Principles for the Regulation of Exchange Traded Funds

Consultation Report

TECHNICAL COMMITTEE
OF THE
INTERNATIONAL ORGANIZATION OF SECURITIES COMMISSIONS

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Foreword

The Technical Committee (TC) authorized the Standing Committee on Investment Management (TCSC5) to proceed with a project on Exchange Traded Funds (ETFs) designed to:

(1) highlight the experience and key regulatory aspects regarding ETFs and related issues across SC5 members;[1]

(2) identify the common issues of concern; and

(3) if appropriate, develop a set of principles or best practices on ETF regulation.

Accordingly, TCSC5 has developed some proposed common investor-protection principles or guidelines on ETFs.[2] In addition, the report touches on certain market structure and financial stability issues. The proposed principles have been developed to provide guidance for markets and market authorities. This does not mean, however, that a one-size-fits-all approach is being advocated. The principles need to be of such a nature that they are adaptable to different regulatory frameworks. They should, for example, be relevant regardless of the predominant distribution model. In addition, some of the principles may be better suited to industry best practice as opposed to regulatory requirements.

How to Submit Comments

Comments may be submitted by one of the three following methods **on or before 27 June 2012**. To help us process and review your comments more efficiently, please use only one method.

Important: All comments will be made available publicly, unless anonymity is specifically requested. Comments will be converted to PDF format and posted on the IOSCO website. Personal identifying information will not be edited from submissions.

1. Email

- Send comments to ETF@iosco.org.
- The subject line of your message must indicate ***Principles for the Regulation of Exchange Traded Funds***.
- If you attach a document, indicate the software used (e.g., WordPerfect, Microsoft WORD, ASCII text, etc) to create the attachment.
- Do not submit attachments as HTML, PDF, GIFG, TIFF, PIF, ZIP or EXE files.

[1] For more information about the different regulatory structures in SC5 member jurisdictions, see Appendix C.

[2] SC5 established a working group chaired by the U.S. SEC and AMF France of which the members are the AMF Québec, FINMA, BaFin, HK SFC, CONSOB, CSSF, Central Bank of Ireland (CBI), CNMV and UK FSA.

2. Facsimile Transmission

Send by facsimile transmission using the following fax number: + 34 (91) 555 93 68.

3. Paper

Send 3 copies of your paper comment letter to:

Mohamed Ben Salem
General Secretariat
International Organization of Securities Commissions (IOSCO)
Calle Oquendo 12
28006 Madrid
Spain

Your comment letter should indicate prominently that it is a "*Public Comment on Principles for the Regulation of Exchange Traded Funds."*

Contents

Chapter 1 - Executive Summary

The Technical Committee (TC) authorized the Standing Committee on Investment Management (TCSC5) to proceed with a project on Exchange Traded Funds (ETFs) designed to:

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Accordingly, TCSC5 has developed some proposed common investor-protection principles or guidelines on ETFs.[4] In addition, the report touches on certain market structure and financial stability issues. The proposed principles have been developed to provide guidance for markets and market authorities. This does not mean, however, that a one-size-fits-all approach is being advocated. The principles need to be of such a nature that they are adaptable to different regulatory frameworks. They should, for example, be relevant regardless of the predominant distribution model. In addition, some of the principles may be better suited to industry best practice as opposed to regulatory requirements.

SC5 requests comments generally on the proposed principles discussed below, as well as comments on the following specific concerns:

- **Do these principles adequately address the regulatory issues raised by ETFs? For example, should the principles address conflicts of interest raised by ETFs in more detail?**

- **Are potential financial stability issues raised by ETFs appropriately addressed?**

- **Do you see a need for further analysis of issues not exclusive to ETFs, for instance, by the Financial Stability Board?**

- **Are there issues specific to ETFs not already covered by IOSCO's previous work on index funds[5], in particular, should IOSCO look at the composition of the index being tracked by an ETF?**

- **Are there other areas that TCSC5 should address?**

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5 See *Index Funds and the Use of Indices by the Asset Management Industry*, Report of the Technical Committee of IOSCO, February 2004, available at:

http://www.iosco.org/library/pubdocs/pdf/IOSCOPD163.pdf.

- **Please, give your views regarding the questions raised in Chapter 5**

Exchange-traded products (ETPs) include a wide variety of different investment products, including ETFs that are organized as collective investment schemes (CIS), exchange-traded commodities (ETCs), exchange-traded notes (ETNs), exchange-traded instruments (ETIs), and exchange-traded vehicles (ETVs).[6]

Consistent with the mandate of TCSC5, these proposed principles address only ETFs that are organized as CIS and are not meant to encompass other ETPs that are not organized as CIS in a particular TCSC5 member jurisdiction (including, as appropriate, ETCs, ETNs and ETVs). Accordingly, unless otherwise noted, when used in this paper, the term "ETFs" refers only to ETFs organized as CIS.[7]

There is increasing interest in ETFs worldwide as evidenced by the significant amount of money invested in these types of products.[8] The dynamic growth of ETFs has also drawn the attention of regulators around the world who are concerned about the potential impact of ETFs on investors and the marketplace.

For example, the Financial Stability Board (FSB) noted a number of recent developments that it believes warrant increased attention by regulatory and supervisory authorities, including the development of synthetic ETFs in some jurisdictions.[9] Similarly, the Bank of England's recent Financial Stability Report highlighted the rapid growth of ETFs, as characterized by increasing complexity, opacity and interconnectedness, as an example of financial instrument structures that it believes can amplify and propagate stress across markets.[10] Recent market

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6 For example, some ETPs are often marketed as "ETFs" but are, in essence, index-tracking listed debt products that bear very different diversification and risk management properties than ETFs that are organized as CIS. See Appendix C.

7 In particular, we note that an entity that may be deemed to be an ETF organized as a CIS in one SC5 member jurisdiction may be deemed a non-CIS ETP in another. For example, some synthetic products regulated as CIS in Europe may not be regulated as CIS in the U.S. For purposes of the principles in this paper, ETFs are understood in the U.S. to be those ETFs that are regulated under the Investment Company Act of 1940 ("Investment Company Act"). *See* Appendix C.

8 As of the end of 2011, global ETF assets reached US$1,525 billion. This included 4,221 ETFs with 6,612 listings from 1559 providers. The number of ETFs listed in Europe surpassed the United States in April 2009. As of the end of 2011, Europe had 1,232 ETFs listed, compared to 1,098 ETFs listed in the United States. Source: *ETF Landscape Industry Highlights – Year End 2011*, Blackrock, 2012, available at:

http://www2.blackrock.com/content/groups/internationalsite/documents/literature/etfl_industryhilights_ye11_ca.pdf.

9 See *Potential financial stability issues arising from recent trends in Exchange Traded Funds (ETFs)*, Financial Stability Board, 12 April 12, 2011, available at: http://www.financialstabilityboard.org/publications/r_110412b.pdf. As discussed in greater detail below, so-called *traditional* or *physical replication* ETFs are index-based ETFs that seek to replicate the returns of the underlying index. Replication is obtained typically either by purchasing all components of the target index, or by purchasing a selected sample of them, to accomplish their investment objectives. Non-traditional, or so-called *synthetic* ETFs on the other hand seek an analogous replication by entering into a derivative contract (typically a total return swap) with a selected counterparty or rely on a range of investment strategies (for leveraged or inverse ETFs typically involving swaps, futures, and other derivative instruments to magnify investment returns), instead of replicating the index physically through the acquisition of the underlying index components.

