



December 12, 2017

Brent J. Fields  
Secretary  
U.S. Securities and Exchange Commission  
100 F Street, NE  
Washington DC 20549-1090

**RE: Notice of Designation of a Longer Period for Commission Action on a Proposed Rule Change to Adopt a New NYSE Arca Equities Rule 8.900 and to List and Trade Shares of the Royce Pennsylvania ETF, Royce Premier ETF, and Royce Total Return ETF under Proposed NYSE Arca Equities Rule 8.900 (Release No. 34-81977; File No. SR-NYSEArca-2017-36)**

Dear Mr. Fields,

On behalf of Blue Tractor Group, LLC (“Blue Tractor”) I am pleased to provide the U.S. Securities and Exchange Commission (the “Commission”) with updated comments regarding the Commission’s October 30, 2017 notice (the “Notice”) designating a longer period whether to approve or disapprove the rule change application submitted on April 14, 2017 by NYSE Arca, Inc. (the “Exchange”).

My comments in this letter are focused primarily on the intellectual property from Precidian Investments LLC (“Precidian”) that underpin the proposed exchange traded funds (the “ETF Funds”) sub-advised by Royce & Associates, LP (“Royce”) that the Exchange proposes to list and trade.<sup>1, 2, 3</sup>

The Commission is well aware that Blue Tractor has been critical of the assertions made by Precidian that their ETF structure was immune to reverse engineering and resulting predatory front-running, as well as their representations of efficient primary and secondary market trading.

Blue Tractor’s objections took the form of public comment letters and accompanying statistical evidence submitted to the Commission over the period July through November 2017. Additionally, independent confirmatory evidence demonstrating that reverse engineering was eminently feasible was published by the Commission’s Division of Economic and Risk Analysis (“DERA”) on November 16, 2017.<sup>4</sup>

Lo and behold, on December 4, 2017 Precidian files with the Commission a fifth amended and restated application for exemptive relief that completely backtracks on a number of the spurious representations they have been making for years to the Commission, their current and potential intellectual property licensees, their investors, the exchanges who have applied to list and trade ETFs using the Precidian

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<sup>1</sup> See <https://www.sec.gov/rules/sro/nysearca/2017/34-81977.pdf> (Release No. 34-81977; File No. SR-NYSEArca-2017-36)

<sup>2</sup> See <https://www.nyse.com/publicdocs/nyse/markets/nyse-arca/rule-filings/filings/2017/NYSEArca-2017-36,%20Re-file.pdf> (Release No. 30-80553; File No. SR-NYSEArca-2017-36)

<sup>3</sup> <https://www.roycefunds.com/>

<sup>4</sup> <https://www.sec.gov/comments/sr-nysearca-2017-36/nysearca201736.htm> (See letters from Terence Norman and Simon Goulet and SEC Staff Studies and Reports)

structure, the market making community, custodial banks and trustees, equity analysts, the press, institutional and retail investors and the ETF market in general.<sup>5</sup>

After years of denials, Precidian now acknowledges in their December 4, 2017 filing that:

1. Predatory traders **may reverse engineer** the Precidian ETF structure;
2. As a result, the Precidian ETF structure **is susceptible to front-running**; and
3. Using the Precidian ETF structure, authorized participants **will not be able to undertake bona fide arbitrage**.

It is instructive to compare disclosure between Precidians' fourth and fifth filings, just 66 days apart, to illustrate the 180-degree differences on these three crucial points.

	<b>Filing #4: September 29, 2017</b>	<b>Filing #5: December 4, 2017</b>
<b>Ability to Reverse Engineer the ETF Funds</b>	No risk disclosure provided.	On Page 22: <i>"Each Fund will prominently disclose in its prospectus and on its website that... market participants may attempt to use the VIIV to calculate with a high degree of certainty ("reverse engineer") a Fund's trading strategy, which if successful, could increase opportunities for certain predatory trading practices, such as front-running [emphasis added], that may have the potential to harm Fund shareholders..."</i>
<b>Resulting Risk of Front-Running</b>	On Page 7: <i>"Applicants further believe that the proposed operational structure of the Funds will permit an Adviser to manage the Funds using proprietary investment strategies <b>without being susceptible</b> [emphasis added] to "front running" and "free riding" by other investors and/or managers which could otherwise harm, and result in substantial costs to, the Funds."</i>	On Page 6: <i>"Applicants further believe that the proposed operational structure of the Funds will permit an Adviser to manage the Funds using proprietary investment strategies with <b>significantly less susceptibility</b> [emphasis added] to "front running" and "free riding" by other investors and/or managers which could otherwise harm, and result in substantial costs to, the Funds."</i>
<b>Ability of an AP to Conduct Bona Fide Arbitrage</b>	On Page 6: <i>"Applicants believe that the availability of a verified intraday indicative value throughout the day, the ability of Authorized Participants to purchase and redeem Creation Units on any</i>	On Page 5: <i>"Applicants believe that the availability of a VIIV throughout the day, the ability of Authorized Participants to purchase and redeem Creation Units on any Business Day, and, <b>as with all</b></i>

<sup>5</sup> [https://www.sec.gov/Archives/edgar/data/1396289/000114420417062140/tv480576\\_40appa.htm](https://www.sec.gov/Archives/edgar/data/1396289/000114420417062140/tv480576_40appa.htm) (File No. 812-14405)

