



Banc Ceannais na hÉireann  
Central Bank of Ireland

Eurosystem

# Feedback Statement on DP6 - Exchange Traded Funds

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## Executive Summary

1. On 15 May 2017 the Central Bank of Ireland (the “Central Bank”) published Discussion Paper 6 on Exchange Traded Funds (“ETFs”) (“DP6”). The Central Bank also hosted an ETF Conference – *Exchange Traded Funds – Stability and Growth* – on 29 November 2017. The conference focussed on the key themes set out in DP6.
2. The Central Bank initially commenced work on ETFs for a number of reasons. Ireland is the largest European centre for ETFs, which are the fastest growing type of investment fund globally. The global ETF market continues to see significant growth in assets under management (AUM). Global ETF AUM increased from about USD 800 billion at the end of 2007 to about USD 4.6 trillion at the end of 2017. Due to the rise in AUM, coupled with increased innovation and complexity in ETFs products, the Central Bank has been encouraging a greater level of discourse in this area.
3. Both DP6 and the Central Bank’s ETF conference were intended to further this discussion and to serve as an invitation to domestic and international stakeholders to help inform the Central Bank’s approach in relation to ETFs. Feedback received will assist the Central Bank in performing its role in maintaining stability and protecting consumers, and enlighten the Central Bank’s contributions at global and European discussions on ETFs.
4. DP6 was organised around a number of key themes and highlighted areas for discussion which were identified by the Central Bank from relevant academic literature, discussions with international regulatory colleagues and direct supervisory experience. The intention of the process was to highlight areas of particular significance and outline where the market characteristics of and regulatory approaches to ETFs could be subject to more detailed consideration. The paper raised a host of matters for general deliberation but also sought specific comment from industry participants in relation to a number of areas.
5. The themes examined in DP6 included the primary and secondary dealing arrangements which are an integral part of an ETFs design. The paper elaborated on a number of potential discussion points relating to this feature of ETFs. These included the extent to which reliance can be placed on disclosure of the ETF’s arrangements, whether there is an appropriate degree of protection for investors and how these arrangements are likely to operate in stressed market conditions.
6. At its core, DP6 recognised that growth in the popularity of ETFs would likely continue, with both AUM and the range of available products continuing to expand. In light of this, the paper highlighted a number of areas which the Central Bank considered warranted further discussion. These related to the role of active ETFs, the market liquidity implications for the assets in which ETFs invest and how

to achieve the right balance in terms of portfolio disclosure requirements. The paper also focused on the potential risks which may be inherent in the ETF structure. In particular, DP6 sought to raise the issue of interconnectedness and how this might give rise to additional risk factors.

7. Twenty-six responses to DP6 were received and published on the Central Bank's website. Responses were submitted by a broad cross section of stakeholders including ETF providers, Authorised Participants and other investment firms including asset managers, industry representative bodies, legal firms and other professional firms and bodies.
8. This Feedback Statement summarises the responses received and seeks to continue the discussion started in DP6. In doing so, in a number of areas, the Central Bank's views have been outlined and, in an Irish context, the Feedback Statement sets out some policy changes which have resulted from this dialogue. The Central Bank is grateful to all parties who responded to DP6 and wishes to thank them for their time and effort. The feedback received was high quality and substantial.
9. The Central Bank is also keenly aware that ETFs remain high on the international regulatory agenda. In particular, the International Organisation of Securities Commissions (IOSCO) has launched an ETF work stream. This is not a new departure for IOSCO, as it previously issued Principles for the Regulation of ETFs in 2013. It is timely that IOSCO should seek to facilitate international dialogue in this area, particularly in light of the growth and increased complexity in the ETF sector. Elsewhere, ETFs remain the subject of discussion, in one form or another, at other forums including the Financial Stability Board and the European Systemic Risk Board.
10. These work streams are at a relatively early stage of development. While it is too early to comment on the likely outcomes, the Central Bank is encouraged that other regulatory authorities have sought to further the debate on ETFs. These discussions are considering a wide range of issues. The Central Bank will continue its engagement. In particular, the Central Bank intends to utilise the feedback received during DP6 and related engagements to further contribute to a number of topics. These can be broadly split into two categories, namely (i) investor centric matters and (ii) market structure considerations.
11. Investor centric matters primarily relate to whether investors sufficiently understand the characteristics and potential risks associated with an ETF. A range of potential issues could be examined in relation to this, such as:
  - (a) whether investor expectations are managed appropriately;
  - (b) the suitability of more complex ETF strategies for retail investors;

- (c) investor recourse and related operational challenges;
  - (d) investor awareness in relation to ETF related costs;
  - (e) issues related to the usefulness of portfolio disclosure to investors; and
  - (f) the effectiveness of other disclosures (such as the iNAV).
12. The second category of potential topics for consideration relates to structural characteristics of the broader ETF market and includes:
- (a) the selection and monitoring of APs;
  - (b) the role of index providers and how these are monitored;
  - (c) managing potential conflicts of interest between parties;
  - (d) risk transmission between primary and secondary markets; and
  - (e) the potential challenges of market fragmentation where ETFs are listed or traded on multiple exchanges.
13. In raising these matters through DP6, the Central Bank was not seeking to reach definitive conclusions in each area. The starting point, in DP6, was to go back to a 'day one' look at ETFs both in terms of market practice and existing legislation. The overarching intention from there was to develop a common language of understanding on the wide range of different issues under consideration. In that light, the purpose of this Feedback Statement is not to conclude the process but provide a clear view of the current landscape with a view to continued engagement on the topic.
14. The Central Bank is very supportive of the current European and international work streams. The intention is that the Central Bank's work in relation to ETFs, including this feedback statement, will contribute to this wider discourse and be of assistance to other regulatory authorities and market participants more broadly.

## General Feedback

1. The depth and quality of responses received by the Central Bank to DP6 spoke of the time spent in preparing responses and the Central Bank is grateful for this. This information will be used to aid the Central Bank's approach to ETFs both domestically and as it continues to engage in discussions in international fora.
2. In general, respondents were welcoming of DP6 and were complimentary of the approach taken by the Central Bank in seeking to inform its views. The Central Bank agrees with views expressed by some respondents in relation to the importance of continuous scrutiny in the context of an evolving market place. The Central Bank is keen to emphasise that its focus on ETFs was never a precursor to rule-making. The intention was to enhance the information available in order to facilitate a more informed views on ETFs.
3. The Central Bank posed a number of questions in DP6 but also sought to elicit feedback on any aspect of the discussion paper generally, or on ETFs more broadly. A number of respondents took this opportunity.
4. One theme raised by a number of respondents was that of the regulated environment in which ETFs operate and the frustration they felt at, what they considered, previously debated topics being reopened. As referred to in DP6, ETFs live in the cross-hairs of a number of regulatory environments. In Europe, they are for the most part regulated UCITS and are (now) subject to the transparency requirements under MiFID II. Moreover, requirements under EMIR will apply to some.
5. Certain respondents commented that a number of the topics covered in DP6 had previously been the subject of detailed consideration by ESMA in its Guidelines on ETFs and other UCITS issues. They found it unhelpful that these topics appeared to be re-opened for discussion. Respondents considered that the existing regulatory frameworks were extremely robust and capable of addressing any issues that might arise in relation to ETFs. In particular, respondents were keen to emphasise the relatively small percentage of assets under management in ETFs globally (in general responses set global assets in ETFs as being approximately 3% of global AUM). Respondents therefore felt that increased regulation or the re-opening of debate was unwarranted when ETFs do not comprise a materially large segment of the asset management industry.
6. While the Central Bank can understand the views of industry in this regard, lessons of the past have taught regulators that vigilance is important and that keeping abreast of product developments and trends is essential. That is not to say the Central Bank is focussed on further regulation. The Central Bank remains of the view that the depth of study undertaken to date (and which will be undertaken under the various work streams highlighted above) is necessary.

7. A number of respondents were critical of the open-ended nature of the discussion in DP6. They considered that it was not appropriate that conclusions were not drawn in a number of areas (for example those in relation to underlying market impact).

It was clear to the Central Bank at the time of publication of DP6 that there were no firm answers to many of these matters due to insufficient data and information. This was clearly identified as an issue in DP6 and to some extent continues to be the case. The Central Bank while acknowledging the views of these respondents, does not feel that lack of firm conclusions in relation to certain topics should lead to their exclusion from the debate.

8. Certain respondents suggested enhancements to the ETF ecosystem which could be beneficial. These included:
  - a. the desirability of having harmonised listing and trading rules for ETFs within the EU, which would seek to encourage more on-exchange trading.
  - b. the desirability of enhancing the process of communicating with investors. This respondent commented that there were no harmonised rules that obliged intermediaries to communicate with beneficial owners in a chain of ownership. The respondent explained the position in Germany such that where banks act as intermediaries, they are obliged to transmit communications from the ETF to the ultimate beneficial owner (at the cost of the ETF). In this way beneficial owners were fully informed about activities relating to the ETF in which they held the beneficial ownership of shares.

The Central Bank sees merit in these proposals and would endorse the possibility of rules on both counts. Any changes in this regard would foster greater certainty, transparency and assist to serve the best interests of investors. The Central Bank believes, however, that changes would be most effective if implemented in the EU on a harmonised basis.

## Feedback on DP6<sup>1</sup>

### Authorised Participants and Official Liquidity Providers

1. Authorised Participants (APs) and Official Liquidity Providers (“OLPs”) are integral to the ETF’s structure and play an important role in underpinning the overall liquidity of an ETF. The Central Bank highlighted two key issues for in relation to APs and OLPs. Namely, whether public disclosure of the identity of the AP and OLP would be beneficial and whether remuneration models be disclosed. The role of the AP as an active manager of primary market supply is complicated by the fact that the AP also facilitates the provision of liquidity by acting as the mechanism through which OLPs and other market makers purchase ETF shares directly with the ETF. As a result, one area of particular interest for the Central Bank was the relationship between APs and OLPs. In addition, as outlined in DP6, an ETF will often enter into a separate commercial arrangement with an OLP in order to provide liquidity in an ETF. In these circumstances the ETF often remunerates or procures remuneration of the OLP for its services. The extent to which these remuneration models should be disclosed is of interest to the Central Bank as the arrangement to provide liquidity support will be dependent on the terms of the agreement between the ETF and the OLP.

#### Areas of Discussion

2. This area of focus comprised of two main parts; the first related to public identification of APs and OLPs and their interconnectedness. The second part addressed disclosure of the remuneration models of APs and OLPs. More generally, respondents also provided views on themes related to these questions.

#### Public identification of APs and OLPs and their interconnectedness

3. In relation to the first issue, respondents were largely divided into two schools of thought. The first argued that there was no particular value in a regulatory requirement to disclose the identities of APs and OLPs as this information was (i) already known to the market participants who needed this information and (ii) disclosed by stock exchanges on which ETFs were listed and traded as well as by many ETF providers.
4. Respondents also suggested that disclosure by an ETF of the identities of APs and OLPs could provide the market with a false impression in relation to the provision of liquidity in a particular ETF. This could particularly be the case where an AP acts as agent for (or on behalf of) a third party in buying and selling ETF shares. Respondents noted that sources of liquidity in ETF shares were not limited to APs and OLPs but included other market participants and that publication of this detail could be misinterpreted, particularly in circumstances where there were additions or deletions to the list of APs and OLPs. It was also suggested that there was limited utility in compulsory disclosure due to the fact that APs and liquidity providers

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<sup>1</sup> Question A: Is public disclosure of the identity of Authorised Participants (“APs”) and Official Liquidity Providers (“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?



(other OLPs) retained full discretion as to if, and when, they would deal in an ETF's shares.

