GLOBAL X
by Mirae Asset

Derivative Strategies ETF Report

March 2024

Main Principles Behind Global X's Classification System for Derivative-Based Strategies

Principle 1

The product must utilize derivatives as a core component of its investment strategy. This does not necessarily mean that derivatives must make up the majority of the ETF's portfolio. However, derivatives must serve a key purpose in achieving the investment objective stated in the ETF's prospectus.

Principle 2

The derivative-based strategy can be utilized over a long-term period from the standpoint that it is able to be used tactically, for temporary exposure to express a market view, or within a strategic allocation. Strategies whose core objective is to be a daily trading tool will most likely not be considered for inclusion.

Principle 3

The strategy must use derivatives as a means to achieve 1 or more of the 3 main use cases of derivatives by either buying or selling short a specific type of derivative:

a. Risk Management
b. Derivative Income
c. Performance Enhancement

The Four Layers of the Global X Classification System for Derivative-Based Strategies

Layer 1 – Derivative Objective

Representing the broadest layer, this gives an understanding as to the core objective of the fund, utilizing the 3 derivative use cases of either Risk Management, Derivative Income, or Performance Enhancement.

Layer 2 – Derivative Strategy

This layer will provide investors the means by which the investment objective is being pursued. For example, an ETF that utilizes derivatives with a risk management objective can be generated using either a tail risk strategy to provide a level of downside protection or a collar strategy to provide a range-bound return outcome.

Layer 3 – Derivative Overlay

This layer describes the specific types of options positions or options packages being used to achieve the stated strategy. For example, an equity tail risk strategy on the S&P 500 may potentially be achieved by either purchasing a protective put option on this index or with a long position on VIX options.

Layer 4 – Derivative Tactic

This final layer helps to communicate to investors any unique considerations regarding the options overlay being used. For example, a strategy offering synthetic exposure may be access vehicles to a type of option or options strategy that is meant to offer investors the ability to implement their own hedges within a portfolio allocation.

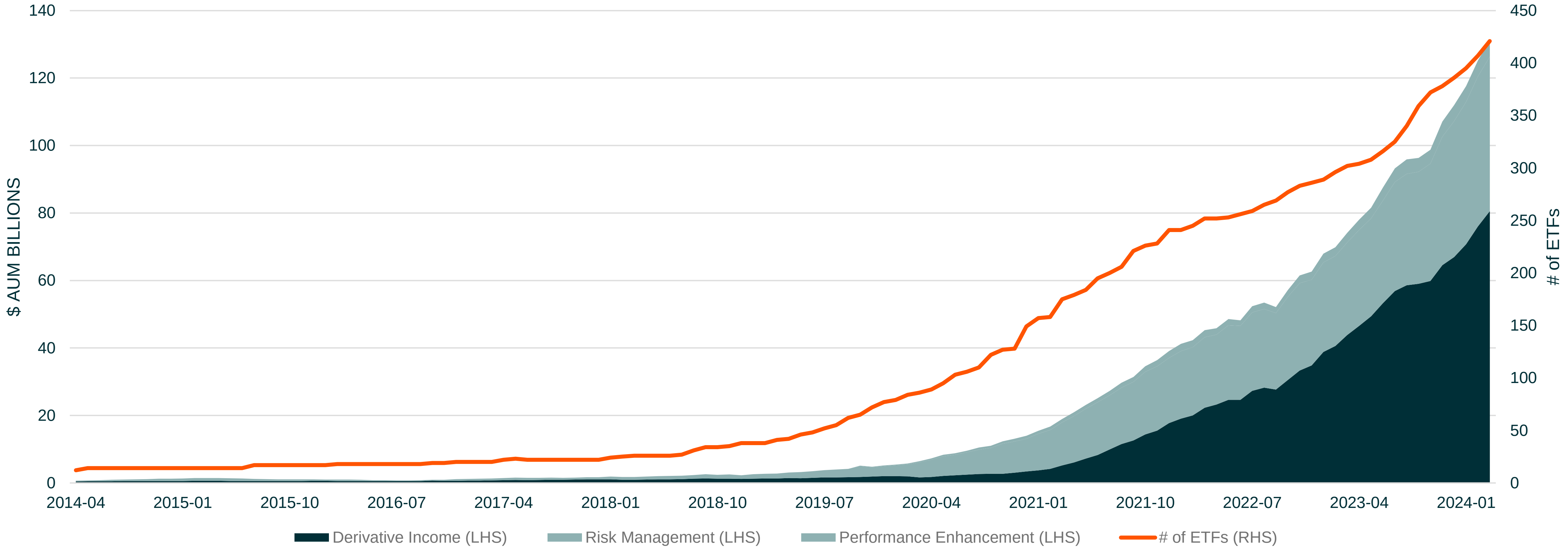
Defining & Categorizing Derivative-**Based Strategies: Global X's Classification System**

