



Report on best practices related to the application of IOSCO principles for exchange traded funds

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Exchange traded funds (ETFs) fall within a category of collective investment schemes with equity stakes listed on secondary markets. Thus, unlike the units of traditional funds that are subscribed or redeemed at their net asset value, calculated once a day, ETF units can be acquired and sold on said markets during trading hours, benefiting from the intraday liquidity of the market and may even be traded at a price above or below their net asset value. There is a wide range of types of ETFs according to investment strategies, access rules and investors' exit, as well as according to structure. The most common ETFs typically mimic the operational performance of an index, seeking to reproduce its evolution.

In the early 2000s, ETFs became relatively popular, but it was not until the 2008 crisis that a significant number of institutional investors turned to these funds. Before then, ETFs had remained outside any regulatory efforts. The only place where they were subject to any regulation was in the European Union (EU). In particular, the information obligations, within the framework of investor protection, included in the Directive for financial instruments' markets of 2004 (MiFID I) which are applicable.

In 2008, due to their popularity and proliferation, IOSCO decided to collect information in order to produce a detailed report on the ETF industry and its possible regulation. In June 2013, IOSCO published its Final Report in which it sets out nine principles^{1 - 2} focusing, on one hand, on the degree of transparency that should be required by regulators/supervisors on the type of product, the composition of their portfolios, costs or securities lending and, on the other hand, on the proper management of risks arising from conflicts of interest and counterparty exposures or collateral management.

A working group was created in 2017 to follow up on the evolution of the ETF industry in order to identify relevant changes. The study shows that IOSCO's principles, despite being almost a decade old and the significant changes to the industry, have maintained an optimal degree of effectiveness, even during the high volatility of the markets during the COVID-19 pandemic crisis³.

As a result of the study, in May 2023 the IOSCO Board published a list of best practices grouped into a set of Measures. The Report is structured based on the following four major categories:

- 1. Effective structuring of the product**
 - II. Reporting obligations
 - III. Provision of liquidity
 - IV. Volatility control mechanisms
- 2. Effective structuring of the product**

Such set of measures influences, mainly, ETFs principles numbers 4⁴, 7⁵, 8⁶ and 9⁷. The main idea is that

effective structuring of an ETF requires refinement of the arbitrage mechanism.

Before discussing such Measures, it is worth highlighting that an ETF is a product in which intermediaries known as specialists (market creators/authorised participants (APs)) intervene being responsible for the promotion of the product's liquidity in the markets in which they are listed maintaining purchase and sale prices throughout the trading session, allowing transactions to be carried out in secondary markets by means of a maximum price range for a given volume. Additionally, with its actions in the primary market, specialists facilitate the appropriate number of ETF units to be available in the secondary market at any given time by creating new units or redeeming old ones. Moreover, the simultaneous action of specialists in the primary and secondary market allows the price of the exchange traded fund to be maintained at levels close to its net asset value through arbitrage.

Regarding the measures, *Measure 1* encourages regulators and responsible entities to establish a list of appropriate assets for each ETF class taking into account the following issues: (a) the nature, novelty and complexity of the asset class/strategy; (b) the effectiveness of the arbitrage mechanism; (c) orderly secondary market trading; (d) the capacity or liquidity of the asset in its underlying market and local circumstances; and (e) the availability and capacity of service providers (including index providers, APs, liquidity providers (LPs) and swap counterparties).

In order to facilitate effective arbitrage, IOSCO proposes *Measure 2* in which it encourages regulators to establish requirements related to the transparency of ETF portfolios as well as any other disclosure that would facilitate this process.

Measure 3 only affects countries that oblige ETFs to keep the fund's net asset value up to date at all times and to disclose it. This measure encourages regulators and trading venues to consider means to enhance the accuracy and usefulness of the indicative net asset value (iNAV)⁸ and to strengthen its disclosure, as well as to inform about its possible limitations.

Measure 4 requires responsible entities, generally ETF managers, to carry out the following: (a) due diligence procedures on APs and MMs that are to provide services to ETFs, in order to facilitate the most appropriate choice for arbitrage mechanisms to be effective and provide liquidity; (b) monitoring the activity of APs and MMs, in particular the functioning of the arbitrage mechanisms and liquidity provision; and (c) avoiding exclusive arrangements with APs and MMs that may unduly affect the effectiveness of arbitrage mechanisms, as, in such cases, a deterioration of the arbitrage system and increased costs due to lack of competition have been identified.