5. Interestingly, some ETF providers noted that under stock exchange rules liquidity providers were, at their own initiative and without reference to ETF providers, able to enter into arrangements with stock exchanges to act as OLPs for ETFs. The suggestion was that ETF providers would not be able, without making relevant enquiry, to confirm exactly how many OLPs acted in relation to their ETFs.
6. The second school of thought saw no difficulty in providing this disclosure – albeit there were differences in views about who the most appropriate recipient of this disclosure might be. Some commented that public disclosure of the identity of APs and OLPs could be seen as an improvement in ETF transparency which was positive from an ETF provider's perspective. It was argued that the interconnectedness between parties was of fundamental importance when considering the resilience of an ETFs secondary market. Similarly, the ability of an ETF to function across a range of market conditions was fundamental to the ETF structure and aids potential investors to understand the ecosystem within which an ETF operates. Disclosure was, therefore, important.
7. While agreeing with this train of thought, certain respondents suggested that regulators would derive most benefit from this disclosure as it would enable an understanding of the interconnectedness of the AP / OLP ecosystem. The forthcoming requirements in the U.S. in relation to AP and creation unit reporting were noted.<sup>2</sup> Respondents were less convinced of the benefit of public disclosure (for the reasons noted above).

#### Disclosure of the remuneration models of APs and OLPs

8. The majority of respondents to the second aspect of this topic roundly rejected the suggestion that there should be additional disclosure of remuneration models for APs and OLPs. Respondents argued that the information was commercially sensitive, remuneration models varied based on, for example, type of ETF, number of ETFs covered, obligations undertaken, distribution opportunities and so could not be interpreted without all of these circumstances being taken into account. It was argued that the information would be of little value to retail investors, in some cases, due to the "all in" fee models applied by the majority of ETFs.
9. Respondents addressing the specificities of synthetic ETFs, noted the different structure of fee arrangements. For example, an AP also acting as the principal swap counterparty would additionally and typically provide a number of services on a bundled fee basis. As such individual fees would be difficult to isolate. The synergies from a fee perspective in synthetic ETFs as well as the ability of these counterparties to offer tighter spreads was highlighted.

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<sup>2</sup> SEC, Investment Company Reporting Modernization, <https://www.sec.gov/rules/final/2016/33-10231.pdf>

10. One respondent, while disagreeing with the provision of granular detail in relation to fees paid to OLPs, agreed that aggregate fees paid to individual parties playing a role in the operation of an ETF would be of benefit and value to investors who *“should know what they pay for.”* This respondent argued that provided fee arrangements were at arm’s length, competitive and with unrelated parties this aggregate level disclosure at individual party level should suffice (with more itemised breakdowns suggested as being commercially sensitive). This respondent encouraged additional disclosure for arrangements where a *“single point of failure”* exists within the ETF structure, for example where there is a single or group company AP. The respondent argued the market should know where investors were exposed to inflated costs, conflicts and risks inherent to the failure of any such party. Another respondent noted that while remuneration of OLPs was modest, there was the potential for manipulation where bundling occurred.
11. Certain respondents noted that the purpose of remuneration for OLPs was to encourage continuous secondary market liquidity in all market conditions. They noted that creation and redemption activity would always be driven by prevailing economic circumstances as the main source of revenue for OLPs was arbitrage and secondary market spreads.
12. Some respondents cautioned against the imposition of additional disclosure related regulation on OLPs and APs as this could result in disincentivising them from acting in this capacity. The potential for pass through of the cost of regulation (and therefore compliance) to the end investor was noted.

### Findings to Date

One of the main themes in DP6 was an acknowledgement of the key role played by APs and OLPs in the ETF ecosystem. That these market participants are often the same entity is also an important factor. APs play an extremely important role in the functioning of the ETF; they are the only channel through which ETF shares are created and redeemed and, through the arbitrage mechanism, they manage capacity in an ETF. In normal market conditions, the OLP activity provides defined levels of liquidity on exchange.

The Central Bank has very limited information on APs and OLPs. This notwithstanding the Central Bank strongly believes that information as to the identity of APs and OLPs and how active they are (both generally and in relation to different types of ETFs) is important for all participants.

The Central Bank understands there are, relatively speaking, a limited number of active APs in the European ETF architecture. It is very likely the same APs will act for all providers of European ETFs, irrespective of where the ETFs are domiciled. Greater concentration in APs is likely for ETFs which seek more idiosyncratic market exposure (for example, emerging market bonds). As a result, a stress event materially affecting a small number of APs is likely to adversely affect a large number of ETFs. In an environment characterised by cross-border distribution this could have significant consequences. Therefore, an understanding of the relationship between ETFs (and between ETFs of different ETF providers) through their active AP network, would facilitate an understanding as to where points of weakness could potentially arise.

The Central Bank notes that a stress event occurring at the level of an AP could result in a liquidity event for a number of ETFs. While the overwhelming response to DP6 was that there will always be another AP ready and willing to fill the shoes of one which is unable to act, reliance on market willingness in a structure which is so reliant on the AP functioning is an unenviable position for regulators to be in. More concrete information on the extent of concentration in a market or market segment is desirable. It would permit regulators to be in a better position to assess the capacity, concentration and size, and thereby risk posed by European APs.

The Central Bank is not convinced by the argument that a clear picture of the entities acting as OLPs and APs could have scope for misinterpretation. Transparency in terms of the ETF ecosystem is of value, particularly where it enables analysis on the possibility of emerging risk. The Central Bank will consider the extent to which disclosure of APs and OLPs could be of benefit and will seek to encourage regulatory convergence in this regard.

Turning to the second part of this topic, the Central Bank is strongly of the view that transparency in terms of remuneration and remuneration structures is best practice. This is a requirement for all funds regulated by Irish regulation (whether structured as ETFs or otherwise). Best practice dictates that all costs paid for, or on behalf of an ETF, be disclosed to investors. In the case of OLP related remuneration it could be the case that disclosure is provided at an aggregate level (as is currently the practice for a number of ETFs). In any event, the costs which are borne by and on behalf of an ETF should be sufficiently clear and should indicate the basis on which all costs including OLP remuneration (either monetary or otherwise) is calculated. The Central Bank will seek to encourage regulatory convergence in this regard.

## Portfolio Disclosure<sup>3</sup>

13. When preparing DP6, the Central Bank's understanding was that regular public disclosure of an ETF's portfolio was necessary for effective arbitrage (which enables the exchange-traded price of an ETF to remain close to its net asset value). In addition, it was understood that portfolio transparency allowed investors to ascertain what an ETF was exposed to on an ongoing basis. As a result, the matter of transparency was discussed extensively in DP6. In particular, the Central Bank sought to verify its understanding that portfolio disclosure is required to enable tight secondary market prices and provide certainty to investors. The rationale for exploring this issue was twofold. Firstly, the issue of portfolio transparency has the potential to significantly impact the operation, efficiency and sustainability of the ETF. Secondly, it is an area of considerable focus for market participants where a range of divergent views on the issue are held.

### Areas of Discussion

14. This area of focus received the most attention from respondents to DP6 with a number of respondents combining their responses to questions B and K which dealt with the issue. As a result, in providing feedback on this matter, the Central Bank also considers it useful to provide a consolidated response to both of these questions.
15. Some respondents questioned the need to re-open this debate as they consider ESMA had previously considered, and rejected, the requirement for full daily portfolio disclosure.
16. While there was general agreement in relation to the principle of portfolio disclosure, strong views were expressed as to what level of portfolio disclosure was required in order to provide certainty to APs and OLPs and to market participants generally.
17. Respondents also had varying views in relation to whom the portfolio disclosure was appropriately directed.
18. Purpose of disclosure pricing: There was commonality in the views of the majority of respondents specifically, that portfolio disclosure is a feature of an ETF and it is integral to pricing. This is because information on the portfolio enables APs and

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<sup>3</sup> Question 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?

Question 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?

liquidity providers to have a clear view of the intra-day value of the ETF. This results in tighter spreads on exchange. Similarly, when APs are creating / redeeming with

19. The ETF they need certainty in terms of the securities to be delivered to the ETF or in terms of the securities they would receive from the ETF. This latter information is received through the create/redeem baskets published by the ETF. Certainty in respect of both aspects (i.e. information to enable the value of the ETF to be established on an intra-day basis and the securities relevant to the create/redeem process) is essential.
20. Respondents agreed that where APs and OLPs had an understanding of the exposure they assumed, obtained by way of portfolio information, this enabled them to effectively arbitrage the ETF and thereby ensure that the price of the ETF remained in line with the aggregate value of its underlying holdings. There was a clear acknowledgement that lack of certainty in relation to exposure to an ETF, for example, where details of the full portfolio were not available (and which, for APs and OLPs translates into a level of assumed risk) was reflected directly in wider spreads on the secondary market.
21. Support for daily public portfolio disclosure: A minority of respondents commented that public daily portfolio disclosure was required in all cases. They noted that daily public portfolio disclosure was the most effective mechanism to facilitate ETF arbitrage. It also served to provide investors with a clear view of the exposure they were assuming by investing in the ETF.
22. Support for more limited portfolio disclosure: The majority of respondents considered that, in general, an approach which resulted in more limited portfolio disclosure might be possible, for index based ETFs but particularly in the case of active ETFs.
23. Some respondents acknowledged the merit in having full portfolio disclosure but did not consider that it was strictly required for either index based ETFs or active ETFs.
24. Examples of methodologies which were deemed to provide sufficient information to APs, for the purposes of effective arbitrage and hedging and which resulted in sufficiently tight market spreads, were provided. One respondent noted the situation arising where a portfolio composition file (“PCF”) and creation / redemption baskets were published by the ETF (in place of the full portfolio). In this case, the PCF and baskets provided certainty as to the types, nature and quantity of securities in the ETF’s actual portfolio. Additionally, the creation / redemption basket provided certainty. The respondent noted that the PCF and creation / redemption basket enabled APs and OLPs to efficiently price, arbitrage and hedge exposure to an ETF.

25. Other respondents commented on mechanisms which would enable APs to effectively price ETFs. These include model and risk pricing based on the underlying indices which an ETF tracks. Some respondents endorsed as viable the approaches suggested by the Central Bank in DP6.<sup>4</sup> Respondents were clear that the critical requirement was the ability of relevant participants to have accurate intra-day pricing for the ETF.
26. Active ETFs: The majority of respondents who addressed the question of full daily portfolio disclosure in the context of active ETFs, were of the view that it should not be required because it impacted on the possibility to establish active ETFs.
27. Respondents considered that the principle argument in support of less than full portfolio disclosure for active ETFs was the negative effects that full daily portfolio disclosure could have on intellectual property rights. Respondents emphasised that investors in an actively managed fund were not seeking an index exposure. Rather they were seeking an investment return based on the expertise of the manager and were seeking access to this strategy through the ease of trading that an ETF provided. Respondents argued that full daily portfolio disclosure could result in reverse engineering of proprietary trading strategies and that it would manifest in “copycat” behaviour. This would, in their view, cause harm to the ETF and to the investors who sought exposure to the investment strategy. Respondents noted that requirements for full daily portfolio disclosure was the reason there has been such a limited number of active ETFs.
28. One respondent, a stock exchange, considered that the side effect of front running outweighed the benefits of portfolio disclosure and that the disclosure requirement for active ETFs was worth further discussion to promote innovation in the asset management industry. Another stock exchange respondent also felt that a nuanced approach was desirable in the context of active ETFs.
29. Discussion on recipients of portfolio information: A number of proponents of more limited portfolio disclosure suggested that ETFs could provide full portfolio disclosure to a restricted group of recipients. It was suggested that the parties to receive such portfolio information could include regulators and stock exchanges. Additionally a number of proponents (ETF providers, market participants and stock exchanges) commented that disclosure of an ETF’s portfolio to a designated AP (or APs) who would be contractually bound to not divulge details of the ETF’s portfolio would be possible. The disclosure would enable AP(s) to effectively price and hedge their exposure to the ETF.