All strategies within the Global X classification system have a Derivative Objective (Layer 1). However, it should be noted that some strategies may not have additional layer classifications, dependent on the usage of options within the ETF's strategy.

Derivative Objective (Layer 1)	Derivative Strategy (Layer 2)	Derivative Overlay (Layer 3)	Derivative Tactic (Layer 4)
Derivative Income	BuyWrite	Covered Call	
		Covered Call & Growth	
	PutWrite	Barrier Options	
	Futures-Based Income	Index Dividend Futures	
		VIX Futures Premium	
	Risk Managed Income	Net-Credit Collar	
	Spread Strategy	Bear Call Spread	
		Bull Put Spread	
Performance Enhancement	Economic Leverage	Long Call Options	
		Futures	
		Total Return Swap	
	Spread Strategy	Bull Call Spread	>100% Notional Coverage
		Bull Put Spread	
Risk Management	Collar Strategy	Put Spread Collar	Defined-Outcome
		Protective Collar	Defined-Outcome
	Credit Hedge	OTC Credit Derivatives	
	Inflation Hedge	Inflation Swaps	
		Yield Curve Options	
	Interest Rate Hedge	Interest Rate Swaps	
		Swaptions	Synthetic Exposure
	Spread Strategy	Bull Call Spread	
	Tail Risk	Fixed Income + Synthetic Equity	
		Long Put Options	
		Protective Put	
		Protective Put Spread	
		VIX Hedge	
	PutWrite		

Derivative Strategy ETF Landscape

At the end of March 2024, there were a total of 424 Derivative Strategy ETFs in operation within the U.S, governing roughly $131B in assets under management (AUM). This asset balance is representative of roughly 77% growth, year over year, and it reflects the ongoing dominance of Derivative Income Strategies as a portion of the total in the first quarter, when AUM for that particular objective increased approximately $13.7B.



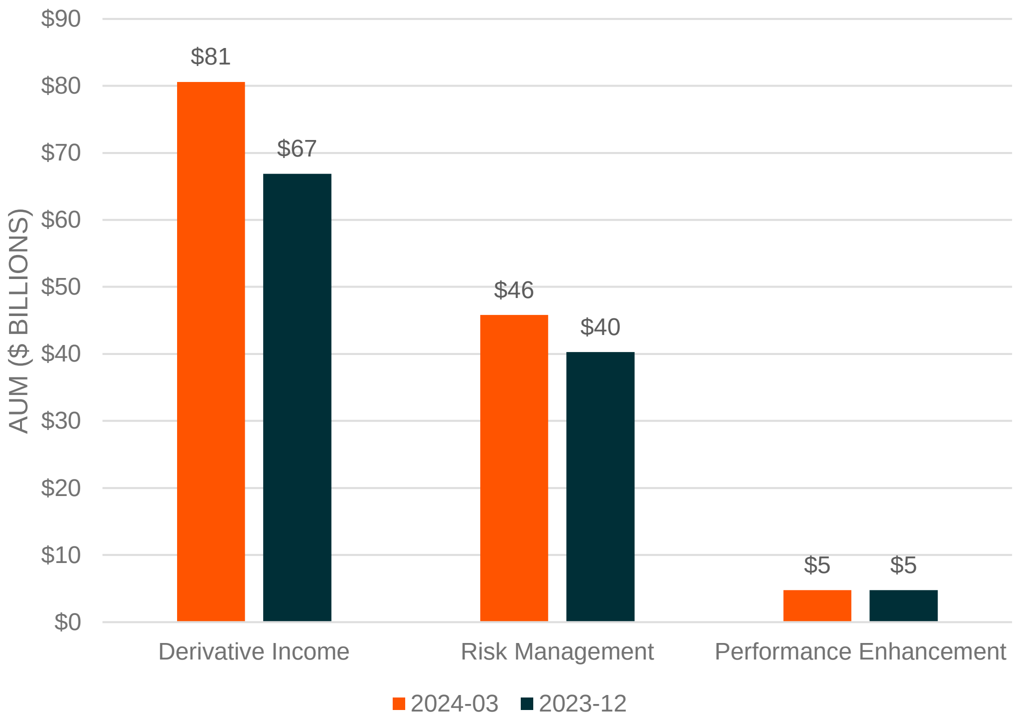
Source: Global X ETFs, Morningstar Direct. Data measured from December 31st, 2013 to March 31, 2024.