Measure 5 encourages responsible entities to enter into agreements to facilitate effective arbitrage mechanisms, including the implementation and updating of contingency plans to address disruptive circumstances that may take place in the market. The following practices are recommended, among others, to improve the effectiveness of the arbitrage mechanism:

- Have multiple APs per ETF to step in if a particular AP is unable to carry out creations/redemptions for any reason.
- Facilitate an open AP architecture to promote competition.
- Extending the availability of APs/market makers by allowing suitable/qualified firms from outside an ETF's jurisdiction to act as APs/market makers.

Expansion of information on the composition of the portfolio is also recommended to be larger than what is required by the law of the jurisdiction in which they are located. Particularly, such information is encouraged to be published in full on a daily basis. Similarly, in order to mitigate operational risks, diversification of service providers, such as swap or brokers counterparties, is encouraged to mitigate the possibility that a provider that

is temporarily unable to operate may limit or prevent arbitrage work.

Measure 6 encourages regulators to consider whether the sectoral regulations on securities markets appropriately address potential conflicts of interests raised by different stakeholders involved in ETFs. In particular, it highlights the role of APs, LPs, market makers, benchmark providers and eligible counterparties in the case of swap or derivative contracts. More specifically, the Report focuses on the relationships of such actors with the ETF and the capacity they may have to affect the fund's strategy, as well as to negatively impact its management in its own favour and against the ETF's participants.

1. Transparency

In regards to transparency, although it has been discussed, the following will focus on issues related to principles 1⁹, 2¹⁰, 5¹¹, 6¹² and 7 of IOSCO's ETFs.

Measure 7 encourages regulators to establish additional information and transparency obligations regarding ETFs investing in more complex or novel products, highlighting the improvement of the adequacy and appropriateness of information to its investors and its target audience, particularly that related to strategy risks.

Measure 8 encourages regulators to enforce compliance with the requirements related to information obligations concerning fees and costs for the investment in ETFs, in order for the information provided to allow investors to make informed decisions before execution a transaction.

It highlights the information obligations related to securities lending. In fact, IOSCO recommends a long list of documents and information to be disclosed.

Measure 9 encourages regulators and entities to consider appropriate disclosure requirements or disclosures to help investors to differentiate ETFs from other collective investment undertakings, as well as determine the type of fund involved (for example, indexed-based or non-indexed-based, the sector(s) in which it operates and whether it is synthetic or not).

III. Provision of liquidity

This section refers to principle 9¹³. To this effect, *Measure 10* encourages regulators and/or trading venues to monitor secondary market trading and related market making activities. It also encourages them to establish rules that allow for orderly trading of such funds.

In particular, the Report considers the involvement of market makers essential to guarantee the liquidity of ETFs and to facilitate effective arbitrage mechanisms. To do so, IOSCO encourages regulators and trading venues to regularly track if market makers are in compliance of the corresponding obligations.

In regards to the current monitoring of ETF markets, in its Report, IOSCO highlights that, while some countries carry out ongoing monitoring (such as Australia, Canada, USA, UK, Italy), others only investigate when an anomalous situation is identified (such as France, Ireland, the Netherlands).

The Report also emphasises the difficulty of monitoring ETF liquidity in certain jurisdictions, such as the EU, mainly due to the fragmentation of trading venues, the volume of OTC trading and the absence of a consolidated reporting system at a European level¹⁴.

Finally, the impact on ETF liquidity of a situation in which a market maker ceases to be a market maker is particularly highlighted. Therefore, protocols are recommended to be established to organise the orderly removal and replacement of such items in a timely manner.

1. Volatility control mechanisms

Using recommendations 2¹⁵ and 8¹⁵ of IOSCO's 2018 Final Report, on the mechanisms used by trading venues to manage high volatility and maintain orderly trading, as a reference¹⁷, *Measure 11* encourages regulators and/or trading venues to appropriately calibrate volatility control mechanisms (VCMs) applicable to ETFs, focusing mainly on market liquidity and volatility of value. In particular, in order to carry out appropriate calibration, taking into account the nature of the underlying financial instrument(s), as well as the local context, is recommended.