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<sup>4</sup> DP6, at section 136 et seq set out alternative approaches to full portfolio transparency which the Central Bank had observed through its review of practices globally. These were (a) the possibility of full disclosure to an single OLP who was obliged to maintain parity between the exchange traded price of the ETF and its net asset value (the parity being visible by reference to an indicative net asset value (“iNAV”)); and (b) the use of a portfolio proxy which was constructed in such a way as to track the ETF’s portfolio and provide sufficient information to APs to enable effective arbitrage and hedging to take place.

### Findings to Date

The Central Bank acknowledges the strong views of respondents in relation to the question of portfolio disclosure and has carefully considered the positions and representations from all parties.

As highlighted in DP6, there appears to be different requirements applied to ETF portfolio transparency across the EU. In some cases disclosure related obligations stems from investment fund regulation whereas in others, the obligations are imposed by the regulated market. In the case of Irish ETFs, the Central Bank requires daily portfolio disclosure in the context of the authorisation of ETFs as investment funds.

The point of commonality between respondents was that where APs are exposed to risk, this translates into widened spreads on the secondary market. The sources of risk are varied; for example, where an underlying market is closed or where there are other challenges for an AP to effectively hedge exposure to an ETF position or to accurately price an ETF.

Respondents agreed that the availability of portfolio information to APs contributes to a lessening of the AP's risk, as this facilitates pricing and hedging activities. While some respondents commented that full portfolio disclosure was not an essential pre-requisite for APs to be in a position to efficiently price an ETF or to deliver tight spreads on the secondary market, it is comparatively easier to manage risk when full portfolio information is available. Widening of a spread on an ETF might not be solely linked to the provision (or non-provision) of portfolio information but it can be a contributing factor.

The main point of difference between respondents, was the extent of portfolio information necessary to be provided and whether it was required to be disclosed publicly.

It appears to the Central Bank that irrespective of their views on portfolio disclosure, the interests of ETF providers and APs are often, but not always, fully aligned. Both compete for investors; the AP will need to offer competitive pricing on exchange or take the risk that other APs or market participants will step in to compete for the trade. Similarly, the ETF provider has a vested interest to ensure information provided by its ETF (whether full portfolio disclosure, or otherwise) is sufficient to enable APs to efficiently price the ETF. If it does not provide sufficient information to the AP then the ETF provider takes the commercial risk of limited product uptake. Consequently, both the ETF provider and the AP want to ensure that the quality of information and the frequency with which it is provided is appropriate to facilitate efficient pricing of the ETF. Of course this is not the only consideration to be taken into account by the ETF provider.

Those who supported full daily portfolio disclosure for all ETFs were very much in the minority. These included APs who considered that full disclosure was essential to facilitate pricing and some ETF providers who considered that full portfolio disclosure was a core attribute of the ETF.

The majority of respondents were strongly of the view that portfolio disclosure was not an essential pre-requisite for effective pricing and most of these respondents focussed particularly on active ETFs in this regard. There was support for alternative approaches to disclosure in the form of model pricing (as one example). Others supported the provision of portfolio proxy information as being capable (and demonstrably capable) of delivering sufficient information to enable effective hedging, tight spreads and efficient pricing for ETFs.

In light of the many comments received to both questions, the Central Bank considered in some detail the extent to which a change in its existing policy could be envisaged.

Some general observations arising from consideration of various submissions include:

- The protection of intellectual property rights and the prevention of front-running active ETF's by limiting portfolio information are arguments that the Central Bank is familiar with.
- The Central Bank was interested to note that responses to both questions in DP6 addressed portfolio disclosure from the perspective of pricing. Very little attention was given to the possibility of the information being used by investors or market participants other than APs. However, there were some respondents who suggested that an investor would use portfolio information to look through the ETF to its constituent parts to verify or "sense check" the exposures being assumed. This additional layer of reassurance would be absent in the context of an ETF which does not disclose its portfolio on a daily basis.

The Central Bank recognises that full portfolio information may not be of practical use to retail investors and that other forms of disclosure (for example, an indicative Net Asset Value (iNAV)) may be more beneficial.

The Central Bank considered alternative forms of disclosure as suggested by some respondents. These include:

- a. periodic portfolio disclosure on a lagged basis;
- b. calculation of an indicative net asset value ("iNAV"); and
- c. publication of a "Price Percentage Difference."

**Periodic portfolio disclosure on a lagged basis:** This would involve a requirement on ETFs, who would elect to use a portfolio proxy instead of full daily disclosure, to publicly disclose their entire portfolio on a quarterly basis with one month lag. This information would be published on a web-site with no restrictions to access.

**Calculation of an iNAV:** The Central Bank considered requiring ETFs who use a portfolio proxy to publish an iNAV. The requirement for an iNAV is generally determined by the stock exchange on which an ETF is listed. Therefore, not all ETFs will have an iNAV and so investors (particularly retail), will not have anything approximating a real-time benchmark against which it can compare the exchange value of the ETF.



**Publication of a Price Percentage Difference:** This would involve a requirement on ETFs to publish a Price Percentage Difference. This would be the percentage difference between the last traded price of an ETF on the main market and the next calculated net asset value of that ETF. The aim of the Price Percentage Difference would be to inform investors as to how accurately the pricing mechanism works. The idea is that an ETF will trade at a price which is close to the value of its underlying securities because of effective arbitrage and AP competition. However, there is very little information available which would enable an investor to ascertain whether this is actually the case. The Price Percentage Difference would represent an additional data point and with it an investor will (over a period of time) be able to clearly see how close pricing in an ETF is to its net asset value.

The Central Bank did not find sufficient support for any of these forms of disclosure such that they could be an alternative to full daily disclosure.

Following the closing of the DP6 comment period, the Central Bank engaged extensively with market participants and other interested parties to sense check representations and proposals received.

Respondents in favour of a more nuanced approach to portfolio disclosure mainly focused on two areas. The first related to provision of the full portfolio to a limited number of APs or market makers (which, they suggested, could be under the terms of a non-disclosure agreement). The second related to provision of proxy portfolio information only to the public (with details of the full portfolio not being disclosed to any party). These are considered as follows:

**1. Provision of the full portfolio to a limited number of APs/OLPs**

The merit of this option is that it would continue to facilitate APs in the provision of ETF liquidity. However, the ability to provide details of an ETF's full portfolio to APs and not to the market as a whole appears to raise difficulties. The Central Bank has deliberated and to date has not been convinced as to the merits and appropriateness of such an approach. The Central Bank will continue to keep this matter under review.

**2. Provision of proxy portfolio information**

A portfolio proxy is a target index, or a basket of securities which has been constructed by the ETF provider, which closely tracks the ETF's portfolio. The aim underpinning the portfolio proxy is to enable effective arbitrage and hedging by APs with a view to facilitating tight secondary market spreads. Potential challenges which might otherwise arise do not in this regard as the full portfolio is not disclosed to any party, while the proxy information is available to all. The provision of proxy portfolio information could be accompanied by periodic disclosure of the full portfolio on a lagged basis. However, it may be that this pricing mechanism is not as robust in the case of market stress and there appears to be insufficient support for this at this time.

### Conclusion to Date

While there have been strong arguments calling for the Central Bank to move from its current position of requiring full daily portfolio disclosure, the views of the minority of respondents who were strongly in favour of full daily portfolio transparency have considerable merit. Full daily portfolio transparency provides clarity to market participants in terms of the exposure they are assuming when investing in an ETF. Through portfolio information provided, APs are in a position to price, efficiently hedge and trade in the ETF. This results in tighter spreads on exchange. It also enables investors (to the extent they can or wish) to look through the ETF structure and assess the quality of the underlying investments of the ETF. It allows other parties such as academics or market commentators to have information in relation to their market studies.

The Central Bank acknowledges that a move away from the current policy could result in additional investor choice in terms of access to active ETFs but it is not evident that this reason alone is justification for lessening the current standard of full portfolio disclosure. The Central Bank approach to portfolio transparency takes, as an important and fundamental principle, that an ETF is, first and foremost, an authorised investment fund which, instead of allowing direct redemptions, operates in such a way that secondary market investors can be assured that the market price is close to the ETF net asset value.

It appears that full portfolio information to a limited number of market participants (APs/OLPs) may ensure that the principle regarding pricing is upheld. That raises a question as to whether information should be provided to some, but not all, participants. It is also noteworthy that the US SEC are currently in the process of consulting on a proposed ETF rule which includes requirements in relation to portfolio disclosure.

In light of all of the above, the Central Bank will not change the current requirement for full daily portfolio disclosure to the public. However, the Central Bank will continue to consider this matter and will engage in relation to portfolio disclosure at European and international regulatory forums.

## Direct Redemption<sup>5</sup>

30. A key feature of ETFs is the primary dealing mechanism which facilitates secondary market liquidity. DP6 addressed the circumstance (however low the probability) where there would be no willing buyers and sellers of ETFs. As a result, the Central Bank asked whether it was appropriate / possible for secondary market investors to be able to divest themselves of the ETF shares by direct redemption. In addition, DP6 sought a discussion on whether there may be a better way to enable secondary market investors to dispose of ETF shares where secondary market liquidity was impaired.

### Areas of Discussion

31. Respondents drew a distinction between liquidity impairment at market level and at ETF level. They commented that the possibility of a direct redemption facility would in no way be able to address liquidity impairment in the market underlying the ETF.

Certain respondents were open to the principle of facilitating direct redemption in the event of liquidity impairment at the level of the ETF or in other exceptional circumstances. Of interest was a suggestion by one respondent that direct redemption with an ETF could be interpreted as being an acceptance of redemption orders outside of the AP ecosystem.

32. Respondents noted that the requirement to facilitate direct redemption from secondary market investors would only be triggered because of market disruption such as an absence of a market maker. A breakdown of AP arrangements was considered as an extremely remote possibility, particularly in an environment where the AP/OLP marketplace was diverse. Respondents noted that in recent market stresses, for example the Greek sovereign debt crisis, ETFs continued to function and trade normally.
33. One respondent supported the ESMA Guideline which required an ETF provider to have facilities in place which would enable a secondary market investor to directly redeem with the ETF. The same respondent noted the guideline would be, however, complex to implement in practice. Another respondent noted the possibility of direct interaction with an ETF via its administration function. While acknowledging the possibility of infrastructural and operational difficulties in terms of facilitating settlement, the respondent thought that direct settlement with the ETF on a delivery-versus-payment basis was possible. It was noted that the infrastructure which would facilitate this was in place today.

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<sup>5</sup> Question 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?

34. However the large majority of respondents who addressed this issue considered that facilitating direct redemptions from secondary market investors would be too complex and for one respondent not possible. The following factors were seen as a barrier to an effective direct redemption mechanism:
- a. The market structure in which securities (including shares in ETFs) were traded and owned in Europe. Specifically noted were the many layers of intermediation that existed between beneficial owners and legal owners (including local CSDs, settlement systems, platforms structures and nominees);
  - b. The opacity of trading and settlement systems which does not facilitate ETF providers in identifying beneficial owners; and
  - c. The delay a secondary market investor would experience in any direct redemption due to the time taken by the ETF to conduct anti-money laundering due diligence. The consequence of having to wait for redemption monies from a direct redemption rather than the quicker route of selling ETF shares on the secondary market was noted.

In short, the views expressed were that the idea of secondary market investors dealing directly with an ETF was inefficient, theoretically possible (although time consuming and operationally complex) and would result in delays to implement in practice.

