

IOSCO General Secretariat
C/ Oquendo 12
28006 Madrid

By email: CBML-feedback@iosco.org
IOSCO-ETF-consultation@iosco.org

8 July 2022

RE: Feedback on IOSCO's Report on Corporate Bond Markets & ETF Consultation

BlackRock welcomes the opportunity to provide comments to IOSCO's consultation papers on market liquidity issues affecting corporate bond markets under stress and good practices concerning Exchange Traded Funds (ETFs).

Since IOSCO first issued its ETF Guidelines in 2013, ETF adoption has grown over 3.5 times with global assets under management currently at \$8.7 trillion.¹ In the meantime, fixed income markets have undergone significant structural changes since the Global Financial Crisis of 2008 (GFC). This paper recognizes the evolution of ETF product and market structure, the evolution of broader fixed income markets, and potential areas of vulnerability during times of market stress, particularly as Central Bank policy normalizes after years of historically low interest rates.

This evolution in market structure and preferences has forced investors to adapt to a new market paradigm. This has changed not only how they trade fixed income, but what types of products they use, such as ETFs, to build bond portfolios and manage risk. We frame the evolution of the bond market therefore through three interconnected lenses: the liquidity environment, market structure and product preferences. All three continue to evolve and like what has taken place in equity markets, we believe the coming years will be marked by further transformations in fixed income market structure and even greater investor adoption of fixed income ETFs.

The evolution of fixed income markets and investor preferences

The traditional principal-based fixed income market has transformed into a hybrid principal/agency market. Driving this change are the entrance of new market participants and the emergence of all-to-all trading technologies that offer an alternative means to trade bonds: from bilateral and voice-driven to multi-dimensional and electronic. While the transition to a hybrid model has been a challenge for some investors, fixed income markets are today unquestionably more connected and diverse with more trading participants.

¹ Source: BlackRock Global Business Intelligence, ETF assets as of June 2022.

Post-GFC regulation and evolution of market practices have forced traditional bond dealers to fundamentally rethink their business models; this process continues to evolve. Broker dealer inventories have fallen because of enhanced regulation and depleted risk appetites, although the magnitude of the decline may be debated. At the same time, the size of the investment grade corporate bond market has approximately tripled over the past decade.

Inventories have recovered somewhat in recent years but relying solely on the old model will likely not suffice. Investors need to think about how best to access liquidity across products and asset classes, using a broader, more robust suite of liquidity measures and exposure vehicles. Not all investors have the same liquidity needs and the degree of liquidity required in part dictates the type of instrument employed for portfolio construction.

Today, the changing market structure means that building fixed income portfolios solely with individual securities can be increasingly costly and less efficient than in the past, leading investors to employ a range of instruments. The demand for transparent, standardized, and bundled exposures has manifested in growth among index-based products like credit default index swaps (CDX), total return swaps (TRS) and bond ETFs. These products are fulfilling investor needs for building blocks to construct portfolios and manage risk more efficiently. Fixed income ETFs have proven to be a valuable solution in meeting these needs. In the last five years, global fixed income ETF assets under management have almost trebled² while trading volume has more than doubled.

Executive summary

IOSCO's report presents a robust analysis of the turbulence in corporate bond markets during March 2020. This is as good an overview as could be hoped for given the persistent challenges around data availability in fixed income markets, which is a clear theme in the report. This in turn limits the ability to draw firm, comprehensive conclusions as to the drivers of overall market dynamics.

The report rightly recognises that fixed income markets differ in terms of their structure and liquidity characteristics from equity markets. While it might be tempting to suggest that "equitizing" fixed income markets, i.e., making fixed income markets more equity-like, could address some of the liquidity and access challenges faced in stressed market conditions, fixed income liquidity is ultimately, and will remain, dealer-driven. Further, bond issuance practices create a heterogenous and fragmented market with significant transparency challenges.