	<i>Business Day, and the ability of market participants, including Authorized Participants, to engage in Bona Fide Arbitrage between Shares and portfolio securities [emphasis added] will permit the intraday trading of Shares to be at or near the Funds' NAV per Share without the need for daily disclosure of the Funds' portfolio securities."</i>	<i>existing ETFs, the ability of market participants, transacting through an Authorized Participant, to purchase and redeem Creation Units [emphasis added] on any Business Day, will permit the intraday trading of Shares to be at or near the Funds' NAV without the need for daily disclosure of the Funds' portfolio securities."</i>
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Precidian filed its initial application for exemptive relief in January 2013. Now closing in on five years, they only now admit the major structural flaws inherent in their ETF structure. With this 11<sup>th</sup> hour change concerning issues of fundamental importance to the efficient operation of an actively managed ETF without daily portfolio disclosure, it behooves the Commission to disapprove the Exchange's rule change application.

The ETF market already has fully transparent actively managed ETFs. Why would there be any need for a structure that purports to be non-transparent, but actually is fully transparent to predatory traders? Moreover, the structure cannot offer an effective bona fide arbitrage mechanism like all approved ETFs. How will this result in efficient primary and secondary markets?

The Division of Investment Management on page 4 of its April 17, 2015 letter to Precidian's counsel clearly stated the Commission's position should it be demonstrated that the Precidian ETF structure could be reverse engineering<sup>6</sup>,

*"Should that be the case, one of the goals of the proposed ETFs – namely, maintain portfolio confidentiality – would be foiled. In light of that possibility, we find it difficult to reach the conclusion that the proposed ETFs would be "necessary or appropriate in the public interest," one of the statutory standards for exemptive relief."*

As it is now (a) indisputable that the Precidian ETF structure can be reverse engineered and (b) Precidian is now telling the Commission that it proposes prominent risk disclosure language stating this fact, then how could the ETFs in the Exchange's rule change application be "necessary or appropriate in the public interest"?

Amazingly, even despite the acknowledgement by Precidian that their ETF structure can be reverse engineered, they continue in their December 4, 2017 filing to reference the wholly discredited studies by Drs. Cooper and Glosten that purport to demonstrate that it was 'highly unlikely' that their structure could be reverse engineered. One can only wonder why they would put any further credence to these studies when they have told the Commission that they will now add risk language to any fund prospectus that it is at risk of reverse engineering and predatory front-running.

<sup>6</sup> [funds.eatonvance.com/includes/loadDocument.php?fn=19309.pdf&dt=FundPDFs](https://funds.eatonvance.com/includes/loadDocument.php?fn=19309.pdf&dt=FundPDFs)

Finally, Precidian puts it all out there on page 3 of the December 4, 2017 application when they summarize that,

*“The **primary difference** [emphasis added] between the Funds and other ETFs is that (1) the constituents of the Creation Basket (defined below) and the Funds’ portfolio securities will not be publically disclosed each day, and (2) in connection with the creation and redemption of Creation Units (defined below), the delivery or receipt of any portfolio securities in-kind will be required to be effected through a confidential brokerage account (“Confidential Account”)...”*

This is an wholly misleading statement to make in an application for exemptive relief to the Commission.

What Precidian neglects to mention are the other “primary differences”, including:

1. The Precidian structure results in asymmetric portfolio disclosure;
2. The Precidian structure does not allow for bona fide arbitrage like every other approved ETF;
3. Market participants cannot hedge using optimized tracking portfolios; and
4. Market participants cannot undertake sub-second hedging and arbitrage transactions unlike with every other approved ETF.

### **JPMAM – a Potential Licensee**

J.P. Morgan Asset Management (“JPMAM”) has figured prominently in Precidian’s previous emphatic assertions that their ETF structure was unable to be reverse engineered. Indeed, a January 22, 2017 story in the *Wall Street Journal* about JPMAM’s letter of intent to licence Precidian’s intellectual property has this quote <sup>7</sup>,

*“We hear from advisers that they want our best capabilities in ETF vehicles,” said Bob Deutsch, head of ETFs for J.P. Morgan’s asset-management unit. “It will be no less transparent than a traditional mutual fund, and there **won’t be the risk of front-running or reverse engineering** [emphasis added].”*

Later, in a letter sent July 7, 2017 to the Commission’s Division of Investment Management in support of the Exchange’s rule change application, Christopher Willcox, CEO of Asset Management at JPMAM unequivocally outlines their concern about predatory front running and free-riding <sup>8</sup>,

*“A key impediment holding JPMAM back from offering more actively managed ETFs is concern about the potential negative consequences associated with daily ETF portfolio disclosure...Daily portfolio disclosure presents two potential risks for active strategies that could negatively impact both investors and managers...**Until these risks are effectively addressed and mitigated, it will***

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<sup>7</sup> <https://www.wsj.com/articles/j-p-morgan-joins-push-for-nontransparent-active-etfs-1485104401>

<sup>8</sup> <https://www.sec.gov/comments/sr-nysearca.../nysearca201736-2636844-161243.pdf>

*be difficult for JPMAM, and indeed most active managers [emphasis added], to deliver actively managed strategies more broadly in an ETF format.”*

And then in his October 12, 2017 letter to the Commission, Precidian’s Mr. McCabe notes that <sup>9</sup>,

