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Submitted via email to: fundspolicy@centralbank.ie

Re: Central Bank of Ireland Discussion Paper 6 on Exchange Traded Funds

BlackRock is pleased to have the opportunity to respond to Discussion Paper 6 on Exchange Traded Funds (ETFs) issued by the Central Bank of Ireland (CBI). BlackRock supports a regulatory regime that increases transparency, protects investors, and facilitates responsible growth of capital markets while preserving consumer choice and assessing benefits versus implementation costs.

BlackRock welcomes the approach taken by the CBI in seeking informed views on Exchange Traded Products (ETPs), of which ETFs form an important subset. ETPs have become an increasingly popular investment option for investors and a key component of global stock markets. BlackRock believes that well-structured ETPs can be highly beneficial both to investors and securities markets, but that – given the breadth of products referred to as ETPs – certain types of ETPs raise issues that deserve further consideration by the CBI and ultimately, the International Organization of Securities Commissions (IOSCO).

Our general comments briefly highlight three important concepts, which underpin an understanding of ETPs and provide a framework for our subsequent answers to the CBI's specific questions. We first highlight how the ETP "arbitrage mechanism" is a fundamentally important concept to maintain the market price of ETP shares near the fair value per share of the ETP. Secondly, we discuss the relationship between premiums, discounts and price discovery. Finally, we discuss ETP naming conventions, and why the CBI could consider a systematic classification and labelling scheme that better distinguishes the different types of ETPs, and their highly varied structural risks, for investors.

Our responses to the specific questions in the Discussion Paper are set out in the attached annex.

General Remarks

I. The Arbitrage Mechanism

The so-called "arbitrage mechanism" – the incentive for large financial institutions to buy ETP shares when those shares trade at a discount to the ETP's intrinsic value and to sell ETP shares when those shares trade at a premium to an ETP's intrinsic value – is critical to understanding ETPs.

Like closed-end funds, ETPs can be bought or sold intraday on an exchange at a market-determined price. Exchange transactions directly between buyers and sellers provide each with liquidity without requiring the ETP to buy or sell holdings. Unlike closed-end funds, however, ETPs incorporate a mechanism for keeping the market price within close range of the ETP's NAV by adjusting the supply of available shares based on investor demand.

Most ETP investors can trade shares only on the exchange. Nonetheless, a small group of investors, known as Authorised Participants (APs) can trade directly with an ETP. APs are sophisticated institutional trading firms that enter into a contract with the ETF specifying rules for creating and redeeming ETP shares. APs are not agents of the ETP – they are not required to create or redeem ETF shares under any circumstances, and only do so when it is in their interest. Some APs act only on their own behalf, while others may act as agents for a variety of clients.¹

¹ See BlackRock ViewPoint (2017) A Primer on ETF Primary Trading and the Role of Authorized Participants. Available at <https://www.blackrock.com/corporate/en-at/literature/whitepaper/viewpoint-etf-primary-trading-role-of-authorized-participants-march-2017.pdf>.

II. Premiums, Discounts and Price Discovery

The fact that an ETF's shares may trade at a price higher or lower than the ETF's most recently calculated NAV is sometimes viewed as a failure of ETFs. Premiums and discounts that result from comparing an ETF's most recently calculated NAV to its current exchange price may occur for a variety of reasons, some of which result from real market supply-and-demand forces at work and others which result from timing gaps or other small differences between NAV calculation and exchange pricing. We therefore do not consider that the existence of a small premium or discount is necessarily a meaningful indicator of deviation from fair value.

For example, during periods of bond market volatility, fixed income ETFs may exhibit larger-than-usual discounts to their most recently calculated NAV. At the height of the Financial Crisis (October-November 2008), several large fixed income ETFs experienced discounts of as much as 8% to 11%.² Some observers – including sophisticated users of fixed-income ETFs – believe such discounts result from “problems” with “the ETF arbitrage mechanism if liquidity in a bond market begins to deteriorate” because “reduced liquidity creates a larger risk for APs who . . . increase the spread between the ETF price and NAV.”³ While some market participants are no doubt more reluctant to take on risk in a stressed market, these periods of market stress illustrate how ETFs function as price discovery tools when underlying markets are not trading normally.

The volume of exchange trading in fixed income ETFs tends to spike when markets reprice fixed income assets. For example, during the Financial Crisis, as liquidity in corporate bonds traded over-the-counter deteriorated in June 2008, the iShares iBoxx \$ Investment Grade Corporate Bond ETF (LQD) continuously traded on exchanges in an orderly manner and more than quadrupled volume. Similarly, the so-called “Taper Tantrum” in the summer of 2013 followed an unexpected announcement by the Federal Reserve that it intended to cut back its ongoing program of repurchasing bonds, sparking widespread fear of rising interest rates. Bond prices fell steeply during 18-19 June, followed by a rebound the following week. During the selloff, volume in the iShares iBoxx \$ High Yield Corporate Bond ETF (HYG), the largest U.S. high yield bond ETF, rose to as high as 25% of the underlying high yield bond market.²

The discount widening observed during these periods results from two separate phenomena:

