced due diligence and approval requirements for broker-dealers and investment advisers with respect to retail investors that engage in leveraged/inverse investment vehicle transactions,"[18] and "to help ensure that investors in these funds are limited to those who are capable of evaluating their characteristics—including that the funds would not be subject to all of the leverage-related requirements applicable to registered investment companies generally—and the unique risks they present."[19]

12. However, the SEC appears to have based the proposed sales practices rules on the unsubstantiated premises that:

- there exists a secondary market failure related to concerns over the degree to which investors are able to understand the realized returns to leveraged/inverse funds and the possibility that investors may experience large and unexpected losses or returns that are different from what they anticipated; and
- the overall implication that investors are potentially harmed by holding leveraged/inverse funds for longer than one day.

[15] Guidance on Economic Analysis in Rulemakings, p. 5.
[16] Guidance on Economic Analysis in Rulemakings, pp. 5–6.
[17] SEC Proposed Rule, p. 30.
[18] SEC Proposed Rule, p. 182.
[19] SEC Proposed Rule, pp. 182–183.

1. The SEC Provides No Evidence of Investors Misunderstanding Leveraged/Inverse Funds

13. Since leveraged/inverse funds have a one-day investment objective seeking to deliver a multiple times a benchmark return, the actual leveraged/inverse fund return ("Realized Multiple") will very likely differ from the fund multiple times the benchmark return over time.[20] The difference between the Realized Multiple and the fund multiple times the benchmark return is due to the daily reset and subsequent compounding of daily returns ("daily reset"). For example, suppose a $100 (non-leveraged/inverse index) investment returns -10% on the first day and 10% on the second day. This results in a two-day return of -1%.[21] In contrast, if that same $100 were invested in a product that sought to return twice the daily returns (a "2x Fund"), it would result in a two-day return of -4%.[22] In this scenario, the return of the 2x fund is not twice the return of the benchmark over a holding period longer than a single day.[23, 24]

14. It is important to note that just because leveraged/inverse funds are designed with a one-day investment objective, this does not mean that they should not be held over longer periods of time. For example, since stocks are expected to appreciate over time, short positions are expected to have no return over longer holding periods. This does not invalidate the use of short positions or imply that they should never be held for relatively long periods. Similarly, investors are not necessarily harmed by holding leveraged/inverse funds for periods longer than the one-day investment objective period.

15. The SEC, however, appears to suggest that retail investors may not fully understand compounding of returns over time and proposes that no firm may accept or place an order of a

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[20] This is prominently disclosed in the funds' prospectus and marketing materials. For example, see Appendix A.

[21] $100 * (1-10%) * (1+10%) - $100 = -$1 or -1%.

[22] $100 * (1-20%) * (1+20%) - $100 = -$4 or -4%.

[23] Or to consider another example, suppose a $100 (non-leveraged/inverse index) investment returns 10% on the first day and 10% on the second day. This results in a period return of 21% ($100*(1+10%)*(1+10%) - $100 = $21 or 21%). In contrast, if that same $100 were invested in a product that sought to return twice the daily returns (a "2x Fund"), it would result in a period return of 44% ($100*(1+20%)*(1+20%) -$100 = $44 or 44%).

[24] Comparing realized returns over longer investment horizons (those greater than one day) to securities that have different volatility levels is not a valid comparison. It would be more appropriate to compare securities that have similar volatility levels. That is, compare a leveraged S&P 500 fund with 2x leverage to a security with 2x the volatility of the S&P 500. As I show below in Section III.A.2.a, if one controls for volatility, the return distributions are effectively the same.

leveraged/inverse investment until the investor has obtained "approval."[25] This assertion is not supported by empirical data nor is there any quantification of the magnitude of this potential issue. The only evidence that the SEC points to is a study that discusses general financial literacy, which is not specific to leveraged/inverse funds nor investor understanding of leveraged/inverse funds. As the SEC acknowledges, this general study does not address "the unique dynamics of compounding of daily returns in the context of leveraged/inverse ETFs."[26]

16. The SEC would need to address, at a minimum, the following questions to establish whether there is an actual need for the proposed rules:

- Do existing prospectus and marketing material disclosures adequately educate investors?[27] How have such disclosures evolved over time and how have they improved investors' understanding of the risks and characteristics of the corresponding products?
- How do point-of-sale disclosures and other self-imposed "gates" which exist at many financial intermediaries further increase investor understanding?
- How will the proposed sales practices rules educate retail investors about the characteristics of leveraged/inverse funds beyond existing measures?
- What characteristics of leveraged/inverse funds do retail investors misunderstand? What is the evidence for this purported misunderstanding by investors? What is the basis for the Commission's assertion that investors may "experience returns that are different from what they anticipated?"[28] Has the SEC surveyed leveraged/inverse fund investors to establish this purported misunderstanding? Do retail investors' trading data support the conjecture that retail investors do not adequately understand the risk-return characteristics of leveraged/inverse funds?
- What, if any, losses could be attributed to the alleged lack of understanding? Are those losses concentrated with retail investors investing in self-directed accounts? Are those losses associated with hedging strategies?

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[25] To provide this approval, firms would need "a reasonable basis for believing that the retail investor has the financial knowledge and experience to be reasonably expected to be capable of evaluating the risks of buying and selling leveraged/inverse investment vehicles." (SEC Proposed Rule, pp. 188–189.)

[26] SEC Proposed Rule, fn. 535.

[27] For example, see Appendix A for examples of prospectuses for leveraged/inverse funds offered by ProShares.

[28] SEC Proposed Rule, p. 179.

2. The SEC's Comparison of the Return Distribution of Leveraged/Inverse Funds to Options is Misleading and Flawed

17. The proposed sales practices rules in leveraged/inverse funds are "modeled in large part, after the FINRA rule requiring due diligence and account approval for retail investors to trade in options."[29] Based on a note ("DERA Note")[30] by the Division of Economic and Risk Analysis ("DERA"), the SEC also states that the reason for "generally model[ing] the proposed rules after the FINRA options account framework [is] in part because leveraged/inverse investment vehicles, when held over longer periods of time, may have certain similarities to options."[31] The proposed rules explain those similarities as "[i]n statistical terms, the option returns and returns of holding leveraged/inverse investment vehicles over longer holding periods both exhibit positive skewness."[32]

18. As I explain in more detail below, there are two primary issues with the DERA Note and the SEC's reliance on it. First, the asymmetry in leveraged/inverse funds' "gross returns" (*i.e.*, buy-and-hold returns)[33] documented in the DERA Note[34] is not a distinguishing feature of leveraged/inverse funds. Even the gross returns of non-leveraged/inverse funds are characterized by positive skewness that depends on volatility and the investment horizon. Second, the gross returns of leveraged/inverse funds do not exhibit the same degree of skewness as more frequently traded near-the-money options. Based on these observations, I conclude that the SEC's economic analysis comparing leveraged/inverse funds to options is misleading and flawed.

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[29] SEC Proposed Rule, p. 351.
[30] SEC Proposed Rule, fn. 469; "Economics Note: The Distribution of Leveraged ETF Returns," Division of Economic and Risk Analysis, November 2019 ("DERA Note"), available at https://www.sec.gov/files/DERA_LETF_Economics_Note_Nov2019.pdf.
[31] SEC Proposed Rule, pp. 183–184.
[32] SEC Proposed Rule, fn. 470.
[33] I understand DERA's usage of "gross returns" to mean "the payoff from a one-dollar initial investment," and not as a way to distinguish whether returns are inclusive of fees and other expenses. I use their definition of "gross returns" in this comment.
[34] The DERA note documents asymmetry in the gross returns of leveraged/inverse funds in Figures 1, 2, 3 and 4, based on theoretical and empirical distributions.

a) Positive Skewness is a Property of All Assets and is Not Unique to Leveraged/Inverse Funds

19. The DERA Note models positive skewness in the gross returns of leveraged/inverse funds.[35] Specifically, the DERA Note presents both a theoretically derived, and an estimated empirical distribution for the gross returns (*i.e.*, the payoff from a $1 initial investment) of leveraged/inverse funds. It then uses the theoretical model to argue that the skewness of the gross return distribution of leveraged/inverse funds increases, *ceteris paribus*, with 1) the fund's leverage multiple, and 2) the holding period of the investment. The DERA Note and the proposed rule, however, neglect to discuss that DERA's model would predict that even non-leveraged/non-inverse funds have asymmetric gross returns, while their long-term log-returns have a normal—and thus symmetric—distribution.[36]

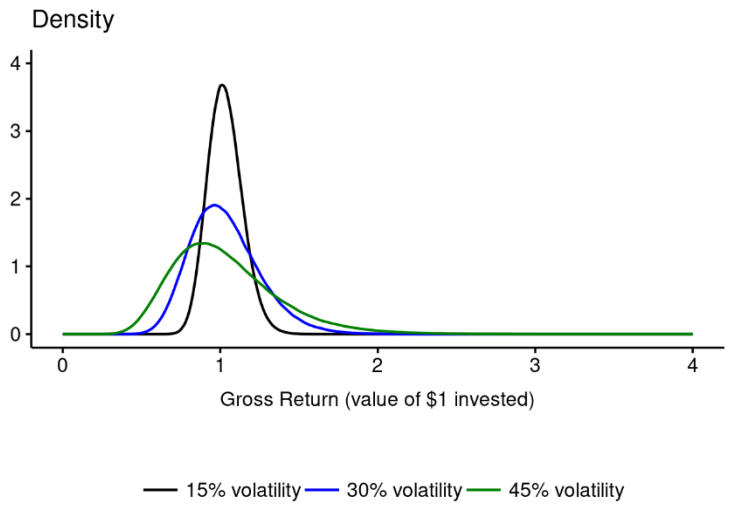
20. The degree of skewness DERA finds is a consequence of the lognormality assumption employed in its analysis and return volatility. The lognormal distribution is frequently used to model equities because it has the attractive feature that prices cannot become negative. This captures limited liability for equity (*i.e.*, investors cannot lose more capital than they put at risk). As a consequence, higher return volatility results in greater skewness in gross returns because higher volatility increases the likelihood of larger payoffs, while gross returns are bounded below by zero (*i.e.*, it is tautological to model gross returns as lognormal and then observe skewness). This observation explains why, all else equal, option prices are increasing functions of volatility. One would expect an equity with similar volatility levels to behave similarly. Figure 1 below

[35] DERA Note, p. 3–4. The DERA note uses a theoretical specification taken from a 2009 paper by Minder Cheng and Ananth Madhavan. ("The Dynamics of Leveraged and Inverse Exchange-Traded Funds," *Journal Of Investment Management*, Vol. 7.2009, 4, pp. 43-62.)

[36] On page 3 of the DERA Note, DERA acknowledges the normality of leveraged/inverse funds' long-term log-returns.

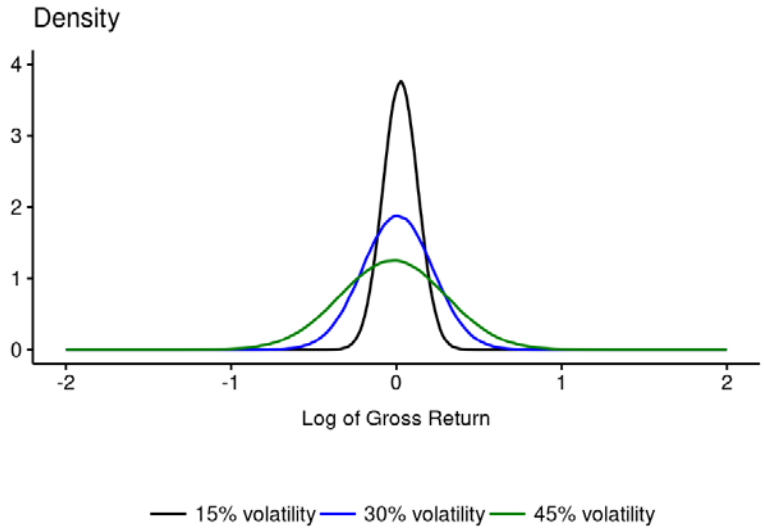
illustrates how volatility increases the skewness of gross returns for hypothetical assets that have volatility levels that are 1x, 2x, and 3x the volatility of the S&P 500 over a six-month horizon.

Figure 1: Lognormal Distribution with Various Volatility Levels



21. Figure 2 illustrates their associated log return distributions under the assumption that each asset's log returns follow a normal distribution, which is, by definition, symmetric around its mean and displays no skewness.