The document describes the following existing main models of volatility control mechanisms:

- Those based on the historical performance of the ETF's value: when the price exceeds certain thresholds, the mechanism is triggered, possibly halting trading.
- Those based on the ETF's indicative net asset value (iNAV): in this case the mechanism is triggered if the difference between the price of the ETF's holding and the iNAV exceeds a certain threshold (typically between 1,5% and 3% of the iNAV). It is the most commonly used model in Europe. Trading halts, in this model, are usually short-lived, although there may be several one after the other.

Improved communication between trading venues where ETFs are listed is also encouraged when volatility control mechanisms are triggered. In particular, communication channels are recommendable if ETFs are listed on two or more markets at the same time, in order to, for example, coordinate common actions when volatility in one market could affect trading on other venues.

Lastly, following IOSCO's recommendations, trading venues are encouraged to calibrate volatility control mechanisms according to the characteristics of the ETFs (such as liquidity profile, volatility profile of the underlying assets or leverage factor).

Link of interest:

Final Report on good practices relating to the implementation of the IOSCO principles for exchange traded funds (ETFs): [IOSCOPD733.pdf](#)

¹ The list of the nine principles related to ETFs is reproduced in Appendix I of the Report and can be found on page 67 of the Report.

² "Principles for the Regulation of Exchange Traded Funds. Final Report". Board of IOSCO. Link: [IOSCOPD414.pdf](#)

³ This particularly affected fixed income ETFs³, as some underwent significant discounts between the price of their units and their net asset value for limited periods of time (as the latter is not updated with the latest information). ETFs for investments in OTC markets or derivatives experienced similar issues.

⁴ Principle 4: Regulators should consider enforcing requirements related to the transparency of an ETF's portfolio and/or other appropriate measures to provide adequate information on: (a) any index referenced and its composition; and (b) the operation of performance tracking.

⁵ Principle 7: Regulators should encourage all ETFs, in particular those that use or intend to use more complex investment strategies, to assess the accuracy and completeness of their disclosure, especially whether they are presented in an understandable manner and whether they address the nature of the risks associated with the ETFs' strategies.

⁶ Principle 8: Regulators should assess whether securities laws and applicable rules of securities exchanges within their jurisdiction appropriately address potential conflicts of interest raised by ETFs.

⁷ Principle 9: Regulators should consider imposing requirements to ensure that ETFs appropriately address

risks raised by counterparty exposure and collateral management.

⁸ The indicative net asset value provides an almost real-time indication of the value of an ETF based on the market price of its underlying assets or the performance of its reference.

⁹ Principle 1: Regulators should encourage disclosure of information that helps investors to clearly differentiate ETFs from other exchange-traded products.

¹⁰ Principle 2: Regulators should seek to ensure a clear differentiation between ETFs and other collective investment schemes, as well as adequate disclosure of index-based and non-index based ETFs.

¹¹ Principle 5: Regulators should encourage disclosure of information on ETF investment fees and expenses to allow investors to make an informed decision about whether to invest in an ETF and therefore accept a particular level of costs.

¹² Principle 6: Regulators should encourage disclosure requirements that enhance the transparency of information available with respect to securities lending (for example, on related costs).

¹³ Principle 9: Regulators should consider imposing requirements to ensure that ETFs appropriately address risks raised by counterparty exposure and collateral management.

¹⁴ Nonetheless, the current revision of the Markets in Financial Instruments Regulation (MiFIR) foresees the creation of consolidated reporting systems in the EU.

¹⁵ Recommendation 2: Calibration of volatility control mechanisms. Trading venues should ensure that volatility control mechanisms are appropriately calibrated. To do so, trading venues may consider the following non-exhaustive list of elements: a) the nature of the financial instrument or underlying asset, such as a security, ETF or derivative; b) the liquidity or trading profile of the financial instrument; c) the volatility profile of the financial instrument or underlying product; d) volatility control mechanisms in place for related financial instruments and/or markets; e) price of the financial instrument.

¹⁶ Recommendation 8: Communication between trading venues Where the same or related instruments are traded on multiple trading venues in the same jurisdiction, trading venues should communicate as appropriate when volatility control mechanisms are triggered. Where the same or related instruments are traded in different jurisdictions and the mechanism is triggered, communication may be appropriate.

¹⁷ Final report on the mechanisms used by trading venues to manage extreme volatility and maintain orderly IOSCO trading: [IOSCOPD607.pdf](#)