10 See *Financial Stability Report, Issue No. 29*, Bank of England, June 2011, available at: http://www.bankofengland.co.uk/publications/fsr/2011/fsrfull1106.pdf.

events also have focused additional attention on the role of ETFs in the marketplace.[11]

As ETFs are CIS, TCSC5 notes that work done by IOSCO with respect to other areas of CIS regulation are also applicable to the management and operations of such products.[12] Therefore, in this paper, TCSC5 chiefly identifies proposed principles that address unique issues, or concerns, posed by ETFs or adapts existing IOSCO principles to the specifics of ETFs that are organized as CIS and makes general recommendations where issues are not exclusive to ETFs or to securities markets regulation.

The aim of this report is to outline principles against which both the industry and regulators can assess the quality of regulation and industry practices concerning ETFs. Generally, these principles reflect a level of common approach and are a practical guide for regulators and industry practitioners. Implementation of the principles may vary from jurisdiction to jurisdiction, depending on local conditions and circumstances.

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11 See infra Chapter 5.

12 See *Principles for the Supervision of the Operators of Collective Investment Schemes*, Report of the Technical Committee of IOSCO, September 1997, available at:

http://www.iosco.org/library/pubdocs/pdf/IOSCOPD69.pdf.

Chapter 2 - Principles Related to ETF Classification and Disclosure

1. Disclosure regarding ETF classification

ETFs offer public investors an interest in a pool of securities and other assets and thus are similar in many ways to traditional CIS (such as Undertakings for Collective Investment in Transferable Securities (UCITS) or mutual funds), except that shares in an ETF can be bought and sold throughout the day like stocks on an exchange through a broker-dealer.

Box 1: ETFs are traded on an exchange

Generally speaking, all ETFs are structured and operate in a similar way. Like operating companies, ETFs register offerings and sales of ETF shares and list their shares for trading. As with any listed security (including some closed-end investment companies), investors may trade ETF shares continuously at market prices, but ETF shares purchased in secondary market transactions usually are not redeemable from the ETF except in large blocks called *creation units*.

Unlike traditional open-end CIS, ETFs do not sell or redeem their individual shares (ETF shares) to and from retail investors at net asset value (NAV). Instead, certain financial institutions (known as *authorized participants* or *APs*) purchase and redeem ETF shares directly from the ETF, but only in creation units. Most often, an AP that purchases a creation unit of ETF shares first deposits with the ETF a "purchase basket" of certain securities and cash and/or other assets identified by the ETF that day, and then receives the creation unit in return for those assets. The basket generally reflects the contents of the ETF's underlying index or portfolio and is equal in value to the aggregate NAV of the ETF shares in the creation unit. After purchasing a creation unit, the AP may hold the ETF shares, or sell some or all of the ETF shares in secondary market transactions. The redemption process is the reverse of the purchase process. The AP acquires (through purchases on national securities exchanges, principal transactions, or private transactions) the number of ETF shares that comprise a creation unit, and redeems the unit from the ETF in exchange for a "redemption basket" of securities and/or cash and other assets.

For more information, please see Appendix B.

Given the increased interest in ETFs worldwide as evidenced by the amount of money invested in these types of products, appropriate disclosure is needed in order to help investors understand and identify ETFs. Disclosure regarding classification that helps investors distinguish ETFs from non-CIS exchange-traded products (ETPs) and from traditional CIS, and understanding the risks and benefits of each also would be helpful.

Principle 1: ***Regulators should encourage disclosure that helps retail investors to clearly differentiate ETFs from other ETPs.***

Principle 2: ***Regulators should seek to ensure a clear differentiation between ETFs and traditional CIS, as well as between index-based and non index-based ETFs[13] through appropriate disclosure requirements.***

[13] Index-based ETFs seek to obtain returns that correspond to those of an underlying index. Non index-based ETFs represent a small category of ETFs that are generally actively managed.

Means of implementation:

ETFs have to comply with applicable CIS regulation, but other kinds of ETPs generally are not subject to such requirements. Disclosure by ETFs should describe the distinguishing characteristics and regulatory requirements applicable to ETFs in a particular jurisdiction that are not applicable to other ETPs, including any requirements related to diversification, underlying asset liquidity, or risk management.[14] Investors can then compare the ETF disclosure with disclosure by other products to understand the different characteristics and regulatory requirements.

One industry participant has suggested adopting a classification scheme.[15] In order to further reduce investor confusion that may be caused by the variety of different products, disclosure also should be designed to help investors understand the specific ways in which an ETF may be similar to and different from more traditional CIS (i.e. an open-end CIS or mutual fund). In particular, disclosure (including, where appropriate, sales literature) should make clear to investors whether an ETF may sell or redeem individual shares to or from retail investors. In some jurisdictions, a particular need for global harmonization of such categories and classifications needs to be stressed against the background of frequent multi-listing of ETFs.

2. Disclosure regarding ETF strategy

Since they were first developed in the early 1990s, ETFs have evolved. The first ETFs (such as the SPDR in the U.S.) held a basket of securities that replicated the component securities of broad-based stock market indexes, such as the S&P 500 (traditional ETFs). Many of the newer ETFs are based on more specialized indexes, including international indexes, indexes based on less liquid asset classes (e.g., bonds, commodities), indexes designed specifically for a particular ETF and so-called *strategy indexes*.[16] The investment objectives and techniques of index-based ETFs have also become more complex, leading to the creation of new, *non-traditional ETFs* such as those that are leveraged through the use of futures contracts and other types of derivative instruments.

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[14] Implementation of these principles is directed at disclosure by ETFs and is not meant to extend regulatory obligations to other ETPs that are not organized as CIS in a particular SC5 member jurisdiction.

[15] BlackRock has called for a classification scheme that would permit only the simplest products to be classified as ETFs. See *ETFs: A Call for Greater Transparency and Consistent Regulation*, iShares ViewPoint, October 2011, available at:

http://us.ishares.com/content/stream.jsp?url=/content/en_us/repository/resource/etfs_call_for_greater_transparency.pdf.

Others have criticized the proposal as being anticompetitive and unworkable. See *Leveraged ETF labels deserve study*, Ronald D. Orol, MarketWatch, Oct. 19, 2011, available at: http://www.marketwatch.com/story/sec-official-suggests-new-label-for-leveraged-etfs-2011-10-19.

[16] Some examples of strategy indexes include *buy-write* indexes, stock-picking strategy indexes and *analysts' opinion* indexes.

Box 2: Leveraged and/or inverse ETFs

Leveraged ETFs seek to deliver multiples of the performance of the index or benchmark they track. Inverse ETFs (also called *short* funds) seek to deliver the opposite of the performance of the index or benchmark they track. Like traditional ETFs, some leveraged and inverse ETFs track broad indices, some are sector-specific, and others are linked to commodities, currencies, or some other benchmark. Inverse ETFs often are marketed as a way for investors to seek to profit from, or at least hedge their exposure to, downward moving markets. Leveraged inverse ETFs (also known as *ultra short* funds) seek to achieve a return that is a multiple of the inverse performance of the underlying index. An inverse ETF that tracks a particular index, for example, seeks to deliver the inverse of the performance of that index, while a 2x (two times) leveraged inverse ETF seeks to deliver double the opposite of that index's performance.