Figure 2: Normal Distribution with Various Volatility Levels



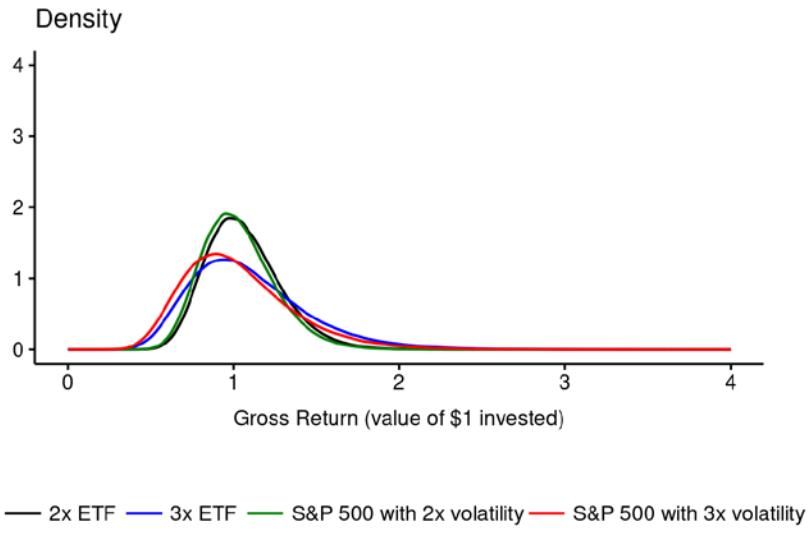
22. The above figures illustrate that under the assumptions employed in the DERA analysis, all assets display skewed long-term "gross return" distributions and symmetric long-term "log"

returns. Even though this observation is a function of DERA's modeling choices, it applies to all assets. Gross return skewness is not unique to leveraged/inverse funds nor is it a product of any characteristics unique to leveraged/inverse funds. To reinforce the observation that volatility solely explains DERA's finding of a skewed return distribution, I have graphed the six-month returns of four types of assets:

i. A leveraged fund seeking 2x the daily return on the S&P 500
ii. An unlevered asset with twice the volatility of the S&P 500 and the same expected return of the S&P 500
iii. A leveraged fund seeking 3x the daily return on the S&P 500
iv. An asset with three times the volatility of the S&P 500 and the same expected return of the S&P 500

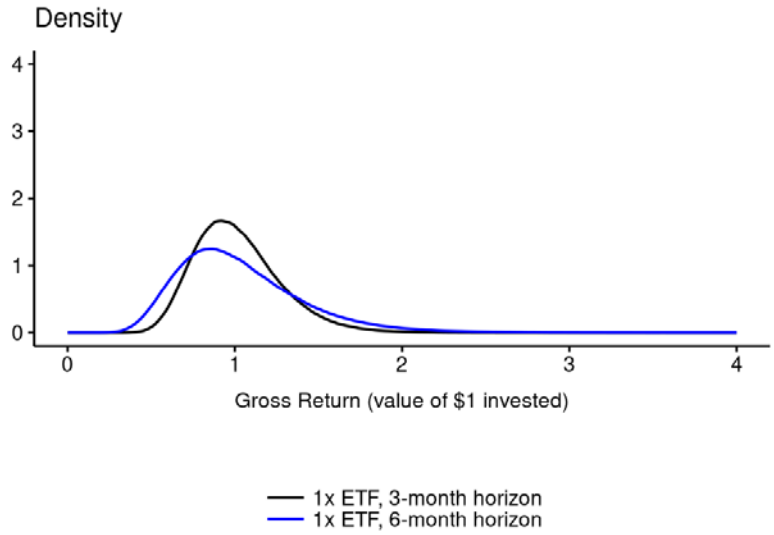
As Figure 3 below shows, the distribution of returns for the 2x fund looks very similar to an unlevered product with twice the volatility of the S&P 500. Similarly, the returns for a 3x fund look similar to the unlevered product with three times the volatility of the S&P 500. This simple analysis demonstrates that the so-called "skewness" in returns that forms the basis of the SEC's analogy to options is not a unique characteristic of leveraged/inverse funds but is instead simply an artifact of the assumed volatility levels.

Figure 3: Comparison of Leveraged Funds to Unlevered Assets with the Same Volatility



23. Increases in the investment horizon also increase the skewness of gross returns. This follows because the *volatility* of gross returns increases in proportion to the square root of the investment horizon. All else equal, a six-month horizon is 1.4 times more volatile than a three- month horizon.[37] Figure 4 below shows the theoretical distribution of the gross return on a non-leveraged fund tracking an index with an average annual return of 6% and an annual volatility of 50% over six-month and three-month horizons.[38] Consistent with the findings in the DERA Note, Figure 4 shows that the distributions have positive skewness, despite not having any leverage. I understand that the SEC has not proposed any sales practices rules on 1x funds,[39] even if they track a portfolio of riskier underlying assets such as commodities or foreign exchange.

Figure 4: Comparison of Holding Periods and Volatility Levels



24. As the above discussion illustrates, positive skewness in gross return distributions is not a unique feature of leveraged/inverse funds, but also characterizes the gross returns of all equities, including non-leveraged funds. The SEC provides no basis for why the proposed sales practices rules should single out leveraged/inverse funds when the skewness reported in the DERA analysis relates to the volatility of the underlying assets rather than leveraging per se.

[37] That is, $\sqrt{0.5/0.25} = 1.41$.
[38] I use a volatility rate of 50% to better illustrate how the investment horizon affects volatility-induced skewness.
[39] I assume that the SEC's definition of "leveraged/inverse investment vehicle" is imprecise and does not mean to include all funds (*i.e.*, not clarifying whether "a specified multiple" includes multiples less than or equal to 1). (SEC Proposed Rule, p. 420.)

Leveraging accomplishes exactly what is intended. It leverages the returns on the underlying benchmark in such a manner that fund volatility is proportional to the leverage level.

b) The SEC Overstates the Similarities Between Leveraged/Inverse Funds and Options by Comparing to Options Which Are Not Frequently Traded

25. The DERA Note forms the basis for the SEC's proposal to "generally [model] the proposed rules after the FINRA options account framework, in part because leveraged/inverse investment vehicles, when held over longer periods of time, may have certain similarities to options."[40] It shows the empirical distributions of the 6-month gross returns on S&P 500 call options with various strike prices, and likens the asymmetry of these distributions to those of leveraged/inverse funds held over the same horizon.

26. However, based on a visual inspection of Figure 3 and Figure 6 of the DERA Note,[41] one can immediately see that the distributions of the gross returns for the 2x and 3x leveraged/inverse funds, which are actually traded (as opposed to the 4x leveraged/inverse), do not exhibit nearly as much positive skewness as options with strike prices 100% or 90% of the index value at purchase.

27. Moreover, a leveraged/inverse fund is rebalanced daily to achieve a target leverage level. This results in a stable volatility level relative to the underlying benchmark. By contrast, the implicit leverage (*i.e.*, the change in option value over a small change in the underlying equity value) in an option contract is dynamic. Consider, for example, an at-the-money call option. As the price of the underlying asset increases, implicit leverage decreases, and call option returns are expected to become less skewed and the volatility level relative to the underlying asset decreases. As this call option moves deeper in-the-money, the implicit leverage decreases, and it

[40] SEC Proposed Rule, pp. 183–184.

[41] Figure 3 shows the empirical distribution of gross returns for 2x, 3x, and 4x leveraged/inverse funds. Figure 6 shows the empirical distribution of gross returns for options with various strike levels.

begins to trade more like the underlying security.[42] Conversely, if this call option were to move deeper out-of-the-money, the implicit leverage would increase.[43]

28. To better appreciate the relative skewness in the gross return distributions between leveraged/inverse funds and options, I compare the theoretical distributions of 6-month gross returns for options of various strike prices on the S&P 500, to the theoretical distributions of 6-month gross returns for 2x and 3x leveraged/inverse funds.[44] Figure 5 highlights that the positive skewness of the leveraged/inverse funds' returns could be considered modest relative to that of 6-month call options with strike prices 100% or 90% of the index value at purchase.[45] It also bears noting that options near-the-money, in particular, those which are out-of-the-money, are typically traded more frequently than in-the-money options.[46] Thus, the gross return distribution of a "typical" call option on the S&P 500 likely does not closely resemble the gross return distribution of a 2x or 3x leveraged/inverse S&P 500 fund.

[42] Consider an example where the underlying equity price is $100 with a volatility of 15%, assuming a risk-free rate of 5%, and where the time to expiry is six months (the volatility and risk-free rate assumptions are consistent with the assumptions in the DERA Note). Based on the Black-Scholes model, the implicit leverage for a call option with a strike price of $100 is 11.1x. If the call option was deeper in-the-money with a strike price of $80, the implicit leverage would decrease to 4.5x. In contrast to leveraged/inverse funds, these leverage factors are much greater in magnitude.

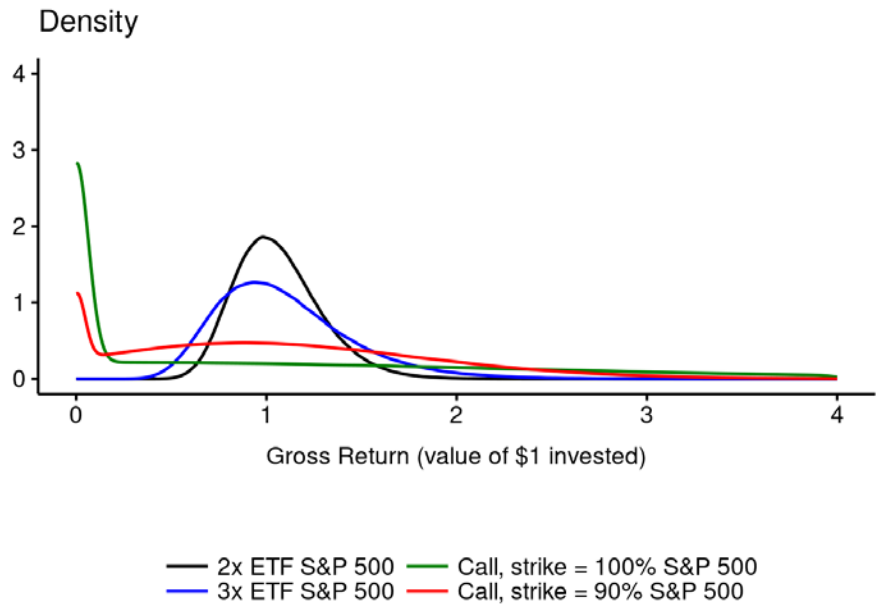
[43] Considering the same underlying asset, for an out-of-the-money call option with a strike price of $120, the implicit leverage would increase to 21.9x.

[44] To allow for a comparison to the DERA Note, I assume that the S&P 500 has an average annual return of 6% and an annual volatility of 15%. *See* DERA Note, fn. 7.

[45] My analysis replicates DERA's model and combines series from Figures 1 and 6 of the DERA Note. This result would be more stark if I graphed the return distribution for out-of-the-money call options.

[46] One paper found that approximately 26–31% of option volume was for options near-the-money (defined as options with a ratio of strike price to spot price of 0.97 to 1.03). The share of option volume that was out-of-the-money (ratio greater than 1.03) was 39–62%, whereas the share of option volume that was in-the-money (ratio less than 0.97) was 11–31%. *See, e.g.*, Pan, Jun,, and Allen M. Poteshman, "The Information in Option Volume for Future Stock Prices," *The Review of Financial Studies*, Vol. 19, No. 3, 2006, pp. 871–908, Table 2.

Figure 5: Comparison of Leveraged Funds to Frequently Traded Options



29. As discussed above, the SEC's comparison of leveraged/inverse funds to options is inadequate for two major reasons. First, it does not make clear that its finding of gross return skewness is applicable to *all* assets, not just leveraged/inverse funds. Second, its finding of similarity also is based on a comparison that includes options that are not frequently traded. Were one to focus instead on more frequently traded options, it is clear from the above analysis that the return distributions are quite different. For this reason, the SEC has not provided evidence that the return distribution of leveraged/inverse funds are similar or comparable to the return distribution of options, or that an option-like framework is appropriate for regulating the sales of leveraged/inverse funds.

B. The SEC Does Not Establish an Appropriate Economic Baseline to Measure the Proposed Sales Practices Rules' Economic Impact Against

30. Closely related with the need to identify and fully characterize the justification for rule-making, the SEC must also characterize an appropriate economic baseline against which to measure the impact of their proposed rules. The SEC's guidance establishes that the economic baseline should characterize a baseline for all market participants, including investors, ETF sponsors, and broker-dealers. Indeed, the SEC's guidance for rule-making reads:

> In articulating the appropriate economic baseline for a rulemaking, rulewriting staff should work with the RSFI economists to describe the state of the world in the absence of the proposed rule, including the existing state of efficiency, competition, and capital formation, against which to measure the likely impact of the proposed rule and the principal alternative regulatory approaches. It is important to clearly describe the assumptions that underlie the description of the relevant baseline and to detail those aspects of the baseline specification that are uncertain. ***Defining the baseline typically involves identifying and describing the market(s) and participants affected by the proposed rule.*** Most SEC rules affect one or more markets directly but it may also be appropriate to consider additional markets or participants that may be indirectly affected by the proposed rule.[47] (emphasis added)

1. The SEC Does Not Establish an Appropriate Economic Baseline for Investors

31. To date, the SEC has not presented data on the profile and preference of retail investors who invest in leveraged/inverse funds. While acknowledging it may be difficult to identify or acquire such data, a proper economic baseline for investors should, at a minimum, try to answer the following questions. What percentage of leveraged/inverse fund investors are retail investors who invest in a self-directed account? What percentage of leveraged/inverse fund investors are retail investors investing with the aid of a registered investment adviser? What percentage of leveraged/inverse fund investors are institutions? What risk-disclosures are available to each of these investor types? Do some investors prefer skewness?[48]

32. Fund prospectuses typically caution potential investors that leveraged/inverse funds are designed to be held over short investment horizons.[49] At the very minimum, the rule should consider and provide information on:

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[47] Guidance on Economic Analysis in Rulemakings, p. 7.

[48] There exists an academic literature that addresses investor preferences for return skewness. This literature provides evidence that is consistent with investors wanting to hold assets such as leveraged/inverse funds for longer periods. See, for example, Conrad, Jennifer S., Robert F. Dittmar, and Eric Ghysels, "Ex Ante Skewness and Expected Stock Returns," *The Journal of Finance*, Vol. 68, No. 1, February 2013, pp. 86–124, at 86; Barberis, Nicholas, and Ming Huang, "Stocks as lotteries: The implications of probability weighting for security prices," *The American Economic Review*, Vol. 98, No. 5, December 2008, pp. 2066-2100; Brunnermeier, Markus K., Christian Gollier, and Jonathan A. Parker, "Optimal beliefs, prices, and the preference for skewed returns," *The American Economic Review*, Vol. 97, No. 2, May 2007, pp. 159–165; Mitton, Todd, and Keith Vorkink, "Equilibrium under diversification and the preference for skewness," *The Review of Financial Studies*, Vol. 20, No. 4, January 2007, pp. 1255-1288.

[49] For example, see Appendix A.

- What is the empirical distribution of investment horizons for different investor classes?
- For example, how many retail investors hold leveraged/inverse funds more than one week? One month? One year?
- Are these holding periods different for retail investors that rely upon registered investment advisers or for institutional investors?