35. Respondents also commented that facilitating direct redemption undermined the nature of an ETF which relies on the primary / secondary market structure. It observed that the ETF structure was designed to ensure the costs of dealing in underlying securities were borne by APs. This benefitted other investors as they did not bear such costs (as is the case in non-ETFs). The respondent noted that permitting investors to redeem in smaller “retail sizes”, would place the cost of dealing within the ETF and would separate the “fundamental benefit” of the ETF structure from the mechanism delivering the benefit.
36. The majority of respondents were emphatic in that an ETF ecosystem which involved multiple APs and OLPs resulted in an extremely remote possibility that a direct redemption facility would be required.

### Findings to Date

The Central Bank considers this is a key issue to be addressed in a European ETF regulatory context and believes supervisory convergence in terms of approach should be encouraged. The overwhelming response to this question was that operationally the ability of direct redemption from an ETF by a secondary market investor (who is not a CSD participant) was unlikely to (but might) be possible. In any event direct redemption would be extremely time consuming and an administrative burden for all concerned. Investors seeking direct redemption on the secondary market would likely experience significant delay in receiving their redemption proceeds, due to the need to trace ownership through various intermediate holdings. Furthermore the view expressed was that the AP market was so diverse that the facility was not necessary.

Arising from feedback, as well as from bilateral engagement after DP6 responses were received, the Central Bank understands that different approaches to this question have been taken at European level. The Central Bank understands that the right of direct redemption has been interpreted elsewhere as being satisfied where the UCITS management company or its delegate facilitates redemption (or purchase) of ETF shares on the secondary market. However, if this is the case, it may give rise to other unintended risks or consequences including the need for additional risk management and capital requirements, to meet the potential risks and commitments. The Central Bank notes that if the European regulatory framework mandates that redemption at the level of the ETF is available to secondary market investors, then investors have every entitlement to expect that the ETFs in which they invest are in a position to provide it. In light of feedback received there appears to be merit in further scrutiny at a European level.

## ETF Dealing Arrangements<sup>6</sup>

37. DP6 highlighted the issue of investor expectations with regard to the fact that an ETF may temporarily become a closed-ended fund in certain market conditions. Secondary market investors have, indirectly, access to the primary market through the creation and redemption process available to APs. If the AP mechanism fails the ETF effectively becomes closed-ended until normal trading resumes. This matter is of course linked to the direct redemption feature set out in the previous section. The Central Bank sought to highlight a number of areas for discussion, including whether investors should receive specific warnings in this regard. DP6 asked if it may be appropriate to require an ETF to remain open-ended in a stressed market or if this could be disadvantageous to existing investors or have other unintended consequences.

### Areas of Discussion

38. This matter consisted of two parts; the first relating to investor disclosure and the second relating to the extent to which an ETF should be required to remain open-ended in stressed market conditions. Respondents addressed this matter from the perspective of both the secondary market investor (where there may be no secondary market liquidity) and the primary market (which could be suspended if, for example, the underlying assets were illiquid).
39. Respondents recalled the open-ended nature of an ETF. They did not agree that illiquidity of the assets underlying the ETF could or would be likely to result in a structural change such that the ETF became closed-ended. They noted that illiquidity in an underlying market could arise not only because of market stress but because underlying markets were closed. This could be due to national holidays, for example. It could also be due to time differences (i.e. an Irish domiciled ETF trading in Asian securities). Respondents argued that ETFs, therefore, incorporate features of closed-ended funds with some noting it was “logical” that the ETF was viewed as being closed-ended in these cases. Respondents emphasised that that the ETF structure was designed to provide intra-day liquidity when the underlying market is closed.
40. Respondents noted the sophisticated hedging techniques used by market participants which enabled them to continue to trade in ETFs notwithstanding a dislocation in the underlying market, different to normal closures. It was noted that market participants incorporated, and were expected to incorporate, the cost of the risk they incurred in ETF trading when the underlying market was closed into the price of the ETFs traded on the secondary market. The expectation was that spreads and depth of liquidity would be commensurate with the risk taken by market participants arising from the market dislocation.

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<sup>6</sup> Question 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?

41. A number of examples of underlying market closures were cited by respondents. They argued that despite these events ETFs continued to trade effectively and efficiently, albeit with increased spreads. In this instance ETFs acted as a price discovery tool.
42. Respondents considered it important that there be an understanding of the reasons for underlying market illiquidity and the consequences of this for investors in ETFs, particularly in the context of spreads. Education of investors would be key. Respondents were supportive of disclosure to investors in this regard.
43. Respondents disagreed on the second question - that an ETF should be required to remain open-ended. Respondents were of the view that a suspension of the primary market should not automatically result in suspension of the ETF on the secondary market. Again, previous experience of underlying market closure was cited as an example of the efficiency with which ETFs could trade, notwithstanding the closure of underlying markets. One respondent, a market maker, noted that the temporary inability to access the creation / redemption mechanism would not prevent secondary market trading in ETFs.
44. Respondents pointed to the liquidity management tools that are available to ETFs authorised as UCITS in the event that they experience liquidity constraints. These include imposition of gates and, if necessary suspensions. There was overwhelming disagreement that the ETF should be required to remain open-ended in circumstances where another open-ended fund would be permitted to invoke liquidity management tools. One respondent commented that it could have an adverse effect, particularly in the case of an ETF which could not impose in-kind redemptions as it operated on a cash basis, of leaving the ETF with no option but to sell most liquid assets first and thereby leaving the ETF with a basket of the comparatively more illiquid securities.

### Findings to Date

It appears to the Central Bank that levels of liquidity of underlying assets cannot be the determining factor as to whether an investment fund is open-ended or closed-ended. Those features which are specific to the ETF structure and which may be inconsistent with an investor's expectation should be highlighted. UCITS ETFs are required to have, and to adhere to strict criteria relating to liquidity of underlying assets. Additionally, when combined with the semblance of constant and guaranteed liquidity which is associated with exchange trading, it is not unreasonable for investors to believe that liquidity in an ETF is assured. Whether or not it is reasonable for investors to believe this, the Central Bank wonders if it might be the reality.

That being said, the Central Bank understands that the concept of liquidity in an ETF is multi-faceted. An ETF's liquidity (whether at primary, secondary or underlying market levels) is reliant on a complex interaction between the underlying market, APs, liquidity providers, and secondary market investors. Disruption (meant in the broadest sense here including, for example, market closure) in the underlying market can transmit to the secondary market where it is borne by investors and expressed in the ETF's spreads. It is on the secondary market where the lack of understanding of the reasons for increased spreads may be unappreciated. Retail investors may simply consider the ETF is "expensive" rather than understanding (as more sophisticated market participants might) that the expense is a reflection of the risk arising in the underlying market. More sophisticated market participants might also be in a better position to take a view and make a more value-based decision as to whether purchasing the ETF is worthwhile.

It seems logical that ETF providers should clearly indicate to investors the factors that are taken into account in determining spreads. This information should assist investors in understanding that spread widths are not simply reflections of relative cheapness or expense. Where it is important for investors to understand that the spread could be associated with illiquidity then it appears to the Central Bank that this is an important aspect to be drawn out.

In terms of the specific question posed in DP6 it appears that ETFs can represent an infrastructure for providing liquidity even in market circumstances characterised by illiquidity. For example, an ETF acts in a manner similar to a closed-ended fund where the ETF is not accepting orders from the AP but its shares continue to trade on the secondary market. The provision of liquidity in this respect, while it will come at a cost, does not convert an otherwise open-ended fund into a closed-ended one.

Underlying market liquidity or stress events may cause the ETF provider to pause for thought as to the appropriateness of permitting the ETF to remain trading on exchange. This is particularly the case given that some investors may not be in a position to fully appreciate the risk they assume in such circumstances. Furthermore, as liquidity management tools remain fully available to the ETF, it appears that a combination of underlying market stress events and the possibility of these being invoked might require increased investor education as to the likely outcomes.



In terms of the second aspect of the question; whether an ETF should be required to remain open-ended in stressed market conditions, the Central Bank tends to agree with respondents. It would appear incongruous that prevailing conditions (whether market or otherwise) which affect an ETF should be ignored. Management of liquidity is an ongoing obligation and the ETF provider should not be prevented from protecting the ETF's investments by implementing liquidity management tools which are available. Additionally, the Central Bank queries whether requiring an ETF to remain open-ended in all circumstances would create unrealistic expectations as to liquidity amongst ETF users. It does not seem sensible or possible, that mandating open-endedness can create liquidity in circumstances where it is lacking.

The Central Bank sees merit in further study in relation to this topic.

## Share Class Dealing Arrangements<sup>7</sup>

45. One of the Central Bank's fundamental principles for investment funds is that dealing deadlines must be the same for all share classes. However, different dealing arrangements have been permitted for ETFs with cash and in-kind share classes, reflecting commercial considerations of both the ETF and of the APs who deal with the ETF. DP6 recognised that there may be other circumstances which might be reason to permit different dealing arrangements, such as hedged and unhedged share classes. The Central Bank sought feedback on this issue including whether there could be any impact on secondary market pricing as a result of these arrangements.

### Areas of Discussion

46. Respondents noted the essential consideration in ETF share class dealing differences was the need to strike a balance between the needs of the portfolio manager within the ETF and that of the AP. On the one hand, a portfolio manager would be concerned to place deals for the ETF at a time which facilitated optimum index tracking (in the case of a share class tracking a hedged index methodology, at the relevant fixing time).<sup>8</sup> On the other, an AP would seek to have unexposed presence in the underlying market<sup>9</sup> for as long as possible.
47. Respondents outlined that a primary consideration in structuring share classes was to ensure there was no prejudice to investors in a fund.
48. Respondents were unanimously of the view that different dealing cut-offs improved functioning of the ETF without disrupting the necessary fair treatment between investors.
49. Respondents argued that permitting an ETF to have a later dealing cut-off for the unhedged share classes than that which applies to hedged share classes was beneficial to investors in the unhedged class as it resulted in tighter secondary market spreads. This was because APs were able to hedge their exposure to the secondary market trades by placing creations and redemptions with the ETF at a time which was as aligned as possible with close in the underlying market. Respondents noted that if those APs were required to have an earlier dealing cut-off, to align with the dealing cut-off for the hedged share class, this could have adverse unintended consequences. These included:
- a. reduction in the window during which the netting of secondary market trades could take place. This could potentially increase the size of any

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<sup>7</sup> Question 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?

<sup>8</sup> The "fixing time" is the time at which an exchange rate is set. Often the WM/Reuters London 4pm Fix is used. This provides a standard exchange rate which is used to assess the value of portfolios at a defined time on a particular day. The fixing time for the WM/Reuters London 4pm Fix is slightly after 4pm.

<sup>9</sup> "Unexposed" insofar as the AP could still access the ETF to create or redeem (i.e. still being able to trade with the ETF).

primary market transactions required by the portfolio manager or by the AP; and

- b. the possibility that the ETF would not be as attractive an investment for the AP due to the unattractiveness of dealing requirements. This could result in less APs for the ETF with the consequence of reduced liquidity in the ETF.
50. Respondents commented that, because APs are the conduit for ETF shares reaching the market, and thereby are the essential participants in the operation of an ETF, it was important that they could function efficiently in the ETF's underlying market.

### Findings to Date

A deviation from general Central Bank principles, (particularly where it might result in a differentiation of treatment between investors) is only granted by the Central Bank in limited circumstances. In order to agree that a different approach is justified, it must be clear to the Central Bank that in permitting differences, the interests of one group of investors are not likely to be advantaged to the detriment of another.

In considering this proposal, therefore, the Central Bank considers it important to recognise the unique function and nature of APs.

On the one hand APs represent the channel through which ETF shares reach the market; their activity (alongside the activity of other market participants) contributes to keeping prices of ETF shares close to the aggregated value of underlying securities. APs through the arbitrage mechanism and on-exchange trading are essential to the orderly functioning of ETFs. APs will always be professional entities, and within the EU generally regulated under MiFID II.