To accomplish their objectives, leveraged and inverse ETFs pursue a range of investment strategies through the use of swaps, futures contracts, and other derivative instruments. Most leveraged and inverse ETFs "reset" daily, meaning they are designed to achieve their stated objectives on a daily basis. In general, the daily return of this type of ETF will be a multiple, or inverse (multiple), of the daily return of the stated index or benchmark. However, the weekly, monthly, and annual returns of this type of ETF will generally not be equal to the corresponding multiple, or inverse (multiple), of the weekly, monthly, or annual returns of the stated index or benchmark. This effect can be magnified in volatile markets.

Furthermore, derivatives are necessary for certain ETFs (i.e. *synthetic ETFs*) to pursue their replication strategies. The use of more complex investment strategies and replication methods may result in confusion for investors and may raise additional risks.

Principle 3: ***Regulators should encourage all ETFs, in particular those that use or intend to use more complex strategies, or other complex techniques, to assess the accuracy and completeness of their disclosure, including whether the disclosure is presented in an understandable manner and whether it addresses the nature of risks associated with such strategies or techniques.***

Means of implementation:

Regulators might address this concern by requiring an ETF to provide disclosure in its prospectus, in offering documents, or in other disclosure documents, that reflects its actual operations, particularly its use of complex strategies, investments in derivatives, or securities lending agreements. Regulation could also require that an ETF, when updating its disclosure documents review its use of complex strategies, investments in derivatives, and provide timely disclosures in reports to its shareholders in the event of material changes identified *ex-ante* (e.g., organizational change).

In addition to the risks associated with derivative instruments (e.g., credit, liquidity, currency, or interest rate risks), OTC derivatives imply an additional counterparty risk. Where in some jurisdictions ETFs engage in significant use of derivatives, the identification of a

counterparty (accompanied by further disclosures as appropriate) may be an important component for the disclosure's completeness. In addition, regulators could require an ETF provider to explain the nature and extent of its counterparty exposure, including information on the collateral agreements to mitigate such exposure.[17]

3. Disclosure regarding an ETF portfolio

Traditional or so-called *physical replication* ETFs obtain returns that correspond typically to those of an underlying index by replicating or sampling the component securities of the index. Some ETFs may also be non-indexed based as they track an asset basket or a reference portfolio. An ETF that uses this replicating strategy generally invests in the component securities of the underlying index in the same approximate proportions as in the underlying index. The transparency of the underlying index results in a high degree of transparency in the ETF's investment operations. In certain cases, it may not be possible for an ETF to own every stock of an index (e.g., due to transactions costs, because the index is too large, or some of its components are very illiquid, or where an index's market capitalization weighting would result in the ETF violating regulatory requirements for fund diversification). Where owning every stock of an index is not possible, an ETF may rely on sampling techniques. The ETF implements the sampling strategy by acquiring a subset of the component securities of the underlying index, and possibly some securities that are not included in the corresponding index designed to improve the ETF's index-tracking.[18]

Non traditional or *synthetic replication* ETFs also typically seek to replicate the returns of a target index, but do so by, among others, entering into a derivative contract (typically through a total return swap) with a selected counterparty or rely on a range of investment strategies (for leveraged or inverse ETFs typically involving swaps, futures, and other derivative instruments to magnify investment returns). The swap contracts can take two forms:

i) a so-called *unfunded structure*; and

ii) a so-called *funded* or *prepaid* swap structure (see Box 4 for further details).

Although synthetic replication may help to reduce tracking error, it may not eliminate tracking error altogether.

Principle 4: ***Regulators should consider imposing disclosure requirements with respect to the way in which an ETF will replicate the index (or the asset basket or the reference portfolio) it tracks (e.g., physically holding a sample or full basket of the securities composing the index (or the asset basket or the reference portfolio) or synthetically).***

[17] See infra at Chapter 5.

[18] An ETF using a sampling strategy still may be considered to be an index-based ETF.

Principle 5: ***Regulators should consider imposing requirements regarding the transparency of an ETF's portfolio or other appropriate measures in order to provide adequate information to investors concerning:***

i) the index (or the asset basket or the reference portfolio) tracked and its composition; and

ii) ***the operation of performance tracking in an understandable form.***

Principle 6: ***Regulators should consider imposing requirements regarding the transparency of an ETF's portfolio or other appropriate measures in order to facilitate arbitrage activity in ETF shares.***

Means of implementation:

With regard to index-tracking, regulators might require an ETF to include disclosures in the prospectus, in offering documents, or in other disclosure documents, with respect to how an index is tracked and to risks associated with this method. Index providers also may publicly announce the components and/or value of their indexes, which may assist investors in understanding any tracking error and permit investors to track the units' intraday performance. With regard to transparency of an ETF's portfolio, one way in which regulators might address these issues is to require that an ETF publish daily the identities of the securities in the purchase and redemption baskets which are representative of the ETF's portfolio.[19] Arbitrage activity in ETF shares is facilitated by the transparency of the ETF's portfolio because it enables market participants to realize profits from any premiums or discounts between the intraday price of the ETF and the NAV of the fund. Arbitragers seeking to realize such profits apply opposing buy and sell pressure to the ETF in comparison to its underlying components that helps to reduce intraday premiums or discounts.[20] An

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19 For example, in the United States, each day, the ETF publishes the identities of the securities in the purchase and redemption baskets, which are representative of the ETF's portfolio. To be listed and trading on an exchange, the ETF is required to widely disclose an approximation of the current value of the basket on a per share basis (often referred to as the Intraday Value or Indicative NAV - iNAV) at 15 second intervals throughout the day and, for index-based ETFs, disseminates the current value of the relevant index. In addition, the NAV is typically calculated and disseminated at or shortly after the close of regular trading of the exchange on which the ETF is listed and trading. The NAV is required to be disseminated to all market participants at the same time. If any of the aforementioned values is interrupted for longer than a trading day or is otherwise no longer being disseminated, or if the NAV is unevenly disseminated, the exchange listing and trading such ETF is required to halt trading in such ETF until such values are disseminated as required.

20 For example, in France, not only is arbitrage considered as a way to ensure the quality of index tracking, but it is also subject to French prescriptive rules in that respect and fixes continuous limits to the maximum possible discrepancy between the intraday value of underlying index (iNAV) and the ETF share price. When the limits are reached, a trading interruption (reservation) sets in leading to a subsequent auction. Thus, according to section 4.1.2.3 of the Trading Manual for the Universal Trading Platform, and according to the Euronext Rule Book, Book 1 of the Trading Manual, the French stock exchange stipulates that: "Reservation thresholds consist of applying a range above or below an estimate of the net asset value (« indicative net asset value » referred to as « iNAV ») for ETFs or a reference price contributed by the selected Liquidity provider for ETNs and ETVs, as updated during the Trading Day according to the movements of the underlying index or asset. The level of this range is set at 1.5% for ETFs, ETNs and ETVs based on developed European equity, government bonds and money market indices and 3% for all others. For products providing a cap or a floor-value, the trading thresholds resulting from the above-mentioned rules shall not break the said cap or floor-value."

efficient arbitrage mechanism is therefore designed to ensure that the intraday value of the ETF's shares is closely aligned (i.e., minimizes wide premiums and discounts) with the ETF's intraday NAV per share.[21]

In addition, index-based ETFs in certain jurisdictions may lack common standards for assessing their performance. Noticeable differences have been noted by regulators in some jurisdictions regarding the quality and consistency of performance reporting and tracking error measurements.