- *ETFs are priced in real time, NAVs are not.* ETF share prices and NAV incorporate new information differently. ETF shares price on an exchange, where they are set intraday by actual transactions between willing buyers and sellers. They are, therefore, able to move quickly to incorporate new information and reflect prevailing market conditions. NAV, in contrast, is calculated once daily based on known previous transactions or model-based estimates of fair value, which may be difficult to capture accurately when prices are falling and bonds are trading infrequently.⁴ Fixed income ETF NAVs are backward-looking and necessarily adjust to new price information with a lag, whereas fixed income ETF share prices are forward-looking and incorporate new information quickly and dynamically. In comparisons between ETF closing share prices and NAV on which premium/discount data is based, the ETF closing share price reflects all information then currently known in the aggregate by market participants, while the NAV reflects only the information then currently known (and able to be reflected in valuations) by the persons involved in determining the NAV. Fixed income ETF share prices therefore tend to “lead” other indications of bond values, providing insight into the true level of the market for the underlying securities.⁵ By allowing market participants to set a price for a basket of securities, many of which may not be trading, ETFs permit price discovery.

² The data provided references data relating to US domiciled ETFs as equivalent data is not available in relation to European domiciled products. From our market observations however, we would expect the market to operate in a similar manner in relation to similar European domiciled products.

³ Rick Ferri, *Solving the Bond ETF Discount Problem*, Forbes (Jun. 27, 2013), available at <http://www.forbes.com/sites/rickferri/2013/06/27/solving-the-bond-etf-discount-problem/>.

⁴ The IIV (or INAV or IOPV), an intraday indication of intrinsic value disseminated through an exchange, is typically also calculated using stale or model-derived values and has similar issues.

⁵ This is consistent with findings in academic literature that deviations between an ETF's secondary market price and its underlying portfolio value often result from price-changing information affecting ETF share prices before it is reflected in the prices of the ETF's underlying holdings. The deviation then results in the price sensitive information being transmitted to the prices of the ETF's underlying holdings through the ETF's arbitrage mechanism, as market professionals buy or sell the underlying holdings (or correlated assets) in response to the changing ETF secondary market price. See Lei Yu, *Basket Securities, Price Formation and Informational Efficiency*, Department of Finance, Mendoza College of Business, University of Notre Dame (Nov. 2003, revised Mar. 25, 2005), available at <https://gates.comm.virginia.edu/uvafinanceseminar/2006-Yu%20paper.pdf> at note 11, as well as other studies cited therein. See also Joel Hasbrouck, *Intraday Price Formation in U.S. Equity Markets*, The Journal of Finance (Dec. 2003).

- *Liquidity has a cost.* When sellers of shares exceed buyers, the price of the shares on the exchange declines. This is the normal means for balancing supply-and-demand for equities. In stressed bond markets, market participants seeking to reduce bond exposure may seek to sell ETF shares because it is easier, quicker and more certain than seeking to sell large amounts of individual bonds, many of which may have no bids. When selling demand is concentrated in an ETF's shares, those shares will decline in price to a level that attracts willing buyers. This selling activity may drive the ETF share price to a level below some indications of "fair value". It nevertheless represents the market's price for *current liquidity*, as ETF arbitrage requires APs and other market participants to sell bonds or equivalent exposures at *currently realizable* prices in order to hedge risk to any ETF shares purchased. We therefore see reasonable discounts in stressed markets as an indication that the arbitrage mechanism is functioning, not of "deterioration".

In summary, ETFs provide insight into the prices at which an ETF's underlying assets can really match willing buyers with willing sellers, and the direction of those prices. This price discovery attribute is an important benefit of ETFs. ETF premiums and discounts typically occur in connection with valid price discovery, and a well-functioning arbitrage mechanism will cause the premium or discount to revert to normal levels when excess demand for shares (premiums) or liquidity (discounts) either is satisfied or dissipates.

III. The Need for Improvements in ETP Classification

While all ETPs share certain characteristics, including exchange-tradability, "ETF" has become a blanket term describing many products that have a wide range of different structures and risks, which has led to a great deal of confusion. Not only are ETFs different from other types of ETPs, the various types of ETPs have different structural risks that are masked by use of a common descriptor. Agreement on a common taxonomy would improve investors' ability to understand and analyze the risks of individual ETPs.⁶ The ETP industry today could do even more to explain the structural risk differences among ETPs consistently, in our view.

Naming conventions are quite important, especially in a regulatory context. In 2011, BlackRock introduced an ETP classification system⁷ based on risk-based distinctions and has four sub-types of ETPs. Whilst this convention resonates with investors and has been voluntarily adopted across the industry, regulation lags in this regard with the SEC, ESMA and IOSCO only partially recognizing the variance across ETPs.⁸

BlackRock's Recommended Classifications for ETPs

ETP	Exchange Traded Product	<ul style="list-style-type: none"> • Catch-all term for any portfolio exposure product that trades on an exchange. • ETFs, ETCs, ETNs, and ETIs, are all subsets of ETP.
ETF	Exchange Traded Fund	<ul style="list-style-type: none"> • ETFs are publicly-offered investment funds that trade on an exchange. • ETFs can track a specific index or employ active strategies (via a transparent basket) that meet diversification and liquidity thresholds set by regulators and exchanges. • ETFs' underlying securities can include stocks, bonds or other investment instruments (e.g., bank loans). • As noted below, this category should exclude funds with embedded leverage or inverse features. • According to the 2014 ESMA Guidelines, only ETPs registered as UCITS can use the ETF label.