33. Additionally, it is important to better understand how investors use leveraged/inverse funds in their portfolios. How often are leveraged/inverse funds intended to be speculative investments? How often are they used for the purpose of hedging existing positions? This information would help the SEC better evaluate the likely alternative investments investors may be forced to choose if leveraged/inverse funds were not available. Similarly, it is important to understand what sources of leverage may be available to investors (*e.g.*, margin accounts, options, etc.). This could inform the SEC on the likely alternative trading strategies retail investors may be forced to choose should they lose access to leveraged/inverse funds.

2. The SEC Does Not Establish an Appropriate Economic Baseline for Fund Sponsors

34. The economic baseline for leveraged/inverse fund sponsors arguably should consider what safeguards different fund sponsors have already put in place to guard against investor confusion. These include risk disclosures, FAQ-pages, market insights and investment ideas, educational materials, historical performance data, and potentially dedicated call centers for individual investors, financial professionals and institutional investors. The proposed sales practices rules have very little discussion on the baseline for leveraged/inverse fund sponsors. This is yet another area where the SEC's analysis does not provide sufficient transparency.

3. The SEC Does Not Establish an Appropriate Economic Baseline for Broker-Dealers

35. To develop an appropriate economic baseline for this proposal, it is important to, at a minimum, include a thorough description of what "point-of-sales" check boxes are already in place at certain brokerages, and what additional safeguards will come into place when

Regulation Best-Interest ("Reg BI"), which applies to all broker-dealers registered with the SEC, comes into effect on June 30, 2020.[50]

36. The economic analysis for the proposed sales practices rules does not make clear what incremental protection will be provided to investors over and above the "Disclosure Obligation" and "Care Obligations" foreseen in Reg BI. Under these respective obligations, broker-dealers must disclose material facts about the relationship and recommendations of the products and services they provide, and they must exercise reasonable diligence, care, and skill when making a recommendation to a retail customer.[51] Without a comprehensive analysis of the intersection of Reg BI with this proposed rule, the SEC has not established that additional rules are needed. Similarly, there are also other existing regulatory standards such as the fiduciary standard for investment advisers or the suitability standard for broker-dealers. The SEC has not addressed how the proposed rule fits into the framework of these existing regulations, what incremental protection will be provided to investors, or how existing regulations are deficient.

37. Additionally, the economic analysis should have analyzed the existing heterogeneity in due diligence frameworks between broker-dealers and investment advisers as they apply to the sales (*i.e.*, recommended trades) as well as unsolicited trades (not a "sale") and transactions made by advisers with full discretion of leveraged/inverse funds. This could provide evidence on the validity of the SEC's claims that the proposed rules are intended "to establish a single, uniform set of enhanced due diligence and approval requirements."[52]

38. The SEC's guidance states the SEC must characterize an appropriate economic baseline against which to measure the impact of their proposed rules. However, it has not done so for investors, fund sponsors or broker-dealers, leaving many open questions regarding the current protections in place and what incremental protection the sales practices rules will provide.

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[50] Regulation Best Interest: The Broker-Dealer Standard of Conduct, Release No. 34-86031, available at https://www.sec.gov/rules/final/2019/34-86031.pdf ("Reg BI").
[51] Reg BI, pp. 14–15.
[52] SEC Proposed Rule, p. 182.

C. The SEC Considers a Single Alternative and Neglects to Consider Many Reasonable and Less Burdensome Alternatives to the Proposed Sales Practices Rules

39. The SEC's guidance for rule-making stipulates that its economic analysis should "allow[] the Commission to meaningfully compare the proposed action with reasonable alternatives, including the alternative of not adopting a rule."[53] Specifically, the SEC's own guidance details that:

> The release should identify and discuss reasonable potential alternatives to the approach in the proposed rule. Reasonable alternatives include only those that are available to the SEC and not, for example, those that the SEC lacks the authority to implement. In addition to the preferred approach, a release could identify as alternatives realistic approaches that are more or less stringent than the preferred option.[54]

40. It appears that in its current release, the SEC has considered only one alternative to its proposed sales practices rules, namely to require leveraged/inverse funds to comply with a proposed relative VaR limit of 150%, thus restricting the leverage factor of leveraged/inverse funds to 150%.[55] This is an obvious non-starter as many leveraged/inverse funds are designed to maintain leverage factors that exceed a 150% cutoff, resulting in many potential liquidations and a reduction in consumer choice.[56]

41. Despite considering the possibility of requiring ***all*** funds to be subject to the VaR limit, the currently proposed sales practices rules do not allow leveraged/inverse funds which satisfy the VaR limit to voluntarily be subject to the fund leverage rule instead. The SEC's rationale for this is that to do so would "preclude sponsors from offering the funds in their current form."[57] However, this statement is not true in the particular case of leveraged/inverse funds that are designed to have a multiple of 1.5x or less. In particular, there are many inverse funds with multiples of -1x, which would likely satisfy the VaR limit. For example, the top ten single

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[53] Guidance on Economic Analysis in Rulemakings, p. 1.
[54] Guidance on Economic Analysis in Rulemakings, pp. 8–9.
[55] SEC Proposed Rule, p. 325.
[56] The SEC, itself, notes, "[m]ost leveraged/inverse funds could not satisfy the limit on fund leverage risk in proposed rule 18f-4 because they provide leveraged or inverse market exposure exceeding 150% of the return or inverse return of the relevant index." (SEC Proposed Rule, p. 180.)
[57] SEC Proposed Rule, p. 181.

inverse funds (-1x) by assets under management correspond to approximately a total of $5.5 billion in assets under management.[58] If the SEC's primary motivation is a concern about leverage-related risks "such as the risk of potentially significant losses and increased fund volatility," it would seem that fewer restrictions on inverse funds would provide investors with more options to hedge their exposures.[59]

42. The SEC should have also considered less burdensome alternatives such as:

i. Keeping the proposed carve-out for leveraged/inverse funds up to 300% without imposing further sales practices rules beyond those that currently exist (such as FINRA guidance, etc.) and those coming into effect under Reg BI.
ii. Enhancing prospectus and website disclosure practices to better educate investors. For example, this could come in the form of providing web utilities that allow investors to calculate an expected period return or multiple (along with an overview of the risks that need to be checked) after inputting a holding period, benchmark return, and expected volatility. This would be consistent with a disclosure-based regime, would be low-cost as it only impacts sponsors, and would directly address the stated concern of investor misunderstanding.
iii. Imposing point-of-sale procedures, similar to those already in place at some broker-dealers.
iv. Aligning the proposed sales practices rules with suitability rules for options, rather than extending beyond these standards in certain areas.[60]
v. Allowing FINRA to handle the approval process in the same manner as it currently does for options trading accounts.

These are at least five reasonable alternatives that the SEC could consider which would be less burdensome. To the extent the SEC has already considered some of these alternatives, a discussion of its reasoning would increase transparency.

[58] "Inverse Equity ETF List," ETFdb.com, available at https://etfdb.com/etfs/inverse/equity/, accessed on March 20, 2020.
[59] SEC Proposed Rule, p. 11.
[60] I note that FINRA's suitability rule for options only applies to *recommended* purchases and does not require retail investors to have documentation in instances where the options are purchased on their behalf by an investment adviser or where they engage in unsolicited transactions. (FINRA Rule 2360(b)(19), available at https://www.finra.org/rules-guidance/rulebooks/finra-rules/2360.)

D. The SEC Does Not Show that the Benefits Outweigh the Costs of the Proposed Sales Practices Rules

43. The SEC's guidance lays out clear criteria for what constitutes a rigorous evaluation of the benefits and costs of a proposed rule. Specifically, the guidance describes that an economic analysis should:

> (1) identify and describe the most likely economic benefits and costs of the proposed rule and alternatives; (2) quantify those expected benefits and costs to the extent possible; (3) for those elements of benefits and costs that are quantified, identify the source or method of quantification and discuss any uncertainties underlying the estimates; and (4) for those elements that are not quantified, explain why they cannot be quantified.[61]

44. The current characterization provided by the SEC does not provide sufficient evidence that the expected benefits outweigh the expected costs, and in the absence of such evidence, it is possible the costs actually outweigh the benefits. As discussed in more detail below, the release should have provided more information about 1) the incremental benefits of the proposed sales practices rules, relative to an economic baseline where no additional sales practices rules are imposed and Reg BI comes into effect in 2020; and 2) the expected costs associated with the proposed sales practices rules, both in terms of the incremental compliance costs the rules will impose on broker-dealers and registered advisers, as well as the expected opportunity cost to investors if their access to these assets is restricted.

1. The SEC Does Not Provide Evidence that the Sales Practices Rules Will Result in the Purported Benefits

45. In its current form, the proposed rule describes two potential benefits from the sales practices rules.

46. As a primary benefit of the proposed sales practices rules, the SEC asserts that it "would help to ensure that [retail] investors in these funds are limited to those who are capable of evaluating the characteristics and unique risks of these products."[62] However, as I discuss in

[61] Guidance on Economic Analysis in Rulemakings, pp. 9–10.
[62] SEC Proposed Rule, p. 289.

more detail below, the SEC provides no information on what investors in leveraged/inverse funds have misunderstood nor quantified the amount of harm, if any, suffered by investors because they were not capable of evaluating the "characteristics and unique risks" of leveraged/inverse funds. Nor has the SEC identified what characteristics leveraged/inverse fund investors would need to be "capable" or suggested any standard by which "capability" should be determined.

47. As a secondary benefit of the proposed sales practices rules, the SEC asserts that the rules might spur increased competition between leveraged/inverse funds and other investment vehicles.[63] However, without additional clarifications from the SEC, this second "benefit" could be interpreted as defeating the purpose of the sales practices rules.

> To the extent that the proposed sales practices rules…limit certain customers or clients from buying or selling shares of certain leveraged/inverse investment vehicles, such investors may instead opt to invest in another product with a similar risk profile that is not subject to those requirements. Thus, the proposed sales practices rules may generate substitution spillover effects that increase competition between leveraged/inverse investment vehicles within the scope of the rule and other products outside the scope of the rule that provide similar exposures.[64]

If the goal of the sales practices rules is "to ensure that investors in these funds are limited to those who are capable of evaluating the characteristics and unique risks of these products," then inducing them to allocate capital to "other products…that provide similar exposures" may be counterproductive to the stated goal. Furthermore, these alternative products may be subject to even greater risks and could result in investor harm.

a) Estimated Benefits and Discussion of Uncertainties Underlying the Benefit Estimates

48. Furthermore, and once again recognizing that this data may not be readily available, the SEC has not collected and analyzed data on the actual investors in leveraged/inverse funds to

[63] *E.g.*, Exchange-traded notes.
[64] SEC Proposed Rule, pp. 311–312.

determine the estimated benefits of the proposed sales practices rules.[65] The proposed sales practices rules should have included a comprehensive characterization of the "capability" and sophistication level of the investors in leveraged/inverse funds, a standard by which to measure such "capability," and an estimate of the number of investors who are potentially harmed by not understanding the "characteristics and unique risks" of leveraged/inverse funds.[66] The proposed rule does none of this.

49. Instead, in its benefits discussion, the SEC references "a body of academic literature providing empirical evidence that retail investors may not fully understand the risks inherent in their investment decisions and not fully understand the effects of compounding returns over time."[67] However, as the SEC itself acknowledges, "[t]he literature does not address retail investor's inattention to investment risk or the unique dynamics of compounding of daily returns in the context of leveraged/inverse ETFs or other leveraged/inverse investment vehicles specifically."[68] The proposed rule provides no information about leveraged/inverse fund investors' understanding (or lack thereof) of their leveraged/inverse investments nor any evidence about any potential harm that leveraged/inverse fund investors have incurred. Without any such data, it is impossible to estimate the expected benefits from the proposed sales practices rules.

50. By contrast, the SEC fails to discuss the benefits associated with skewness and why investors may prefer holding leveraged/inverse funds for periods longer than the one-day investment objective period. There exists a significant academic literature that addresses investor preferences for the higher moment characteristics of individual securities. Researchers have proposed both behavioral and rational models. A paper by Conrad, Dittmar, and Ghysels (2009) summarizes much of the extant literature. They note,

> For example, Barberis and Huang (2008) argue that investors with cumulative prospect theory preferences demand securities with highly skewed payoffs, such as IPO stocks. Brunnermeier, Gollier, and Parker (2007) develop a model of

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[65] *See*, Section III.B.1.
[66] SEC Proposed Rule, p. 289.
[67] SEC Proposed Rule, p. 288.
[68] SEC Proposed Rule, fn. 535.

> optimal (as opposed to rational) beliefs that also predicts that investors will overinvest in the most highly (right-) skewed securities, with the consequence that those securities will have lower subsequent average returns. They also show that, while there is a rational expectations solution to their model, it represents a knife-edge case. Mitton and Vorkink (2007) introduce a rational model where investors have heterogeneous preferences for skewness and show that idiosyncratic skewness can impact prices.[69]

51. Another key discussion missing from the proposed rule is a detailed comparison of the proposed sales practices rules to Reg BI since the SEC asserts that "[r]etail investors predominantly purchase and sell shares of leveraged/inverse investment vehicles through broker-dealers and investment advisers."[70] No data is provided on how many retail investors are currently investing in leveraged/inverse funds and are doing so under the advice of an investment adviser or broker-dealer nor is there any discussion of the incremental potential benefit to retail investors in circumstances where the investor's investment adviser has recommended a leveraged/inverse fund. One could argue that, even if the investors themselves do not understand the "unique risks and characteristics" of leveraged/inverse funds, their adviser does.