On the other hand, APs are the only permissible investor in an ETF. While they may only be shareholders for a very brief period of time (because APs will typically sell their shares within a short timeframe), they are the only type of investor who will ever be capable of being a legal “shareholder” in an ETF.

In recognising the function and role of the AP, the Central Bank understands that ETFs were never established for the limited consumption of APs; they were designed to be available to secondary market investors. Market access to shares can only occur through the AP mechanism.

The Central Bank currently accepts that, depending on the manner in which ETF shares are subscribed for (i.e. in cash or in kind) different dealing cut-off times may be applied to investors.

The question seems to be therefore whether there is potential prejudice for APs and the secondary market investors in a hedged share class if an unhedged share class has a later cut off time. The Central Bank understands from its engagement both with APs and ETF providers that where APs are subject to dealing (or other) processes which increase their risk this translates directly into increased spreads on the secondary market.

Turning then to the secondary market investor; as noted, the secondary market investor can never become a legal shareholder in the ETF (unless it also becomes an AP). Ultimately the main concern of a secondary market investor is to receive an investment return which is as close as possible to the index return as well as a fair price for the exposure it is seeking. The investment return will be dependent on the ability of the ETF to accurately track the relevant index. The fairness of a price takes into account not only the price at which the underlying securities are valued but also the spread charged by an AP. If either the accuracy of index tracking is lacking or the price obtainable by the investor reflects a spread arising because of AP market exposure attributable to dealing cut-off times, it appears unfair. This may be even more so the case where the secondary market investor is not in a position to fully evaluate the reasons for which the tracking difference occurs or for which the spread is wide or widening.

The difference in this case is that APs are seeking different investor outcomes through investment in different share classes; one is seeking a hedged return and the other an unhedged return. It does not seem that these two investment outcomes are substitutable (and so differences in dealing cut-offs as between the two share classes are unlikely to be overly relevant).

For reasons noted, the hedged share class will need to have an earlier cut-off to enable the ETF to place trades in the market. In this case the trades will reflect cash deals and will require the placing of a hedge which will typically be aligned with an index hedging methodology. Where it cannot do this, the Central Bank understands that the ETF is likely to experience tracking errors. For unhedged share classes, as no hedge will be placed, there is no need to align with the methodology. Therefore the dealing cut-off can be set at a time close to market close.

In the case of secondary market investors the position is somewhat analogous. The secondary market investor will seek to have an investment return which is as close as possible to that of the relevant index. Where the investor is seeking a hedged return, it will expect that this return is as tight as possible to the relevant (hedged) index. Similarly where the investor is seeking an unhedged return there will be corresponding expectations.

On balance, the Central Bank considers that the same reasons why a cash class within an ETF may be subject to an earlier cut-off time than an in-kind class, should apply to unhedged and hedge share classes. The Central Bank therefore proposes to extend the current approach with respect to cash / in-kind share classes to include unhedged and hedge share classes within an ETF.

## Listed and Unlisted Share Classes<sup>10</sup>

51. The Central Bank, as part of DP6, highlighted a matter for discussion related to the ability to establish both listed and unlisted share classes within a single fund. In this situation, one share class would conduct primary dealing only with APs while the other share class could accept subscriptions and redemption requests from any holder of the shares. Notwithstanding these differences in redemption rights, the two share classes would co-exist within a single fund pursuing a single investment strategy. This has been an area of focus for industry participants for some time. DP6 sought to discuss the benefits and disadvantages of permitting such an approach. In particular, it focused on the potential for this arrangement to create unfairness between investors in the same investment fund.

### Areas of Discussion

52. DP6 outlined concerns that permitting listed and unlisted share classes within the same investment fund could be unfair. Respondents were asked to address those concerns and to provide their views about the manner in which a structure which accommodated these two types of share classes would operate.
53. Respondents were keen to emphasise that the definition of an ETF in ESMA's Guidelines on ETFs and other UCITS issues ... *"a UCITS at least one share class of which is traded throughout the day on at least one regulated market..."*, could envisage a structure which accommodated both types of share class.
54. The majority of respondents were in favour of a structure which would permit both share class types within the same fund. They considered that the availability of both share class types would have benefits for ETF providers as well as for investors.
55. From the perspective of ETF providers, respondents were very clear in their views that an ability to have listed and unlisted shares in the same fund was beneficial. Benefits related to economies of scale; lower costs; reduction in tracking errors; and an ability to achieve scale in a fund more quickly.
56. From the perspective of investors, respondents commented that such a structure offered an optionality in relation to investing – investors could choose how they wished to deal with a fund and in what share class to invest. The view expressed also noted that investors would benefit from the reduced cost that scale (arising from the dual share structure) would bring.

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<sup>10</sup> Question 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?

57. Respondents commented on differences in a dual share structure. These included
- a. differences in price between the two share classes which could be perceived to be unfair. This perceived unfairness could arise because each share class would have a common net asset value but the listed share class would have a different, spot price point;
  - b. differences in liquidity profiles as
    - i. liquidity in the unlisted share class depended on underlying assets while listed share classes had inherently more liquidity by virtue of their listing;
    - ii. investors in listed and unlisted share classes could divest and invest at different times; the listed class on an intraday basis and the listed, on a once a day basis at prevailing net asset value.
  - c. differences in dealing processes arising from the inability to access the secondary market from one share class and an inability to access the primary market from another.
58. There was a consistent and strongly expressed view from the majority of respondents that fair treatment of investors was not the same as equal treatment. Respondents commented that investors in the same class were being treated fairly and equally as between themselves and it was permissible in other circumstances for different classes to apply different terms and conditions. A variety of examples were provided, including different fee structures, different distribution channels and differences in the minimum subscription / redemption thresholds. Respondents commented that any share class arrangement should ensure that dealing in one class of shares should not impact the other (for example, cost allocation as between the two classes should be fair).
59. Respondents were firmly of the view that any perceived unfairness which might arise could be appropriately addressed by appropriate investor disclosure.
60. One respondent was strongly opposed to the possibility for listed and unlisted share classes to be created within the same fund. The reservations of the Central Bank in DP6 were endorsed by this respondent.
61. Some respondents noted that it was already possible to trade and settle unlisted shares of non-ETFs on the secondary market. Where shares (whether listed or unlisted) were issued into settlement systems, the advantage of intraday liquidity and centralised settlement were noted.

### Feedback to Date

The Central Bank has not to-date permitted ETF providers to establish unlisted share classes in ETFs due to concerns that the structure may prejudice investors in one class over the other, depending on the circumstances. DP6 outlined the areas of concern for the Central Bank. These related to the creation of a structure which resulted in different liquidity and therefore, different risk profiles for investors.

At that time, the Central Bank noted the fundamental nature of listed shares is that they are designed and intended to be freely transferable on an intraday basis. An active secondary market underpins the offering of these shares. Unlisted shares are not designed to be underpinned by an active secondary market. Where there is market stress, the different share class structures would permit holders of listed shares to exit the market by selling those shares and thereby crystallising their positions. Investors in unlisted shares who choose to exit would have to submit their request to the ETF for redemption at the next net asset value. Holders in the listed share class therefore would have a short-term advantage in being able to close out an exposure during the day, whereas the holders of unlisted share classes could not do so until the end of the day. On the other hand, holders of the listed class would not have the same ability to request redemption from the ETF.

The Central Bank notes that at least two other European jurisdictions permit unlisted share classes in an ETF. The Central Bank acknowledges that approaches to share classes in Europe can vary on a jurisdictional basis and there can be nuances in terms of legal structures and entitlements. The Central Bank considers the principles established by the ESMA Share Class Opinion ([ESMA34-43-296](#)) to be of use in guiding its approach. While not directly related to the point now being debated, the Opinion is instructive in terms of a commonality of approach for share class structuring.

The ESMA Share Class Opinion established the following guiding principles for share classes:

1. each share class should share a common investment objective;
2. each share class should implement procedures to “minimise the risk that features that are specific to one share class, could have a potentially adverse impact on other share classes of the same fund”;
3. the features of each share class should be pre-determined; and
4. where investors have a choice between two share classes of the same fund, the features of each share class should be clearly disclosed.

In considering these criteria in the context of a fund structure, which has both listed and unlisted share classes, the Central Bank finds that there are no grounds to prohibit listed and unlisted share classes based on the application of the principles and guidance provided by the ESMA Share Class Opinion.

Accepting a listed and unlisted class structure within a single fund takes into account that investors choose whether to invest in a listed or unlisted share class. On balance, the benefit this optionality provides outweighs any potential detriment in times of market stress when exit mechanisms will differ. Potential detriment is mitigated by the existing safeguards for unitholders in the event of stressed market conditions. In particular, Irish authorised investment funds are permitted to operate redemption gates and therefore may limit the amount of the fund which can be redeemed on any one dealing day. A redemption gate applies at the level of a fund (or sub-fund) and not at share class level. Consequently, should a fund, with listed and unlisted share classes, choose to exercise a gate, the limit must apply pro rata across all redemption requests received.



Taking all matters into account, the Central Bank has decided to permit listed and unlisted share classes within an investment fund. Cognisant that this structure may give rise to investor confusion, the Central Bank will develop guidance on appropriate disclosure requirements to apply for both types of classes.

## Conflicts of Interest<sup>11</sup>

62. DP6 highlighted potential conflicts of interest that arise where parties related to or contracting with an ETF are part of the ETF providers group. It questioned whether rules designed to address conflicts could be effective in this context. In the case where an AP / swap counterparty / securities financing transaction (SFT) counterparty are part of the ETF's group, difficult conflicts may arise. An AP or counterparty does not have a fiduciary duty to the ETF (as their interests are purely commercial ones) and so the ETF is exposed to the risk that their interests, particularly in a stressed environment, will outweigh the commercial obligation (as swap provider) and commercial relationship as the sole conduit for investor access to the ETF. The intention of the Central Bank was to highlight such conflicts and to also consider whether other approaches may be worthy of consideration.

### Areas of Discussion

63. A majority of respondents noted the very strict regulatory requirements under the UCITS Directive, AIFMD, SFTR, EMIR and, additionally, the Central Bank rules which address conflicts of interest arising, whether on an intra-group basis or otherwise. Respondents noted that UCITS management companies are obliged to properly identify, manage, monitor and (where relevant) disclose potential conflicts of interest. The requirement for functional and structural independence between the UCITS management company and group entities was emphasised. A number of respondents also noted that they had self-imposed best practices to address the potential for conflicts of interest.
64. Respondents noted and welcomed MiFID II's extensive conflict of interest rules. They also referenced product governance rules which further ensure that any conflicts between the interests of the product producer and the investor are taken into account when establishing a product.
65. A number of respondents specifically addressed ETFs which used swap counterparties, particularly single counterparty arrangements. These respondents noted that conflicts of interest related obligations should be, and were, robust. One respondent however argued that ensuring no conflicts of interest arose in the context of swap providers would require appointment of multiple and diverse swap counterparties.
66. A common theme amongst respondents was that a concentration of activities in a financial group does not necessarily result in conflicts of interest. Respondents noted that, irrespective of whether counterparties were within or outside of a group structure, contract terms were required to be competitive and to be negotiated on an arm's length basis.

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<sup>11</sup> Question 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?

### Findings to Date

Conflicts of interest are risks which are inherent to businesses generally and are not considerations confined to the arena of regulated funds. The potential for conflicts to arise and for them to have an adverse impact on investors means that the existence of, and potential for, conflicts of interest will continue to be to the fore in regulatory considerations. The requirements of MiFID II and, particularly in an ETF context, the UCITS Directive, oblige firms to manage conflicts of interest in all dealings.

The Central Bank has long-standing principles and rules relating to conflicts of interest management. The Central Bank also believes that there is a direct link between firms with an inherent robust culture focused on clients and regulatory compliance, and those firms that best manage risks around conflicts of interest. Where conflicts are not appropriately managed, there is an increased risk that clients' interests are undermined.