The list of potential actions and remedies to the liquidity and transparency challenges in fixed income is long, interconnected – and necessary – but no single action stands in isolation as the "silver bullet".

- We strongly support consolidated tapes delivering post-trade transparency across all bond markets, including government bonds.

² From \$601B in 2016 to \$1.782T in 2021.

- Standardisation of bond issuance practices would allow for more bonds to trade all-to-all and lead to more liquid, larger issuance sizes.
- All-to-all trading helps to connect buyers and sellers in what was a fundamentally opaque space.

However, each of these policy actions has significant caveats:

- The timing of post-trade disclosures must be carefully calibrated according to size, and equity-like pre-trade requirements applied to fixed income could have an adverse effect on liquidity.
- Issuers must embrace and lead the drive to standardization balancing the potential benefits for liquidity vs their funding costs and reduced flexibility.
- While we support all-to-all trading, we should recognise that adoption is still at an early stage. All-to-all allows firms to occasionally find the natural other side of the trade but will not deploy their balance sheets to act as liquidity providers.

We would encourage IOSCO to consider several additional points to complete its analysis of the corporate bond markets:

- The impact of new trading practices, such as trading on Request-for-Quote (RFQ) platforms, the growth of portfolio trading and algorithmic pricing. These have made workflows more efficient and automated, enabling investors to access liquidity more effectively.
- Indicators of market sentiment. Credit derivative indices that investors can use to gain or hedge exposure to the credit markets underlying the credit derivatives are an increasingly referenced barometer of market stress. They also often point to where liquidity is in stressed markets.
- The role of fixed income Exchange Traded Funds (ETFs) has not been covered sufficiently in the corporate bond market report, but there is an important link to be made IOSCO's recommendations for ETF good practices.

ETFs today play an increasingly important role in the underlying bond market, particularly as instruments of price discovery.³ As investors increasingly adopt ETFs to gain exposure to fixed income (as well as equity and other underlying asset classes) IOSCO's ETF good practices represent a robust statement of ambition for ETF providers and the wider ecosystem. These recommendations will underpin investor confidence by raising the bar in important aspects such as disclosure, product design and transparency.

Please find below our detailed response to the ETF Good Practices Paper.

³ See Laipply, S. & Madhavan A., (2020) *Pricing and Liquidity of Fixed Income ETFs in the Covid-19 Virus Crisis of 2020* The Journal of Index Investing (Winter 2020)

Good Practices Concerning Exchange Traded Funds

Effective Product Structuring

1. *What additional considerations do regulators or responsible entities consider in determining the range of assets and strategies to be invested or implemented by an ETF and how are they different from those concerning OEFs?*
2. *What other good practices have been put in place to take into account the target investors at product design phase?*

Response to Q1 and Q2:

BlackRock holistically considers a variety of factors in designing high quality products and services to meet investors' needs. For example, the factors typically include, but are not limited to:

- the nature and complexity of a target market, asset class or investment strategy;
- the robustness of the underlying market from a capacity and liquidity perspective;
- diversification of holdings;
- capacity of authorised participants (AP) to create-redeem new ETF units in the primary market; and
- capacity of market makers (MM) to facilitate intra-day liquidity in the secondary market.

These factors are balanced against investor demands, to ensure effective product structuring and design.

Furthermore, adherence to rules imposed by local regulations – for e.g., investment eligibility requirements and rules for distribution and sale for UCITS-compliant ETFs – ensures effective oversight and governance of ETF product offerings.

3. *Do the merits and other considerations as set out above accurately reflect the issues for different portfolio and basket information disclosure approach?*

BlackRock facilitates daily public disclosure of portfolio information of its ETFs, including full portfolio holdings made available on the website at the end of the day⁴ as well as communication of creation and redemption lists to APs before the start of trading each day. We believe these provisions are highly effective in ensuring transparency of holdings for all investors and supporting APs to identify any arbitrage opportunities in ETF pricing and keep the price of the fund in-line with the value of its underlying securities.