⁶ It is frequently difficult for investors to compare even structurally similar ETPs. For example, various market data services, electronic trading systems, broker-dealers and sponsors of fixed-income ETFs have historically each reported basic metrics such as yield, spread and duration using their own proprietary calculations. This has made it difficult to compare fixed income ETFs to other fixed-income investments, as well as to each other. A number of leading market participants have recently come together to promote a common reporting standard. See Alastair Marsh, *BlackRock, State Street Seeking ETF Standards for Trading Boost*, Bloomberg (Jul. 27, 2015), available at <http://www.bloomberg.com/news/articles/2015-07-27/blackrock-state-street-seeking-etf-standards-for-trading-boost>.

⁷ Hearing on Market Microstructure: Examination Of Exchange-Traded Funds Before the Committee On Banking, Housing, And Urban Affairs Subcommittee On Securities, Insurance, And Investment 112th Cong., (2011) (statement of Noel Archard, CFA, BlackRock, Inc., Managing Director, Head U.S. iShares Product), available at http://www.banking.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=8e26e5d6-2f02-4ca5-9698-dfb66228d9af ("Archard Testimony").

⁸ See for e.g., ESMA Guidelines on ETFs and other UCITS issues ESMA/2014/937; IOSCO's Principles for the Regulation of Exchange Traded Funds (<http://www.iosco.org/library/pubdocs/pdf/IOSCOPD414.pdf>); SEC, Request for Comment on Exchange-Traded Products (Jun. 12, 2017); available at <https://www.sec.gov/rules/other/2015/34-75165.pdf>.

ETN	Exchange Traded Note	<ul style="list-style-type: none"> • Debt instruments that provide an index-based return. ETNs may or may not be collateralized, but depend on the issuer’s solvency and willingness to buy and sell securities to deliver fully to expectations. • As noted below, this category should exclude notes with embedded leverage, inverse features or options.
ETC	Exchange Traded Commodity	<ul style="list-style-type: none"> • A variety of fully-collateralized legal structures that are not ETNs but seek to deliver the unleveraged performance of a commodity, or basket of commodities. • Some ETCs may hold physical commodities, while others invest in commodity futures. • ETCs that invest in commodity futures may raise special issues because futures do not precisely track spot commodity prices.
ETI	Exchange Traded Instrument	<ul style="list-style-type: none"> • An ETI is any ETP that has embedded structural features designed to deliver performance that will not track the full unlevered positive return of the underlying index or exposure (that is, products that seek to provide a leveraged or inverse return, a return with caps on upside or downside performance or “knock-out” features).

A standard classification system as proposed above would help both policy makers and investors better understand the structure of various ETPs and home in on where further analysis of issues may be warranted.

For purposes of this paper, our focus is on ETFs that are index vehicles, rather than active ETFs (unless specifically stated otherwise). We encourage the CBI to continue to engage with the industry in order to add the practitioner’s perspective to the conversation along with that of investors, policy makers and academics.

Please do not hesitate to contact us with any questions or clarifications.

Sincerely,

Gary Rahill
Director, Legal & Compliance

Stephen Fisher
Managing Director, Global Public Policy Group

Annex: Responses to Discussion Paper Questions

Section I

A. *Is public disclosure of the identity of APs and OLPs of an ETF of benefit and should regulators have a clearer view of the interconnectedness of the AP / OLP ecosystem? Should remuneration models of OLPs (and if relevant APs) be disclosed?*

Whilst regulators currently do and should continue to receive details of a given ETF's arrangements, we question if there would be any benefit from public disclosure of the APs and/or OLPs. Quite often these liquidity providers will be APs to the ETF but that is not always the case. Whilst the naming of APs may provide some level of transparency we believe it will also create the incorrect impression that these are the only providers of ETF liquidity. Anecdotally, since BlackRock ceased to publish the list of APs supporting its range of ETFs five years ago, there hasn't been a request from end-investors for the full list of APs. The identity of OLPs are generally disclosed by the various European Stock Exchanges.

By way of background, there is typically a wide range of ETF liquidity providers - ETFs in Europe are traded on a number of stock exchanges, multi-lateral trading facilities (MTFs) and over-the-counter (OTC) venues and liquidity providers include exchange market makers who may be registered or unregistered (referred to as OLPs in the CBI discussion paper) as well as a range of broker dealers who may be part of global investment banks, as well as regional banks. These entities will seek to provide liquidity on the various trading platforms described above. ETF investors will either trade on a named basis with those parties or liquidity will be provided on an anonymous basis (which is generally the case on a stock exchange). Public disclosure of APs and OLPs could have the effect of limiting additional liquidity support of an ETF, and absent detailed guidance notes around such disclosures, the scope for misinterpretation of changes to the list of APs / OLPs could be significant.