*“...Precidian has confirmed with some of the largest most sophisticated asset managers [and references JPMAM in a footnote] in the world that they believe that the proposed Precidian ETF structure **would effectively protect their proprietary trading strategies from being reverse engineered** [emphasis added].”*

Mr. McCabe’s letter then references a meeting held at the Commission in the summer of 2017 where JPMAM was present,

*“As recently as two months ago, we brought a team of experts from KCG (Virtu), NYSE/Arca, **JP Morgan** [emphasis added], Legg Mason, State Street Bank, Columbia Graduate School of Business, Morgan Lewis and Precidian Investments...while affording both the Staff and Commission the opportunity to verify the opinions of these experts.”*

So how is the Commission supposed to square all these supporting assertions by JPMAM with the 11<sup>th</sup> hour admission by Precidian in their December 4, 2017 filing that their structure is susceptible to reverse engineering?

Precidian has been claiming for years that their structure couldn’t be reverse engineered and had JPMAM (a potential licensee) affirming Precidian’s hopeful conjecture to the press and to the Commission.

The only logical conclusion is that since assertions made in the past by Precidian have been shown to be wholly suspect, then their new claims should also be viewed with skepticism.

### **Legg Mason – an Investor**

Precidian’s investors also believed in Precidian’s hopeful conjecture that the structure was unable to be reverse engineered.

In a June 15, 2017 presentation to Wall Street sell side analysts, Legg Mason, Inc. positioned their 2016 investment in Precidian as an important strategic initiative and had Mr. McCabe present the Precidian ETF structure. <sup>10</sup>

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<sup>9</sup> <https://www.sec.gov/comments/sr-nysearca-2017-36/nysearca201736.htm> (see letter from Daniel McCabe)

<sup>10</sup> [ir.leggmason.com/file/102761/Index?KeyFile=1500100703](http://ir.leggmason.com/file/102761/Index?KeyFile=1500100703) (Note that Legg Mason, Inc. owns 19.9% of Precidian)



Investor Call

June 15, 2017

Brandywine Global  
Clarion Partners  
ClearBridge Investments  
EnTrustPermal  
Martin Currie  
QS Investors  
RARE Infrastructure  
Royce & Associates  
Western Asset  
Financial Guard  
IVEZT  
Precidian Investments

**The Power of Choice: Diversified by Design**

## Agenda


<u>Topics</u>	<u>Speaker</u>
Providing Client Choice	Joe Sullivan
Choice through Products & Vehicles	Tom Hoops
Leveraging ETF Vehicles in Active Management	Rick Genoni
Innovative Vehicle & Product Design (Precidian)	Dan McCabe

Richard Genoni, Head of ETF Product Management noted on slide 18 that the Precidian structure was designed for an active management strategy “...where full transparency is a concern.”

### Legg Mason's Five Key ETF Strategic Priorities

	What?	Why?	How?
1	Thoughtful expansion of smart beta lineup	Provide better beta	<ul style="list-style-type: none"> <li>• Seven smart beta ETFs today</li> <li>• Four in the pipeline</li> </ul>
2	Continued development of transparent active ETF lineup	Bring the benefits of the ETF wrapper to strategies where transparency is not a concern	<ul style="list-style-type: none"> <li>• Launched three fully transparent active ETFs in May</li> <li>• Seven additional in the pipeline</li> </ul>
3	Ongoing engagement with Precidian and the SEC on approval for ActiveShares	Close the gap on active ETFs where full transparency is a concern	<ul style="list-style-type: none"> <li>• Filed for initial eight semi-transparent ETFs utilizing ActiveShares IP</li> </ul>
4	Further diversification of our ETF lineup across affiliates and asset classes	Leverage affiliates who are experts in their respective areas	<ul style="list-style-type: none"> <li>• Three affiliates offering ETFs currently</li> <li>• Three more affiliates in the next 9 months</li> </ul>
5	Explore ETF opportunities outside the US	Capitalize on institutional adoption of US domiciled ETFs and the continued growth of ETFs globally	<ul style="list-style-type: none"> <li>• Leverage existing US lineup in other markets and potential development of a UCITS ETF range</li> </ul>

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But now that DERA and Blue Tractor have demonstrated that the Precidian structure can be readily reverse engineered, one needs to ask Mr. Genoni just what active strategies he now thinks the Precidian ETF structure is best suited for.

On the one hand, there are a minority of active managers like Davis Advisors who embrace full transparency and issue transparent actively managed ETFs <sup>11</sup>. They aren't going to need the Precidian structure. But for the vast majority of active equity managers “...where full transparency is a concern”, why are they going to use the Precidian structure when it can be reverse engineered?

Indeed, as noted above in JPMAM's letter to the Commission, the CEO of Asset Management at JPMAM, Christopher Willcox, was adamant that until a fund manager can be assured that their strategy cannot be reverse engineered, “...**it will be difficult for JPMAM, and indeed most active managers** [emphasis added], to deliver actively managed strategies more broadly in an ETF format.”

Then on page 20 of the Wall Street analyst presentation Mr. McCabe shares a slide on their ETF structure. He focused on “Validation by Experts” concerning inability of reverse engineering. In his presentation less

<sup>11</sup> <http://www.barrons.com/articles/davis-funds-unconventional-wisdom-1483767205>




than six months ago he claims that their ETF structure was immune from reverse engineering and resulting predatory front-running based upon the statistical studies from Drs. Cooper and Glosten.