Note: AUM includes assets of funds closed until the last month of trading activity

Derivative Income ETFs Continue To Widen the Demand Gap

Within the Derivative ETF ecosystem, Derivative Income represents the largest category. It received the bulk of fund flows during the March quarter, after markets rose to establish new all-time highs. Meanwhile, flows toward Performance Enhancement and Risk Management ETFs declined and decelerated, respectively, underscoring a more measured risk-on attitude from the investing public.

Derivative Strategy ETF Landscape By Category



Flows By Category

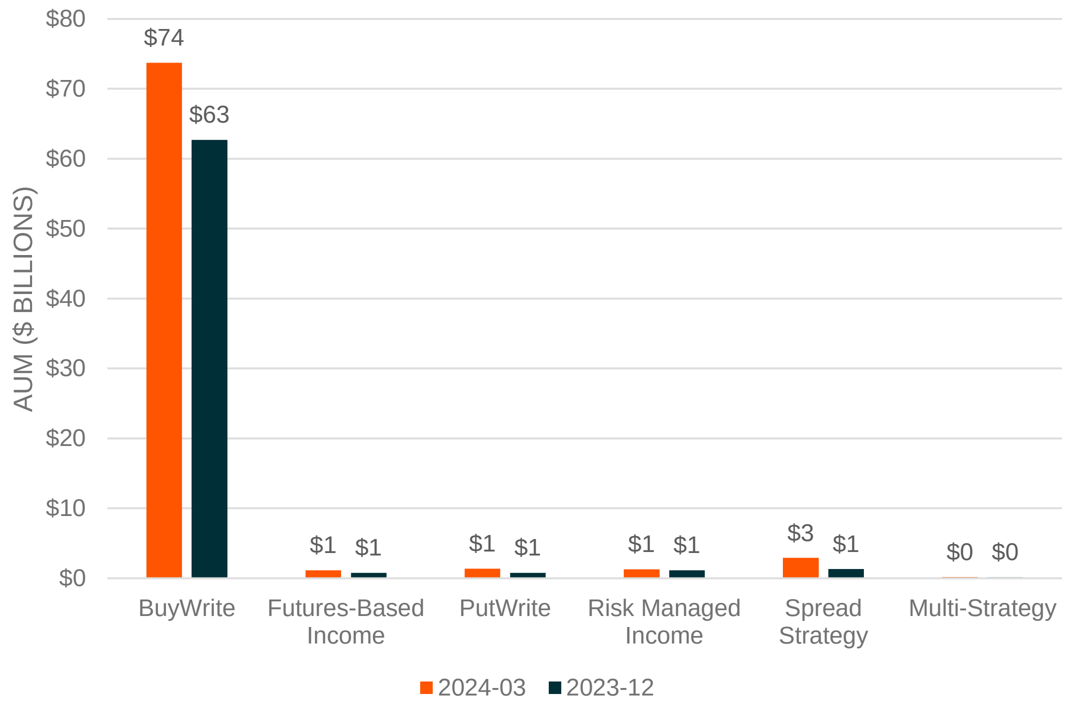
Source: Global X ETFs, Morningstar Direct. As of March 31st, 2024.

Note: AUM includes assets of funds closed until the last month of trading activity