The extent to which an arrangement between an ETF and an OLP will provide additional liquidity, particularly in stressed market conditions, will ultimately be dependent on the terms of the agreement between such an ETF and an OLP. The effective and continuous provision of ETF liquidity is supported by the following:

- A multi-AP model provides a robust and competitive primary market. The bulk of the AP/market making relationships should be independent entities to ensure a robust operating environment.
- An automated order taking system decreases operational risk for APs and ensures that APs can effectively process multiple creation and redemption orders in volatile markets.
- Multiple on-exchange liquidity providers.
- The implementation of market surveillance tools in order to monitor market quality. This is in addition to the market surveillance tools that stock exchanges use to monitor their markets. In our view, stock exchanges across Europe should have harmonised trading rules to foster a robust on-exchange trading environment.

Finally, remuneration models between ETF issuers and Liquidity Providers are private commercial arrangements that would not benefit from public disclosure.

B. *Transparency is described as the feature which enables a tight secondary market price (by comparison to net asset value) to be maintained. It also provides certainty to investors in terms of exposure achieved through the ETF. It might be the case that there are other mechanisms which achieve the same goal as transparency? If ETFs are not transparent does this have unintended consequences?*

BlackRock believes that transparency with reference to the underlying securities held by the ETF and the ability to effectively arbitrage the ETF are the most effective means to ensure that the price of an ETF stays in line with the underlying holdings. The arbitrage mechanism of ETFs, facilitated by the ability to create/redeem each trading day, helps keep the ETF's market prices close to the value of the ETF's underlying holdings. The creation of new shares and the redemption of existing shares are generally initiated by APs when there is an imbalance of orders to buy or sell ETF shares that cannot be met by the secondary market. However, full transparency is strictly not required given effectively operating an active ETF involves restricting access to portfolio transparency to the exchange (for the iNAV) and to a designated AP or APs. These parties are contractually bound to not divulge proprietary information.

Liquidity providers will source the holdings from the issuer or a data provider. This will allow the liquidity provider to value the ETF and construct an effective hedge when trading the ETF. The open-ended nature of the ETF means

that when an ETF is trading at a meaningful discount the liquidity provider may buy an ETF to earn arbitrage profits and redeem the shares. This profit would be locked in by selling the underlying assets or a highly correlated security. For an ETF trading at a premium, the AP may do the opposite by selling the ETF short and buying the underlying securities or an equivalent derivative.

It should be noted that ETFs trade at premiums or discounts to their NAV for a number of reasons:

- When the ETF holds securities that do not trade at the same time as the ETF itself, there will be timing differences between the values used to calculate NAV and the market price. This is very common with ETFs that hold non-European securities, but also affects bond ETFs (because the most recent trade for certain bonds in the portfolios may not be near the market close).
- A bond ETF may value bonds at the bid price, while the secondary market may value the ETF shares at the bid price, the offer price, or somewhere between. This is one reason why small premiums are common for bond ETFs.
- The market price is based on supply and demand. Sometimes there is more of one than the other, causing a premium or discount. This is usually temporary but during periods of market volatility, gaps between the prices at which buyers are willing to buy and the prices at which sellers want to sell can widen until a new price equilibrium is established.

C. *Is the idea of secondary market investors dealing directly with an ETF when the AP arrangements breakdown unworkable in practice or unnecessary? Is there a better way of enabling secondary market investors to dispose of their ETF shares at a price close to the next calculated net asset value when secondary market liquidity is impaired?*

It is impractical for secondary market investors to deal directly with an ETF. That said, it is extremely unlikely that no APs would be available.

BlackRock advocates a multi-AP model for its ETF range. The range of liquidity providers span the full range of banks, investment banks and proprietary trading firms across a variety of jurisdictions. In addition, ETFs are traded across a wide range of stock exchanges, trading platforms and OTC markets.

The possibility of AP arrangements breaking down in this market is extremely remote. For example, in August 2012, a major AP counterparty, Knight Capital Group, suffered a material trading loss causing that entity to discontinue trading while it sought to restructure. Liquidity was completely uninterrupted when the trading loss was made public with different APs stepping in to provide liquidity.

It is also instructive to look at stressed markets. The unexpected Brexit referendum result in the United Kingdom, which became clear on 24 June 2016 resulted in extremely stressed markets. Equity indices fell approximately 10% and some sectors sold off almost 20%. In addition, Sterling had one of its largest historic intraday falls.

Despite this significant volatility, an ETF was the 7th most traded security on the London Stock Exchange with a record day on the London Stock Exchange for ETFs. In stressed markets investors are increasingly turning to ETFs and liquidity providers are intermediating that flow.

The CBI correctly identifies the challenges with modern settlement systems. In general, securities are held in nominee names and in Europe we often observe several layers of intermediation (including other central securities depositories (CSDs)). The identification of beneficial owners is, therefore, operationally complex for ETF issuers. Redemption requests would require additional validation and positions would have to be settled with the ETF administrator before redemption proceeds could be honoured. This would result in delays in processing redemption orders on an ongoing basis.