⁴ The current operational set-up for BlackRock iShares European-domiciled ETFs makes public reporting of fund holdings with a 2-day delay.

4. *Other than the examples of portfolio and basket information disclosure approaches as listed above, are there any additional portfolio-related disclosure that have been used to support the functioning of the ETF arbitrage mechanism?*

Basket-related disclosures, as identified in the IOSCO report, are highly effective in the pricing and arbitrage mechanism of index-tracking ETFs.

Where premiums/discounts can be designed and used as reliable indicators of divergence in the market pricing of ETFs versus their underlying holdings, additional disclosures on premium/discount information may also be useful in supporting the ETF arbitrage mechanism.

One example is the following disclosures required under SEC Rule 6c 11 for US domiciled ETFs:

- NAV per share, market price, and premium or discount, each as of the end of the prior business day.
- A table and chart showing the number of days the ETF's shares traded at a premium or discount during the most recently completed calendar year and calendar quarters of the current year.
- For ETFs where premium or discount was greater than 2% for more than seven consecutive trading days, disclosure that the premium or discount was greater than 2%, along with a discussion of the factors that are reasonably believed to have materially contributed to the premium or discount.

5. *What additional means or disclosure have been put in place to address issues relating to iNAV?*

BlackRock supports transparency of ETF trading for end investors. Regular public disclosure of underlying holdings, presence of multiple liquidity providers facilitating intra-day pricing and execution, and an efficient creation-redemption mechanism are factors that facilitate transparent and efficient trading of ETF units for end-investors via public markets (aka ETF secondary markets).

However, the use of intraday net asset value (iNAV, or intraday indicative value, IIV) for execution benchmarking, is susceptible to accuracy and reliability issues arising from stale or non-transactable pricing of underlying securities. This is especially true for ETFs holding less frequently traded securities such as corporate bonds, emerging market debt, or international equities which may trade in different time zones compared to the ETF units. Furthermore, in an efficient market with multiple liquidity providers and a robust creation-redemption mechanism, the intra-day pricing of ETF units should be a reliable indicator of the fair value of its underlying holdings.

The provision and/or mandatory consumption of an inaccurate iNAV may lead to sub-optimal trading outcomes for end investors. A case in point is the use of iNAVs as benchmark reference for intra-day volatility control and other trading safeguards for ETFs trading on certain exchanges in Europe. During fast moving markets, ETF secondary market pricing is more likely to be an accurate indicator of the true market-clearing or transactable price. In such instances, any decision to halt or

suspend exchange trading of ETFs, based on divergence between ETF price and iNAV may be detrimental to the interest of end investors. Our recommendations for further enhancements to European ETF trading landscape includes consistency and standardisation of trading and volatility control rules across exchanges, and the availability of real-time information on trade execution aggregated across all trading venues. These enhancements are more likely to create a unified and transparent trading ecosystem for liquidity providers and end investors alike.

Under the Security and Exchange Commission's (SEC) Rule 6c-11 (the "ETF Rule") in the US, issuers are not required to publish an iNAV, as the SEC deemed it unnecessary to support the arbitrage mechanism for ETFs that provide daily holdings disclosure.⁵ The SEC cited concerns with the accuracy of iNAV estimates for certain ETFs to justify their stance, including those that hold international securities or securities that trade infrequently.

- 6. Have the examples of considerations above captured the key considerations relating to selection and due diligence of APs, and where relevant, MMs, by responsible entities?*

ETF liquidity providers, market makers, and APs play a critical role in ensuring the effectiveness of the arbitrage mechanism between ETFs and their underlying holdings and providing liquidity for ETF investors. BlackRock undertakes rigorous due diligence in its AP selection process, including continuous assessment of the operational and financial capabilities of these institutions to operate under different market environments. The recommendations made by IOSCO are part of a broad set of considerations in our AP selection process.