The Central Bank notes the focus of some respondents on conflicts of interest that might arise in an ETF pursuing a synthetic strategy using swaps. The Central Bank does not believe that any one structure is more exposed to conflicts of interest risk than another. All ETFs and providers of ETFs are subject to the same rigorous approach and obligations.

It does appear, however, that in an environment where only parties connected to the ETF provider act as service providers or perform other functions for the ETF, the perception that conflicts are not being managed arises. This is understandable. It is important that conflicts within an ETF structure are identified, monitored, managed and disclosed. This ranges from the links between the ETF provider, trading counterparties, APs and OLPs to the group links that may exist between the management company and depository. The arrangements that are put in place by an ETF provider must serve the best interests of end clients.

This matter will and should be subject to further review internationally and information received in response to DP6, will inform the Central Bank's contribution in this regard.

## Counterparty Exposure<sup>12</sup>

67. DP6 sought to investigate the perceived advantages and disadvantages with an ETF having either a series or limited number of counterparties. It articulated that the UCITS framework does not restrict the extent to which a series of parties, potentially related parties, can act for a UCITS. DP6 specifically sought to investigate whether having a single counterparty or multiple counterparties could expose ETFs to unintended risks and consequences. DP6 outlined however that there are detailed UCITS requirements in relation to managing counterparty risk. Counterparty exposure can arise in a variety of different arrangements including a (single) swap counterparty in the case of a synthetic ETF, a Securities Financing Transaction (SFT) counterparty where the ETF enters into securities lending; a derivative counterparty in the context of hedging activities and in all cases there may be links between the APs and these counterparties.

### Areas of Discussion

68. The responses to this matter were, in the main, addressed separately in the context of physically investing ETFs and synthetic ETFs. Responses to the question largely reflected the business model of respondents.
69. The majority of respondents who were either providers of physically investing ETFs or APs, favoured a multiple counterparty model. They argued that ETFs with multiple counterparties reduce concentration risk as they encouraged diversification and risk spreading.
70. Respondents representing providers of synthetic (or swap based) ETFs argued in favour of a single counterparty model. They noted that the governance and regulation surrounding single counterparty models was well established within existing rules.
71. Both providers of physical and synthetic ETFs agreed that the existing regulatory framework was well established and whether single or multiple counterparties were used it was necessary to:
- a. establish an operating model that has appropriate risk oversight and which effectively manages counterparty risk exposure;
  - b. ensure best execution (this being an existing requirement for ETF providers); and
  - c. ensure there was appropriate risk management and mitigation for counterparties.

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<sup>12</sup> Question H: Could multiple counterparties expose ETFs to unintended risks and consequences?

72. Both providers of physical and synthetic ETFs were generally opposed to a regulatory requirement for a minimum or maximum number of APs and or counterparties. In this regard it was noted that:
- a. the requirements for a multi-swap counterparty model were best decided on a case-by-case basis and investors' best interests could be best served by either a multiple or a single swap counterparty structure;
  - b. multiple counterparties would be of benefit to diversify any counterparty risk;
  - c. single counterparties would be of benefit where one counterparty is particularly well placed to offer competitive market access or favourable tracking error levels;
  - d. commercial circumstances (such as a newly established ETF or one with a low level of assets under management or the cost of overseeing a multi-counterparty model) might dictate whether a single or multiple counterparty model might be used.

### Findings to Date

Intuitively a multi-counterparty model is associated with risk diversification; the more counterparties that exist within a structure the less the impact of a failure of one of those counterparties. Similarly, the consequence of reliance on a single counterparty could be failure of an entire structure.

The risks arising in this context are not necessarily limited by reference to a particular structure or by reference to the methodology used to deliver exposure. An ETF, whether physically investing or delivering exposure through a synthetic model, will be dependent on a number of counterparties to deliver a return. The physically investing ETF will very often engage in securities lending and as such, will be exposed to risk of failure of the securities lending counterparty. The synthetic ETF will be exposed to failure of its derivative counterparty. Both types of ETF will be dependent on the continued functioning of APs and OLPs to deliver and manage liquidity levels in the ETF.

The framework under the UCITS Directive includes risk tolerances to which UCITS ETFs must comply and related risk management requirements (including counterparty exposure limits). While there is a robust framework in this regard it appears that risk management tools which were designed to achieve diversity often result in single counterparty exposure for an ETF (albeit exposure which is collateralised). This could occur at the level of investment exposure (i.e. in the single swap counterparty or the single securities counterparty model) or at liquidity delivery level (i.e. where there is a single AP).

Where concentration of this type exists, risk management oversight and business continuity requirements come into focus more sharply. Respondents have commented that single counterparty structures are successful and well managed from a risk perspective because they are the beneficiary of dedicated focus from the risk manager. There are good arguments to support this. Monitoring a single counterparty can bring efficiencies - it facilitates an in-depth understanding of the counterparty, its systems, business models, behaviours and risk tolerances. The Central Bank has also heard from ETF providers that it results in more efficient risk monitoring and consequentially, lower costs for the ETF provider. This level of knowledge about a counterparty can result in a good understanding as to the focus of any points of weakness and can permit targeted risk management tools to be established.

It also appears that a single counterparty model, particularly from a synthetic ETF perspective, might result in increased protection arising because of the thresholds set by certain regulation (specifically, EMIR).

That being said, multiplicity of counterparties provides diversification and is an apparently simple tool by which risk can be reduced. It seems sensible that reliance is not placed on a single counterparty.

It appears to the Central Bank that the most obvious need for diversification is in an ETF's AP ecosystem. Respondents have emphasised as a key theme the diversity of APs that exist. They have sought to make very clear that it is this diversity and multitude of APs which ensures liquidity and at the right price. Competition between APs results in tighter spreads.

However, it does not appear to the Central Bank that this is always the case particularly in the case of newly established and smaller ETFs, as they may not represent the most attractive option for APs. Furthermore, the pool of APs with a defined market expertise may be relatively small.

There was some suggestion that ETFs operate what may be described as an exclusionary door policy. Whether that door policy results in APs being prevented from accessing a specific ETF by the provider of that ETF or whether it could manifest in practices that do not promote competition, is an open question. This may be anecdotal at best. However, if AP access is restricted the results may have obvious implications in terms of liquidity but may also have other greater unintended consequences.

The Central Bank is not advocating a regime whereby a minimum number of counterparties is mandated for ETFs (or for any other UCITS). The Central Bank is advocating for a more open-door, diverse, competition friendly practices that will strengthen the ETFs ecosystem. This matter is also one for further consideration in the international debates.

## Synthetic ETFs<sup>13</sup>

73. Academic research has suggested 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. The Central Bank sought to investigate related matters as part of DP6, including if collateral received (where a funded model is used) or securities purchased (where an unfunded model is used) should be correlated to the index being tracked. The intention was to highlight this area for discussion and better understand if it was practical particularly, for example, where the index tracked by an ETF is comprised of securities which may be relatively expensive to access.

### Areas of Discussion

74. Respondents were strongly opposed to any suggestion of reopening the debate on collateral correlation as they considered that the matter had previously been debated and settled in the context of ESMA's Guidelines on ETFs and other UCITS issues. Respondents were unanimous in their views that changes in requirements for collateral correlation was undesirable. They were of the view that the existing collateral requirements were robust, appropriate and that this area is sufficiently well regulated and subject to appropriate disclosure requirements.
75. Respondents noted that the focus of collateral related considerations should centre on liquidity and quality and in particular, the ease at which collateral positions can be liquidated in times of counterparty default. Respondents noted this was the purpose of collateral – to secure a claim. They commented that collateral should not be confused with portfolio assets which served an entirely different purpose. Respondents noted that changes to collateral requirements would impact all UCITS and not solely synthetic ETFs. The negative commercial, risk and economic impacts of requiring collateral correlation highlighted included:
- a. a loss of the benefit provided by securities lending and of the synthetic ETF structure (as collateral received by the fund would be identical or similar to securities lent or, in the case of synthetic ETFs, to the exposure sought);
  - b. a negative impact on certain portfolio management techniques, such as optimisation due to over-collateralised positions arising by necessity;
  - c. increased cost and risk (for example having correlated collateral in the context of an investment strategy focused on emerging market securities would be expensive and increase risk);
  - d. a smaller pool of available assets (as there would be a limit on the types of securities the fund could purchase or hold as collateral, despite an abundance of securities which meet quality and liquidity requirements);

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<sup>13</sup> Question 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?



- e. the impossibility of meeting this requirement where, for example, the ETF tracked commodity indices.
76. A number of respondents noted the limits of correlation, specifically that the outcome could be unstable over time, particularly during times of market stress.
77. In summary, respondents considered correlation requirements for collateral to be inappropriate for economic, structuring and regulatory reasons.

### Findings to Date

In asking this question of market participants, the Central Bank was keenly aware of the prior regulatory debate and engagement that took place in the period preceding issue of ESMA's Guidelines on ETFs and other UCITS issues. Indeed responses to this question closely mirrored industry feedback provided at that time.

The intention of the question was to ascertain whether the views of the industry remained consistent. As observed by one respondent, continued regulatory scrutiny permits an assessment of the markets evolution.

A number of respondents were critical of the apparent imbalance in DP6 arising from a focus on risk factors arising in synthetic structures (without highlighting that those same risk factors arose in a physically investing ETF context). The resulting collateral discussion was considered to be disproportionately biased against synthetic ETFs. The Central Bank acknowledges that DP6 gave this impression and agrees that considerations relating to collateral must also be considered by ETFs which engage in securities lending.

The intention of the collateral risk section was to allow for an increased understanding of collateral practices, particularly in the context of ETFs, a structure which is often described as being simple.

As collateral requirements have implications for all UCITS, and not solely UCITS ETFs, at this time the Central Bank does not see merit in further considering issues related to collateral correlation from an ETF specific perspective.

## Active Investment Strategies<sup>14</sup>

78. The Central Bank highlighted active ETFs as an area for discussion as part of DP6 given the increase in interest in establishing actively managed ETFs. As outlined in DP6, there are diverging views in relation to what should be considered an ‘active’ ETF. Nevertheless, the Central Bank was keen to understand what strategies could be considered as appropriate within the ETF structure. DP6 also sought to investigate whether there may be disadvantages associated with having active strategies within ETFs. This matter is very much linked to the topics of portfolio disclosure and ETF liquidity which are considered earlier in this feedback statement.

### Areas of Discussion

79. Respondents in general were supportive of the ability of an ETF structure to “house” an active strategy. They commented that as a UCITS, an ETF could be a useful structure for any UCITS-compliant strategy, irrespective of the extent to which it was active. While the general view was that the UCITS management company was responsible for determining the suitability of a strategy for an ETF, some respondents were cautious about the types of strategy that were appropriate for ETFs. They commented that complex strategies which involved extensive use of derivatives or illiquid investments were possibly not suitable.
80. Respondents were generally agreed that there were two key features to take into account in deciding whether a strategy was suitable for an ETF. These were (a) liquidity and (b) sufficiency of pricing information.
81. **Liquidity:** Respondents noted the importance that the liquidity profile of an active ETF be considered from a number of perspectives. Firstly, the liquidity profile of the ETF, unlike a non-active ETF, needed to match the liquidity profile of underlying assets. Secondly, it needed to be consistent with the needs of the target investors. One consequence of a liquidity mismatch, could be the inability of an ETF to manage its own capacity (because, for example, the ETF could not reject subscriptions for capacity reasons in the same way other funds could).
82. From an investor perspective different views as to the necessity for intra-day liquidity were given. Some respondents noted the ability of investors to trade ETF shares on an intra-day basis as being an attractive feature while others gave this little comment or attention.
83. **Sufficiency of pricing information:** Respondents to this question were consistent in their views that full portfolio disclosure to the market as a whole was not required. This was because the information would not be of informational use for

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<sup>14</sup> Question 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)?

secondary market investors. These respondents were strongly of the view that portfolio disclosure had to be sufficient for the purposes of market makers and APs, in order to facilitate accurate pricing of the ETF (and thereby tighter secondary market spreads). Respondents who were ETF providers did not comment here on the degree of portfolio information that was necessary for APs.