A large and diversified group of APs and market makers, multiple trading venues, the ability to return assets to clients in a number of different ways such as the distribution process means that an ETF is a robust collective investment vehicle.

D. Should ETFs warn investors that the ETF may temporarily become a closed-ended fund in certain market conditions? Would requiring an ETF to remain open-ended in a stressed market be disadvantageous to existing investors or have other unintended consequences?

End-investors, should in our view, be made aware that by their very nature, ETFs incorporate aspects of open-ended and closed-ended funds. ETFs are similar to closed-ended funds in that the value of the ETF shares can trade at a premium or discount to the value of the fund's underlying securities (NAV). The way that an investor accesses the shares of an ETF is also similar to that of a closed-end fund in that the ETF shares are acquired by the investor on an exchange and not through a direct transaction with the fund. The fact that an ETF share can trade at a premium or discount to the ETF's NAV and that its shares are acquired on exchange should be (and already is) disclosed to investors.

The ability for funds to use other types of liquidity risk management tools should be clearly disclosed to investors in relevant fund documentation. The manner in which firms expect to deploy the tools at their disposal can result in different outcomes for investors. BlackRock would welcome the development of guidance from the CBI on standardising disclosures across open-ended funds, to assist investors in comparing funds and understanding liquidity risks and mitigating tools in a standardised format.

Operation of an ETF where the underlying securities market is closed during normal course of business:

The ETF structure is designed to provide intra-day liquidity often when the underlying market is closed. For example, a European domiciled ETF that holds Asian equities will continue to trade throughout European market hours even though the underlying securities market is closed. We also see examples where underlying markets are closed for extended periods of time because of national holidays. In those circumstances, ETFs continue to trade in the secondary market. Market makers use sophisticated hedging techniques in order to mitigate their risk during these periods. It has to be recognised that providing liquidity when underlying markets are closed carries greater risk to the liquidity provider and spreads (the difference between the bid and offer price) will reflect this.

Operation of an ETF in circumstances where the underlying securities market is suspended:

We observed two different approaches to managing ETFs during the summer of 2015 when the Greek Stock Exchange was closed for over a month. A US issuer of a Greek equity ETF allowed the ETF to continue trading in the secondary market even though the primary securities market was closed. The ETF became a valuable source of liquidity and the ETF acted as a price discovery tool during this time. A European issuer of ETFs with a similar product suspended the product on both the secondary and the primary market.

BlackRock believes that the suspension of the primary market should not automatically result in suspension of the ETF on the secondary market. The secondary market in that ETF should be orderly with spreads and depth commensurate with the level of dislocation in the market. An effective surveillance tool is important in assessing that market quality. BlackRock recognises that market makers do not "support" a market and stock exchange obligations may not always be adequate to ensure an orderly market.

Effective stock exchange trading rules are also important in maintaining orderly markets. The consistent application of trading rules across Europe would foster provision of liquidity especially in stressed markets.

A key facet of the primary market process is that an AP creating or redeeming in an ETF has to bear the cost and implied liquidity cost of that transaction. The costs may include but are not limited to the bid-offer spread in the underlying securities, taxes, settlement charges and commissions. This mechanism reduces the risk that parties actively trading an ETF requiring primary market liquidity might adversely impact investors in the ETF. ETFs therefore, are unlikely to be subject to "run risk" or "first mover advantage". This mechanism generally is effective in all market conditions, even in extremely volatile market conditions. That said, extreme liquidity concerns or market suspensions may necessitate primary market suspension.

A lack of liquidity does not in itself change the structure of an ETF from an open-ended fund to a closed-ended fund. Just as with any open-ended mutual fund a suspension of dealing is a liquidity management tool (albeit of last resort) the implementation of which does not change the structure of an ETF. The risk of suspension of dealing is disclosed in the risk warnings section of an ETF prospectus and is a risk inherent in investing in all open-ended funds.

If there is no liquidity available then it is not possible to "require" an ETF to remain open in stressed market conditions and furthermore such a requirement may not be in the best interest of all investors. The manager of an

ETF will always allow dealing where possible and where this will not cause prejudice to investors, because to do otherwise would be contrary to the open-ended nature of ETFs and the UCITS Regulations. It would not, therefore, be appropriate for the CBI to impose some kind of support or liquidity regime on open-ended funds (including ETFs).

E. *Is it correct to permit share classes to be structured having regard to the operational concerns of APs and the impact this may have on secondary market pricing? Are there factors (other than those noted above) that could be relevant to ETF structuring?*

It should be permitted to alter the dealing cut-off between classes, for example, to reflect the operational challenges, such as hedged share classes, introducing time delays to the process. Differential cut-offs are permitted currently for cash versus in kind deals, so there is no logical reason why this approach could not be extended to other scenarios, such as hedged versus non-hedged class dealing cut-off. As far as share classes of UCITS ETFs are concerned, ESMA guidance is clear on what features and differentiators are permitted.

BlackRock uses a number of different APs on its ETF range and have not to date been requested to establish share classes, with bespoke operational features, specifically for APs. If this was requested, provided the features were acceptable within the relevant regulations and guidance, and appropriate given the interests of all investors, and are transparent (as highlighted in the Discussion Paper the legal shareholders of an ETF are generally not APs), we do not see why this should not be permitted.