- 7. Do you agree with the proposed good practice to promote competition in ETF arbitrage and market making? Are there any justifiable circumstances where exclusive arrangements with APs or MMs would bring net benefit ETF investors as a whole?*

A diverse set of liquidity providers ensures most competitive outcomes for end investors. BlackRock supports multiple APs and MMs to facilitate liquidity provision for its ETFs, globally.⁶ While APs and MMs may have competitive advantages in different market segments, their ability to transact with clients in the secondary market or undertake creation-redemption of new ETF units is provided without any bias or preference from BlackRock. The range of liquidity providers span the full range of financial institutions including investment banks and proprietary trading firms across a variety of jurisdictions. For example, BlackRock's US and European-domiciled ETFs have an average of seven and four MMs, respectively, facilitating intra-day pricing and liquidity for every exchange listing and a total of 30 and 24 different APs actively creating and redeeming new units in exchange for underlying holdings or cash.

⁵ See Final Rule 6c-11, Section 1C.3, available at <https://www.sec.gov/rules/final/2019/33-10695.pdf>

⁶ Under the current operating model, BlackRock facilitates up to two APs for European-domiciled swap-backed ETPs (i.e., ETPs that deliver exposure to the stated benchmark through a total return swap).

8. *Do you agree with the proposed good practices and jurisdictional examples as set out above? What additional good practices related to primary market arrangements have been put in place to promote effective arbitrage?*

BlackRock makes regular improvements to make its ETF primary markets platform more efficient for our APs to operate. These can take the form of running a competitive and diversified multi-AP model, and operational enhancements to our technology systems underlying AP interactions. The primary market arrangements identified by IOSCO are effective in promoting effective arbitrage.

9. *To what extent should responsible entities be encouraged to provide more frequent disclosure of portfolio information to the public to facilitate the arbitrage mechanism? Does it depend on the information APs/MMs receive on a daily basis and the ETF's arrangements with APs/MMs?*

Please see our response on portfolio disclosures in questions 1 and 3.

10. *Have the examples above captured the key operational risks that may lead to disruption in achieving the ETF's investment objective? What additional good practices have been put in place to mitigate such risk?*

There are circumstances in which valuation or pricing agents may pose operational risks to ETFs' investment objectives.

Exchange closing auction prices drive end of day net asset value (NAV) calculations for equity ETFs; technical or operational issues with this pricing by the primary ETF listing exchange could disrupt ETF valuation. In the US, as a best practice, we have partnered with the ETF's alternate secondary exchanges to ensure backup pricing is available in the case of an issue with the primary exchange's closing auction.

For fixed income indexes, pricing is driven by third-party valuation agents. If there are pricing discrepancies, BlackRock can rely on secondary and tertiary valuation agents or, as a last resort, internal valuations.

In the US, BlackRock uses systematic fair value pricing to determine ETF NAVs related to funds with certain foreign (non-US-listed) assets. Like fixed income index valuation, this pricing is determined by third-party valuation agents. If pricing discrepancies arise, BlackRock can rely on internal valuation measures as an alternative measure.

Direct redemption as a contingency plan:

We agree with IOSCO's observations that despite EU Guidelines requiring direct redemption of ETF units by end investors in the event of "significant price dislocations", it is impractical for individual investors to deal directly with an ETF. That said, it is extremely unlikely that no APs would be

available to facilitate liquidity in the secondary market or provide dealing via primary market in such scenarios.