He even points out in the slide heading some key differentiators for their ETF structure, including offering “...semi-transparency to protect IP...” (in this case “IP” is the fund manager’s active strategy).

## ActiveShares<sup>SM</sup>- Innovation of Vehicle Design<sup>1</sup>

**Key differentiators:** True ETF solution offering tax efficiency, semi-transparency to protect IP and seamless integration into existing custody, trading, partner platforms, manager, and national exchange platforms

<b>Validation by the industry:</b> <ul style="list-style-type: none"> <li>NYSE Arca</li> <li>BATS</li> <li>KCG and other market makers</li> <li>Major custody banks like State Street and JPMorgan</li> </ul>	<b>Validation by asset managers:</b> <ul style="list-style-type: none"> <li>BlackRock</li> <li>Capital Group</li> <li>JPMorgan</li> <li>Legg Mason</li> <li>Nationwide</li> <li>Discussions underway with an additional 35+ managers</li> </ul>	<b>Validation by clients:</b> <ul style="list-style-type: none"> <li>Major platforms building processes to support possible approval of ActiveShares<sup>SM</sup></li> <li>Clients across channels continuing to show interest</li> </ul>	<b>Validation by experts:</b> <ul style="list-style-type: none"> <li>Dr. Larry Glosten, Columbia Business School</li> <li>Craig Lewis, former Head of DERA</li> <li>Dr. Ricky Cooper, Professor, IIT</li> </ul>
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Note: Precidian is seeking SEC approval for the use of ActiveShares<sup>SM</sup>


Fast forward and the Dr. Cooper and Dr. Glosten studies have been fully discredited and Precidian is now telling the Commission in its December 4, 2017 filing that it will highlight both reverse engineering and front-running as important risk factors in fund prospectuses that use their structure. So how does this square with Mr. McCabe’s statement to Wall Street analysts on June 15, 2017 of “...semi-transparency to protect IP...”? When does Legg Mason, Inc. go back and tell the Street? One’s head gets dizzy just trying to keep up with the changing story.

### **Vanguard Meetings**

Precidian in their December 4, 2017 filing references meetings held in early 2014 between the Commission and Vanguard Group Inc. (“Vanguard”).<sup>12</sup> Incredibly, Precidian presents the contentions made by Vanguard in 2014 as supportive of their current application for exemptive relief.

<sup>12</sup> <https://www.sec.gov/comments/s7-07-08/s70708-27.pdf>



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Vanguard meeting with SEC staff  
Wednesday, January 29, 2014

### Vanguard Participants

Tim Buckley	Managing Director and Chief Investment Officer
Joe Brennan	Principal, Equity Investment Group
Greg Davis	Principal, Fixed Income Group
John Hollyer	Principal, Risk Management Group
Natalie Bej	Principal, Legal Department
Barry Mendelson	Principal, Legal Department

The Vanguard presentation to the Commission on January 29, 2014 is focused solely on Vanguard's index-based ETFs.

As the Commission is well aware, Vanguard's index-based ETFs do not disclose their actual portfolio daily but rather do so using a 30-day lag. However, Vanguard's index-based ETFs are not non-transparent because prior to the market open on a daily basis they disclose a 'sampled' basket of securities with significant overlap to the actual portfolio or underlying index. Market makers can price, hedge, create and redeem and conduct arbitrage using the published basket just like they would with a fully transparent ETF.

The Precidian ETF structure offers no such feature so the parallel Precidian is making to align Vanguard's approach to their own fully non-transparent structure is completely specious. Equating Vanguard's published basket with Precidian's concept of accessing an AP Representative through a Confidential Account is utter nonsense.

Moreover, Vanguard in 2014 did not operate active equity ETFs and the statements made in the Vanguard presentation materials that Precidian references have nothing to do with actively managed ETFs that operate without daily portfolio disclosure. Vanguard's assertions in 2014 are solely for their index-based ETFs.

Precidian in their December 4, 2017 filing on page 26, footnote 46 states,

*"See Vanguard (2014) Meeting with the US Securities and Exchange Commission on January 29, 2014 to discuss portfolio transparency and basket composition requirements in potential Commission rulemakings regarding exchange-traded funds. <https://www.sec.gov/comments/s7-07-08/s70708-27.pdf> . ("Vanguard Meeting"). **Here Vanguard argued that "front running by professional traders" hurts ETF performance [emphasis added].**"*

This is what Vanguard says on page 5 of their January 29, 2014 presentation about “...*front running by professional traders...*”:

Front running:  
Holdings disclosure can hurt index funds

- Professional traders know that index funds have to buy and sell securities in response to publicly announced index reconstitutions and corporate actions.
- Vanguard’s index portfolio managers work hard to trade securities in a manner that will thwart the efforts of professional traders to front-run the funds’ trades.
- If ETFs were required to disclose holdings daily, professional traders would know precisely how much of a security the fund still has to buy or sell, leaving the funds significantly exposed to front running.

Well, that is of course correct and common knowledge and frankly one is perplexed as to why Precidian would reference Vanguard’s thoughts on their index funds when Precidian has an application for exemptive relief for an actively managed non-transparent structure.

Vanguard’s concern about predatory trading only affirms that this is of major concern even with index funds.<sup>13</sup> Now that Precidian is acknowledging that their ETF structure is at risk of reverse engineering perhaps they are referencing this Vanguard statement to calibrate why now they will be adding risk language concerning the risk of front-running.