In contrast, BlackRock has in the past created dealing arrangements on its ETFs that suit the specific needs of market makers/APs since this will ultimately result in a greater number of market makers and a better experience for secondary market investors. These arrangements are only provided where there is no prejudice to secondary market investors. As referenced previously, BlackRock advocates a multi-AP model for its ETF range.

F. *What are the benefits or disadvantages of permitting listed and unlisted share classes within the same investment fund? Do listed and unlisted share classes create unfairness as between investors in the same investment fund and if so, can these be mitigated or addressed?*

Guidance we have received from the CBI and external advisers in the past has been that there is no reason why a UCITS ETF could not offer both listed and unlisted share classes. This approach is also seemingly supported by the ESMA Guidelines on ETFs and other UCITS issues⁹:

“A UCITS ETF is a UCITS at least one unit or share class of which is traded throughout the day on at least one regulated market or Multilateral Trading Facility with at least one market maker which takes action to ensure that the stock exchange value of its units or shares does not significantly vary from its net asset value and where applicable its Indicative Net Asset Value.”

BlackRock has in the past offered non-ETF funds in Ireland which have both listed and unlisted share classes. We would suggest that it is not simply the case that offering both listed and unlisted share classes of a fund creates unfairness, rather it creates optionality where the features of the two access points are necessarily different. Investor understanding is, therefore, key. We list some benefits and disadvantages below:

Benefits

- Optionality for investors – a different entry point with the same investment objectives but with different characteristics, liquidity profile and risks.

Disadvantages

- Value – the pricing of unlisted share classes will depend on the underlying assets whereas the pricing of listed share classes will also depend on this but more importantly on stock exchange demand. There could be a large difference in value between the two share class types which may be confusing for investors or perceived to be ‘unfair’.
- Liquidity – the liquidity of unlisted share classes will depend on the liquidity of the underlying assets of the fund, whereas the liquidity of listed share classes is typically better by virtue of their listing. The liquidity profile can therefore be very different and so a scenario might arise where the listed share class

⁹ ESMA Guidelines on ETFs and other UCITS issues ESMA/2014/937.

investors can sell their investment whereas the unlisted share class holder cannot. Again this may be perceived as unfair.

- Mis-selling risk – the ETF will carry the “exchange traded fund” label so an investor might expect the asset they are buying to be listed, whereas the unlisted share class is not. This needs therefore to be carefully disclosed and managed.

In this context, it should be established that “fair” treatment does not necessarily equate to “equal” treatment – in other words, it is perfectly possible for consequences to be fair on all parties without them being equal in all respects. Provided there is adequate disclosure of the risks and consequences of opting for a particular class, then when those arise, there shouldn’t be an issue as to fairness of treatment – perhaps the appropriate test is whether the result is detrimental on a standalone basis for that particular class, not in comparison to the other class. Therefore, an unlisted class would not suffer detriment by virtue of it being in a fund with a listed class if it were established that the result is no worse than if the investors were in an unlisted standalone fund. An unlisted share class is inherently different from a listed share class and one of the key aspects is the trading mechanism – to align the trading mechanism would reverse/undermine the justification for a separate class.

Section II

G. *Are conflicts of interest rules effective for dealing with concentrations of activities within an ETF provider's financial group (e.g. group entities could act as promoter, investment manager, AP and swap counterparty or SFT counterparty)? Are other approaches worthy of consideration?*

BlackRock acts in its capacity as manager, investment manager, promoter and securities lending agent of ETFs and does not act as an AP or a swap/STF counterparty. We agree that ETF providers should be able to manage their conflicts of interests where group entities act in multiple capacities and such potential conflicts and relevant resulting 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 or counterparties that include other APs and counterparties outside the group so that there is increased competition. Nevertheless, it should be up to ETF providers to manage the benefits versus costs of having multiple APs and counterparties and to work out an effective balance. We do not think that regulations should stipulate any minimum or maximum number; ultimately the economics differ between ETFs.

H. *Are multiple counterparties necessary, or appropriate for ETFs? Could they expose ETFs to unintended risks and consequences?*

An effective multi-counterparty model reduces concentration by encouraging counterparty diversification and risk spreading. Therefore, we promote the use of multiple counterparties for ETFs. An ETF provider that builds a multi-counterparty model would also build an operating model that monitors and manages risk exposure to the counterparties and takes into account the extent of risk spreading between counterparties.

We also encourage the use of margin and collateral as an appropriate risk mitigant. Regarding the EMIR initial margin collateral requirement applying to each counterparty, this should work where each counterparty is not affiliated and we do not think there is an imperative need to change the law governing the obligation to exchange margin for multiple counterparties so long as they are not affiliated to each other. It could be argued that exposures to swap counterparties affiliated/related to each other should be aggregated since such affiliation is not promoting counterparty diversification or risk spreading.