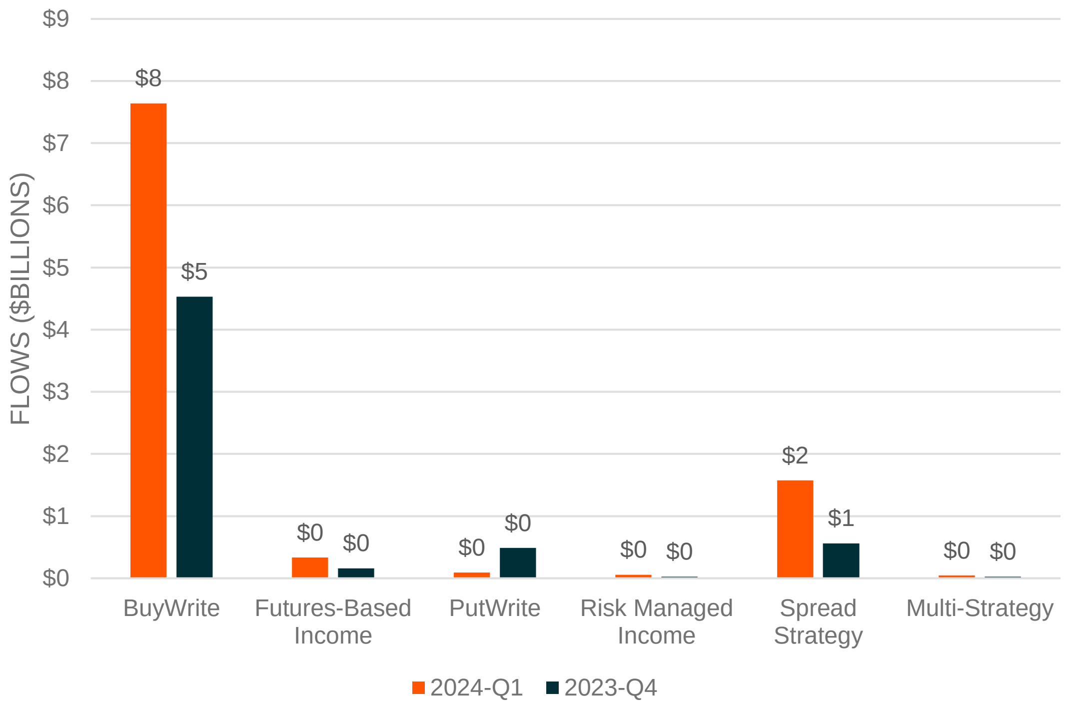
Derivative Income Landscape Update

Buywrite strategies account for the lion's share of AUM within the Derivative Income category, and they added some $11B to their asset pool in the first quarter. Flows across the balance of the category increased modestly, as well, save for PutWrite strategies, which did not experience the benefit of any new launches in the period. Indeed, that derivative strategy was going up against a relatively tough comparison, as well, after a swath of new funds entered the fray in Q3, potentially skewed flows positively in the bookend period of 2023.

Derivative Income ETF Landscape By Strategy



Flows By Strategy



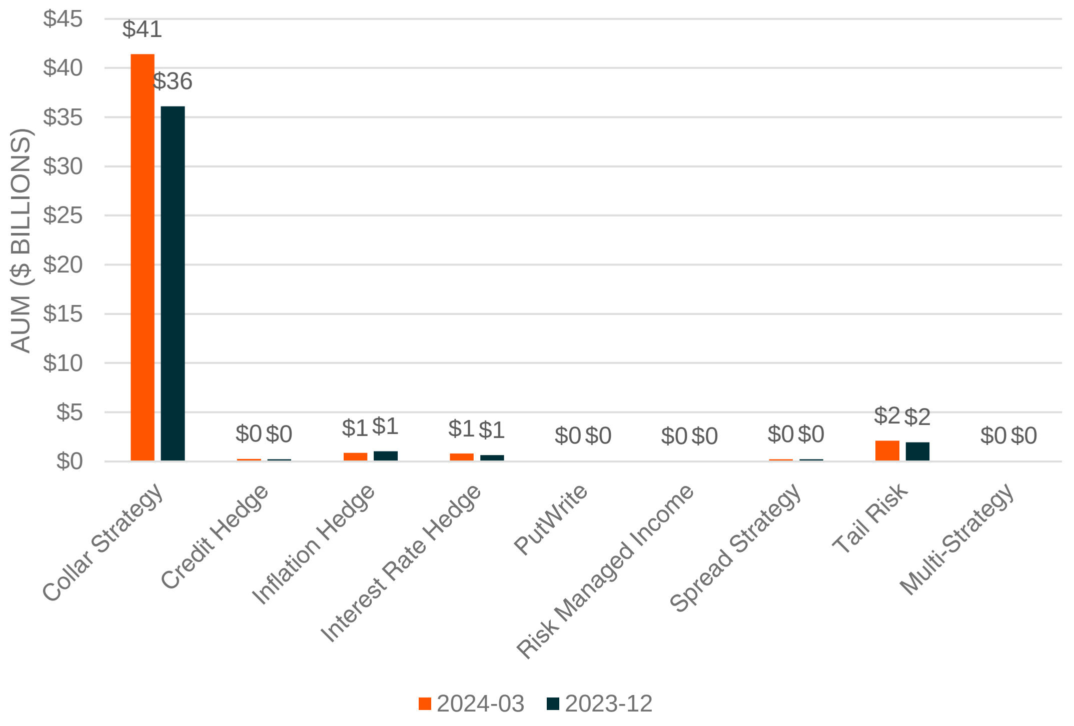
Source: Global X ETFs, Morningstar Direct. As of March 31st, 2024.