But then Precidian on page 27 on the December 4, 2017 application states,

*“Applicants believe that, while the level of information provided will not permit market participants to reverse engineer a Fund’s investment strategy, market participants will, as they do with existing ETFs, be able to construct a hedging portfolio that will allow such market participants to **take market making positions in Shares while remaining adequately hedged**<sup>48</sup> [emphasis added].”*

And footnote 48 says,

*“See Vanguard Meeting, supra note 46, **“Efficient pricing, arbitrage, and hedging can all be achieved without daily holdings disclosure.”** [emphasis added]*

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<sup>13</sup> <https://www.investopedia.com/articles/active-trading/083115/how-hedge-funds-frontrun-index-funds-profit.asp>

Looking at page 10 of the Vanguard presentation, the slide heading does indeed state that “*Efficient pricing, arbitrage, and hedging do not require daily holdings disclosure*”:

Efficient pricing, arbitrage, and hedging  
do not require daily holdings disclosure

- ETF market makers contend that daily holdings disclosure promotes efficient pricing, arbitrage, and hedging, which in turn promotes smaller premiums and discounts and narrower bid-ask spreads.
- Efficient pricing, arbitrage, and hedging can all be achieved without daily holdings disclosure. **The experience of Vanguard ETFs proves this.**
- Vanguard ETFs do not disclose their portfolio holdings daily, yet have discounts/premiums [Slide 11] and spreads [Slide 12] that in most cases are as good or better than comparable competitor ETFs.

However, Vanguard’s accurate contention is based upon their experience with their portfolio of index-based ETFs and their statements and supporting evidence in the presentation had nothing to do with an actively managed strategy or a fully non-transparent ETF structure like Precidian disingenuously implies in their filing with the Commission.

Then on page 13 of their presentation, Vanguard explains how this works for their index-based ETFs:

How can market makers price, arbitrage, and hedge  
efficiently without daily holdings disclosure?

- An ETF’s creation/redemption basket can be used as a proxy for its portfolio, so long as the basket is constructed to track the portfolio closely.
  - A market maker can efficiently price and arbitrage the ETF by calculating intra-day NAVs based on the contents of the basket.
  - A market maker can efficiently hedge any long exposure to the ETF by hedging the contents of the basket.
  - Vanguard’s baskets typically track the fund within a few basis points per day.
- The same results can be obtained by using the ETF’s target index as the proxy for its portfolio.
  - Vanguard index funds typically track their index within a few basis point per day.

This is absolutely incredible. Vanguard's presentation is referring to their index ETFs and Precidian is using this to bolster claims that market makers will be able to efficiently hedge and conduct arbitrage under their fully non-transparent ETF structure that doesn't track an index, that will disseminate a pricing signal only on a 1-second basis and where market makers will have no direct daily visibility into the creation baskets.

And then finally on page 31 of the December 4, 2017 application Precidian schools the Commission with,

*"The Applicants do not believe that the requested relief raises certain special issues raised in the Concept Release on Actively-Managed Exchange-Traded Funds (the "Concept Release").<sup>54</sup> The Concept Release highlighted several issues that could impact the Commission's willingness to authorize the operation of an actively-managed ETF, including whether effective arbitrage of the ETF shares exists. The Concept Release identifies the transparency of a fund's portfolio and the liquidity of the securities in a fund's portfolio as central to effective arbitrage.*

*Daily disclosure of a fund's portfolio is not warranted if the value of a fund is fully transparent by providing a highly accurate VIIV, based on verified mid-point pricing and Authorized Participants can take advantage of arbitrage opportunities, through a Confidential Account, by creating or redeeming Creation Units of Shares. Market professionals are not performing fundamental research when trading ETFs, but rather trading based on the current market price of the portfolio. **If market participants are assured that the VIIV is timely and accurate and they can use a good hedging portfolio, knowledge of the actual portfolio is not essential.**<sup>55</sup> "*

And footnote 55 says,

*"See **Vanguard Meeting** [emphasis added], supra note 48."*

This again is beyond the pale. Precidian is using Vanguard's assertions about hedging and conducting arbitrage for index-based ETFs as evidence why market participants will be able to do exactly the same for their actively managed non-transparent ETF structure.

Unlike an ETF under the Precidian structure, with Vanguard's index-based ETFs market participants have:

1. Daily knowledge of the creation basket;
2. Ability to undertake bona fide arbitrage;
3. Able to transact between the market price and basket price contemporaneously and in sub-second intervals;
4. Unimpeded statistical arbitrage; and
5. Full knowledge of stock price behaviour in the ETF portfolio.

## The Importance of Bona Fide Arbitrage

The importance of effective bona fide arbitrage to the efficient operation of an ETF can best be evidenced by referencing a few of the important benefits Precidian asserted their September 29, 2017 application for exemptive relief, but that have now been redacted from their December 4, 2017 filing.

Bona fide arbitrage is important for ETFs in relation to (1) arbitrage opportunities *per se*, (2) efficient markets and (3) price deviations. The Commission has not approved any ETF to date that does not offer market participants bona fide arbitrage. We count no less than nine instances of bona fide arbitrage being redacted from Precidian’s December 4, 2017 filing.