I. *Some academic research suggests that if a synthetic ETF experiences counterparty default, the synthetic ETF is more likely to be able to deliver the performance of its underlying index if the collateral received is correlated to that index. Should collateral received (where a funded model is used) or securities purchased (where an unfunded model is used) be correlated to the index being tracked? Is this practical, particularly for example where the index tracked by an ETF is comprised of securities which may be relatively expensive to access? Is collateral quality sufficiently regulated and disclosed?*

This would depend on the constituents of the underlying index. Requiring an unfunded model to purchase securities, or a funded model to receive collateral, that are correlated to the underlying index may not be practical in a number of scenarios. For example, this may not be practical for certain types of index constituents, e.g. commodities futures, and certain types of collateral may have much higher haircut requirements. In addition, it may be more practical and efficient for certain synthetic ETFs to hold or receive securities or collateral that have a lower liquidity risk profile.

Section III

- J. Are active strategies appropriate for “housing” in an ETF structure and if so, is there a limit to the type of strategy that would be appropriate? If the ETF structure provides opportunities for managers to achieve scale is there a downside to this where the strategy is active (or, if scale is achieved, its potential impact is not otherwise capable of being ascertained)?**

The ETF wrapper has predominantly been used for long-only, market capitalisation weighted products. Today these types of funds still account for the vast majority (approximately 94% of all global and 97% of European ETFs)¹⁰ of assets under management. In the last few years, there has been considerable growth in assets in non-market capitalisation funds; these funds could be termed active in the sense that their constituents are weighted differently than their underlying market index. These newer funds include factor or smart beta funds that are rules-based and transparent as well as active funds based on security selection (e.g., fixed income). The driver behind the growth of active ETFs is that they offer active investors the traditional benefits of ETFs. These include a diversified portfolio at relatively low cost and intraday liquidity via trading on an exchange.

There are, however, some potential downsides of including active strategies in ETFs. First, the transparency of the ETF structure, including daily disclosure of portfolio composition, may not be consistent with an alpha strategy based on costly and scarce investment research/signals. Second, successful active strategies that are housed in a non-open-ended fund structure can manage their capacity. For example, successful hedge funds or active mutual funds can stop accepting new subscriptions if they feel they are at capacity, i.e., that further investment would erode alpha. In an ETF structure, the amount of shares outstanding is determined by investor demand, so capacity cannot be managed in this manner.

- K. Similar to the question posed in Section I, is portfolio transparency fundamental to the nature of an ETF or are there are other mechanisms which achieve the same goal as transparency? In the context of an active ETF, is transparency essential in order to achieve a liquid market and to facilitate efficiency in pricing?**

Portfolio and pricing transparency is the key to a successful ETF and is a principle underpinning the success of the product to date. However, as discussed above in our response to Question B, full transparency is strictly not required. From a pricing perspective, an alternative option open to market makers might be to model pricing and risk based on the underlying benchmark index, but this would be second choice to receiving the information from the ETF.

¹⁰ Source: *ETF Annual Review and Outlook*, Deutsche Bank, January 2017.

Section IV

- L. Some commentators are concerned that ETFs are tracking indices of underlying stocks which are not sufficiently liquid to match the intra-day liquidity on the secondary market which the ETF offers. This statement is quite simplistic and does not, for example, reflect that there may be much secondary market activity but very little primary market activity. UCITS, including UCITS ETFs, are subject to general liquidity management rules which should ensure that ETFs track indices of underlying stocks that are sufficiently liquid to allow the ETF to meet creation and redemption requests. Is this sufficient? What liquidity practices do ETFs follow? Are there other practices that might be appropriate for ETFs?**

The base line liquidity of an ETF will normally reflect the liquidity of the underlying assets and is referred to as the primary market liquidity. The reason for this is the pass-through nature of an ETF and the creation/redemption mechanism inherent in the ETF structure. APs will react to increased demand for an ETF by creating new ETF shares. In order to fulfil that obligation, the AP or their agent will generally buy shares, bonds or commodities in the underlying exposure. In the same way, decreased demand will generally result in ETF shares being redeemed and the underlying securities sold by the AP or its agent.

Secondary market liquidity is another distinguishing feature of ETFs relative to traditional open-ended mutual funds that offer liquidity only at the end of the day. Unlike traditional open-ended mutual funds where investors interact directly with the fund when buying or selling shares, ETF shares can be traded intraday by investors on exchanges creating an additional layer of liquidity for buyers and sellers. Secondary market trading in ETF shares does not require transaction activity in the underlying securities. The secondary market (exchange-traded) trading volume for most ETFs is typically a multiple of the volume of creation/redemption activity. By facilitating demand from buyers and sellers through a transparent, exchange-traded instrument, ETFs may provide incremental exchange liquidity beyond that of the underlying assets.

This additive liquidity can be observed in the:

- Financial Crisis (2008),
- European Debt Crisis of (2010),
- US Treasury Downgrade (2011),
- Taper Tantrum (2013),
- Oil Sell-Off (2014), and
- High Yield Sell-Off (2015).