Box 3: Tracking error and tracking difference

The Tracking Error (TE) measures how consistently an ETF follows its benchmark. Tracking error is defined by the industry as the volatility of the differences in returns between a fund and its benchmark index. The tracking error helps measure the quality of the replication.

The Tracking Difference (TD) measures the actual under- or outperformance of the fund compared to the benchmark index. Tracking difference is defined as the total return difference between a fund and its benchmark index over a certain period of time.

Regulators might in such cases consider requirements regarding additional disclosure in order to help provide adequate information to investors concerning the index and performance tracking. For example, such disclosure might include:

i) information on the index composition;

ii) information on the index replication methodology (*e.g.* physical or synthetic) and the implications in terms of exposure for investors;

iii) the methodology used to measure tracking error as published in the investor disclosure documents, as well as a policy to minimize tracking error, including what level of tracking error may be reasonably expected; and

iv) a description of issues which will affect the ETF's ability to fully replicate its target index (e.g., transaction costs of illiquid components).

4. Disclosure regarding ETF costs, expenses and offsets

ETF shareholders currently may pay a number of costs or bear expenses, some of which may be more transparent than others. One type of ETF trading cost incurred directly by investors is reflected in bid/ask spreads.[22] Another relevant factor may be changes in discounts and

[21] Trading activity in ETFs, including OTC trading, should be subject to regulation with respect to reporting of securities transactions. In the U.S., for example, all trades (subject to some very minor exceptions), on or off exchange, must be reported to the consolidated tape.

[22] The *bid* is the market price at which an ETF may be sold and the *ask* is the market price at which an ETF can be bought.

premiums between the ETF's shares and the ETF's NAV.[23] As with other CIS, ETF shareholders also incur fund expenses while holding ETF shares. There may also be indirect costs borne by an ETF and its shareholders (e.g., trading costs incurred when a physical ETF purchases its underlying securities). In some jurisdictions, indirect costs borne by synthetic ETFs may be balanced by cost savings on the underlying assets, due to the fact that synthetic ETFs do not need to buy all of the instruments in the underlying index. Moreover, an investor's particular portfolio strategy (i.e., buy-and-hold vs. active investing) also may impact the total cost of investing in such a product, particularly with respect to commissions and other trading costs.

Similar to other CIS, ETFs also may engage in securities lending activities. In the case of index-based ETFs, such activities may result in returns that can partly offset the ETF's management fee, helping the ETF to better track its benchmarks and may, subject to the split of revenues from such activities between the ETF operator and the ETF's shareholders, therefore improve the ETF's performance.

Principle 7: ***Regulators should encourage the disclosure of fees and expenses for investing in ETFs in a way that allows investors to make informed decisions about whether they wish to invest in an ETF and thereby accept a particular level of costs.***[24]

Principle 8: ***Regulators should encourage disclosure requirements that would enhance the transparency of information available with respect to the material lending and borrowing of securities.***

Means of implementation:

Regulators should require appropriate disclosure to ensure investor protection. For example, the fee information disclosed by ETFs should be aimed at enabling investors to understand the impact of fees and expenses on the performance of the product and would describe the ETF's cost structure (e.g., the management fee; operational costs; where relevant, swap costs; etc.). If appropriate, regulators in certain jurisdictions also may require disclosure on other types of fee and cost information, such as disclosure regarding brokerage commissions, tax structure, additional information on revenues (including a breakdown) derived from assets held by the ETFs that are likely to have an impact on performance. These may include additional information on rebalancing costs and on revenues derived from fund assets and on the way they are distributed between an ETF operator and the ETF's shareholders (e.g., such as dividends of equity shares or coupon payments of fixed income securities).

While the FSB noted concerns with regard to ETF securities lending, this issue is not specific or inherent to ETFs, but to a much broader scope of products and/or activities.[25] Moreover,

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[23] An ETF is said to be trading at a *premium* when its market price per share is higher than its NAV per share and to be trading at a *discount* when its market price per share is lower than its NAV per share.

[24] For more on best practices standards, see *Elements of International Regulatory Standards on Fees and Expenses of Investment Funds*, Final Report, Report of the Technical Committee of IOSCO, October 2004, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD178.pdf.

[25] The European Central Bank recently expressed this view: "it is worthwhile mentioning that the risks and transparency issues raised [recently by financial authorities in connection with securities lending by ETFs] are not ETF-specific and might also be relevant for certain types of mutual funds or the

the scope and scale of ETF securities lending activity differs across jurisdictions and even among ETFs within the same jurisdiction. In some jurisdictions, there are restrictions on the amount of securities that may be loaned.[26] In other jurisdictions where a significant amount of securities may be loaned, regulators could require specific disclosure, for example, to help to manage conflicts of interest that could arise when such revenues accrue (at least in part) to the ETF's operator.[27] Such disclosure should be designed to help investors understand whether revenues are received by parties other than the fund or its investors (e.g., a lending agent).[28] Such disclosure arguably becomes even more significant where ETFs are marketed to retail investors as having low (or no) management fees. Another option, if securities lending revenue represents a significant source of return, would be to require disclosure of gross returns from securities lending from other sources of fund income designed to allow investors to assess how such revenues have contributed to the performance of the ETF and to assess the efficiency of the ETF's operator in distributing such revenues to other service providers such as a securities lending agent.[29] Such disclosure would allow the ETF's operator to inform, investors about the major trade-offs the ETF may have to balance when handling such revenues or how such revenues might be shared between the ETF and its operator. Such additional disclosure might also be desirable when dividend management leads to specific tax treatment and/or to risk-return trade-offs that may materially impact the ETF's performance (e.g., when the ETF's operator manages dividends actively by using, for instance, dividend options). In addition, it could help investors to assess counterparty risks to which they may be exposed, especially when an ETF lends its assets in order to optimize its returns.

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underlying building blocks (i.e. swaps, securities lending) more generally." See Chapter III – The Euro Area Financial System at n. 5, *Financial Stability Review June 2011*, European Central Bank June 2011, available at:

http://www.ecb.eu/pub/pdf/other/financialstabilityreview201106en.pdf?dd351cc552a0033e8f96e09533e3c85d.

See also comment letter of the Investment Company Institute on the FSB note, "Many types of collective investment vehicles, including mutual funds, hedge funds, pension plans, and collective investment trusts, as well as other market participants, engage in securities lending. Thus, to the extent there is concern about the impact of securities lending activities on the broader markets, it should not be approached as an ETF-specific issue.", May 16, 2011.