As identified in questions 6 and 7, BlackRock operates a multi-AP model for its ETF range, globally. The range of liquidity providers span the full range of financial institutions including investment banks and proprietary trading firms across a variety of jurisdictions. In addition, ETFs are traded across a wide range of stock exchanges, off-exchange trading platforms, and OTC markets, allowing end investors multiple venues to transact their ETF units. The ability to trade in the secondary market is a key distinguishing feature of ETFs relative to traditional open-ended mutual funds that offer liquidity only at the end of the day. This additive liquidity can be observed during multiple episodes of extreme market volatility including:

- Global Financial Crisis (2008),
- European Debt Crisis (2010),
- US Treasury Downgrade (2011),
- Taper Tantrum (2013),
- Oil Sell-Off (2014),
- US High Yield Sell-Off (2015),
- Brexit Vote (2016),
- *Volmageddon* (2018),
- COVID-19 Market Sell-Off (2020), and
- Russia-Ukraine Conflict (2022)

The possibility of AP arrangements breaking down due to market events remains extremely remote. An influential study by the Financial Conduct Authority (FCA) found more APs entering the market during periods of heightened volatility and elevated ETF redemptions.⁷ Owing to a large and diversified group of APs and market makers, multiple trading venues, the resiliency of ETF secondary markets, and ability to return assets to clients in a number of different ways, we believe EU domiciled ETFs are a robust collective investment vehicle and the requirements of direct redemption less meaningful for individual investors.

11. Do you agree that the examples above are the key considerations related to potential conflicts of interest? In addition to the above, are there any other potential conflicts of interests associated with ETFs that warrant careful considerations?

12. What additional good practices have been put in place to help mitigate conflict of interests between the ETF manager and other stakeholders?

Response to Q11 and Q12:

⁷ See Financial Conduct Authority (FCA), [Fixed income ETFs: primary market participation and resilience of liquidity during periods of stress](#), August 2019.

BlackRock acts in its capacity as an investment manager, promoter, and securities lending agent of ETFs, and does not act as an AP, a swap counterparty, or a liquidity provider. BlackRock operates a multi-AP/MM model for its ETFs and doesn't have any intra-group affiliations with these liquidity providers and index managers which may result in any conflicts of interest in the fiduciary management of our ETFs in the best interest of investors. Furthermore, we manage our ETFs in strict compliance with existing regulations aimed at mitigating conflicts of interest, including the Irish rules on connected party transactions, and the index eligibility requirements applicable to UCITS ETFs and the EU Benchmarks Regulation.

In the US, there are a multitude of laws and regulations already in place that address conflicts of interest. For example, existing federal securities laws adequately address any special concerns that self-indexed ETFs present, including the potential ability of an affiliated index provider to manipulate an underlying index to the benefit or detriment of a self-indexed ETF. Additionally, funds' policies and procedures on creation/redemption baskets (including custom baskets), as well as the federal securities laws and regulations that prohibit manipulative practices and misuse of public information, would address any concerns regarding overreaching and similar abusive practices by broker-dealers affiliated with the ETF or its advisor.

We agree with IOSCO's observation that ETF issuers should be able to manage their conflicts of interests where group entities act in multiple capacities. These potential conflicts and relevant risks should be appropriately disclosed to investors so that investors can make an informed decision. Some of the risks associated with group entities acting in multiple capacities could also be reduced or mitigated, especially where an ETF has multiple APs that include APs outside the group so that there is increased competition.

Disclosure

13. What additional good practices in disclosure have been put in place to help investors better understand (i) the risks and vulnerabilities of an ETF's arbitrage mechanism; and (ii) the specificities of ETF investment strategies?

Disclosures regarding arbitrage and secondary market trading:

The SEC's ETF Rule requires robust website disclosure requirements as a condition of the Rule. These requirements are designed to provide investors with key metrics to evaluate their investment and trading decisions in a format that is easily accessible and frequently updated. Specifically, under the Rule, the following information must be disclosed publicly and prominently on the ETF's website:

- NAV per share, market price, and premium or discount, each as of the end of the prior business day

- A table and chart showing the number of days the ETF's shares traded at a premium or discount during the most recently completed calendar year and calendar quarters of the current year
- For ETFs whose premium or discount was greater than 2% for more than seven consecutive trading days, disclosure that the premium or discount was greater than 2%, along with a discussion of the factors that are reasonably believed to have materially contributed to the premium or discount; and
- Median bid-ask spread over the most recent thirty calendar days.