The liquidity of assets and the structuring and operational model of open-ended funds, including ETFs, should be assessed and reviewed as part of the fund approval and set-up process. This is the responsibility of the manager and should be discussed in conjunction with the trustee/depositary (where applicable) as part of the set-up process. As an example, this should include an assessment of a fund's operational attributes, such as dealing and settlement cycles, in order to reflect the liquidity of the underlying investments, as well as the ability to be able to manage investor expectations for liquidity. This is the key to ensuring that a fund's liquidity terms are sensibly set and consistent with the underlying assets.

- M. One of the potential impacts from greater investment in index-tracking ETFs is decreased informational efficiency of underlying securities as well as increased non-fundamental volatility of underlying securities. However, these may not be risks per se or, at any rate, may not be risks that ETF providers or regulators can mitigate, manage or eliminate. Is this assessment correct or could measures be taken to address this impact?**

While some commentators have argued that indexing has increased non-fundamental volatility or diminished price discovery, there is no evidence for this justification. For indexing to cause prices to decouple from value, flows into index funds must have a permanent effect on prices. Otherwise, if the price impacts of flows are transitory and ultimately reverse, this simply creates alpha opportunities for active managers. While there is evidence of modest permanent price effects (beyond transitory, liquidity based price changes that reverse themselves) associated with index inclusion or exclusion, these may be rationally explained by a greater focus by analysts or increased liquidity, perhaps because hedging is less costly for index constituents. Further, the assets in traditional active equity mutual funds are similar to those of index mutual funds, so the net effect of flows from active to index managers is unlikely to be concentrated in a few stocks or sectors. The charge that indexing distorts prices and

markets is not credible given that indexed assets represent only 10.3% of the total global equity and fixed income market value of \$161 trillion; ETFs are only 2.1% of this figure.

N. One of the key issues in the context of support by ETF providers is investor expectation. Investors' views about purchasing ETFs and their ability to sell may be informed by whether or not the ETF provider will support the ETF in the face of stress events. There are, however, divergent views amongst ETF providers as to whether they would support their ETFs. Is provider support a desirable objective?

Beyond the example of money market funds, there are very few examples of sponsors providing support to funds or ETFs because these products have a NAV that fluctuates in line with the value of underlying holdings (unlike constant NAV money market funds, which seek to maintain a stable share price). In other words, the liquidity afforded by a mutual fund or ETF does not entail a guaranteed price or NAV to investors upon exit; nor does it guarantee that fund investors will not face liquidity risk. In this regard, it is necessary to remember that amongst the risks borne by ETF investors in return for the expectation of earning potentially attractive investment returns, is that their ability to realize the "intrinsic value" of their investment may be challenged during periods of market distress. Markets typically offer a return as compensation for relative illiquidity. This is an immutable aspect of capital markets. This resultant risk, amongst many others, is clearly disclosed in a fund's constituent documents. Because ETFs are bought and sold at a market-determined price agreed among investors on the exchange, there is no guarantee that selling investors will receive NAV, or even a price approximating NAV, when they seek to sell during a period of market stress. This is the same as any stock – prices decline when selling demand exceeds buying demand. We believe ETF shares, like other stocks, may sell at a discount to some measure of intrinsic value during periods of market stress, but have proven time and again that they frequently remain liquid even when their underlying assets are more difficult to trade, or when market conditions would be considered "stressed".

While ETFs should seek to avoid situations where they have to sell assets at extremely discounted prices to meet redemptions or meet redemptions in a manner that disadvantages remaining investors relative to redeeming investors, they cannot be in the business of guaranteeing investment returns, and we believe that regulators must be careful not to suggest or expect otherwise. To this end, we would be concerned if a regulator suggested that it is encouraging or requiring ETF sponsors to support the price of ETF shares for any reason, as such a pronouncement by a regulator could fundamentally mislead investors' understanding of the risks associated with ETFs or other investment funds that do not entail a government guarantee.

Section V

- O. *The Central Bank is primarily interested in risks associated with Irish authorised ETFs and European ETFs more generally yet much of the available academic literature, analysis and data relates to US ETFs. The concern is that any analysis of Irish authorised and European ETFs may be adversely affected by our reliance on US-centric materials. Is this valid? Are Stakeholders aware of EU ETF specific information that might lead to different conclusions? Will MIFID II resolve these data issues?***

ETFs are not currently MiFID instruments. This impacts the accuracy of ETF trading volumes as OTC trades are not required to be reported and hence trading data is incomplete for ETFs in Europe. When ETFs are included as MiFID instruments on 3 January 2018, the expectation is that reported volumes will increase and provide a more accurate picture of ETF liquidity. MiFID also prescribes enhanced data standards for trade reporting. This will improve the quality of ETF post-trade data. It should be noted that trade data will not be consolidated and the number of reporting venues will increase. As a result, obtaining a full picture of ETF liquidity will still be a fairly cumbersome process. In this regard, BlackRock strongly supports the development of a consolidated tape for European-domiciled ETFs under MiFID II.

- P. *Does the nature of an ETF have peculiarities (and therefore risks) that neither the UCITS nor MiFID regulatory frameworks, either in isolation or in conjunction, address and which has not been examined here?***

We do not consider that there are risks unique to an ETF which are not already addressed by the UCITS and MiFID frameworks.