[26] For example, in the U.S., ETFs generally may not lend more than one-third of total assets. In calculating this limit, the SEC's staff has taken the view that the collateral (i.e., the cash or securities required to be returned to the borrower) may be included as part of the lending fund's total assets. Thus, an ETF could lend up to 50% of its asset value before the securities loan.

[27] In the U.S., if lending income is paid to the CIS operator as part of the advisory contract, such compensation would be considered by the CIS board of directors as part of its process of approving the advisory contract.

[28] The amount of fees paid to a lending agent may not be the most important factor in assessing whether to hire a lending agent. The least expensive lending agent may not have the best performance or be the best match for a lender. In addition, for a discussion of issues relating to use of an affiliated lending agent, see infra in Chapter 4.

[29] This disclosure could be particularly helpful where, for example, the ETF's underlying equity index is a price index (i.e., namely an index that, unlike total return indexes, does not take into account dividend reinvestment).

Chapter 3 - Principles Related to Marketing and Sale of ETF Shares

As is the case with other investment products, intermediaries that market and sell ETF shares also may have a role to play in addressing the investor protection concerns related to ETFs. In particular, intermediaries should assess whether ETFs are suitable for retail investors, particularly in light of certain activities (e.g., portfolio management techniques). Moreover, relevant conduct requirements are still applicable to the sales and marketing of such ETFs. Suitability requirements are defined here as any requirement that a financial firm, when advising a retail client to purchase a particular financial instrument, make a determination of whether that investment is *suitable* or appropriate for that particular client. Further guidance on the applicability of suitability obligations to market intermediaries in the context of complex financial products generally, is being set out in IOSCO's recent consultation report[30] on *Suitability Requirements with respect to Transactions involving Complex Financial Products*.

Principle 9: ***All sales materials and oral presentations used by intermediaries regarding ETFs should present a fair and balanced picture of both the risks and benefits of such products, and should not omit any material fact or qualification that would cause such a communication to be misleading.***

Means of implementation:

Disclosure requirements[31] should be proportionate to the risks and complexity of different kinds of ETFs[32] to allow those ETFs and intermediaries to provide and to tailor their own disclosure. Some jurisdictions may mandate separate intermediary-focused disclosure and product disclosure.

Potential areas to consider include how sales materials may compare ETFs to traditional equities and how performance and other information is required to be presented for different types of such products, including the specific regulatory requirements applicable to ETFs.

Principle 10: ***In evaluating an intermediary's disclosure obligations, regulators should consider who has control over the information that is to be disclosed.***

Means of implementation:

Who controls the information is an important factor to consider in determining who should make the disclosure. Thus, in general, responsibility for providing ETF product information will tend to rest primarily with the product producers; and disclosure of information relating to intermediary services will rest primarily with the intermediary. Nevertheless, regulators

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30 CR03/12 *Suitability Requirements with respect to the distribution of Complex Financial Products*, Consultation Report, Report of the Technical Committee of IOSCO, February 2012, available at; http://www.iosco.org/library/pubdocs/pdf/IOSCOPD373.pdf.

31 See FR01/11 *Principles on Point of Sale Disclosure*, Final Report, Report of the Technical Committee of IOSCO, 1 February 2011, available at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD343.pdf.

32 For example, an advertisement for a leveraged or inverse ETF that is designed to achieve its investment objective on a daily basis may not omit that fact and must specifically disclose that the fund is not designed to, and will not necessarily, track the underlying index or benchmark over a longer period of time.

will need to consider several complicating factors in implementing this principle, particularly when seeking to avoid duplication of disclosure obligations:

i). if the intermediary provides or alters product information, it may need, in some jurisdictions, to take additional responsibility for that information. Sometimes this is prescribed in over-arching legislation (e.g., MiFID in the EU);

ii). while a product producer may be generally responsible for the content of the disclosure, the intermediary is responsible in many jurisdictions for explaining the features of the product to a client.

Principle 11: ***Before recommending the purchase, sale or exchange of an ETF, particularly a non-traditional ETF, an intermediary should be required to take reasonable steps to ensure that recommendation is based upon a reasonable assessment that the product is consistent with such customer's experience, knowledge, investment objectives, risk appetite and capacity for loss.***[33]

Means of implementation:

An intermediary must determine whether a product it has recommended to a retail customer is suitable for that customer.[34]

The intermediary should give due consideration to the retail investor's investment objective, financial situation and particular needs. In order for the intermediary to make a recommendation that takes these factors into account, the intermediary should take reasonable steps to collect and document information concerning the investor's financial status, tax status, investment objectives, current investment portfolio, risk tolerance, trading experience, knowledge of finance, and such other information used or considered to be reasonable by such intermediary or person making recommendations to the investor. The intermediary should explain to the retail investor the basis for its recommendation and should also make the investor aware of all pertinent information regarding the product.

Intermediaries should have a robust process to assess the profile of a customer on the basis of his or her:

- investment objectives, including the length of time for which they wish to hold the investment;

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[33] A precondition, of course, is that an intermediary must understand the investment products it sells. Accordingly, an intermediary must perform appropriate due diligence to ensure that it understands the nature of the product, as well as the potential risks and rewards associated with the product. In general, what constitutes reasonable diligence will vary in proportion to, among other things, the complexity of and risks associated with the security or investment strategy and the intermediary's familiarity with the security or investment strategy. With respect to more "non-traditional" products, this means that an intermediary should understand the terms and features of the products, including how they are designed to perform, how they achieve that objective and the impact that market volatility, the product's use of leverage, and the retail investor's intended holding period will have on their performance.

[34] Suitability has been broadly defined as: "the degree to which the product or service offered by the intermediary matches the retail client's financial situation, investment objectives, level of risk tolerance, financial need, knowledge and experience." See *Customer suitability in the retail sale of financial products and services*, Joint Forum; April 2008, available at http://www.bis.org/publ/joint20.pdf.

- risk tolerance and relevant risk preferences, taking into account the purpose of the investment and the need for portfolio diversification;

- financial situation (e.g., assets and income) and general capacity to withstand losses; and

- investment experience and knowledge, including the nature, volume and frequency of previous transactions and level of familiarity with certain products and services. The customer's profession, former professional experience, and level of financial education may also be relevant.

As *non-traditional* ETFs are introduced to the market, intermediaries should make every effort to familiarize themselves with each investor's financial situation, trading experience, and ability to meet the risks involved with such products. Finally, they should make investors aware of all pertinent information regarding such products.

Once a determination is made that a product is generally suitable (appropriate) for at least some retail investors, an intermediary should also determine that the product is suitable for the specific retail investors for whom it is recommended.

Principle 12: ***Intermediaries should establish a compliance function and develop appropriate internal policies and procedures that support compliance with suitability obligations when recommending any ETF.***

Means of implementation:

Intermediaries should put in place and enforce written strategies, processes and controls that seek to ensure that any ETFs they propose to recommend are suitable for their customers. The compliance system to be established should include training about the terms, features and risks and benefits of all ETFs that the intermediaries sell, as well as the factors that would make such products either suitable or unsuitable for certain investors (i.e. the individual communicating with the retail investor should understand the product and be able to answer the retail investor's questions). Among other things, if an intermediary promotes or recommends an ETF, the intermediary should ensure that its written supervisory procedures require that:

(1) the appropriate reasonable-basis suitability analysis is completed;

(2) an appropriate investor-specific suitability analysis is performed;

(3) all promotional materials are accurate and balanced; and

(4) all applicable regulatory rules are followed.