	<b>Filing #4: September 29, 2017</b> <b>Precidian says that Bona Fide Arbitrage is possible</b>	<b>Filing #5: December 4, 2017</b> <b>Precidian says that only Market Arbitrage is now possible</b>
<b>Arbitrage Opportunities</b>	<p>On Page 29: <i>“By disclosing the identity of securities comprising a Creation Unit and a Fund’s portfolio to the AP Representative of each Confidential Account, Authorized Participants and other market participants will be able to instruct the AP Representative to buy or sell portfolio securities during the day and thereby hedge positions taken in Shares of a Fund and <b>engage in Bona Fide Arbitrage</b> [emphasis added] throughout the trading day.”</i></p> <p>And:</p> <p>On Page 29: <i>“Daily disclosure of a fund’s portfolio is not warranted if the value of a fund is fully transparent by providing a highly accurate VIIV, based on verified mid-point pricing and market participants <b>can engage, through a Confidential Account, in Bona Fide Arbitrage</b> [emphasis added].”</i></p>	<p>Previous disclosure now omitted.</p> <p>And:</p> <p>On Page 31: <i>“Daily disclosure of a fund’s portfolio is not warranted if the value of a fund is fully transparent by providing a highly accurate VIIV, based on verified mid-point pricing and Authorized Participants can take <b>advantage of arbitrage opportunities</b> [emphasis added], through a Confidential Account, by creating or redeeming Creation Units of Shares.”</i></p>
<b>Efficient Markets</b>	<p>On Page 29: <i>“Applicants believe that this reliable VIIV disseminated at one second intervals, as well as the ability of Authorized Participants and other market participants to <b>engage in Bona Fide Arbitrage, will enable them to make efficient</b></i></p>	<p>On Page 30: <i>“Applicants believe that this reliable VIIV disseminated at one second intervals, as well as the ability of Authorized Participants to create and redeem Shares in Creation Units, will permit Authorized Participants to take</i></p>

	<i>markets [emphasis added] without knowledge of the Fund’s portfolio.”</i>	<i>advantage of arbitrage opportunities that will minimize any divergence between the secondary market price of the Shares and the value of a Fund’s portfolio. [emphasis added]”</i>
<b>Price Deviations</b>	<p>On Page 29: <i>“The ability of Authorized Participants to buy and sell portfolio securities through their Confidential Accounts will give them the ability to precisely hedge their positions and <b>engage in Bona Fide Arbitrage thereby serving to minimize any divergence between the secondary market price of the Shares and the value of a Fund’s portfolio [emphasis added].”</b></i></p> <p>And:</p> <p>On Page 30: <i>“However, as discussed above, the Applicants believe that dissemination of a reliable and timely VIIV as well as the ability of Authorized Participants and other market participants to <b>engage in Bona Fide Arbitrage, will cause any deviation to be similar to deviations found in existing ETFs [emphasis added].”</b></i></p>	<p>On Page 30: “Applicants believe that this reliable VIIV disseminated at one second intervals, as well as the ability of Authorized Participants to create and redeem Shares in Creation Units, will permit Authorized Participants to <b>take advantage of arbitrage opportunities that will minimize any divergence between the secondary market price of the Shares and the value of a Fund’s portfolio [emphasis added].</b></p> <p>And:</p> <p>On Page 31: “However, as discussed above, the Applicants <b>believe that dissemination of a reliable and timely VIIV will cause any deviation to be similar to deviations found in existing ETFs. [emphasis added]”</b></p>

The Commission has previously detailed its concerns that under the Precidian ETF structure there is asymmetric disclosure of ‘confidential portfolio information’ to selected parties.<sup>14</sup> Interestingly, under the Precidian structure the only party who would be able to identify bona fide arbitrage opportunities is the AP Representative who under the auspices of the Confidential Account would have complete portfolio knowledge. Again, no ETF to date has been approved with this type of asymmetry inherent in its structure.

### **The Risk Management Technique of Statistical Arbitrage**

Precidian has now acknowledged that bona fide arbitrage is not possible under their structure and as noted above, have removed reference to it in their updated December 4, 2017 filing.

<sup>14</sup> [funds.eatonvance.com/includes/loadDocument.php?fn=19309.pdf&dt=FundPDFs](https://funds.eatonvance.com/includes/loadDocument.php?fn=19309.pdf&dt=FundPDFs)



Instead, they now state that statistical arbitrage will be the primary methods used by authorized participants and market makers. On page 23 of the updated filing they state,

*“Applicants also believe that market makers and other liquidity providers will **employ risk-management techniques such as “statistical arbitrage,” including correlation hedging, beta hedging, and dispersion trading,***<sup>41</sup> *[emphasis added] which is currently used throughout the financial services industry, to make efficient markets in exchange-traded products.”*

Precidian’s footnote 41 describing in detail statistical arbitrage is worthy of an entry in Investopedia.com. But all kidding aside, although we concur with the description, what is obfuscated by Precidian is that statistical arbitrage opportunities do not occur only at discrete 1-second intervals. In the ‘real world’ they of course present themselves continuously and at any frequency.

Precidian however is implicitly telling the Commission that statistical arbitrage can only occur on a 1-second basis when the VIIV is disseminated. This is an artificial constraint that does not fit whatsoever with the reality of the high frequency capital markets.