Specificities of ETF investment strategies / underlying asset classes:

For iShares ETFs, an overview of the fund's investment objective is available on the fund's website. A more detailed description of the fund's investment strategy is clearly disclosed in the fund's fact sheet and prospectus, both of which are also available on the fund's website.

Beyond product-specific information, BlackRock hosts an "Education" section on its website to share additional materials on investment strategies spanning a breadth of asset classes. Importantly, iShares has also undertaken efforts to advance an Exchange Traded Product (ETP) classification system to help investors and the professionals who engage with them (including advisors and broker-dealers) complete a more thorough due diligence process when investing in exchange-traded products that have more complex elements, like the use of leverage to deliver a return that is a multiple of the index the fund tracks.⁸

14. Have the examples above captured the fees and costs associated with ETFs that are important considerations to investors?

15. What additional good practices in disclosure have been put in place to help investors better understand their cost of investing in the ETF?

BlackRock believes that ETF investors should have access to information regarding the potential trading costs associated with their ETFs. The principal transaction costs involved in purchasing (or selling) ETF shares are (a) any brokerage charges imposed by the investor's broker for effecting a transaction (which are established by the broker, not the ETF or its sponsors), (b) the spread (which is established by market makers, not the ETF or its sponsor), and (c) on larger transaction, the market impact of the transaction (which is established by the market, not the ETF or its sponsor). Like other investments, ETF investors may have to pay capital gains taxes when they sell ETF shares at a profit.

⁸ See letters submitted by BlackRock and a coalition of other leading asset managers to US stock exchanges in May 2020, [available at: letters-to-exchanges-regarding-etp-classification-051320.pdf \(blackrock.com\)](https://www.blackrock.com/letters-to-exchanges-regarding-etp-classification-051320.pdf)

As noted above, the SEC’s ETF Rule requires daily website disclosure of the ETF’s median bid-ask spread over the last thirty calendar days. While the published bid-ask spread may not reflect an individual investor’s actual spread, which will depend on the execution strategy employed by an intermediary, the size of the order, or other factors, disclosure provides a helpful tool for investors making better informed trading decisions.

16. What additional good practices in disclosure have been put in place to help investors differentiate (i) ETFs from other ETPs / CIS; and (ii) conventional ETFs from other more complex ETFs?

As the number of ETFs has increased, so has the number of more structurally complex exchange traded products (ETPs), including ETPs with different risk profiles and more narrowly tailored investment objectives. Examples of these products are exchange-traded notes (ETNs) and levered and inverse products. While “ETF” has become a blanket term for any product that offers exchange-tradability, many products labelled as “ETFs” have distinct elements, like the use of leverage to deliver a return that is a multiple of the index the fund tracks or, in the case of exchange-traded notes, exposure to the creditworthiness of the issuer of the underlying debt.

We believe a clear-cut naming convention will better serve investors by providing greater clarity on the specifics of these products as well as help regulators focus their efforts. Furthermore, an ETP classification system could also assist regulators in developing appropriate regulations and brokerage platforms in implementing point-of-sale guardrails. BlackRock has advocated for an ETP classification framework that can be used globally to add more consistency in the identification and categorization of ETPs.

For example, in the US, BlackRock has partnered with an industry coalition of leading ETP sponsors, in asking the US stock exchanges to oversee the implementation of an ETP classification system.⁹

Additionally, there have been regulatory proposals around the world whose aims align with BlackRock’s efforts.