In addition to establishing written procedures, intermediaries should document the steps that they have taken to ensure adherence to such procedures.

In the case of *non-traditional* ETFs, the training or competency requirements should emphasize the need to understand and consider the risks associated with such products,

including the investor's time horizons, and the impact of time and volatility on the product's performance.[35]

[35] For example, in the case of leveraged and inverse ETFs, this training should emphasize that, due to the complexity and structure of these ETFs, they may not perform over time in direct or inverse correlation to their underlying index.

Chapter 4 - Principles Related to the Structuring of ETFs

1. Conflicts of Interest

Due to the nature and structure of CIS, conflicts of interest may arise between the CIS operator and the CIS shareholder. ETFs share many of the general CIS conflict of interests, but also may be subject to specific conflicts arising from the ETF structure. As noted above, recent innovations include ETFs that are based on indexes designed specifically for a particular ETF. A few of the index providers that compile and revise indexes that are designed specifically for a particular ETF are affiliated with the sponsor of that ETF. These affiliated index ETFs raise the risk of the communication of material non-public information between the ETF and the affiliated index provider.

Conflicts of interest also may arise in the context of securities lending if the lending agent is an affiliate of the CIS. For example, the lending agent could charge the CIS fees that are higher than it charges to non-affiliates or provide services, the nature and quality of which are not as high as to those provided by other unaffiliated service providers.

In some jurisdictions, intra-group affiliations in respect of authorised participants (APs) also can lead to conflicts of interest; especially when there is a small number of APs.[36] The affiliated AP, if it has the ability to exercise power over the ETF provider through the group parent, has the ability to *channel business* through in-house trading desks, in order to gain an order flow benefit. Moreover, the group parent may also have the ability to instruct the ETF provider to *authorize* and *de-authorize* competitor APs. This conflict may have consequences for the fair pricing of the ETF shares on the secondary market and the ability for investors to redeem ETF shares. This conflict may grow stronger in the scenario outlined by the FSB[37] where the group parent gains a funding and liquidity benefit from ETFs.

Synthetic ETFs also may raise potential conflicts of interests where affiliates are involved, for example as the swap counterparty.[38] The conflict of interest risks would be further enhanced by the suspected incentives for banks and financial intermediaries to use ETF assets as a source of funding and/or to reduce their cost of capital under the new Basel III rules[39]. However, these incentives have yet to be confirmed and further work would be required (see Chapter 5).

Principle 13: ***Regulators should assess whether the securities laws and applicable rules of securities exchanges within their jurisdiction appropriately address potential conflicts of interests raised by ETFs.***

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36 In the U.S., affiliations between the AP and ETF provider are prohibited.

37 See Potential financial stability issues arising from recent trends in Exchange Traded Funds (ETFs), Financial Stability Board, 12 April 12, 2011, supra fn 9.

38 In the U.S., CIS are generally prohibited from conducting affiliated transactions, which would include entering in to a swap transaction where an affiliate is the counterparty.

39 A recent BIS paper mentions the possibility of such a strategic behaviour of banks that provide their counterparty to swaps. See S. Ramaswamy, 'Market structures and systemic risks of exchange-traded funds', *BIS Working Papers* No. 343, April 2011.

Means of implementation:

Where a custom index is created by an affiliate, regulators may consider having:

a) all of the rules that govern the inclusion and weighting of securities in each index be made publicly available;

b) the ability to change the rules for index compilation be limited and public notice be given before any changes are made;

c) *firewalls* exist between
   i) the staff responsible for the creation, development and modification of the index compilation rules and
   ii) the portfolio management staff;

d) the entity who is responsible for all index maintenance, calculation, dissemination, and reconstitution activities (known in some jurisdictions as the *calculation agent*), not be affiliated with the index provider, the ETF or any of their affiliates (or otherwise requiring there be proper and effective "firewalls" to ensure the avoidance of conflicts of interest arising); and

e) that the component securities of the index not to be changed more frequently than on a specified periodic basis.

With regard to securities lending, regulators could require the CIS operator to obtain quotes from non-affiliates or otherwise ensure that fees are fair and reasonable and that the affiliate can provide services equal to those provided by non-affiliates.

To address issues related to APs, regulators should consider taking appropriate measures such as requiring a minimum number of APs; that the *primary AP* should not be affiliated with the ETF; and/or that AP contracts should be formalized.

In the case of a synthetic ETF that obtains its return through entering into an asset swap with an affiliated counterparty such as a bank affiliated with the management company of the ETF, regulators also should consider requirements designed to address the potential conflicts of interest raised by this type of arrangement.

2. Portfolio Strategies

As stated earlier, *traditional* or *physica*l ETFs are typically intended to replicate the returns of an underlying index (some ETFs may be non index-based). They accomplish their investment objective either by purchasing the component securities directly, or by indirectly selecting a sample of the index's component securities. On their part, *non-traditional* or *synthetic* ETFs seek to track the returns of an underlying index though the use of derivatives

(for synthetic ETFs[40] typically through a swap), or rely on a range of investment strategies (for leveraged or inverse ETFs typically involving swaps, futures, and other derivative instruments to magnify investment returns). In addition, ETFs may also engage in securities lending. The use of derivative instruments for index replication purposes or engaging in securities lending entails counterparty credit risk for the ETF and its shareholders. Counterparty credit risk is the risk attributable to the downgrading and/or insolvency of a counterparty either in an OTC transaction or in a securities lending arrangement.

Principle 14: ***Regulators should consider imposing requirements to ensure that ETFs appropriately address risks raised by counterparty exposure and collateral management.***

Means of implementation:

Although counterparty exposure and collateral management are not exclusive to ETFs, they may be better appreciated in the light of the following ETF-specific replication strategies:

a) Synthetic and other derivative-based ETFs

As described above, synthetic ETFs pursue a range of investment strategies partially or wholly through the use of swaps, futures contracts, and other derivative instruments. Thus, synthetic ETFs obtain their desired return, in whole or in part, by entering into derivative transactions with one or more eligible counterparties. Overall, this strategy may reduce high rebalancing costs and may help diminish tracking error generally associated with physical replication.

One of the concerns that the FSB has expressed relates to the acceleration in the growth of synthetic ETFs, for instance in some European and Asian markets.[41]

Box 4: *Unfunded* and *funded* structures for (e.g. European and Asian) synthetic ETFs

In one sort of synthetic ETF structure, the ETF provider/manager invests the cash proceeds from investors in a so-called *substitute basket* of securities (i.e. the so-called "unfunded" model) which is typically bought from a bank. The basket's return is swapped via a derivative contract with an eligible counterparty (frequently, the

[40] As explained in Box 4 synthetic ETFs may be *funded* or *unfunded* structures, with a consequence on how the collateral is held and who owns it. For example, the selected structure may affect the timing of a potential liquidation of the assets. In an *unfunded structure*, the synthetic ETF holds a basket of stocks (i.e., the *substitute basket*) as part of its portfolio and enters into a swap agreement to exchange the performance of this basket for the performance of their underlying index. The portfolio remains subject to the legal ownership of the ETF and de facto acts as a form of collateral. Therefore the component securities of the substitute basket have to comply with the relevant diversification provisions according to the ETF's fund regulations (fund contract, articles of association and investment regulations). Additionally, the component securities of the substitute basket have to be disclosed to the investors in the periodic reports. In the so-called *funded* or *prepaid* swap structure, the legal title over the collateral is not necessarily transferred to the fund, but merely 'pledged' by the counterparty to the fund as a guarantee.