Moreover, statistical arbitrage is a computationally intensive approach to algorithmically trading assets. For statistical arbitrage to occur with the proposed Precidian ETFs, existing trading systems will undoubtedly require adaptation to accommodate the abnormality that one asset (stocks) is priced in ‘real time’ while the other (the ETF) is priced only every second. Precidian’s latest U-turn that statistical arbitrage, rather than bona fide arbitrage, will keep secondary market pricing close to the true NAV cannot be viewed as efficient.

### **Hedging Using Tracking Portfolios**

My colleague Simon Goulet commented at length in his November 22, 2017 letter to the Commission on the erroneous assertion by Precidian made in their September 29, 2017 filing that market makers can construct optimized tracking portfolios using the non-transparent Precidian ETF structure.

Precidian continues to assert this mistaken premise in their December 4, 2017 filing where on page 23 they state,

*“Because arbitrageurs are expected to be **able to construct a very good hedge portfolio for any position they take in Shares,***<sup>39</sup> *[emphasis added] and evaluate profit and loss on their position, Applicants believe that there will be many Authorized Participants and Non-Authorized Participant Market Makers that will seek to make a market in Shares.*<sup>40</sup> “

Footnote 39 then references the thoroughly discredited statistical analysis by Dr. Glosten,

*“Given the one second VIIV, a sophisticated regression analysis allows for “the construction of very good hedge portfolios.” **Lawrence R. Glosten** [emphasis added], PhD, Analysis of the Ability to determine the Portfolio Underlying an Actively Managed ETF (June 2017)(Attached as Exhibit F).”*

Please also refer to my October 31, 2017 comment letter where I analyze in mathematical detail Dr. Glosten’s erroneous assertion that a high  $R^2$  value is indicative of an ability to construct hedging portfolios.

## Calculation Engine Pricing

Precidian tries to address concerns about the veracity of their Calculation Engine pricing through a refreshed ‘trip wire’ procedure that is describe on page 12 of the December 4, 2017 filing,

*“In the event that the prices from the Calculation Engines diverge by more than 25 basis points for 60 seconds, the Pricing Verification Agent will notify the Adviser of the Fund who will in turn request that the listing Exchange halt trading until such time as the prices come back in line. Applicants believe that a **conservative threshold of 25 basis points,<sup>13</sup> over a period of 60 seconds** [emphasis added],<sup>14</sup> strikes the right balance between the protection of investors from price distortions, and avoiding unnecessary disruptions to trading in order to ensure orderly markets.<sup>15</sup>”*

One can model any number of scenarios where prices from the two Calculation Engines differ in excess of 25 basis points over a minimum 60 seconds. This could be from a minimum 25.1 basis points over 60.1 seconds to 500+ basis points over 6.5 hours and innumerable values in excess and in between. The point is not the absolute values but rather that if any ‘trip wire’ procedures are to be implemented to protect investors from possible price distortions then they must be logical and consistent. For example, why would a price divergence of 25 basis point for 60 seconds indicate ‘an error in the feed or Calculation Engine’ but a price divergence oscillating around 25 basis points over the same 60 second period, not?

Precidian’s described ‘trip wire’ procedures are incomplete in detail and seemingly *ad hoc*. For example, there is no definition as to what constitutes the phrase ‘prices coming back in line’ and exactly who is going to determine that and when. As well:

1. How can market participants have any confidence in the VIIV when they have absolutely no idea if price distortions are currently occurring and if they are, what is their magnitude; and
2. How will market makers price this uncertainty into their spreads and since this risk can never disappear due to the ‘Black Box’ nature of the VIIV generation process, it must be the case that any increase in spread will be persistent in nature.

## An ETF Fund’s Investment Strategy

Precidian notes on page 30, footnote 53 of their most recent filing that,

*“Cooper, supra note 22. Applicants would not, and believe that any Adviser, would not utilize an investment strategy in a Fund that **it believed could be reverse engineered** [emphasis added] based on the dissemination of the VIIV to the detriment of the Fund.”*

Precidian apparently believes that fund managers sit around a table assessing alpha generation strategies through the lens of whether they can be reverse engineered. That is nonsensical since in theory every investment strategy is arguably completely obfuscated provided the trading strategy remains opaque.

However, the Achilles Heel under the Precidian structure is the information provided to the market through dissemination of the VIIV. Since the VIIV is based upon actual portfolio holdings and weightings it can be reverse engineered as has been ably demonstrated by DERA and Blue Tractor leaving the managers investment strategy vulnerable.

### Value Transparency

Precidian's December 4, 2017 application on page 13, footnote 17 introduces a new term to the ETF market lexicon – "value transparency",

*"Applicants recognize that, for existing ETFs, professional traders at a broker-dealer, investment banker, or other institution can calculate their own indicative intraday value at fractions of a second. Applicants also recognize that most retail investors do not have the capability to make such calculations and so, for existing ETFs, those retail investors rely on the indicative intraday value disseminated every 15 seconds. Applicants believe that the dissemination of VIIV at one second intervals strikes a balance of providing all investors with useable information at a rate that can be processed by retail investors, does not provide so much information so as to allow market participants to accurately determine the constituents, and their weightings, of the portfolio, can be accurately calculated and disseminated, and still provides professional traders with per second data. Applicants believe that dissemination of the VIIV at one second intervals levels the informational playing field between institutional and retail investors. This effectively creates a level of **"value transparency"** [emphasis added] to all investors that is currently unavailable for existing ETFs."*

This turns out to be an amusing attempt by Precidian to gloss over glaring problems with their ETF structure. First, unlike with a transparent ETF, under the Precidian ETF structure authorized participants and market makers will not be able to undertake their own pricing of the actual portfolio constituents. They will instead have to rely on the VIIV disseminated on a 1-second basis. Reliance on 1-second pricing flies in the face of the high frequency capital markets that they normally operate in. And second, the VIIV on a 1-second basis can be reverse engineered by predatory traders to reveal the actual portfolio weights and holdings.