Note: AUM includes assets of funds closed until the last month of trading activity

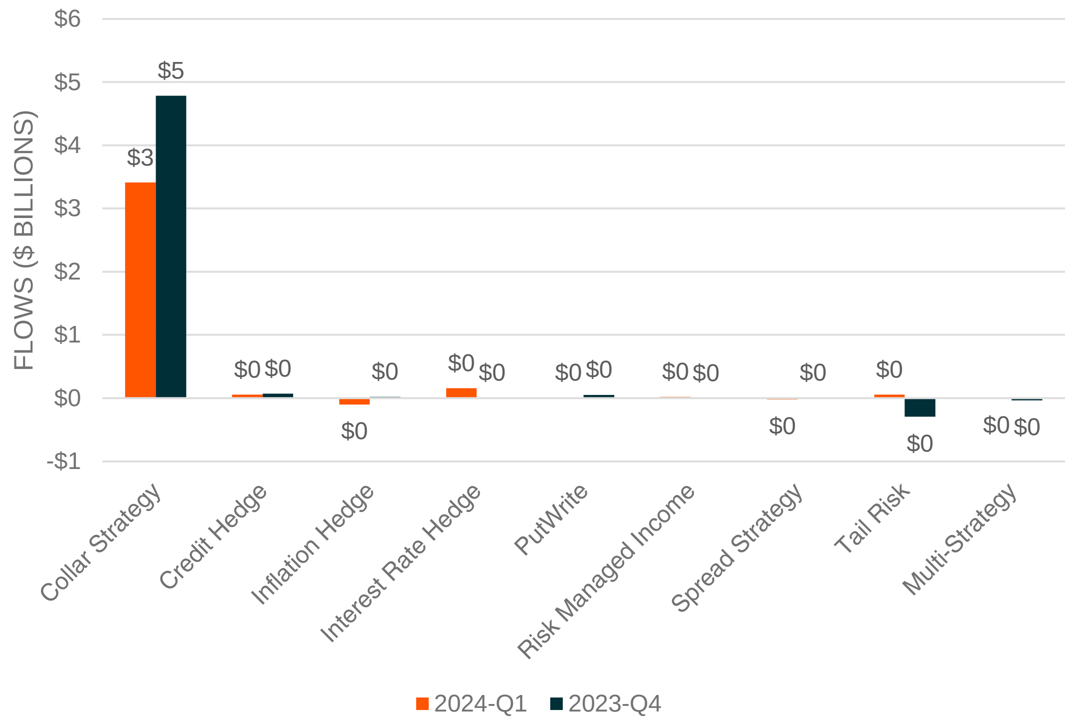
Risk Management Landscape Update

Collars continue to represent the most prominently implemented derivative-based ETF strategy within the Risk Management objective. That said, flows to this strategy declined 28%, sequentially, in the March quarter, to about $3.4 billion. In conjunction with Inflation Hedge and Spread Strategy flows trending into the red, this likely meant a great deal of the assets collected within this category stemmed from market price appreciation rather than new assets.