[41] See Potential financial stability issues arising from recent trends in Exchange Traded Funds (ETFs), Financial Stability Board, 12 April 12, 2011, supra fn 9.

derivatives desk of the same bank) in exchange for the return of the index tracked according to the ETF's investment objective.[42] The structure is said to be *unfunded* because the legal ownership of the basket of securities remains with the ETF.

In another type, a synthetic ETF may seek to track its index by engaging in a swap in exchange for cash (or for the entire ETF portfolio) without the creation of a substitute basket (i.e. the so-called *funded* or *prepaid* swap model).

In both models, derivative exposure is collateralized or reduced through a collateral or portfolio management process that may involve the services of a third party as collateral agent (in the *funded* model) or is covered by the substitute basket as assets of the ETF (in the "unfunded" model).

Despite the exchange of collateral, as noted by the FSB, synthetic ETFs expose themselves to the risk of a default of the swap counterparty. The latter may be an affiliate of the ETF provider. This issue is nevertheless not specific or inherent to synthetic ETFs, but to a broader scope of products embedding a swap derivative.

Concerns also have been raised that, with regard to these synthetic ETFs, there is no requirement for collateral to be of the same nature and quality of the securities making up the tracked index. As the collateral, or the direct investments belonging to the ETF in the *unfunded* model, together with any additional financial guarantees that the ETF may receive, are intended to cover the counterparty risk borne by ETF shareholders, they should be prudently valued (i.e. at least daily, independently, and allowing for haircuts and discount rates to mitigate valuation uncertainties) and be sufficiently liquid and of high quality. By satisfying these conditions, in the event of the counterparty's default, the ETF may more easily find either a new counterparty to the swap contract, or turn to physical replication, or liquidate the basket of collateral to return monies back to investors at a limited discount.[43] Moreover, high standards for collateral partially address potential risks consisting in the incentive that banks post less liquid collateral (see Chapter 5.3 b)), as collateral requirements for banks are outside the scope of this paper and IOSCO's remit.

Additionally, periodic publication of ETFs' counterparties, the exposure, along with the amount and composition of the ETF's collateral may also be required.

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[42] In order to mitigate the counterparty risk to which the synthetic ETF is exposed, the counterparty deposits collateral with the synthetic ETF. In Europe, the rules governing UCITS require that, at all times, at least 90% of the synthetic ETF's NAV to be covered by this type of collateral arrangement. One major industry participant recently suggested that best practice with respect to counterparty exposure would be for the ETF to transact with multiple, unaffiliated counterparties and to over-collateralize with highly liquid and diversified collateral. See *ETFs: A Call for Greater Transparency and Consistent Regulation*, ViewPoint, Blackrock , 19 Oct. 19, 2011, available at https://www2.blackrock.com/webcore/litService/search/getDocument.seam?venue=PUB_INS&source=CONTENT&ServiceName=PublicServiceView&ContentID=1111150014.

[43] In Europe, when the synthetic ETF receives collateral to reduce exposure to the counterparty, this collateral must comply with the relevant criteria in CESR's Guidelines on Risk Measurement, including those with respect to liquidity, valuation and issuer credit quality. See CESR 10/788 *CESR's Guidelines on Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS*, CESR, 28 July 2010, available at http://www.esma.europa.eu/system/files/10_788.pdf

Regulators should appropriately address risks raised by synthetic ETFs in their jurisdictions. In assessing alternatives, regulators should consider the ETF risk exposure from derivatives investment and develop requirements proportionate to the risks raised by the scope and scale of such activity and the structure of each ETF. For example, ETFs that invest largely in futures may not be exposed to the same counterparty risk as those that invest in OTC swaps. As another example, in some jurisdictions, ETFs may become subject to liquidity requirements, designed to ensure that they are able to meet obligations resulting from exposure to leveraged derivative investments, while continuing to satisfy redemption requests).[44] Furthermore, supervisors could require a synthetic ETF to adopt additional measures such as:

i) appropriate risk management procedures[45] regarding use of derivatives for which the risk of counterparty default is not covered by a clearing agency;

ii) limits with respect to an ETF's net exposure to counterparty risk posed by a specific issuer;[46]

iii) additional checks and filters to those assets accepted as collateral and /or subject the collateral basket to diversification rules (e.g., to limit concentrated exposure to an issuer, sector or country); and

iv) other safeguards to mitigate potential operational and legal risks arising from collateral management (e.g., restrictions to ensure that non-cash collateral not be sold, re-invested or pledged).

Regulators could finally require the periodic reassessments of the value of any collateral and require appropriate segregation with a third party custodian to protect against counterparty bankruptcy or default.

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44 This is the case in the U.S. with regard to leveraged ETFs (the types of synthetic encountered in Europe or in Asia do not exist as a CIS in the U.S.). In addition, funds and their counterparties typically agree under master swap agreements to both post collateral equal to their daily marked-to-market exposure under a swap, netted across all of the swaps between the two parties and additionally agree on acceptable forms of collateral; usually cash and U.S. treasury and agency securities, but other securities such as equities are sometimes permitted – as well as an agreed-upon haircut representing the negotiated relative risk associated with a particular type of collateral. See May 16, 2011 Letter to Secretariat of the FSB from the Investment Company Institute regarding Potential Financial Stability Issues Arising from Recent Trends in Exchange Traded Funds (ICI Comment), available at: http://www.ici.org/pdf/25189.pdf.

45 In jurisdictions authorising synthetic ETFs, regulatory frameworks have been devised to that end. One may refer here in particular to the Committee of European Securities Regulators'(CESR) Guidelines on Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS, July 2010 supra fn 44; and to article 8.8 of the Section II of the Code on Unit Trusts and Mutual Funds of the Hong Kong SFC, which is available at

http://www.sfc.hk/sfc/doc/EN/intermediaries/products/handBooks/Eng_UT.pdf.