So Precidian soft peddles these problems by trying to say that retail investors will somehow be empowered with 1-second pricing rather than 15-second pricing as is currently the case with transparent ETFs. How pray tell does pricing 14 seconds faster help the typical "buy and hold" retail investor?

All the term "value transparency" does is signal that both retail and institutional investors are to be put on the same page – namely receiving pricing information on a 1-second basis out of a 'Black Box' that doesn't allow institutional investors to operate efficiently, allows for reverse engineering and that provides retail investors with a higher frequency information feed that doesn't provide them with additional information of value.

### Inherent Trading Friction Within the Confidential Account

Precidian has significantly updated the disclosure in the December 4, 2017 filing to describe the creation and redemption process. On page 11 they state,

*“In the case of a creation, the Authorized Participant would enter into an irrevocable creation order with the Fund and then direct the AP Representative to purchase the necessary basket of portfolio securities. The AP Representative would then purchase the necessary securities in the Confidential Account. In purchasing the necessary securities, the AP Representative would be required, by the terms of the Confidential Account Agreement, **to obfuscate the purchase by use of tactics such as breaking the purchase into multiple purchases and transacting in multiple marketplaces.** [emphasis added] Once the necessary basket of securities has been acquired, the purchased securities held in the Confidential Account would be contributed in-kind to the Fund.*

*Similarly, in the case of a redemption, the Authorized Participant would enter into an irrevocable redemption order, and then immediately instruct the AP Representative to sell the underlying basket of securities that it will receive in the redemption. As with the purchase of securities, the AP Representative would be required **to obfuscate the sale of the portfolio securities it will receive as redemption proceeds using similar tactics** [emphasis added]. The positions in the underlying portfolio securities sold from the Confidential Account would be covered by the in-kind redemption proceeds received by the Confidential Account from the Fund.”*

Clearly this new disclosure by Precidian is in response to concerns by the Commission that market participants could glean the contents of the actual portfolio securities by observing trades undertaken by the AP Representative (totally ignoring the fact that the ETF structure can be readily reverse engineered by analysis of the disseminated verified intra-day indicative value).

However, what they have also done by requiring the AP Representative to undertake multiple trades in multiple marketplaces is to add additional friction into an already cumbersome process for creation and redemption that will further delay execution and increase costs to the authorized participant.

Indeed, Gary Gastineau in his May 24, 2017 comment letter details on pages 16 and 17 concerns about the creation and redemption process through a third party under the Confidential Account structure.<sup>15</sup> With the additional inefficiencies detailed in Precidian’s latest application Mr. Gastineau’s concerns are even more germane. These included:

1. Slower trade execution
  - a. Precidian’s new terms can only add to the delay in trade execution; and
2. Little or no ability for market makers to monitor trade performance in Confidential Accounts to ensure best execution or to evaluate trading performance
  - a. Given the imposition of these new terms on the AP Representative, it would be even more important for a market maker to evaluate both trading performance and execution levels being undertaken on their behalf. Without such analysis the market maker will

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<sup>15</sup> <https://www.sec.gov/comments/sr-nysearca-2017-36/nysearca201736.htm> (see letter from Gary Gastineau)

undoubtedly look to pass these further, yet unquantified, additional hidden costs on.

## Conclusion

The latest revised application from Precidian again demonstrates an ill-conceived ETF structure presented in an application for exemptive relief that is simply full of contradictory and incorrect statements.

After years of denials, Precidian now acknowledges that:

1. Predatory traders **may reverse engineer** the Precidian ETF structure;
2. As a result, the Precidian ETF structure **is susceptible to front-running**; and
3. Using the Precidian ETF structure, authorized participants **will not be able to undertake bona fide arbitrage**.

No ETF to date that does not offer effective bona fide arbitrage has been granted exemptive relief by the Commission and because it has been shown by DERA and Blue Tractor that Precidian's ETF structure can be reverse engineered it is clearly not "*necessary or appropriate in the public interest*".

And given that the Precidian ETF structure can be reverse engineered, it must be the case that funds operating under their intellectual property are more susceptible to being manipulated for the benefit of one group over another.

What has become apparent is that the purported non-transparent Precidian ETF structure actually turns out to be transparent structure to predatory traders and therefore is little different in that regard than today's approved transparent actively managed ETFs. However, as a result of its complicated structure of having to operate using a third party via a Confidential Account it is much less efficient in terms of primary and secondary markets than today's approved transparent actively managed ETFs.

For these reasons, along with the other important issues raised by Blue Tractor and others in many comment letters, the Commission should disapprove the Exchange's rule change application.

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Thank you in advance for your consideration of my commentary. I welcome any questions the Commission may have as a result and can be reached at [REDACTED]

Sincerely,

Terence W. Norman  
Founder  
Blue Tractor Group, LLC