52. In discussing the estimated implementation costs of the proposed sales practices rules, the SEC mentions potential cost savings from adopting a framework in the same vein as FINRA's option rules as opposed to a reasonable alternative rule. These potential cost savings would result from "reduced compliance costs for broker-dealers that already have compliance procedures in place for approving options, although [the SEC] recognize[s] that these efficiencies and reduced compliance costs would not apply to investment advisers that are not dually registered as, or affiliated with, broker-dealers subject to FINRA rules."[71] Despite data being available on the dual registration of investment advisers, the SEC has not quantified this potential cost saving.

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[69] Conrad, Jennifer S., Robert F. Dittmar, and Eric Ghysels, "Ex Ante Skewness and Expected Stock Returns," *The Journal of Finance*, Vol. 68, No. 1, February 2013, pp. 86–124, at 86. See also Barberis, Nicholas, and Ming Huang, 2008, Stocks as lotteries: The implications of probability weighting for security prices, *American Economic Review* 98, 2066-2100; Brunnermeier, Markus K., Christian Gollier, and Jonathan A. Parker, 2007, Optimal beliefs, prices, and the preference for skewed returns, *American Economic Review* 97, 159–165; Mitton, Todd, and Keith Vorkink, 2007, Equilibrium underdiversification and the preference for skewness, *Review of Financial Studies* 20, 1255-1288.

[70] SEC Proposed Rule, p. 259.

[71] SEC Proposed Rule, p. 184.

2. The SEC's Estimated First-Year Cost of $2.4 Billion Does Not Cover All the Potential Categories of Costs

53. While the release mentions several expected costs of the proposed sales practices rules, the economic analysis appears to only consider one type of quantified cost: the cost to broker-dealers and investment advisers of implementing and maintaining the proposed sales practices rules. The SEC estimates that the total first-year cost of this rule is approximately $2.4 billion with $41.0 million per year of ongoing costs in the following years.[72, 73]

54. Some of the additional costs the SEC mentions but does not quantify are:

1. "[S]ome leveraged/inverse investment vehicles may lose existing or potential investors as a result of some retail investors not being approved by their broker-dealer or investment adviser to transact in leveraged/inverse investment vehicles or some retail investors being deterred by the time costs and delay introduced by the account-opening procedures."[74]
2. "[B]roker-dealers and investment advisers with a larger fraction of retail customers or clients that can no longer transact in leveraged/inverse investment vehicles as a result of the proposed sales practices rules' due diligence and account approval requirements may experience larger declines in their customer or client base."[75]
3. "[T]he proposed sales practices rules may reduce capital formation in asset markets directly connected with covered leveraged/inverse investment vehicles."[76]

55. These factors together have the potential to impact the liquidity in existing leveraged/inverse funds substantially, causing ripple effects beyond particular funds as many of these products have become an important part of the market liquidity ecosystem. The SEC

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[72] SEC Proposed Rule, p. 293.

[73] I note that the SEC represents the one-time costs to broker-dealers and investment advisers as ranging from $9,116 to $15,193 with a midpoint of $12,155. (SEC Proposed Rule, p. 290.) This range is misleading because it is the sum of costs that apply per broker-dealer or investment adviser (such as the cost to draft policies and procedures) with costs that apply per *customer account* (such as due diligence for the account's approval). The SEC estimates $8,718 for the development and implementation of an online client questionnaire and $1,822 for establishing and implementing rule 15*l*-2 policies and procedures. (SEC Proposed Rule, fn. 538 and fn. 539.) These are costs that only need to be incurred once per investment adviser or broker-dealer. $1,614 is the cost for the due diligence for ***each account***. (SEC Proposed Rule, fn. 541.) It cannot be added to $8,178 and $1,822 to estimate the cost per broker-dealer/investment adviser—it must be scaled up for the number of accounts that require account approval at that broker-dealer/investment adviser. Assuming that each individual investment adviser or broker-dealer has the same number of existing customer accounts, the corrected estimate of one-time cost to each individual investment adviser or broker-dealer would be $0.6 million and $1.7 million, respectively.

[74] SEC Proposed Rule, p. 293.

[75] SEC Proposed Rule, p. 312.

[76] SEC Proposed Rule, p. 313.

should have developed additional quantifications for these above-mentioned costs and their potential, some of which could be substantial. Furthermore, there are many categories of costs that the SEC did not mention such as legal, IT, or infrastructure costs. These one-time and ongoing costs missing from the SEC's estimate demonstrate that the real financial cost may be substantially greater than their estimate.

a) Reasonably Expected Costs that Are Not Considered, or Considered but Not Quantified by the SEC

(1) The Benefits of Leveraged/Inverse Funds May No Longer Be Accessible to Investors

56. The SEC appears to not have considered that given the substantial implementation costs, at least some broker-dealers and investment advisers may forego implementing these rules and instead restrict access to leveraged/inverse funds for all investors, or implement rules in a manner designed to limit client access. This can cause negative effects to customers of these broker-dealers and investment advisers who would otherwise trade these products. This can also have knock-on effects if some leveraged/inverse funds do not have a large enough customer base to be viable and cease to offer them (whether to institutional or retail investors).

57. This may lead investors to implement alternative investment strategies to replicate the uses they had for leveraged/inverse funds. The SEC's economic analysis does not (and should have) included a discussion of such alternative investment strategies and the potential costs associated with them.

58. For example, since leveraged/inverse funds can be an effective way for investors to gain increase their return exposure or to hedge their positions, in the absence of such choices, some investors will likely seek alternative ways of obtaining leverage and setting up portfolio hedges. One alternative way for investors to increase their effective exposure to a certain market, is to buy an asset on margin. Using a leveraged fund instead would allow an investor to gain leveraged exposure to the underlying assets without the need for margin borrowing.[77] Leveraged

[77] "4 Benefits of Leveraged ETFs," ETFguide, available at https://www.etfguide.com/4-benefits-of-leveraged-etfs/.

funds can be a cost-effective way of increasing exposure. While brokers may charge 4% to 7% for a margin loan, leveraged fund expense ratios are usually much closer to 1%.[78] Leveraged funds also do not require investors to put more capital at risk than they have available. There are also risks associated with trading on margin. For example, investors could lose more money than they actually have and would then be unable to repay their broker.[79] In contrast, investors in leveraged funds can only lose the amount of money initially invested. Investors trading on margin may also face margin calls and be forced to sell out of their positions when markets are declining, compounding their losses. Other examples of alternative ways of obtaining leverage include leveraged exchange-traded notes ("ETNs"), futures, or options.

59. Conversely, instead of finding alternative forms of leverage that may be riskier than leveraged/inverse funds, investors may choose to forgo hedging, leading to potentially worse outcomes. The coronavirus pandemic illustrates the potential hedging value of inverse leveraged/inverse funds. Investors with significant market exposure that want to eliminate general market risk but do not want to sell equities, possibly for tax-motivated reasons, would have been able to temporarily "exit" the market by purchasing leveraged/inverse funds. The amount purchased would depend on the desired degree of leverage and the amount of notional exposure an investor wished to hedge. Higher leverage allows investors to hedge greater amounts of notional exposure at a lower upfront cost. As with any hedge, once the investor desires to become unhedged, he or she can simply sell the fund at prevailing market prices.

60. In the absence or reduced availability of leveraged/inverse funds, investors may also put their money in alternatives that do not match their desired risk/return profile, resulting in less efficient portfolios that either forego returns while maintaining the same risk or take on additional risk for the same return. These opportunity costs may be quite substantial as many of the funds with the highest annualized returns are leveraged/inverse funds.[80]

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[78] "Buying a Leveraged ETF vs. Buying on Margin," ETFdb.com, October, 1, 2015, available at https://etfdb.com/leveraged-etfs/buying-a-leveraged-etf-vs-buying-on-margin/.

[79] For example, if the value of the margin account drops below the required amount during periods of market turbulence, investors may be forced to liquidate other assets to meet the margin call. This would further compound losses as investors would be forced to liquidate assets in a period of market turbulence.

[80] For example, the top 5 performing leveraged/inverse ETFs in 2019 saw annual gains of 138% to 232%. In contrast, the top performing non-leveraged/inverse ETF had an annual gain of 67%. ("Best Performing ETFs of the Year," ETF.com, January 7, 2020, available at https://www.etf.com/sections/features-and-news/best-performing-etfs-year.) Similarly, over a 5-year time

(2) Reduction in the Client Base for Broker-Dealers and Investment Advisers

61. The SEC identifies as a cost that "some leveraged/inverse investment vehicles may lose existing or potential investors as a result of some retail investors not being approved by their broker-dealer or investment adviser."[81] However, the SEC has not quantified the number of retail investors who invest in leveraged/inverse funds through their broker-dealers or investment advisers, nor the number of retail investors who likely would be excluded by the sales practices rules. Such a quantification should have been included in the SEC's economic analysis.

62. The SEC identified as a cost "broker dealers and investment advisers…may experience larger declines in their customer or client base" due to the sales practices rules.[82] However, the SEC has not identified which broker-dealers and investment advisers may have an outsized exposure to retail investors in leveraged/inverse funds, nor quantified the amount of assets that the retail investors who invest in leveraged/inverse funds hold. Without this additional data, the SEC's economic analysis suffers from not being able to evaluate how much of the broker-dealers' customer base is at risk. Similarly, the discussion in the expected costs of the proposed sales practices rules should include an analysis of the probability that customers leave their broker-dealer or investment adviser due to their inability to invest in leveraged/inverse products.

63. The SEC does not provide sufficient evidence on whether the purported benefits of the sales practices rules will actually be realized while underestimating the expected costs ($2.4 billion in the first year) by excluding several potential cost categories. As such, it is possible that the costs of the proposed sales practices rules actually outweigh the benefits.

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period, the top 5 highest performing ETFs were all leveraged/inverse ETFs. ("100 Highest 5 Year ETF Returns," ETFdb.com, available at https://etfdb.com/compare/highest-5-year-returns/.)

[81] SEC Proposed Rule, p. 293.

[82] SEC Proposed Rule, p. 312.

IV. Economic Analysis of the Proposed Fund Leverage Rule

64. As summarized in a previous section, one of the rules proposed by the SEC is the fund leverage rule which would require funds "engaging in derivatives transactions to comply with a VaR-based limit on fund leverage risk."[83] The SEC claims that this rule "would benefit investors by mitigating derivatives-related risks, including those that may lead to unanticipated and potentially significant losses for investors."[84]

65. As the SEC summarized, "VaR is an estimate of an instrument or portfolio's potential losses over a given time horizon and at a specified confidence level."[85] The SEC makes clear in their release that it "recognize[s] that VaR is not itself a leverage measure." The SEC concludes, however, that "a VaR test, and especially one that compares a fund's VaR to an unleveraged index that reflects the markets or asset classes in which the fund invests, can be used to analyze whether a fund is using derivatives transactions to leverage the fund's portfolio."[86] The main drawback with this approach is that there are other aspects of a fund that are unrelated to leverage that also could increase its VaR. At a minimum, one would expect the SEC to acknowledge these considerations as potential unintended consequences of the proposed methodology.

66. For example, all else equal, more concentrated portfolios have a higher VaR. In other words, even if a fund does not use derivatives, it can fail a VaR test. Consider the following illustration with a hypothetical fund that tracks an index of 100 equally-weighted securities whose returns are drawn from a normal distribution with a mean of zero and a standard deviation of 10%.[87] The index will have a standard deviation of 1%[88] and a one-day 95% VaR of 1.65%. If an alternative fund invests in 25 of these securities, the alternative fund will have a standard deviation of 2% and a one-day 95% VaR of 3.29%.[89] This is twice the VaR of the 100-stock

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[83] SEC Proposed Rule, p. 90.
[84] SEC Proposed Rule, p. 250.
[85] SEC Proposed Rule, p. 91.
[86] SEC Proposed Rule, p. 92.
[87] I have assumed zero correlation and identical volatility for each security for expositional clarity. Under the same assumptions used in this illustration, the introduction of cross-correlation (assumed to be identical for each security) reduces its economic significance as the standard deviation of the index rapidly approaches its asymptotic limit of $\sigma\sqrt{\rho}$.
[88] 1% = 10% / $\sqrt{100}$.
[89] 2% = 10% / $\sqrt{25}$.

index even though it does not use leverage. In this illustration, in order for a fund to comply with the stated VaR limit, it would have to purchase at least 45 securities.[90] This demonstrates how it is possible for unlevered funds to have VaRs that exceed the limit.

67. Below, I discuss the SEC's work pertaining to the components that an economic analysis must address.

A. The SEC's Own Analysis Shows There Is Little Need for the Proposed Fund Leverage Rule

68. It appears that the SEC is concerned that the use of derivatives in leveraged/inverse funds "may raise the investor protections concerns underlying section 18," specifically that of "undue speculation."[91] However, based on the SEC's own analysis, it does not appear that there is a need for the proposed fund leverage rule. Based on data from December 2018, the SEC found that only a **small** number of funds have a relative VaR in excess of the proposed limit.

> DERA staff analyzed the VaR levels of the portfolios of all funds that would be subject to the proposed rule and of certain benchmark indexes as of December 2018 in order to estimate how many of the funds that would be subject to the proposed VaR-based limit on fund leverage risk currently operate in exceedance of that limit. This analysis **identified only six funds that would be subject to the proposed limit** that DERA staff estimated may fail the relative VaR test. In the case of these six funds, DERA staff calculated the relative VaR test using the primary benchmark disclosed in the funds' prospectuses.[92] (emphasis added)

69. These six funds represent less than 0.3% of the 2,693 funds the SEC estimates would be subject to this proposed limit on fund leverage risk.[93] Thus, the SEC's own analysis appears to show that the vast majority of funds do not have excess fund leverage risk, and that there is no evidence of any market failure that would require the fund leverage rule.

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[90] 1.49%. = 10% / $\sqrt{45}$.
[91] SEC Proposed Rule, pp. 28, 250.
[92] SEC Proposed Rule, p. 276.
[93] SEC Proposed Rule, fn. 628.