Risk Management ETF Landscape By Strategy



Flows By Strategy



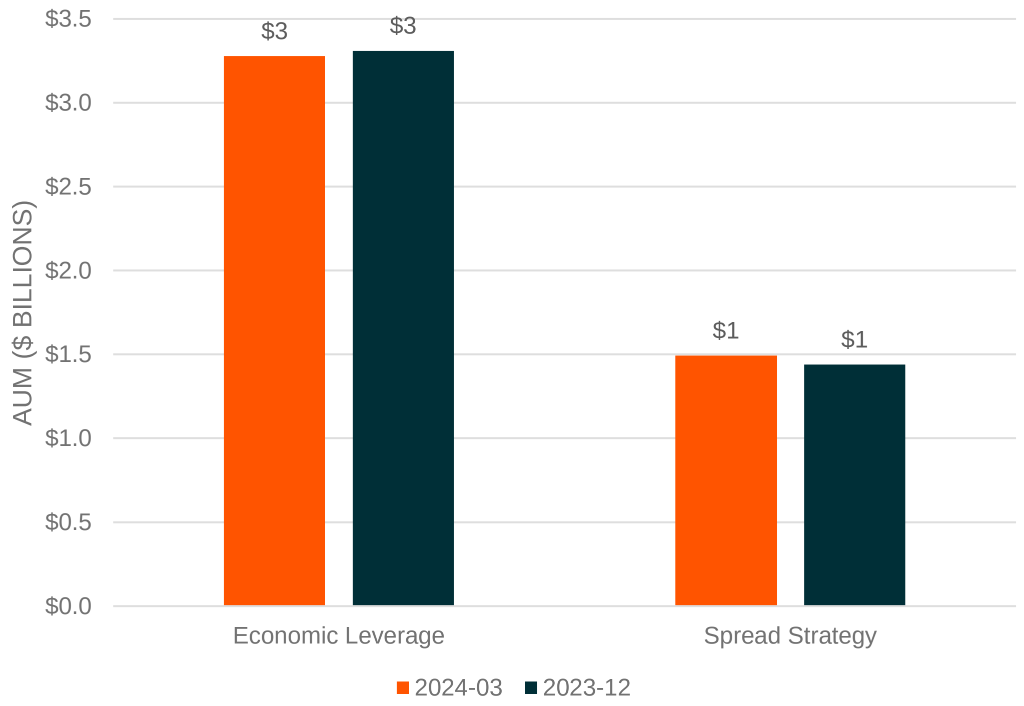
Source: Global X ETFs, Morningstar Direct. As of March 31st, 2024.

Note: AUM includes assets of funds closed until the last month of trading activity

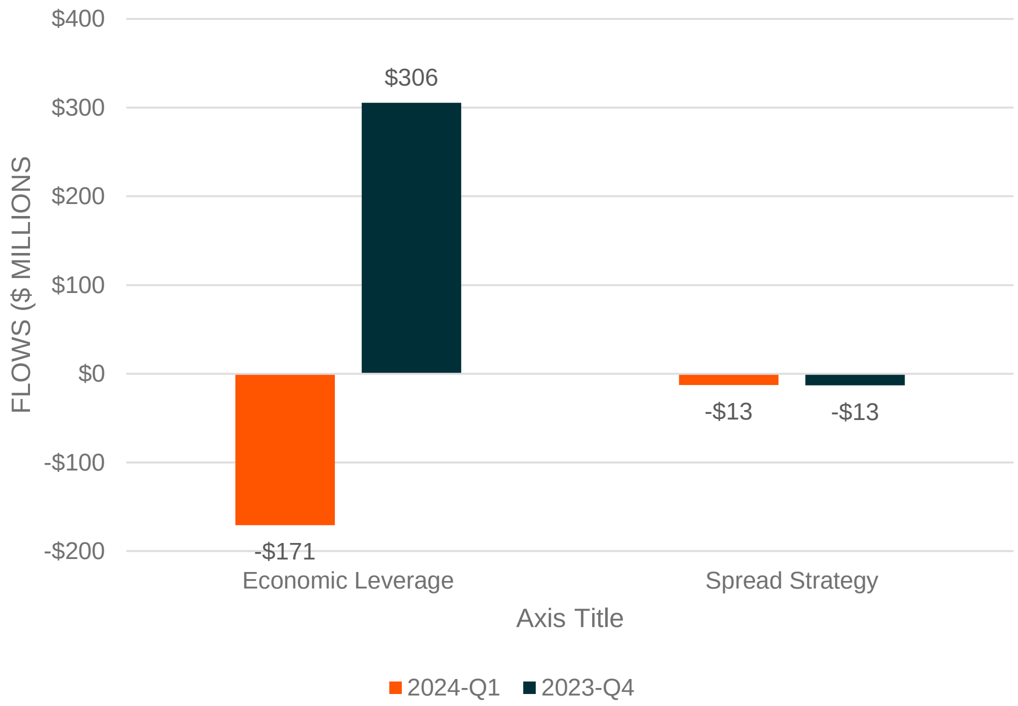
Performance Enhancement Landscape Update

Flows to the Performance Enhancement derivative objective turned negative in the first quarter of 2024, with investors seeking fewer leveraged positions in the aftermath of the market's rise. The undertaking could potentially reflect an ongoing need for income in anticipation of future rate cuts. It might also account for uncertainty pertaining to the future direction of the markets, which could be influencing investors to take more measured long positions.