In March 2022, the US Financial Industry Regulatory Authority (“FINRA”) issued Regulatory Notice 22-0833,¹⁰ which seeks notice and comment on:

- sales practices for complex products and options, particularly when retail investors are involved
- whether the current regulatory framework (which was adopted at a time when most individuals accessed financial products through financial professionals, rather than

⁹ See letters submitted by BlackRock and a coalition of other leading asset managers to US stock exchanges in May 2020, available at: [letters-to-exchanges-regarding-etp-classification-051320.pdf \(blackrock.com\)](https://www.blackrock.com/letters-to-exchanges-regarding-etp-classification-051320.pdf)

¹⁰ See Notice 22-0833 available at <https://www.finra.org/rules-guidance/notices/22-08#notice>

through self-directed platforms) is appropriately tailored to address current concerns raised by complex products and options

In a comment letter,¹¹ BlackRock commends FINRA for their effort to increase awareness around the risks and structural features of complex products but encourages them to limit advancing any sales practices relating to “complex products” until there is a clear, consistent definition of the term or a clear categorization of ETPs that may have differing risks and complexities. We also recommend that any rulemaking align with the disclosure-based regime that governs US markets today.

ASIC has also recently issued a consultation in Australia on ETP naming convention, aimed to reduce confusion and help end investors differentiate ETPs based on associated risks. ASIC in its consultation proposed a two-level naming convention, highlighting first the product type and second its specific risks or strategies. Consultation conclusions are due to be published later this year, however, we agree with ASIC’s view of simplifying ETP naming to reduce confusion amidst variety of ETPs make it easier for end investors to differentiate different product risks and complexity based on the ETP label.

Liquidity provision

17. Please describe how ETFs’ trading or market making activity is monitored by regulators and trading venues. Does monitoring enhance the secondary market liquidity of ETFs? What are the key metrics that should be monitored and what are the appropriate follow-up actions?

In the US, the following requirements and rules all contribute to enhancing secondary market liquidity and investor protection. However, the below could all be improved in some way or another. Follow-up action would be to convene industry group to brainstorm ways to modernize the current rules.

- Registered Market Making requirements help maintain adequate minimum capital and continuous, two-sided identified and displayed quotes for all registered securities during Core Trading Hours (9:30 a.m. to 4:00 p.m. ET). They also clear and settle transactions through a registered clearing agency. Exchanges also monitor for lack of quoting activity, clearly erroneous, or aberrant trades. There is extensive data kept on Registered Marketing Makers (RMMs) and the tickers they’re active in including spread, depth, time at inside, and auction participation.
- Lead Market Makers (LMMs) have enhanced quoting obligations compared with RMMs. In return for meeting enhanced quoting obligations, LMMs have a fee structure superior to other market participants trading on an exchange. As with RMM’s, exchanges have extensive data tracking LMM activity to ensure they are meeting requirements.

¹¹ See BlackRock comment letter to FINRA notice 22-0833 available at https://www.finra.org/sites/default/files/NoticeComment/BlackRock_5.9.2022_Comment%20on%20FINRA%20Notice%2022-08.pdf

- Auction collars mitigate extraordinary market volatility in the opening and closing auctions. These collars vary by exchange and they reevaluate their current collars and adjust based on data and participant feedback. Tightening collars to the 2-5% level would enhance investor protections.
- Trade Through protections promotes intermarket price protection of orders by restricting the execution of trades on one venue at prices that are inferior to displayed quotations at another venue. It requires trading centers to implement policies that are reasonably designed to prevent trade-throughs on protected quotations (quotations at the NBBO).

In Europe, the absence of aggregated market data and policy harmonisation creates two main challenges in monitoring secondary markets for ETFs. First, lack of a standardised framework of rules and policies governing inter-jurisdictional trading and settlement of ETFs. Second, high costs associated with monitoring the market quality of ETF trading which are incurred and duplicated across exchanges, regulators, issuers, and investors. To improve the situation, we make the following recommendations of European market structure:

- Prioritise the development and implementation of a real-time, low-cost consolidated tape for equity market. ETFs must form part of the equity tape.
- Price and volatility control mechanisms implanted by exchanges should provide a fair and predictable balance between price discovery and constraining auctions that seek to protect for longer periods during high volatility. Furthermore, we recommend that these processes must be fully automated.