B. The Information the SEC Provided Regarding DERA's VaR Analysis Is Incomplete

70. With respect to limits on fund leverage risk, SEC staff performed an analysis of relative VaR using Morningstar data as of December 31, 2018.[94] While such an approach is an important part of establishing the economic baseline against which to measure the proposed fund leverage rule's economic impact, it is unclear why only limited information is provided about the methodology of the analysis.

71. At a minimum, the SEC should also report on the following aspects of its analysis:

- The number of funds included in the SEC's analysis.
- An updated version of the analysis that calculates relative and absolute VaR levels using Form N-PORT filings since it uses more recent Form N-PORT data elsewhere.[95]
- Summary statistics on the distribution of relative VaR. Given the small number of funds with fund leverage risk levels that exceeded the 150% limit, this would be useful in characterizing how close other funds were to the threshold and by what magnitude they exceeded the threshold.
- A description of the methodology used to calculate VaR or the software tool employed to make the calculations. Calculating VaR is complicated and subject to many assumptions. Without understanding the SEC's methodology, one cannot assess the validity of the results. The SEC should publish the DERA VaR analysis and provide the opportunity for the analysis to be scrutinized and give additional time for the public to comment. Furthermore, it would be helpful if the analysis not only reported the statistics on relative and absolute VaR, but also provided a list of relative and absolute VaR calculations for individual funds.

72. In addition, the economic analysis should provide more information regarding the absolute VaR threshold. For example, the baseline should replicate and report results for absolute VaR in addition to relative VaR as it is important to understand how similar the results

[94] SEC Proposed Rule, p. 275.
[95] *See*, *e.g.*, SEC Proposed Rule, pp. 151, 254. Presumably, one of the reasons that the SEC requires these forms is to inform its rulemaking process.

would be if the SEC had used its absolute VaR test rather than its relative VaR test. To evaluate the baseline, it would be useful to answer, at a minimum, the following questions:

- How many funds does the SEC anticipate being subject to the absolute VaR test as opposed to the relative VaR test? What sectors do those funds cover? Given the absolute VaR test is based on the S&P 500, is this a reasonable benchmark for the sectors where these funds operate? Would an alternative market index be more appropriate?
- How many funds would have failed an absolute VaR test but would have passed a relative VaR test?
- How many of the funds that failed the relative VaR test would have passed an absolute VaR test?

73. This information would help evaluate whether the proposed limit, which could be a relative or an absolute VaR limit depending on whether a reference index is available, is the appropriate way to limit fund leverage risk. Further, it would help assess whether the 150% threshold based on relative VaR and the 15% threshold based on absolute VaR are comparable and appropriate.

C. Reasonable Alternatives to the Proposed Fund Leverage Rule

74. As discussed above, the SEC lays out guidance regarding the identification and discussion of reasonable potential alternatives to the approach in the proposed rule.[96] The SEC identifies three potential alternatives (or complements) to the VaR test as a means of limiting fund leverage risk: stress testing, asset segregation, or an exposure-based test.

75. However, given that the SEC's own analysis finds a limited number of funds to have excessive fund leverage risk, a possible alternative that was not discussed is to have the Division of Investment Management ("IM") publish Interpretive Guidance that outlines the basic VaR approach. The IM's risk monitoring staff could then surveil the industry by estimating monthly VaR levels with Form N-PORT data. Armed with this data, the SEC could then determine which

[96] *See* ¶ 39.

firms to monitor more closely, including possible inspections, so as to engage in discussions on these issues. Such an approach already is in the purview of the SEC and would be a cost-effective alternative solution.[97]

D. The SEC Does Not Show that the Benefits Outweigh the Costs of the Proposed Fund Leverage Rule

76. As discussed above, the SEC lays out clear criteria for what constitutes a rigorous evaluation of the benefits and costs of a proposed rule.[98] Based on an evaluation of the SEC's discussion of estimated benefits and costs, it could be concluded that the estimated benefits do not outweigh the estimated costs. As I discuss in more detail below, the Proposed Rule should provide more information about 1) whether investors would benefit from a reduction in fund leverage risk, and 2) how the total expected cost figure can be broken down to each individual element and how they arrived at their wide-ranging cost estimate. In particular, the discussion in the expected benefits and costs of the fund leverage rule should have addressed why the expected costs (the burden of which would fall on all investment funds) are outweighed by the expected benefits (which are unquantified) when DERA's own analysis shows that very few funds appear to exceed the proposed VaR limit.

1. The Purported Benefits Only Apply to a Limited Number of Funds

77. According to the SEC, the "proposed [VaR] requirements are designed to limit fund leverage risk consistent with the investor protection purposes underlying section 18."[99] For this to raise to the level of a significant market failure, it is necessary to demonstrate that excessive VaR levels are a pervasive problem. Surprisingly, the SEC's own analysis suggests that few funds appear to have fund leverage risk that exceeds the proposed limit based on VaR.[100] The two main claimed categories of benefits from the proposed fund leverage rule are:

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[97] According to the SEC's webpage. "The Analytics Office pursues this mission by: (1) monitoring and analyzing the industry data collected by the Commission; (2) conducting ongoing financial analysis of the asset management industry; (3) gathering and analyzing operational information directly from participants in the asset management industry; and (4) otherwise maintaining industry knowledge and technical expertise to provide other analyses that may support the Division's activities." ("Division of Investment Management," Securities and Exchange Commission, available at https://www.sec.gov/investment/Article/investment_about.html.)

[98] *See* ¶ 43.

[99] SEC Proposed Rule, p. 31.

[100] SEC Proposed Rule, p. 279.

a. More effective risk management practices would allow fund managers to better understand fund leverage risk. This could result in more informed portfolio decision-making, which is a benefit to both fund management and investors.
b. The proposal requires independent risk management that is independent from the portfolio selection process. This promotes objective identification and assessment of risk. [101]

78. In particular, the first category of benefits appears to suggest that investors would benefit from a reduction in fund leverage risk. However, this assumes that fund managers and investors do not understand the risk-return profile of their funds. The SEC should have included in its economic analysis a clear definition of fund leverage risk and explain why it is inherently beneficial for investors to avoid. For example, it is completely consistent with a fund's alpha-generation strategy to target specific levels of fund leverage risk, and provided that investors understand the strategy and risks, it is not clear why there needs to be a reduction in such risk. Furthermore, the desire to reduce fund leverage risk does not consider whether investors are taking on such risk as part of their hedging strategy, and limitations on leveraged/inverse funds could actually harm such investors by limiting their choices when hedging their portfolios.

2. The SEC Does Not Provide Sufficient Information on Costs

79. The proposed rule identifies and discusses four main categories of costs:

a. Trading costs associated with complying with and remaining compliant with the VaR limit, particularly in conditions of market stress and reduced liquidity and in particular for funds subject to the absolute VaR limit.[102] In the extreme case where a fund would have to adjust its portfolio so significantly such that it could

[101] SEC Proposed Rule, pp. 49–50.
[102] SEC Proposed Rule, pp. 276–277. I note that the proposed rule has a provision which allows funds to mitigate potential costs by not requiring the fund to exit position/change its portfolio if, after being out of compliance for more than three business days, it does the following: "(1) the derivatives risk manager must report to the fund's board of directors and explain how and by when (i.e., the number of business days) the derivatives risk manager reasonably expects that the fund will come back into compliance; (2) the derivatives risk 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 derivatives transactions other than derivatives transactions that, individually or in the aggregate, are designed to reduce the fund's VaR, until the fund has been back in compliance with the applicable VaR test for three consecutive business days and satisfied the board reporting requirement and program analysis and update requirements." (SEC Proposed Rule, pp. 281–282.)

no longer follow its investment strategy, the fund could lose investors or cease operation.

b. Costs of implementing VaR systems and building out risk management functions for funds which do not have existing capabilities. Even for funds which already perform VaR calculations, there may be incremental costs to update their systems to comply with the requirements of the specific VaR test proposed by the rule.
c. Daily costs of calculating VaRs to determine compliance, including data acquisition costs and potential licensing fees.
d. Loss of flexibility for funds by restricting their ability to leverage their portfolios to a greater extent.

80. The SEC estimates that the annual incremental cost to the industry of implementing the proposed fund leverage rule would be $127.3 million. [103] This estimate uses the midpoint of the estimated cost of implementation which ranges from $5,000 to $100,000 per fund. [104] It is not clear how the SEC arrived at this estimate, or how this average incremental cost would be apportioned among the various categories of costs that they identified. Such costs also do not take into account the reduction of investment opportunities for investors and any costs incurred if they switched to alternative investment vehicles. I also note that in the SEC's 2015 proposal, the estimated cost of implementation for the VaR test ranged from $60,000 to $180,000 per fund.[105] It is not clear if the estimated costs in the proposed rule are understated, or if there are reasons why the estimated cost (based on the midpoint) is less than half the previous proposal.

V. Conclusion

81. The SEC has proposed sales practices rules that seek to regulate the access to leveraged/inverse funds as well as a fund leverage rule which seeks to limit fund leverage risk. Based on my review of the SEC's release, I find that the economic analysis presented is flawed or incomplete and does not provide evidence for many of its claims. In particular,

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[103] SEC Proposed Rule, p. 280.
[104] SEC Proposed Rule, pp. 279–280.
[105] "Use of Derivatives by Registered Investment Companies and Business Development Companies," Securities and Exchange Commission, Release No. IC-31933, December 11, 2015, available at https://www.sec.gov/rules/proposed/2015/ic-31933.pdf, p. 307.

- Despite the SEC's concern regarding investor misunderstanding of leveraged/inverse funds, it does not present any evidence of such misunderstanding nor any quantification of potential losses that were a result of such misunderstanding. Similarly, it has failed to identify any market failure that requires the implementation of a VaR test.
- The SEC's comparison of leveraged/inverse funds to options is misleading because its finding of skewness is applicable to all assets, not just leveraged/inverse funds, and its findings of similarity are overstated due to the inclusion of options which are not frequently traded.
- The SEC does not make clear how its sales practices rules fit into the framework of existing (or soon to be effective) regulatory standards and what incremental protection is offered to investors, if any.
- The SEC neglects to consider many reasonable and less burdensome alternatives to its proposed rules such as having the SEC monitor fund compliance with the VaR limit using N-PORT data.
- The SEC does not show that the benefits outweigh the costs of its proposals and does not provide the information needed to make such an assessment.

VI. Appendix A: Excerpts from ProShares Prospectuses

Ultra S&P500

Important Information About the Fund

ProShares Ultra S&P500 (the "Fund") seeks daily investment results, before fees and expenses, that correspond to two times (2x) the return of the S&P 500® Index (the "Index") **for a single day**, not for any other period. A "single day" is measured from the time the Fund calculates its net asset value ("NAV") to the time of the Fund's next NAV calculation. **The return of the Fund for periods longer than a single day will be the result of its return for each day compounded over the period. The Fund's returns for periods longer than a single day will very likely differ in amount, and possibly even direction, from the Fund's stated multiple (2x) times the return of the Fund's Index for the same period. For periods longer than a single day, the Fund will lose money if the Index's performance is flat, and it is possible that the Fund will lose money even if the level of the Index rises.** Longer holding periods, higher Index volatility and greater leverage each exacerbate the impact of compounding on an investor's returns. During periods of higher Index volatility, the volatility of the Index may affect the Fund's return as much as or more than the return of the Index.

The Fund presents different risks than other types of funds. The Fund uses leverage and is riskier than similarly benchmarked exchange-traded funds that do not use leverage. The Fund may not be suitable for all investors and should be used only by knowledgeable investors who understand the consequences of seeking daily leveraged (2x) investment results, including the impact of compounding on Fund performance. Investors in the Fund should actively manage and monitor their investments, as frequently as daily. An investor in the Fund could potentially lose the full principal value of his/her investment within a single day.

Investment Objective

The Fund seeks daily investment results, before fees and expenses, that correspond to two times (2x) the daily performance of the Index. **The Fund does not seek to achieve its stated investment objective over a period of time greater than a single day.**

Important Information About the Fund

ProShares UltraPro S&P500 (the "Fund") seeks daily investment results, before fees and expenses, that correspond to three times (3x) the return of the S&P 500® Index (the "Index") **for a single day**, not for any other period. A "single day" is measured from the time the Fund calculates its net asset value ("NAV") to the time of the Fund's next NAV calculation. **The return of the Fund for periods longer than a single day will be the result of its return for each day compounded over the period. The Fund's returns for periods longer than a single day will very likely differ in amount, and possibly even direction, from the Fund's stated multiple (3x) times the return of the Fund's Index for the same period. For periods longer than a single day, the Fund will lose money if the Index's performance is flat, and it is possible that the Fund will lose money even if the level of the Index rises.** Longer holding periods, higher Index volatility and greater leverage each exacerbate the impact of compounding on an investor's returns. During periods of higher Index volatility, the volatility of the Index may affect the Fund's return as much as or more than the return of the Index.

The Fund presents different risks than other types of funds. The Fund uses leverage and is riskier than similarly benchmarked exchange-traded funds that do not use leverage. The Fund may not be suitable for all investors and should be used only by knowledgeable investors who understand the consequences of seeking daily leveraged (3x) investment results, including the impact of compounding on Fund performance. Investors in the Fund should actively manage and monitor their investments, as frequently as daily. An investor in the Fund could potentially lose the full principal value of his/her investment within a single day.

Investment Objective

The Fund seeks daily investment results, before fees and expenses, that correspond to three times (3x) the daily performance of the Index. **The Fund does not seek to achieve its stated investment objective over a period of time greater than a single day.**

Important Information About the Fund

ProShares UltraShort S&P500 (the "Fund") seeks daily investment results, before fees and expenses, that correspond to two times the inverse (-2x) of the return of the S&P 500® Index (the "Index") **for a single day**, not for any other period. A "single day" is measured from the time the Fund calculates its net asset value ("NAV") to the time of the Fund's next NAV calculation. **The return of the Fund for periods longer than a single day will be the result of its return for each day compounded over the period. The Fund's returns for periods longer than a single day will very likely differ in amount, and possibly even direction, from the Fund's stated multiple (-2x) times the return of the Fund's Index for the same period. For periods longer than a single day, the Fund will lose money if the Index's performance is flat, and it is possible that the Fund will lose money even if the level of the Index falls.** Longer holding periods, higher Index volatility, inverse exposure and greater leverage each exacerbate the impact of compounding on an investor's returns. During periods of higher Index volatility, the volatility of the Index may affect the Fund's return as much as or more than the return of the Index.