Performance Enhancement ETF Landscape By Strategy



Flows By Strategy



Source: Global X ETFs, Morningstar Direct. As of March 31st, 2024.

Note: AUM includes assets of funds closed until the last month of trading activity

Key Takeaways

Takeaway 1 – Derivative ETFs Have Recaptured Some Momentum

After experiencing somewhat of a lull to round out 2023, Derivative ETFs took in fund flows exceeding $4 billion in each of the first three months of the new year.[1] The undertaking reflected allocations toward BuyWrite income strategies, which received acclaim as markets rose to eclipse new all-time highs. Indeed, after the S&P 500 recorded nine consecutive weeks of gains to close out 2023, bartering future price appreciation potential for current income using covered call options seemed to represent an attractive opportunity.

Takeaway 2 – Investors Appear to be Altering Risk Protections

Flows to Collar strategies featuring both Protective and Put Spread overlays declined materially in the first quarter, despite the launch of 17 funds that incorporate tactics to achieve a Defined Outcome. Instead, investors increased contributions toward Interest Rate Hedge and Tail Risk strategies, seeking to employ swaps to hedge against additional interest rate hikes and buy puts at relatively cheap costs to account for potentially major changes to market sentiment. Much of this concern likely arose from stubborn measures of market inflation and rising tensions amid war adversaries in the Middle East.

Takeaway 3 – Derivative Income Opportunities May Be Tempting Market Participants

At the end of March, quarterly flows toward Derivative Income strategies had risen to their highest level in over a year. This not only reflected the growing popularity of Derivative ETF products, on the whole. It also helped underscore the increasingly supportive backdrop that has been shaping up for BuyWrite and Spread Strategies. Markets repeatedly established new all-time highs in the first quarter and, with volatility as characterized by the VIX on a fairly consistent upward trajectory to date in 2024, the premium income these strategies seek to collect may become more bountiful moving through the second quarter.

[1]Source: Global X ETFs with data from Morningstar Direct measured from 01/01/2023 to 3/31/2024.

Important Information

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The Global X Derivative Strategy Classification System is based on the expertise, views, and opinions of the Global X Derivative Strategy Classification Committee and are subject to change.

Global X defines thematic investing as the process of identifying powerful disruptive macro-level trends and the underlying investments that stand to benefit from the materialization of those trends. By nature, thematic investing is a long term, growth-oriented strategy, that is typically unconstrained geographically or by traditional sector/industry classifications, has low correlation to other growth strategies, and invests in relatable concepts.

The process to identify a derivative-based strategy incorporates three main principles:

1. The product must utilize derivatives as a core component of its investment strategy. This does not necessarily mean that derivatives must make up the majority of the ETF's portfolio. However, derivatives must serve a key purpose in achieving the investment objective stated in the ETF's prospectus.

2. The derivative-based strategy can be utilized over a long-term period from the standpoint that it is able to be used tactically, for temporary exposure to express a market view, or within a strategic allocation. Strategies whose core objective is to be a daily trading tool will most likely not be considered for inclusion.

3. The strategy must use derivatives as a means to achieve 1 or more of the 3 main use cases of derivatives by either buying or selling short a specific type of derivative:

- Risk Management – These are strategies with an objective of achieving higher risk-adjusted returns by lowering overall portfolio volatility with the usage of derivatives.
- Income – Strategies that utilize derivatives as a core investment to potentially achieve high income for its investors.
- Performance Enhancement - Strategies that use derivatives to enhance the upside potential for capital appreciation, typically increasing the economic leverage used within a portfolio.

Taking the above principles into account, it should be noted that the derivative-based classification system does not consist of leveraged/inverse ETFs whose core objective is to track an index that rebalances daily. This goes against the 2nd principle stated above regarding the strategy being a long-term investment.