In Hong Kong, the regulator publishes reports which highlight breaches by market makers to satisfy minimum obligation. These reports create accountability for market makers to ensure efficient liquidity provision. Exchanges globally should provide data to ETF issuers on quality of market making and liquidity provision by market makers for their products. This will create transparency and provide accountability for market makers and issuers to work together on quality of on-screen liquidity on an ongoing basis and work towards solutions to improve the liquidity provision for the market.

18. What rules are there to govern the cessation of liquidity provision by a MM? Do they minimize the impact to the secondary market liquidity of an ETF? What additional good practices have you considered in this regard?

In the US, while there are incentive programs to entice MMs to quote continuously, there are no legal obligations to do so. If a market maker stops quoting, then they risk being deregistered as a MM for that ticker on the exchange. We are supportive of incentive programs and believe they are effective tools to entice continuous quotes.

Volatility control mechanism

19. *What are the key parameters that regulators and/or trading venues should take into account in calibrating the format of VCMs and the relevant thresholds applicable to different types of ETFs?*

We welcome IOSCO's call for enhancing the effectiveness of VCMs, including their calibration across competing jurisdictions. This is especially relevant for European ETF markets where trading remains highly fragmented across multiple execution venues in different countries, subject to national rules and regulations. Any changes to the design and usage of VCMs should be based on the objective of creating a more harmonized, transparent, and resilient trading ecosystem for end investors.

To enhance the efficacy of VCMs in Europe, we suggest:

- Create a level-playing field across client segments and jurisdictions through harmonisation of trading rules applicable across competing venues.
- VCMs should be based on reliable and transparent metrics.¹²
- The operating procedures governing VCMs, and the auction processes must be fully automated.
- We recommend the adoption of dynamic auction collars by exchanges across Europe).
- European regulators and industry must collectively prioritise the delivery of low-cost, real-time market data for investors.

In the US, there are three different protections designed to address different circumstances:

- Market Wide Circuit Breakers (MWCBS) halt stocks when the market suffers excessive declines in one day. Unless this occurs too close to the close, the market reopens with auctions after a 15-minute pause. The market experienced four MWCBS during the COVID selloff in March 2020.

¹² Here we would like to highlight the use of iNAV's in certain European jurisdictions. As highlighted in our response to question 5, the use of iNAV benchmarking for VCMs, is susceptible to accuracy and reliability issues arising from stale or non-transactable pricing of underlying securities. This is especially true for ETFs holding less frequently traded securities such as corporate bonds, emerging market debt, or international equities which may trade in different time zones compared to the ETF units. In fast moving markets, ETF prices are more likely to reflect the true market clearing price of the underlying holdings. Any decision to halt ETF trading, based on divergence between ETF's exchange price and its iNAV, may result in unfair trading outcomes and/or limit market access for some investors.

- Limit Up/Limit Down (LULD) is designed to stop excess volatility in a single stock. When a market price hits a guardrail above or below recently traded prices, the stock is put in a “limit state,” where additional momentum is paused, but new reversion orders can bring the stock price back within the bands. If the limit state persists for 15 seconds, the stock is halted for 5 minutes and reopened with an auction.
- Clearly Erroneous (CE) rules allow for single executions to be busted. The trade must occur with price or shares that meet the definitions (set by the exchanges) of clearly erroneous.

Importantly, these guardrails, which apply to single stocks as well as ETFs, are harmonized across the US trading exchanges. As regulators continue focusing on developing market mechanisms to stabilize markets during periods of stress, it is crucial that volatility controls are properly calibrated to strike the right balance between preventing aberrant trades and unnecessarily impeding market access or interfering with price discovery.

20. What additional good practices related to design or implementation of VCMs have you been put in place?

In the US, volatility guardrails continue to evolve post-August 24, 2015. Beyond harmonizing LULD and MWCB rules across US listing exchanges, in 2020, the CME aligned overnight futures limit-down thresholds with MWCB triggers.