The Fund presents different risks than other types of funds. The Fund uses leverage and is riskier than similarly benchmarked exchange-traded funds that do not use leverage. The Fund may not be suitable for all investors and should be used only by knowledgeable investors who understand the consequences of seeking daily inverse leveraged (-2x) investment results, including the impact of compounding on Fund performance. Investors in the Fund should actively manage and monitor their investments, as frequently as daily. An investor in the Fund could potentially lose the full principal value of his/her investment within a single day.

Investment Objective

The Fund seeks daily investment results, before fees and expenses, that correspond to two times the inverse (-2x) of the daily performance of the Index. **The Fund does not seek to achieve its stated investment objective over a period of time greater than a single day.**

Important Information About the Fund

ProShares UltraPro Short S&P500 (the "Fund") seeks daily investment results, before fees and expenses, that correspond to three times the inverse (-3x) of the return of the S&P 500® Index (the "Index") **for a single day**, not for any other period. A "single day" is measured from the time the Fund calculates its net asset value ("NAV") to the time of the Fund's next NAV calculation. **The return of the Fund for periods longer than a single day will be the result of its return for each day compounded over the period. The Fund's returns for periods longer than a single day will very likely differ in amount, and possibly even direction, from the Fund's stated multiple (-3x) times the return of the Fund's Index for the same period. For periods longer than a single day, the Fund will lose money if the Index's performance is flat, and it is possible that the Fund will lose money even if the level of the Index falls.** Longer holding periods, higher Index volatility, inverse exposure and greater leverage each exacerbate the impact of compounding on an investor's returns. During periods of higher Index volatility, the volatility of the Index may affect the Fund's return as much as or more than the return of the Index.

The Fund presents different risks than other types of funds. The Fund uses leverage and is riskier than similarly benchmarked exchange-traded funds that do not use leverage. The Fund may not be suitable for all investors and should be used only by knowledgeable investors who understand the consequences of seeking daily inverse leveraged (-3x) investment results, including the impact of compounding on Fund performance. Investors in the Fund should actively manage and monitor their investments, as frequently as daily. An investor in the Fund could potentially lose the full principal value of his/her investment within a single day.

Investment Objective

The Fund seeks daily investment results, before fees and expenses, that correspond to three times the inverse (-3x) of the daily performance of the Index. **The Fund does not seek to achieve its stated investment objective over a period of time greater than a single day.**

Exhibit 4

Expert Evaluator Report

Area(s) of Expertise: Accounting & Economics - Economic Damages, Business Valuation, Securities & Investments, Finance, Accounting

Appearance Summary

Appearances	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Dockets by year initiated	2	3	3	2	1	0	1	0	0	1	0	13
Judicial opinions	0	0	0	2	7	1	1	2	3	1	0	17
Jury Verdicts	1	0	0	0	1	0	0	0	0	0	0	2

Showing all **3** result(s)

Roles

Role	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Defendant	0	0	1	0	1	0	0	0	0	1	0	3
Other Legal Roles	1	0	0	0	1	0	0	0	0	0	0	2
Plaintiff	2	3	2	4	7	1	2	2	3	1	0	27

Showing all **3** result(s)

Trial Documents & Testimony

Document Type	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Appellate Brief	0	2	0	2	3	2	3	0	0	0	2	14
Expert Testimony	13	3	5	12	2	0	2	0	0	0	1	38
Trial Filing	0	0	0	0	0	0	0	1	0	0	0	1
Trial Motion, Memorandum, and Affidavit	0	0	13	9	3	0	4	1	1	1	0	32
Trial Pleading	0	0	0	0	0	3	3	0	0	0	0	6

Showing all **5** result(s)

Attorneys

Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Ahlering, Thomas E.	0	0	0	1	0	0	0	0	0	0	0	1
Ajamie, Thomas R.	0	0	1	0	0	0	0	0	0	0	0	1
Avins, Jon	0	1	0	0	0	0	0	0	0	0	0	1
Baker, John Keeling	0	0	1	0	0	0	0	0	0	0	0	1
Bales, Stephen M.	0	0	0	0	0	0	0	0	0	1	0	1
Bandman, Randi D.	0	0	0	0	0	0	0	1	0	0	0	1
Bartlett, Harvey Sylvanous III.	0	0	0	0	0	0	1	0	0	0	0	1
Basser, Stephen R.	0	0	0	0	1	0	0	1	0	0	0	2
Beckerman, Jason	0	0	0	0	1	0	0	0	0	0	0	1
Beckett, E. Casey	0	0	1	0	0	0	0	0	0	0	0	1
Benecke, Christopher B.	0	1	0	0	0	0	0	0	0	0	0	1
Berman, Steve W.	0	0	0	1	0	0	0	0	0	0	0	1
Blackwell, Penelope Brobst	0	0	1	1	1	0	0	0	0	0	0	3
Block, Jeffrey C.	1	0	0	0	0	0	0	0	0	0	0	1
Bosch, Thomas B.	0	0	1	0	0	0	0	0	0	0	0	1
Bramlett, Jeffrey O.	0	0	1	0	0	0	0	0	0	0	0	1
Brooks, Steven L.	0	0	0	0	1	0	0	0	0	0	0	1
Brooks, Timothy L.	0	0	0	0	1	0	0	0	0	0	0	1
Burge, Jason W.	0	0	0	0	0	0	1	0	0	0	0	1
Canoni, John	0	1	0	0	0	0	0	0	0	0	0	1
Carlin, Stephen C.	0	0	1	1	1	0	0	0	0	0	0	3
Clay, John W.	0	0	1	0	0	0	0	0	0	0	0	1

Cohen, Joel	0	0	0	0	1	0	0	0	0	0	0	1
Collins, Christa	0	0	0	0	1	0	0	1	0	0	0	2
Conroy, Kim	0	1	0	0	0	0	0	0	0	0	0	1
Cotchett, Joseph W.	0	2	0	0	1	0	0	0	0	0	0	3
Coughlin, Patrick J.	0	0	0	0	0	0	0	1	0	0	0	1
Dantzler, J. David Jr.	0	0	1	0	0	0	0	0	0	0	0	1
Davis, Theresa L.	0	0	1	0	0	0	0	0	0	0	0	1
deVyver, K. Issac	0	0	1	0	0	0	0	0	0	0	0	1
Doffermyre, Everette L.	0	0	0	0	2	0	0	0	0	0	0	2
Donovan, Richard T.	0	0	1	0	0	0	0	0	0	0	0	1
Edling, Matthew K.	0	1	0	0	1	0	0	0	0	0	0	2
Egan, Patrick T.	1	0	0	0	0	0	0	0	0	0	0	1
Ellingboe, Deborah A.	1	0	0	0	0	0	0	0	0	0	0	1
Eng, Gordon	1	0	0	0	0	0	0	0	0	0	0	1
Eppler, Douglas M.	0	0	0	0	0	0	0	0	0	1	0	1
Evans, Ingrid M.	0	0	0	0	1	0	0	1	0	0	0	2
Farnan, John G.	0	0	0	0	0	0	0	0	0	1	0	1
Farrar, Tonna K.	0	0	0	0	1	0	0	1	0	0	0	2
Fay, Michael M.	0	1	0	0	0	0	0	0	0	0	0	1
Fegan, Elizabeth A.	0	0	0	1	0	0	0	0	0	0	0	1
Ferguson, Pamela A.	0	0	1	0	0	0	0	0	0	0	0	1
Finkelstein, Howard	0	0	0	0	1	0	0	1	0	0	0	2
Frantz, Monica L.	0	0	0	0	0	0	0	0	0	1	0	1
Friedman, Andrew	0	0	0	0	0	1	0	0	0	0	0	1
Friedman, Andrew S.	0	0	0	1	1	0	0	1	0	0	0	3
Goplerud, J. Barton	0	0	0	1	0	0	0	0	0	0	0	1
Green, Wilson F.	0	0	0	0	1	0	0	1	0	0	0	2
Grossman, Evangeline Fisher	0	0	0	0	1	0	0	1	0	0	0	2
Heller, Lisa Lorraine	0	0	1	0	0	0	0	0	0	0	0	1
Hutton, Andrew W.	0	0	0	0	0	0	0	1	1	1	0	3
Itkin, Uri A.	0	1	0	0	0	0	0	0	0	0	0	1
Jenkins, David A.	1	0	0	0	0	0	0	0	0	0	0	1
Jensen, Rachel L.	0	0	0	0	1	0	0	1	0	0	0	2
Jodlowski, Steven M.	0	0	0	0	1	1	0	1	0	0	0	3
Jones, Gladstone N. III.	0	0	0	0	0	0	1	0	0	0	0	1
Kampman, Brian F.	0	0	0	0	0	0	0	0	0	1	0	1
Kasowitz, Marc E.	0	1	0	0	0	0	0	0	0	0	0	1
Kelleher, William M.	1	0	0	0	0	0	0	0	0	0	0	1
King, Michael J.	0	0	1	0	0	0	0	0	0	0	0	1
Klatell, Jeremy N.	1	0	0	0	0	0	0	0	0	0	0	1
Knutson, Mark L.	0	0	0	0	1	0	0	1	0	0	0	2
Kruse, Mark F.	0	0	0	0	0	0	0	0	0	1	0	1
Krypel, Justin P.	1	0	0	0	0	0	0	0	0	0	0	1
Kurowski, Daniel	0	0	0	1	0	0	0	0	0	0	0	1
Lapidus, Cary S	1	0	0	0	0	0	0	0	0	0	0	1
Lovett, Mary-Olga	0	0	1	1	1	0	0	0	0	0	0	3
Madel, Christopher W.	0	0	1	0	0	0	0	0	0	0	0	1
Mahoney, Timothy P.	0	0	0	1	0	0	0	0	0	0	0	1
Mast, J. Timothy	0	0	1	0	0	0	0	0	0	0	0	1
Matt, Sean R.	0	0	0	1	0	0	0	0	0	0	0	1
McGoey, Lauren Sable	0	1	0	0	0	0	0	0	0	0	0	1
Meyer, J. Andrew	0	0	0	0	1	0	0	1	0	0	0	2
Mickey, Melissa Ann	0	0	1	0	0	0	0	0	0	0	0	1

Miklowski, Joshua M.	0	0	0	0	0	0	0	0	0	1	0	1
Miller, Charles M.	0	1	0	0	0	0	0	0	0	0	0	1
Miller, Lance R.	0	0	1	0	0	0	0	0	0	0	0	1
Mitchell, Jeff	0	0	0	0	1	0	0	0	0	0	0	1
Molinaro, Michael L.	0	0	1	0	0	0	0	0	0	0	0	1
Molumphy, Mark C.	0	2	0	0	1	0	0	0	0	0	0	3
Monday, Kathy L.	1	0	0	0	0	0	0	0	0	0	0	1
Montenegro, Christine A.	0	1	0	0	0	0	0	0	0	0	0	1
Nugent, Janna S.	0	0	1	0	0	0	0	0	0	0	0	1
Page, Kimberly C.	0	0	0	0	1	0	0	1	0	0	0	2
Palmer, Jonathan M.	0	0	0	0	2	0	0	0	0	0	0	2
Pintar, Theodore J.	0	0	0	0	1	1	0	1	0	0	0	3
Powell, Jason C.	1	0	0	0	0	0	0	0	0	0	0	1
Putman, William B.	0	0	0	0	1	0	0	0	0	0	0	1
Rains, John H. IV.	0	0	1	0	0	0	0	0	0	0	0	1
Ramachandrappa, Naveen	0	0	1	0	0	0	0	0	0	0	0	1
Reeves, Lindsay E.	0	0	0	0	0	0	1	0	0	0	0	1
Reich, Mark S.	1	0	0	0	0	0	0	0	0	0	0	1
Reichard, Benjamin D.	0	0	0	0	0	0	1	0	0	0	0	1
Rodes, Leonard A.	0	1	0	0	0	0	0	0	0	0	0	1
Ross, David E.	1	0	0	0	0	0	0	0	0	0	0	1
Rudman, Samuel H.	1	0	0	0	0	0	0	0	0	0	0	1
Ryan, Elaine A.	0	0	0	0	1	0	0	1	0	0	0	2
Schallert, Edwin G.	1	0	0	0	0	0	0	0	0	0	0	1
Scherker, Elliot H.	0	0	0	0	1	0	0	0	0	0	0	1
Schlichtmann, Laura	0	2	0	0	0	0	0	0	0	0	0	2
Schrimp, Roger M.	1	0	0	0	0	0	0	0	0	0	0	1
Seitz, Collins J. Jr.	1	0	0	0	0	0	0	0	0	0	0	1
Selden, Eric D.	1	0	0	0	0	0	0	0	0	0	0	1
Severson, Steven L.	1	0	0	0	0	0	0	0	0	0	0	1
Shernoff, William M	0	0	0	0	1	0	0	1	0	0	0	2
Shields, Robert E.	0	0	0	0	2	0	0	0	0	0	0	2
Siddiqui, Imtiaz A.	0	2	0	0	1	0	0	0	0	0	0	3
Smith, Stan D.	0	0	1	0	0	0	0	0	0	0	0	1
Sparks, Braden W.	0	0	1	0	0	0	0	0	0	0	0	1
Spiegel, Craig R.	0	0	0	1	0	0	0	0	0	0	0	1
Stewart, Jesse C.	0	0	0	0	0	0	1	0	0	0	0	1
Stoia, John J. Jr.	0	0	0	0	1	0	0	1	0	0	0	2
Swanson, James R.	0	0	0	0	0	0	1	0	0	0	0	1
Swanson, Lynn Elizabeth	0	0	0	0	0	0	1	0	0	0	0	1
Syverson, Patricia N.	0	0	0	0	1	0	0	1	0	0	0	2
Tatro, Timothy J. Esq.	0	0	0	0	0	0	0	1	1	1	0	3
Thamer, Michael D.	0	0	0	0	1	0	0	1	0	0	0	2
Thigpen, Jordanna G.	0	1	0	0	1	0	0	0	0	0	0	2
Tietjen, Randall	0	0	1	0	0	0	0	0	0	0	0	1
Tran, Phong L.	0	0	0	0	1	0	0	1	0	0	0	2
Tremble, Kristen D.	1	0	0	0	0	0	0	0	0	0	0	1
Weinig, Gregory J.	1	0	0	0	0	0	0	0	0	0	0	1
Weiss, Terry R.	0	0	1	1	1	0	0	0	0	0	0	3
Wells, Molly L.	0	0	0	0	0	0	1	0	0	0	0	1
White, Susan M.	0	0	0	0	0	0	0	0	0	1	0	1
Wildfang, K. Craig	0	0	1	0	0	0	0	0	0	0	0	1
Willcutts, Thomas P.	0	0	0	0	1	0	0	0	0	0	0	1