84. Respondents who carried out market making and AP activities commented on the essential nature of portfolio disclosure to facilitate pricing and hedging of the ETF. They noted that this information could be provided to them on a non-disclosure basis. A common thread between both types of respondents was the difficulty in disclosing the ETF's portfolio on a daily basis. Respondents noted this was proprietary information and that protection of intellectual property rights for active strategies was a key factor that was integral to any active ETF.
85. From an investor perspective, respondents noted that active ETFs served a valid purpose for investors; they were a less expensive alternative to non-ETF investment funds and provided choice in terms of how an investor would make an investment.
86. Respondents believed that any scope for misunderstanding the nature of an active ETF could be addressed with enhanced disclosure and investor education. This should provide investors with appropriate clarity on the investment approach and relevant risk factors.

## Findings to Date

The Central Bank fully appreciates that in theory it is possible for UCITS ETFs to adopt any strategy which is permitted for UCITS generally. Both ETFs and non-ETFs are subject to the UCITS requirements and benefit from the robust regulatory environment and associated safeguards of the UCITS Directive. That being said ETFs operate in the very distinct environment of a stock exchange and have, with APs being the sole interface, a unique dealing mechanism. This results in a structure which straddles a number of regulatory regimes and thereby, raises a number of unique considerations.

Over the years, the exposure sought by ETFs has diversified and has moved away from the broad based market capitalisation approach. More common now are ETFs with in-built “factors” or “tilts” which seek to deliver more targeted or nuanced exposures. The development of indexing and the complexities associated with it were not the focus of DP6. While some respondents lamented the lack of focus in this regard, from the Central Bank’s perspective it was relevant, though not central to the subject matter. The Central Bank recalls the legislative requirements governing the use of indices both from a UCITS perspective, and more generally. Specifically, the Eligible Assets Directive, ESMA’s Guidelines on ETFs and other UCITS issues and the Benchmark Regulation deal with matters relating to the use of indices. These notwithstanding, the Central Bank notes that matters relating to index methodologies (and in particular, the extent to which these methodologies have scope for discretionary decision making) are being suggested as topics which are appropriate for the regulatory agenda. For example, if a trading strategy is reflected in index form does this re-categorise an ETF from being rules-based to being active? This is a difficult question but one worthy of discussion.

ETF providers responding to this question were keen to emphasise their role and their obligation (in terms of product manufacturing) to ensure the appropriateness of an ETF’s strategy. The Central Bank acknowledges this but at the same time queries whether there are boundaries.

Regulators must be concerned that innovation does not create unreasonable levels of additional risk. At the same time, by obtaining a thorough regulatory understanding of the features giving rise to that innovation, regulators can support innovation.

It appears to the Central Bank that the greatest obstacle for ETF providers wishing to provide an active strategy through an ETF relates to the ability to facilitate generation of liquidity at a reasonable cost to investors. The balance to be struck by providers is, on the one hand, provision of a relatively granular level of portfolio information to liquidity providers in order to enable them to appropriately trade and hedge exposure to an ETF. This provides secondary market investors with access to the active ETF with comparatively tighter spreads. On the other hand, the protection of intellectual property rights is of paramount importance and so providers will wish to provide information on a limited basis. The outcome is a balance of commercial determinants for ETF providers.

In the context of this section, respondents also focussed on another matter related to whether in the case of an ETF seeking niche market exposure. Namely, would this give rise to a concern in relation to ETF scale? It is not clear to the Central Bank that this is necessarily the case, however in the absence of empirical evidence this is difficult to determine. This matter is very much related to the next section concerning ETF liquidity.

## ETF Liquidity<sup>15</sup>

87. Liquidity in ETFs is impacted by two influences: primary dealing arrangements and liquidity of the underlying assets. As part of DP6, the Central Bank sought to discuss matters pertaining to the liquidity of the ETFs underlying assets. The rationale for doing so was informed by the continued growth in ETFs and the potential impact on the liquidity of the underlying assets in which ETFs invest. The Central Bank was aware that, in turn, this might indirectly impact on the ETF's own liquidity and as a result could give rise to a potentially complex feedback loop.

### Areas of Discussion

88. In responding on these matters, ETF providers emphasised the extent to which liquidity of underlying assets was a key feature in the design phase of an ETF. Liquidity in the underlying market is essential to the operation of the ETF. Respondents noted that alignment between ETF primary market dealing cycles and the underlying market was essential to facilitate this trading.

89. In this regard two main factors were relevant; the first was the need for APs and ETFs to be in a position to effect daily transfer of securities to each other (depending on whether there is a creation or redemption of ETF shares). The second related to the AP arbitrage mechanism and the need for market liquidity to facilitate APs hedging their exposure to trades in the ETF.<sup>16</sup> Respondents noted that the liquidity profile of each ETF was unique and that it was based on, amongst other factors, the ease at which underlying securities could be traded, as well as the costs associated with the creation and redemption process. Respondents also sought to emphasise that notwithstanding the essential requirement of primary market liquidity, the overwhelming majority of ETF trading occurs on the secondary market (with a limited amount of this resulting in primary market trading).

90. Respondents noted the different layers of liquidity that existed from an ETF perspective. While, at a fundamental level respondents commented that underlying markets could be "less liquid" than others, they were keen to note that UCITS rules would not permit a UCITS ETF to invest in asset classes that were actually illiquid. Therefore, respondents felt that issues relating to liquidity in normal market circumstances within a UCITS ETF were unlikely to arise.

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<sup>15</sup> Question 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?

<sup>16</sup> One respondent, however, (an AP) noted that this requirement was not absolute. This respondent argued that disclosure of the portfolio and competition at the AP level was more important. Once these features were present, APs and other liquidity providers could use instruments corresponding to those in the ETF's portfolio to hedge the exposure arising under the ETF.

91. Respondents also observed that ETFs can result in liquidity levels becoming more visible. The case of bond ETFs was noted. In this case an ETF trading in an underlying bond can provide market visibility on the price attributed by the market to that bond. Respondents felt that if price visibility can be created through the ETF trading process then this has an inherent market benefit.
92. Respondents were also keen to emphasise that ETFs were subject ultimately to market forces and that “liquidity at all costs” was not offered by ETFs. That being said, respondents stated that the possibility of no liquidity in an ETF at all was remote. In this regard, respondents pointed to a number of market events during which ETFs continued to trade notwithstanding an absence of, or a reduced, underlying market such as the 2008 Financial Crisis, the 2010 European Debt Crisis and the 2015 High Yield Sell-Off.
93. Respondents commented on the different layers of liquidity that existed for ETFs. These were:
- a. on exchange and “visible” liquidity. This is liquidity which arises as a result of OLP activity, where they help maintain an orderly market by buying and selling ETF shares;
  - b. on exchange and “hidden” liquidity. This is liquidity which arises due to the inability to view all orders at a single point in time or because only orders from a single trading venue can be seen;
  - c. off exchange liquidity. This arises, for example, in the case of OTC trading; and
  - d. market liquidity in the ETF. This is represented by the increase in liquidity of the ETF itself from trading in underlying securities. The outcome is an alignment of ETF liquidity with that of its underlying securities.
94. Respondents were keen to emphasise the robustness of the regulatory environment within which UCITS ETFs operate. In this regard they noted UCITS requirements relating to governance, eligibility of assets, eligibility of markets as well as stress testing, liquidity rules and diversification rules, all of which a UCITS ETF had to comply with. Respondents were strongly of the view that these rules were appropriate, to ensure that ETFs operate in a resilient manner notwithstanding prevailing market conditions. Certain respondents provided detail on liquidity due diligence practices employed from an ETFs inception. They noted the need to ensure there was sufficient capacity and liquidity in underlying markets, to ensure that dealing and settlement cycles in both the ETF and in underlying markets were aligned.
95. However some respondents were cognisant of the concern expressed in DP6, in that investors might consider that ETFs provide liquidity in all market conditions, irrespective of the existence of stress in the underlying market. That this investor expectation might not be met in all market conditions was noted.

### Findings to Date

The Central Bank is keenly aware of the current regulatory focus (from both a national and international perspective) on liquidity management practices. In an ETF context and particularly where there is a move away from broad based market capitalisation exposure to more sectoral and industrial focuses, additional concerns can arise in relation to the ability of the underlying market to meet the demands that the ETF could create. It is therefore reasonable to expect continued circumspection and regulatory attention to ETF liquidity-related matters.

In asking the questions about liquidity, the Central Bank was interested to understand the liquidity risk management practices ETF providers employed. Respondents emphasised the rigorous standards to which UCITS ETFs were held. They commented on the robustness of the UCITS regulatory regime which prevented UCITS ETFs from investing in illiquid assets and which imposed obligations on UCITS management companies to have and to implement stress testing for their portfolios. ETF providers commented that this regulatory environment was overlain by internal procedures which ensured that the development stage of any product incorporated a thorough assessment of the underlying market, including matters relating to capacity and liquidity.

Respondents commented on the complexity of liquidity and the various “layers” of liquidity that occur in an ETF structure. They noted in particular that where an inefficiency or stress event occurs at the level of one of these liquidity layers, this does not necessarily have an adverse effect on other liquidity layers. An example provided was that closure of an underlying market to which an ETF is delivering exposure, will not necessarily result in shares in the ETF ceasing to trade. While it can be expected that secondary market trading in ETF shares will continue, respondents noted the illiquidity will translate into wider spreads. Respondents pointed to a number of market events where this was evidenced.

ETF liquidity is complex. It appears that the most fundamental aspect of this complexity is liquidity in the underlying market. This is because the frequency with which underlying assets could be dealt in (as opposed to actually being dealt in) must be at least as often as the frequency with which the AP can deal in the ETF. A mismatch between these two dealing frequencies creates a risk that obligations on the part of the AP (to deliver underlying securities to the ETF) or on the part of the ETF (to deliver underlying market access) could fail to be met. This would result in adverse consequences for market participants trading in ETF shares.

One of the difficulties in discussing ETF liquidity from a European perspective is the over-the-counter nature of ETF trading. In an environment where levels of trading in ETFs are not capable of being ascertained, it is very difficult for investors (particularly retail investors) to assess whether, and the extent to which, they are exposed to risk of illiquidity. It might be the case that this is exacerbated in a European context, where liquidity is siloed and (depending on the settlement structure used) visible only when jurisdiction-by-jurisdiction trading aggregation has taken place. Transaction reporting under MiFID II will address some of these issues.



It must be acknowledged that providers, through their marketing of ETFs, have created an expectation of ETFs having an inherent liquidity at a reasonable cost. This is not borne out in all market circumstances. For a structure which is understood to be cheap (relatively speaking to other investment funds), it does not seem consistent that an ETF could (or should) have a great tolerance for liquidity risk.

This area is likely to be the focus of ongoing discussions at European and international work streams in relation to ETFs. The Central Bank will continue to engage in relation to this matter, particularly in light of the extensive feedback received.

## Informational Efficiency of Underlying Securities<sup>17</sup>

96. Informational efficiency is the degree to which, and speed with which, the market prices of securities correctly reflect available information for an underlying asset thereby showing its true value. As set out in DP6, informational efficiency contributes to the efficient functioning of financial markets. A potential impact from greater investment in index tracking ETFs may be decreased informational efficiency of underlying securities. In addition, it may also give rise to increased non-fundamental volatility of underlying securities. The Central Bank was keen to more fully understand this issue and consider whether such risks warranted attention or if it was possible for such risks to be mitigated, managed or eliminated.