Based on the definitions and principles described above, the derivative-based classification system is organized into multiple layers for a more refined understanding as to the objective of each strategy. Note that some options strategies can be utilized for multiple purposes, whether that be for Income, Risk Management, or Performance Enhancement, resulting in some categories appearing more than one time. The system consists of four layers of classification: (1) Derivative Objective (2) Derivative Strategy (3) Derivative Overlay and; (4) Derivative Tactic.

'Derivative Objective' is the broadest layer and this gives an understanding as to the core objective of the fund, utilizing the 3 derivative use cases defined in the Principles section: (1) Risk Management, (2) Derivative Income, and (3) Performance Enhancement. One layer down is 'Derivative Strategy,' which will provide investors the means by which the investment objective is being pursued. For example, an ETF that utilizes derivatives with a Risk Management objective can be generated using either a Tail Risk Strategy to provide a level of downside protection or a Collar Strategy to provide a range-bound return outcome. Although slightly different, the commonality between these two overlays are the fact that their core purpose is to provide Risk Management.

Important Information (Continued)

Further down, we identify ‘Derivative Overlay’ as a layer describes the specific derivatives being used and the manner in which they are being used (Long or Short, Bull or Bear). For example, a Tail Risk overlay can obtain a level of downside protection using many kinds of derivatives. Some overlays include either “going-long” with put options via a Protective Put or harnessing VIX Futures as an overlay on an existing stock portfolio. Lastly, ‘Derivative Tactic’ help to communicate to investors any unique considerations regarding the options overlay being used. For example, a strategy offering a Synthetic Exposure are primarily meant to be exposure vehicles to. Another example is a Defined-Outcome ETF, which utilizes put spread collars to offer a specific level of downside protection with capped upside potential if held over the course of the stated “outcome-period”, making each iteration different from one another.

The number of derivative objectives, derivative strategies, derivative overlays, and derivative tactics are expected to change as new derivative-based strategies come to market. These updates will be made by the Global X Derivative Strategy Classification Committee (“the committee”) and take into account official fund prospectus filings as well as fund company materials.

The ETF industry is continually innovating to provide unique derivative exposures to investors. The Global X Derivative Strategy Classification Committee evaluates these innovations by first investigating if a fund aligns with the core three principles of what it believes a derivative strategy to be. Then, once a fund is deemed a “Derivative Strategy”, the committee identifies what the core objective is, how this objective is being achieved, and what types of derivative positions are being utilized within the strategy by reviewing prospectuses, index methodologies (if applicable), stated objectives by the fund company, as well as underlying holdings. Once per month, the committee will review all new U.S.-Listed ETF launches to determine if the fund should be added and how it should be classified. In addition, the committee will also review any strategy changes that have occurred amongst existing ETFs within the Classification System that might merit reporting in the next monthly Derivative Strategy ETF Report.

While an ETF may engage in multiple objectives or strategies utilizing derivatives, the committee will determine the classification based on the true nature of the ETF.

While an ETF may be classified within a certain objective, strategy, overlay, or tactic, Global X does not give any assurances that the ETF provides good and accurate exposure to the specific exposure it is targeting. For example, an ETF may convey or market itself in a specific manner but still utilize a specific derivative trading strategy that has its own nomenclature.

The derivative classification system is reviewed monthly by the Global X Derivative Strategy Classification Committee to consider new changes and/or additions to the layers (categories) stated above. In addition, the committee will also seek to add newly launched, U.S.-listed ETFs that fit the 3 main principles of a derivative-based strategy.

In the event that an ETF changes its investment objective to another one that goes against the 3 principles of a derivative-based strategy, the strategy will be removed from the classification system and its historical assets under management data will be maintained within the monthly report. On the other hand, if an ETF changes it investment objective to something that fits within the parameters of the 3 principles, it will be considered for inclusion in the classification system where its AUM will start to be reflected in the report.

Global X accepts requests for reviews or appeals for any ETFs. Please contact Global X at research@globalxetfs.com, and the appeal will be considered in a timely manner. ***There are no guarantees that an appeal will result in a change in the ETF’s classification.***

Important Information (Continued)

The Derivative-based ETF Report, including the classification system, falls under the supervision of the Global X Derivative-Based Strategy Classification Committee. The Committee consists of members from Global X's research and product teams who have extensive knowledge of the strategies themselves and the ETF industry. The goal of the committee is to properly identify and classify ETFs that fit the 3 principles. The Committee meets at least monthly to review the classification system, as well as on an ad-hoc basis to review new ETF launches or ETFs that change their strategy.

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