Williams, Steven N.	0	2	0	0	0	0	0	0	0	0	0	2
Yanchunis, John	0	0	0	0	1	0	0	1	0	0	0	2
Yeargan, Leigh Anne	0	0	1	0	0	0	0	0	0	0	0	1

Showing all **131** result(s)

Parties

Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
* ADAM KREYSAR	0	2	0	0	0	0	0	0	0	0	0	2
* ALL OTHER SIMILARLY SITUATED PERSONS	0	0	0	0	1	0	0	1	0	0	0	2
* ALL PERSONS SIMILARLY SITUATED	0	0	0	0	0	0	0	1	1	1	0	3
APOGEE ENTERPRISES INC	1	0	0	0	0	0	0	0	0	0	0	1
ATLANTICUS HOLDINGS CORP	0	0	1	0	0	0	0	0	0	0	0	1
AXIOM CAPITAL MANAGEMENT INC	0	0	0	0	0	0	0	0	0	1	0	1
BANK OF AMERICA CORP	0	0	1	0	0	0	0	0	0	0	0	1
* BRENDA WOOTTEN	1	0	0	0	0	0	0	0	0	0	0	1
* BRET A SNYDER	1	0	0	0	0	0	0	0	0	0	0	1
* BRIAN W GORE	1	0	0	0	0	0	0	0	0	0	0	1
* CAROLYN B HEALEY AN INDIVIDUAL AND	0	0	0	0	1	0	0	0	0	0	0	1
* CRAIG J MCCANN	0	0	1	1	0	0	0	0	0	0	0	2
* DANIEL G GIOVALE	1	0	0	0	0	0	0	0	0	0	0	1
* DAVID G HANNA	0	0	1	0	0	0	0	0	0	0	0	1
* DAVID GORE	1	0	0	0	0	0	0	0	0	0	0	1
* DELORES GEHRKING	0	0	0	1	0	0	0	0	0	0	0	1
* DEREK W GORE	1	0	0	0	0	0	0	0	0	0	0	1
* ELIZABETH SNYDER	1	0	0	0	0	0	0	0	0	0	0	1
* EMILY CHEN GORE	1	0	0	0	0	0	0	0	0	0	0	1
* ENERGY COAST LOGISTICS TERMINAL LLC	0	0	0	0	0	0	1	0	0	0	0	1
* ERNEST O ABBIT	0	0	0	0	0	0	0	1	1	1	0	3
* FRANK J HANNA III	0	0	1	0	0	0	0	0	0	0	0	1
* GORDON FOURNARIS AND MAMMARELLA	1	0	0	0	0	0	0	0	0	0	0	1
GORDON JOHNSON	0	0	0	0	0	0	0	0	0	1	0	1
* GREGORY J CORONA	0	0	1	0	0	0	0	0	0	0	0	1
* J PAUL WHITEHEAD III	0	0	1	0	0	0	0	0	0	0	0	1
* JAN C OTTO	1	0	0	0	0	0	0	0	0	0	0	1
JB HANNA	0	0	0	0	1	0	0	0	0	0	0	1
* JEFFREY CHEN GORE	1	0	0	0	0	0	0	0	0	0	0	1
* JERRY JONES	0	2	0	0	0	0	0	0	0	0	0	2
* JOSHUA R GORE	1	0	0	0	0	0	0	0	0	0	0	1
* JULIE A GORE	1	0	0	0	0	0	0	0	0	0	0	1
* KATELYN G GORE	1	0	0	0	0	0	0	0	0	0	0	1
* KEITH A SNYDER	1	0	0	0	0	0	0	0	0	0	0	1
* KELLY J ODONNELL	1	0	0	0	0	0	0	0	0	0	0	1
* KK SRINIVASAN	0	0	1	0	0	0	0	0	0	0	0	1
* LLC AND ITS AFFILIATED DEBTORS	0	0	0	0	1	0	0	0	0	0	0	1
* MARK N GIOVALE	1	0	0	0	0	0	0	0	0	0	0	1
* MICHAEL A GIOVALE	1	0	0	0	0	0	0	0	0	0	0	1

* MICHAEL A WEIDINGER ESQ	1	0	0	0	0	0	0	0	0	0	0	1
* MICHAEL COUTANT AND TANIS GOHEEN	1	0	0	0	0	0	0	0	0	0	0	1
MORGAN KEEGAN AND COMPANY LLC	0	0	1	1	1	0	0	0	0	0	0	3
* MUNICIPAL CORPORATION OF BREMANGER (THE)	0	1	0	0	0	0	0	0	0	0	0	1
* MUNICIPAL CORPORATION OF HATTFJELLDAL (THE)	0	1	0	0	0	0	0	0	0	0	0	1
* MUNICIPAL CORPORATION OF HEMNES (THE)	0	1	0	0	0	0	0	0	0	0	0	1
* MUNICIPAL CORPORATION OF KVINESDAL (THE)	0	1	0	0	0	0	0	0	0	0	0	1
* MUNICIPAL CORPORATION OF NARVIK (THE)	0	1	0	0	0	0	0	0	0	0	0	1
* MUNICIPAL CORPORATION OF RANA (THE)	0	1	0	0	0	0	0	0	0	0	0	1
* MUNICIPAL CORPORATION OF VIK (THE)	0	1	0	0	0	0	0	0	0	0	0	1
* NASHUA CORPORATION PENSION PLAN COMMITTEE	1	0	0	0	0	0	0	0	0	0	0	1
* NATHAN S GORE	1	0	0	0	0	0	0	0	0	0	0	1
* NING YU	1	0	0	0	0	0	0	0	0	0	0	1
* PATSY CHAMBERS	0	0	0	1	0	0	0	0	0	0	0	1
* PEAKER ENERGY GROUP LLC	0	0	0	0	0	0	1	0	0	0	0	1
* PERSONS	0	0	0	0	1	0	0	0	0	0	0	1
* PETER R GIOVALE	1	0	0	0	0	0	0	0	0	0	0	1
* PLUMBERS AND STEAMFITTERS UNION LOCAL NO 10 HEALTH AND WELFARE FUND	1	0	0	0	0	0	0	0	0	0	0	1
PRUDENTIAL RETIREMENT INSURANCE AND ANNUITY CO	1	0	0	0	0	0	0	0	0	0	0	1
* RICHARD R HOUSE JR	0	0	1	0	0	0	0	0	0	0	0	1
* RICHARD W GILBERT	0	0	1	0	0	0	0	0	0	0	0	1
* ROBERT GEHRKING	0	0	0	1	0	0	0	0	0	0	0	1
* ROBERT GORE	1	0	0	0	0	0	0	0	0	0	0	1
* ROMY CHEN GORE	1	0	0	0	0	0	0	0	0	0	0	1
* RYAN CHEN GORE	1	0	0	0	0	0	0	0	0	0	0	1
* SAVANNAH J GORE	1	0	0	0	0	0	0	0	0	0	0	1
* SCOTT A GORE	1	0	0	0	0	0	0	0	0	0	0	1
* SEAN A SNYDER	1	0	0	0	0	0	0	0	0	0	0	1
* SHARON G RUBIN	1	0	0	0	0	0	0	0	0	0	0	1
* SUSAN ANTILLA	0	0	0	0	1	0	0	0	0	0	0	1
* SYDNEY G RUBIN	1	0	0	0	0	0	0	0	0	0	0	1
* TANNER K GORE	1	0	0	0	0	0	0	0	0	0	0	1
* TERRA SECURITIES ASA KONKURSBO	0	1	0	0	0	0	0	0	0	0	0	1
* THOMAS G ROSENCRANTS	0	0	1	0	0	0	0	0	0	0	0	1
* THOMAS K GORE	1	0	0	0	0	0	0	0	0	0	0	1
* TINA KREYSAR	0	2	0	0	0	0	0	0	0	0	0	2

* VIDA F NEGRETE AS CONSERVATOR FOR EVERETT E OW AN INDIVIDUAL	0	0	0	0	0	0	0	1	0	0	0	1
* VIDA F NEGRETE AS CONSERVATOR FOR EVERETT E OW AN INDIVIDUAL AND	0	0	0	0	1	0	0	0	0	0	0	1
* VIDA F NEGRETE AS CONSERVATOR FOR EVERETTE E OW AN INDIVIDUAL AND	0	0	0	0	1	0	0	0	0	0	0	1
* VIRGINIA GIOVALE	1	0	0	0	0	0	0	0	0	0	0	1
* WILLIAM F PERKINS	0	0	0	0	1	0	0	0	0	0	0	1

Showing all **80** result(s)

* Other variations of this client/party name may appear in this list.

Federal Courts

Federal Court	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Eighth Circuit (Appellate & District)	0	0	1	1	1	0	0	0	0	0	0	3
United States District Court, S.D. Iowa	0	0	0	1	0	0	0	0	0	0	0	1
United States District Court, W.D. Arkansas	0	0	1	0	1	0	0	0	0	0	0	2
Eleventh Circuit (Appellate & District)	0	0	1	0	3	0	0	0	0	0	0	4
United States Bankruptcy Court, N.D. Georgia	0	0	0	0	1	0	0	0	0	0	0	1
United States District Court, N.D. Georgia	0	0	1	0	2	0	0	0	0	0	0	3
Fifth Circuit (Appellate & District)	0	0	1	2	1	0	1	0	1	0	0	6
United States Court of Appeals, Fifth Circuit	0	0	0	1	1	0	0	0	0	0	0	2
United States District Court, E.D. Louisiana	0	0	0	0	0	0	1	0	1	0	0	2
United States District Court, S.D. Texas	0	0	1	1	0	0	0	0	0	0	0	2
Ninth Circuit (Appellate & District)	0	0	0	1	2	1	0	2	1	1	0	8
United States Court of Appeals, Ninth Circuit	0	0	0	0	1	0	0	0	0	0	0	1
United States District Court, C.D. California	0	0	0	1	1	1	0	1	0	0	0	4
United States District Court, S.D. California	0	0	0	0	0	0	0	1	1	1	0	3
Second Circuit (Appellate & District)	1	3	0	0	2	0	0	0	0	0	0	6
United States District Court, D. Connecticut	0	0	0	0	1	0	0	0	0	0	0	1
United States District Court, S.D. New York	1	3	0	0	1	0	0	0	0	0	0	5
Sixth Circuit (Appellate & District)	0	0	0	0	0	0	0	0	0	1	0	1

United States District Court, N.D. Ohio	0	0	0	0	0	0	0	0	0	1	0	1

Showing all **19** result(s)

State Courts

State Court	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
California	1	0	0	0	0	0	0	0	0	0	0	1
Cal. Unknown State Ct. (Cal.)	1	0	0	0	0	0	0	0	0	0	0	1
Delaware	1	0	0	0	0	0	0	0	0	0	0	1
Court of Chancery of Delaware	1	0	0	0	0	0	0	0	0	0	0	1
South Carolina	0	0	0	0	0	0	1	0	1	0	0	2
South Carolina Common Pleas Court	0	0	0	0	0	0	1	0	0	0	0	1
Supreme Court of South Carolina	0	0	0	0	0	0	0	0	1	0	0	1

Showing all **7** result(s)

Judges

Name	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Batten, Hon. Timothy C. Sr.	0	0	1	0	0	0	0	0	0	0	0	1
Bonapfel, Hon. Paul W.	0	0	0	0	2	0	0	0	0	0	0	2
Bremer, Hon. Celeste F.	0	0	0	1	0	0	0	0	0	0	0	1
Bryant, Hon. Vanessa L.	0	0	0	0	1	0	0	0	0	0	0	1
Bybee, Hon. Jay S.	0	0	0	0	1	0	0	0	0	0	0	1
Cedarbaum, Hon. Miriam Goldman	0	2	0	0	1	0	0	0	0	0	0	3
Crotty, Hon. Paul A.	1	0	0	0	0	0	0	0	0	0	0	1
Cureton, Hon. Jasper M.	0	0	0	0	0	0	0	0	1	0	0	1
Curiel, Hon. Gonzalo P.	0	0	0	0	0	0	0	1	1	1	0	3
Davis, Hon. W. Eugene	0	0	0	0	1	0	0	0	0	0	0	1
Dennis, Hon. James L.	0	0	0	0	1	0	0	0	0	0	0	1
Engelhardt, Hon. Kurt D.	0	0	0	0	0	0	1	0	1	0	0	2
Fletcher, Hon. Betty Binns	0	0	0	0	1	0	0	0	0	0	0	1
Fox, Hon. Kevin N.	0	1	0	0	0	0	0	0	0	0	0	1
Haynes, Hon. Catharina	0	0	0	0	1	0	0	0	0	0	0	1
Hearn, Hon. Kaye G.	0	0	0	0	0	0	0	0	1	0	0	1
Hughes, Hon. Lynn N.	0	0	1	1	1	0	0	0	0	0	0	3
Jarvey, Hon. John A.	0	0	0	1	0	0	0	0	0	0	0	1
Knowles, Hon. Daniel E. III.	0	0	0	0	0	0	1	0	0	0	0	1
Lockemy, Hon. James E.	0	0	0	0	0	0	0	0	1	0	0	1
Marrero, Hon. Victor	0	1	0	0	0	0	0	0	0	0	0	1
Miller, Hon. Brian S.	0	0	1	0	1	0	0	0	0	0	0	2
Miller, Hon. Edward W.	0	0	0	0	0	0	1	0	0	0	0	1
Newman, Hon. Clifton B.	0	0	0	0	0	0	0	0	1	0	0	1
Noble, Hon. John W.	1	0	0	0	0	0	0	0	0	0	0	1
Oliver, Hon. Solomon Jr.	0	0	0	0	0	0	0	0	0	1	0	1
Seals, Hon. William H. Jr.	0	0	0	0	0	0	0	0	1	0	0	1
Snyder, Hon. Christina A.	0	0	0	1	2	1	0	1	0	0	0	5
Thrash, Hon. Thomas W. Jr.	0	0	0	0	2	0	0	0	0	0	0	2
Wardlaw, Hon. Kim McLane	0	0	0	0	1	0	0	0	0	0	0	1