### Areas of Discussion

97. Respondents dealing with this matter did not support suggestions that ETFs might contribute to, or increase the non-fundamental volatility of underlying securities or that they might adversely affect the informational efficiency of such securities. They commented that available academic research was not sufficiently consistent in outcome, to enable such conclusions to be reached. Some respondents noted that any lack of informational efficiency created by ETFs would result in opportunities for stock pickers.

98. While hopeful of MiFID II bringing change, respondents pointed to the lack of available data, the minimal amount of global assets under management in ETFs<sup>18</sup> and the fact that the vast majority of ETF trading took place on the secondary market. These were all factors which undermined any indication that ETFs adversely affected the underlying market. Nevertheless, vigilance on the part of regulators in relation to potential adverse impact as well as the need for increased research on the topic was called for by some respondents.

99. Rather than having a negative impact on underlying markets, some respondents noted the positive effect of ETFs. They outlined their views in the context of:

- a. ETFs increasing informational efficiency by acting as a price discovery tool for underlying securities.

Respondents noted that trading in an ETF necessarily involved a real-time valuation of underlying securities. This resulted in market expression of a security's value and therefore propagated information. Respondents argued this was particularly the case for more illiquid instruments or those traded over-the-counter. The case of the Greek crisis was noted where, despite the underlying market being closed, an ETF with Greek exposure

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<sup>17</sup> Question 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?

<sup>18</sup> The amount of global assets under management invested in ETFs was set at a maximum of 5% by respondents (with some respondents indicating that the figure could be as low as 2.1%).

continued to be actively traded. When the market reopened, the index value aligned with that of the ETF.

b. ETFs promoting liquidity.

100. Respondents commented that increased trading levels in previously less liquid assets (such as certain bonds and commodities) encouraged more competitive trading and standardisation of trading. They were hopeful of increased trading on open, transparent, electronic markets.
101. One respondent noted the (then) forthcoming report from the Commission Expert Group on Corporate Bonds<sup>19</sup> as being indicative of a view that ETFs had a positive impact on price discovery.
102. Respondents discussed the effect of index inclusion on underlying securities and noted it was not straightforward. Some noted the occurrence of “modest” permanent price effects associated with inclusion or exclusion of a security in an index. They argued that these price effects could arise due to a greater focus on the issuer by analysts or other market commentators. Similarly, they noted the nature of “index families” (where a security could simultaneously be removed and added to indices). Respondents were keen to emphasise that inclusion in an index did not imbue a security with “investable” qualities (such as liquidity and market capitalisation levels), rather it was arising from these investable qualities that the security was included in the index in the first instance.

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<sup>19</sup> *Improving European Corporate Bond Markets*, Report from the Commission Expert Group on Corporate Bonds, November 2017. [https://ec.europa.eu/info/sites/info/files/171120-corporate-bonds-report\\_en.pdf](https://ec.europa.eu/info/sites/info/files/171120-corporate-bonds-report_en.pdf)

**Findings to Date:**

The Central Bank does not believe there is a clear answer to this matter. It appears that the consequence of inclusion of a security in an index is arguably subjective and capable of explanation from a number of perspectives. Clearly academic analysis on the matter does not appear conclusive.

In raising this topic the Central Bank was seeking views of those with direct market access and experience, whether as a result of providing ETFs or otherwise.

Respondents were clearly opposed to drawing any firm conclusion on point. They noted the market size of ETFs and emphasised the inability to reach a decisive view, particularly where other strategies (for example, non-ETF index funds) which were also heavily invested in indices or in index constituents.

The recommendation made by the Expert Group to the European Commission that the contribution of ETFs to price discovery and liquidity of underlying assets is noted.

The Central Bank considers this area is ripe for further research. It seems, in the likelihood that ETFs and index investing generally, will continue to achieve increased market share, that the topic is appropriate to be analysed and debated. The matter seems most appropriate for research on a supranational regulatory level, as this could provide genuine insight into the effects of index inclusion on underlying securities. It might also frame the direction of focus for regulators focussing on market systemic events.

## ETF Provider Support<sup>20</sup>

103. The topic of ETF provider support relates to whether ETF promoters might seek to reinforce secondary market trading to prevent its breakdown. This matter was of interest to the Central Bank in order to understand if an ETF provider would be incentivised, primarily from a reputational risk perspective, to support the ETFs it operates. DP6 raised specific issues for consideration, including if provider support could have an impact on investor expectations and if it was a desirable objective more generally.

### Areas of Discussion

104. Respondents on this topic were not in favour of any obligation of some kind regarding ETF provider support. Some queried what “support” would entail and what its scope might be.
105. In general, respondents sought to emphasise that ETFs were investment products and investors were, and should be, exposed to economic laws of supply and demand of the open market. One respondent commented that the “ETF” label should not imply any immunity from prevailing market conditions.
106. Respondents stressed that as investment products ETFs did not benefit from any form of guarantee. An ETF does not guarantee a price to investors upon divestment; nor does it guarantee that investors are isolated from liquidity risk. Respondents disagreed with the creation of any expectation of continued liquidity in all market circumstances and reiterated that the prices at which ETFs traded were subject to the unpredictability of the prevailing market. All investors, whether they held ETF shares or any other form of market-based investment, would experience challenges in realising the intrinsic value of an ETF share or other share during periods of market stress.
107. Respondents spoke of the moral hazard created by providing an impression to investors that ETF providers were in some way underwriting liquidity in the ETF. It was noted that any regulatory pronouncement regarding ETF support could result in a fundamental misunderstanding by investors of the risks of investing in an ETF.

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<sup>20</sup> Question 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?

### Findings to Date

The question of provider support is one which has already been debated in Europe from a money market fund regulation perspective. The European Union Money Market Fund Regulation prohibits money market funds from receiving external support.

Managing investor expectation is a key focus in an environment where investors seek market exposure from an investment product it was therefore unreasonable for them, in turn, to be isolated from market events. Particularly where the provision of this support was not apparent to the market.

In the same way the question is asked of ETFs – are there circumstances in which an ETF provider should be permitted (or could be required) to support the ETF? In this context what is the scope of provider support and how could it manifest itself in an ETF environment where the support provided might be more difficult to see than in a money market fund context?

The Central Bank was intentionally vague when posing this question as it wished to understand what the market understood by provision of support and how this might present itself.

Provision of seed money to ETFs and incentives to liquidity providers were noted.

As a matter of principle the Central Bank is not in favour of providing investors with an impression that in some way, their investment is not subject to the peaks and troughs of the market. The scope of “support” and what it might entail has not been determined but this is a matter which might warrant further debate. ETFs provide liquidity, in some respects they create it. When stress or other market events adversely affect the provision of liquidity on which the ETF is premised the question of support, its scope and desirable constraints is likely to be of most relevance.

## European-level analysis<sup>21</sup>

108. In Europe, challenges accessing data in relation to ETFs in Europe due to market fragmentation and OTC trading has given rise to difficulties when conducting European centric analysis. As a result, most academic literature and reviews relate to US ETFs. In DP6, the Central Bank set out a potential concern that this reliance on US-centric materials may adversely affect analysis carried out on Irish authorised and European ETFs. In addressing the topic, the Central Bank sought to focus discussion on whether market participants were aware of specific information which, in a European context, might lead to different conclusions.

### Areas of Discussion

109. Those who responded to this matter did not necessarily agree that US specific data was of limited use in a review of ETF-related matters. The key differences between the US market and the European market were highlighted. These include European pre-trade fragmentation, the prevalence of over-the-counter trading, the maturity of the US market, that trades take place in a single currency and that US investor behaviour was heavily linked to taxation.

110. Equally, the commonalities that exist between the US and European market places were outlined. These include: US and European ETFs were structured in the same way, obtain market exposure in same way, achieve enhanced liquidity from secondary market trading and both exist within a robust regulatory environment. As a result, respondents suggested that US-centric research could form a solid basis for development of views on potential risks associated with European ETFs. Research results should, however, be read with an understanding of the different market structures in which they exist.

111. Respondents observed that, despite the maturity and greater size of the US, in Europe market behaviour was similar and spreads were increasingly lower. European markets operate competitively and resiliently, even by comparison to US markets.

112. Respondents were hopeful that a more accurate picture of ETF liquidity would appear following the inclusion of ETFs in the MiFID II transparency regime. Respondents were of the view that the combined effect of the UCITS Directive and MiFID II regulatory frameworks resulted in a high standard of investor protection.

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<sup>21</sup> Question 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 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?

### Findings to Date

The Central Bank, when engaging in research for DP6 were very aware that comprehensive data was not available to inform its discussion on ETFs (either on aggregate basis or otherwise) from a European perspective. At the same time, the Central Bank was very alert to the maturity of the US ETF market place and the fact that US ETF providers are the predominant providers of European ETFs. While the US experience would not directly translate into a European context, because of the differences that existed, a wealth of information and in particular, approaches could be garnered from US based research.

This position appears to have been well founded. Respondents to this question commented that the use of US-centric research served as a strong foundation for an in-depth understanding of ETFs, irrespective of their domicile.

In terms of MiFID II, respondents were hopeful of a positive impact. They welcomed the transparency on trading volumes that the post-trade reporting would have. MiFID II trade reporting should provide regulators, as well as the market, with a clearer picture of liquidity levels in individual ETFs. That this will be hampered by the absence of consolidated data at a European level and because of fragmentation of trading is regrettable. Both the market and regulators remain hopeful that a solution resulting in a consolidated tape provider entering the market can be identified.



## ETF Specific Considerations<sup>22</sup>

113. While DP6 raised a broad range of matters for consideration, the Central Bank was also conscious that there may be other ETF specific matters, peculiarities or risks which current European regulatory frameworks (in particular UCITS or MiFID) do not address and which were not highlighted by the Central Bank for discussion. As a result, DP6 sought views from market participants as to whether there were other issues which should be further examined.

### Areas of Discussion

114. There were few respondents to this question and the majority of those who did respond did not believe there were matters in addition to those set out in DP6 which warranted additional consideration.
115. Certain respondents noted there was merit in further consideration and understanding of the arbitrage activity of APs. It was noted that the manner in which APs functioned was aligned (but competed) with the interests of the retail investor.
116. A small number of respondents called out other areas which would warrant additional understanding. These included micro-structural issues which could affect pricing and liquidity generally.
117. This group of respondents also highlighted a number of market structural issues which would benefit from harmonisation. Noted specifically were:
- a. listing rules;
  - b. market practices such as causes for market closures and use of circuit-breakers; and
  - c. market fragmentation.
118. A number of respondents cautioned against the imposition of additional regulation or a bespoke ETF regulatory regime which they saw as both unnecessary and possibly resulting in the risk of regulatory arbitrage.

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<sup>22</sup> Question 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 we have not examined here?

### Findings to Date

The Central Bank thought there was much merit in the views expressed by respondents to this question, particularly in the context of European market harmonisation. An important issue which respondents highlighted in this context was that European ETFs suffered from fragmentation in terms of operations. Primarily this related to the variety of listing rules to which the same ETF may be subject when listed on multiple EU exchanges (for example trading halts, liquidity and spread requirements, reporting requirements and the necessity for iNAV). Similar comments were also made by some respondents in general commentary supporting their submissions.

It appears to the Central Bank that the market infrastructure on which the ETF structure depends is more varied than we had expected. It seems that a more homogeneous approach from both a structural, listing and regulatory perspective would be desirable given the likelihood of continued growth of ETFs.

## Annex I

### Summary of DP6 Questions

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?

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?

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?

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?

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?

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?

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?

H. Could multiple counterparties expose ETFs to unintended risks and consequences?

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?

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)?

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?

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?

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?

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?

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 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?

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 we have not examined here?





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Central Bank of Ireland

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