Showing all **30** result(s)

Case Types

Type	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
Banking/Finance	0	0	0	0	1	0	0	0	0	0	0	1
Bankruptcy	0	0	0	0	1	0	0	0	0	0	0	1
Business Organizations	0	3	0	0	0	0	0	0	0	0	0	3
Commercial Law and Contracts	0	0	2	0	0	0	1	1	0	1	0	5
Contracts	0	0	0	0	1	0	0	0	0	0	0	1
Criminal Justice	0	0	0	1	0	0	0	0	0	0	0	1
Employment/Labor	1	0	0	0	0	0	0	0	0	0	0	1
Fiduciary Duty	1	0	0	0	0	0	0	0	0	0	0	1
Insurance	0	0	0	0	2	0	0	0	0	0	0	2
Other	0	0	1	1	0	0	0	0	0	0	0	2
Real Property	0	0	0	0	1	0	0	0	0	0	0	1
Securities Law	0	3	0	1	2	0	0	0	0	0	0	6
Torts/Negligence	0	0	0	0	1	0	1	0	1	1	0	4
unk	1	0	0	0	0	0	0	0	0	0	0	1

Showing all **14** result(s)

Awards

Award Amount	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Total
$0	0	0	0	0	1	0	0	0	0	0	0	1
$1 - 49,999	0	0	0	0	0	0	0	0	0	0	0	0
$50,000 - 99,999	0	0	0	0	0	0	0	0	0	0	0	0
$100,000 - 199,999	0	0	0	0	0	0	0	0	0	0	0	0
$200,000 - 499,999	0	0	0	0	0	0	0	0	0	0	0	0
$500,000 - 999,999	0	0	0	0	0	0	0	0	0	0	0	0
$1,000,000 - 1,999,999	1	0	0	0	0	0	0	0	0	0	0	1
$2,000,000 - 4,999,999	0	0	0	0	0	0	0	0	0	0	0	0
$5,000,000 - 999,999,999	0	0	0	0	0	0	0	0	0	0	0	0
$1,000,000,000- $999,999,999,999	0	0	0	0	0	0	0	0	0	0	0	0

Showing all **10** result(s)

Exhibit 5

Assumptions:

20-day VaR

Used overlapping 20-day periods

Price Index	Absolute VaR as of 6/28/19		Absolute VaR as of 3/17/20		Absolute VaR
	Unlevered	with Borrowing	Unlevered	with Borrowing	Change
Dow Jones U.S. Oil Equipment, Services and Distribution Index	23.01%	34.52%	52.94%	79.42%	29.93%
S&P Oil & Gas Exploration & Production Select Industry Index (SPSIOPTR)	20.03%	30.05%	46.95%	70.43%	26.92%
MVIS Global Junior Gold Miners Index (MVGDXJTR)	19.03%	28.55%	17.55%	26.33%	-1.48%
CSI Overseas China Internet Index (H11137)	17.01%	25.52%	17.54%	26.30%	0.52%
Dow Jones Precious Metals Index	16.96%	25.44%	15.98%	23.97%	-0.98%
NYSE Arca Gold Miners Index	16.81%	25.21%	14.32%	21.47%	-2.49%
MSCI Brazil 25/50 Index	16.72%	25.08%	24.31%	36.46%	7.58%
MSCI Mexico IMI 25/50 Index	16.64%	24.97%	19.44%	29.16%	2.80%
Dow Jones U.S. Semiconductors Index	16.34%	24.50%	17.54%	26.31%	1.20%
S&P Biotechnology Select Industry Index (SPSIBITR)	16.29%	24.43%	17.57%	26.35%	1.28%
PHLX Semiconductor Sector Index (XSOX)	15.35%	23.03%	16.94%	25.42%	1.59%
Dow Jones U.S. Select Home Construction Index (DJSHMBT)	15.35%	23.03%	17.78%	26.67%	2.43%
S&P Regional Banks Select Industry Index (SPSIRBK)	15.22%	22.83%	28.94%	43.41%	13.72%
Dow Jones U.S. Banks Index	14.12%	21.17%	28.83%	43.25%	14.72%
Indxx Global Robotics and Artificial Intelligence Thematic Index (IBOTZNT)	13.78%	20.67%	17.82%	26.73%	4.04%
Dow Jones U.S. Oil & Gas Index	13.72%	20.58%	34.90%	52.35%	21.18%
Energy Select Sector Index (IXETR)	13.69%	20.53%	34.31%	51.46%	20.62%
S&P Latin America 40 Index (SPTRL40N)	13.38%	20.07%	23.02%	34.53%	9.64%
NASDAQ Biotechnology Index®	13.37%	20.05%	14.54%	21.81%	1.17%
Dow Jones Transportation Average Index (DJTTR)	13.27%	19.90%	21.59%	32.38%	8.32%
CSI 300 Index (CSIN0301)	12.94%	19.41%	12.94%	19.41%	0.00%
Dow Jones U.S. Biotechnology Index	13.00%	19.50%	13.96%	20.95%	0.96%
BONY Mellon Latin America 35	12.96%	19.44%	24.95%	37.43%	11.99%
S&P Retail Select Industry Index (SPSIRETR)	12.28%	18.42%	14.58%	21.87%	2.30%
S&P SmallCap/600 Citigroup Growth Index	12.27%	18.40%	18.20%	27.30%	5.93%
S&P SmallCap 600 Index	12.10%	18.15%	19.85%	29.77%	7.75%
MSCI Korea 25-50 Index (M1KR2550)	12.05%	18.08%	15.40%	23.10%	3.35%
S&P SmallCap/600 Citigroup Value Index	12.02%	18.03%	21.55%	32.33%	9.53%
Russell 2000® Index	11.70%	17.55%	18.99%	28.49%	7.30%
Dow Jones Composite Internet Index	11.68%	17.52%	15.01%	22.51%	3.33%
Dow Jones U.S. Basic Materials Index	11.60%	17.41%	17.82%	26.73%	6.21%
Dow Jones U.S. Industrials Index	11.60%	17.40%	16.48%	24.71%	4.88%
MSCI India Index (NDEUSIA)	11.58%	17.37%	16.64%	24.96%	5.06%
Industrial Select Sector Index (IXITR)	11.56%	17.34%	18.04%	27.06%	6.48%
S&P MidCap 400/Citigroup Growth Index	11.53%	17.30%	15.12%	22.67%	3.58%
Nikkei 225 Stock Average	11.30%	16.95%	16.12%	24.18%	4.82%
Dow Jones U.S. Select Aerospace & Defense Index (DJSASDT)	11.19%	16.79%	23.49%	35.24%	12.30%
S&P MidCap 400 Index	11.11%	16.67%	17.67%	26.51%	6.56%
S&P MidCap 400/Citigroup Value Index	11.11%	16.66%	20.52%	30.78%	9.41%
Dynamic Pharmaceutical Intellidex Index (DZRTR)	10.65%	15.98%	13.75%	20.62%	3.09%
Dow Jones U.S. Select Pharmaceuticals Index	10.55%	15.83%	13.67%	20.51%	3.12%
MVIS Russia Index (MVRSXTR)	10.18%	15.26%	25.90%	38.84%	15.72%
Dow Jones U.S. Select Telecommunications Index	10.03%	15.04%	10.95%	16.42%	0.92%
BONY Mellon Emerging Index	10.00%	15.01%	11.55%	17.32%	1.54%
Ryan Labs Index Returns Treasury Yield Curve 30	9.71%	14.57%	5.43%	8.14%	-4.28%
NASDAQ-100® Index	9.62%	14.43%	12.96%	19.43%	3.34%
Dow Jones U.S. Financials Index	9.62%	14.43%	18.40%	27.60%	8.78%
Technology Select Sector Index (IXTTR)	9.59%	14.38%	14.91%	22.37%	5.33%
Dow Jones U.S. Mobile Telecommunications Index	9.51%	14.27%	9.83%	14.74%	0.32%
Dow Jones U.S. Technology Index	9.48%	14.23%	14.11%	21.17%	4.63%
Russell 1000 Financial Services Index (RGUSFLA)	9.36%	14.03%	17.87%	26.81%	8.51%
MSCI US REIT Index (RMS G)	9.16%	13.74%	11.61%	17.41%	2.45%
Dow Jones U.S. Consumer Services Index	9.04%	13.56%	12.46%	18.69%	3.42%
S&P 500/Citigroup Growth Index	8.93%	13.39%	12.78%	19.17%	3.85%
S&P 500® Index	8.76%	13.14%	14.02%	21.03%	5.26%
Dow Jones U.S. Telecommunications Index	8.75%	13.13%	9.74%	14.61%	0.98%
MSCI Emerging Markets Index®	8.75%	13.12%	11.26%	16.89%	2.51%
EURO STOXX 50 Index (SX5U)	8.68%	13.02%	18.87%	28.30%	10.19%
S&P 500/Citigroup Value Index	8.68%	13.02%	15.29%	22.93%	6.61%
ICE U.S. Treasury 20+ Year Bond Index	8.57%	12.85%	5.06%	7.59%	-3.50%
LBMA Gold Price	8.32%	12.48%	4.75%	7.13%	-3.56%
Dow Jones U.S. Health Care Index	8.18%	12.27%	10.80%	16.20%	2.62%

Assumptions:

20-day VaR

Used overlapping 20-day periods

Price Index	Absolute VaR as of 6/28/19		Absolute VaR as of 3/17/20		Absolute VaR
	Unlevered	with Borrowing	Unlevered	with Borrowing	Change
Dow Jones U.S. Real Estate Index	8.15%	12.23%	10.26%	15.39%	2.11%
Health Care Select Sector Index (IXVTR)	8.13%	12.19%	10.74%	16.11%	2.62%
Dow Jones U.S. Pharmaceuticals Index	8.11%	12.17%	10.11%	15.16%	2.00%
Dow Jones U.S. Consumer Goods Index	7.99%	11.99%	11.05%	16.58%	3.06%
Dow Jones Industrial Average (DJIA) Index	7.94%	11.91%	14.55%	21.82%	6.61%
Utilities Select Sector Index (IXUTR)	7.79%	11.68%	9.08%	13.62%	1.30%
Dow Jones U.S. Utilities Index	7.60%	11.40%	8.96%	13.43%	1.35%
MSCI EAFE Index®	7.47%	11.21%	15.77%	23.66%	8.30%
Ryan Labs Index Returns Treasury Yield Curve 10	4.94%	7.41%	2.69%	4.04%	-2.25%
Citi 30-Year TIPS (Treasury Rate-Hedged) Index	4.58%	6.87%	12.34%	18.51%	7.76%
ICE U.S. Treasury 7-10 Year Bond Index	4.25%	6.37%	2.17%	3.26%	-2.08%
Citi High-Yield (Treasury-Rate Hedged) Index	4.13%	6.19%	7.43%	11.15%	3.30%
Barclays U.S. High Yield Very Liquid Index (LHVLTRUU)	2.37%	3.55%	6.08%	9.12%	3.71%
Markit iBoxx® $ Liquid High Yield Index	2.24%	3.37%	5.80%	8.69%	3.55%
ICE U.S. Treasury 3-7 Year Bond Index	2.17%	3.25%	1.15%	1.72%	-1.02%
Barclays Capital U.S. Treasury Inflation Protected Securities (TIPS) Index	2.11%	3.16%	1.65%	2.48%	-0.46%
Number of Indices	78	78	78	78	
Number of Indices that Fail Absolute VaR	13	44	40	64	
Number of Indices with an Absolute VaR higher than a 2x S&P 500 Portfolio	3	30	6	18	
Number of Indices with an Absolute VaR higher than a 2x 3-7 Year Treasury Bond Portfolio	72	74	75	77	
Number of Indices with an Absolute VaR higher than a 4x 3-7 Year Treasury Bond Portfolio	59	70	74	74	
Number of Indices with an Absolute VaR higher than a 6x Liquid High Yield Portfolio	17	53	3	10	
Number of Indices with an Absolute VaR higher than a 7x TIPS Portfolio	13	44	56	68	

Assumptions

20-Day VaR

Used overlapping 20-day periods

Portfolio rebalanced to equal weight daily

Total Return (dividends included)

	Absolute VaR as of 6/28/19		Absolute VaR as of 3/11/20	
	Unlevered	with Borrowing	Unlevered	with Borrowing
S&P 500 Index	8.64%		9.85%	
Hypothetical Portfolio	16.95%	25.43%	23.17%	34.76%
Relative VaR against unlevered S&P 500 Index	196%	294%	235%	353%