46 It may be appropriate for such limits to account for the credit quality of the counterparty and, if appropriate, the possibility of *haircuts* for counterparties with lower credit grading. Procedural requirements also might address the liquidity of collateral posted in order to be possible in the event of default for an ETF to sell collateral securities over a short period and at prices reflecting an independent, pre-sale valuation based on frequent marked-to-market, reliable and verifiable valuation of assets.

b) *Physical replication* ETFs

Physical replication ETFs also may invest in derivatives as part of their investment strategy, and regulators should consider requirements to address counterparty and collateral risks that are implied by such activity. In assessing alternatives, regulators should consider the amount of derivatives investment in which an ETF engages and develop requirements proportionate to the potential risks raised by the scope and scale of such activity.[47]

Similar to other CIS, physical ETFs also may lend securities to other financial institutions (e.g., hedge funds) in exchange for a fee.[48] Such activities may raise potential counterparty risk if the default of the borrowing counterparty results in that party's inability to return the loaned securities to the ETF. Regulators should consider requirements to address such counterparty risks accordingly. For example, they could limit the extent to which an ETF can lend securities and require that loans be fully or over-collateralized[49], with collateral requirements similar to those for synthetic ETFs. Additionally, jurisdictions might consider requiring appropriate disclosure of ETFs risk management policies with regard to securities lending, as well as of their lending agent(s). To ensure compliance with such policies, they may also request the periodic publication of the ETFs' largest lending counterparties, the amounts of securities on loan, along with the amount and composition of the ETF's collateral. In assessing alternatives, regulators should consider the amount of securities lending activity in which an ETF engages and develop requirements proportionate to the potential risks raised by the scope and scale of such activity, including steps to mitigate possible operational risks.

47 See, e.g. ICI comments, supra fn 45.

48 It should be noted that synthetic ETFs in an *unfunded* model may lend out assets held in their portfolio.

49 This is the case in the U.S. where ETFs may not lend out more than 33% of total assets, including the collateral, or 50% of assets, excluding collateral. "Fully collateralized" in the context of securities lending, means that the ETF must receive approved collateral equal to 100% of the market value of the loaned securities, and the collateral must be marked-to-market daily. In practice, securities loans often are over-collateralized – up to 105% of the market value of the loaned securities (or more under certain market conditions). Collateral generally is limited to cash, U.S. government or agency securities, or bank standby letters of credit. In Europe, ESMA is in the process of launching a series of public consultations to draw up collateral standards specifically for securities lending activities.

Chapter 5 – Issues Broader than ETFs

The principles outlined above address many ETF-specific risks. However, some risks posed by ETFs are not exclusive to ETFs. In particular, some of the financial stability issues highlighted by the FSB are issues faced by a broader range of entities and products (e.g. many entities engage in securities lending and use derivatives). Thus, this chapter will turn to consider the potential broader risks to financial stability beyond the specificities of the ETF/ETP industry. Regulators should bear in mind that recommendations made for the ETF industry may thus well be applied elsewhere to other areas of financial services.

1. Risks arising on secondary markets (risk of shock transmission)

In October 2011, the TC issued a final report on *Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency* (*Market Integrity and Efficiency Report*)[50] to G20 Finance Ministers, setting forth recommendations the TC believes member jurisdictions should consider. Whereas these recommendations are not specific to ETF markets, they would help regulators identify the practical impact of technological developments and the regulatory issues these technological developments have brought about. The recommendations seek to foster a consistent approach amongst global regulators *vis-à-vis* the latest technological developments, so as to mitigate the risks that technological change may imply for the integrity and efficiency of the markets.

While the new dynamics of the electronic markets have increased competition and reduced transaction costs, they also have created market structure fragility in highly volatile periods. For example, on May 6, 2010, U.S. financial markets experienced a brief but severe drop in prices, the S&P 500 index falling more than 5% in a matter of minutes, only to recover a short time later. ETFs were disproportionately affected by the "flash crash."[51] In the case of ETFs, the findings of the staffs of the SEC and Commodity Futures Trading Commission (CFTC) in their final report to the Joint Advisory Committee on Emerging Regulatory Issues on the events of May 6, 2010 help to illustrate how these particular products were impacted by that day's stressed market conditions.[52] The staff found that:

> "Market makers that track the prices of securities that are underlying components of an ETF are more likely to pause their trading if there are price-driven, or data feed-driven, integrity questions about those prices. Moreover, extreme volatility in component stocks makes it very difficult to accurately value an ETF in real-time. When this happens, market participants who would otherwise provide liquidity for

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50 See FR09/11 *Regulatory Issues Raised by the Impact of Technological Changes on Market Integrity and Efficiency*, Final Report, Report of the Technical Committee of IOSCO, 20 October 2011, available at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD361.pdf. Despite the facts that market structures and the participants within them differ across jurisdictions, and that regulatory structures and resources similarly differ, the TC noted in this report that its recommendations provide an important starting point for consideration and analysis by regulators. It also recognized that some jurisdictions are at present reviewing their own regulatory regimes surrounding high frequency and algorithmic trading, circuit breakers, market structures, etc.

51 70% of the 326 securities for which trades were broken (namely with declines of 60% or more away from the 2:40 p.m. transaction prices) were ETFs.

52 See SEC-CFTC *Findings Regarding The Market Events Of May 6, 2010*, Report of the Staffs Of The CFTC and SEC to The Joint Advisory Committee on Emerging Regulatory Issues, September 30, 2010, available at http://www.sec.gov/news/studies/2010/marketevents-report.pdf.

such ETFs may widen their quotes or stop providing liquidity (in some cases by using stub quotes) until they can determine the reason for the rapid price movement or pricing irregularities."

As outlined in the *Market Integrity and Efficiency Report*, the events of May 6 show that, in a context of deteriorating market conditions a shock in one market can trigger destabilizing effects on the liquidity and price formation processes of related markets, which threatens both the integrity and the efficiency of the markets. Nevertheless, as the report noted, it is also important to remember that the events of May 6, 2010 occurred within a specific market structure. The US markets have a strong degree of inter-linkage. Due to this interconnectedness, shocks in one market are likely to quickly pass on to other markets. Other market regions (e.g., Europe) do not show the same degree of interconnectedness.

In some cases, ETFs may also be subject to settlement delays (i.e. delivery after Intended Settlement Date). Settlement delays could lead to liquidity risks for those acting in the ETF market, especially in a stressed market scenario. These delays may be caused by market-making APs who struggle to close out positions by first looking to see whether it is possible to purchase or borrow ETF shares. Where ETF shares cannot be purchased or borrowed, APs will create new shares, but the timing of the decision to finally create and the length of the creation process may risk extension of the settlement delay. There may be inefficiencies or high costs in obtaining the underlying securities, which has a knock-on effect in the creation/redemption process, thereby exacerbating settlement delays.

Moreover, investors who sell ETFs short may experience difficulties in borrowing shares to cover positions, especially for ETFs where there may not be sufficient long-term holders. This could also cause settlement delays.

The market structure in Europe can also lead to settlement inefficiency; as, the European securities market is fragmented across multiple trading venues and different Central Security Depositories (CSDs). Delays resulting from ETF and underlying cross-listing, CSD transfer processes and possible ISIN conversions can all exacerbate ETF settlement delays. Furthermore, differing *buy-in* procedures and settlement discipline regimes across Europe may not provide a sufficient disincentive to delay settlement.

Principle 15: ***ETF exchanges should consider adopting rules to mitigate the occurrence of liquidity shocks and transmission across correlated markets (e.g. automatic trading interruption mechanisms)***

Means of implementation:

ETFs markets can benefit significantly from the application of recommendations developed by the TC in the *Market Integrity and Efficiency Report*[53]. Recommendation 2, in particular, foresees that regulators should seek to ensure that trading venues have in place suitable trading control mechanisms (e.g. trading halts, volatility interruptions, limit-up/limit-down controls, etc.) to confront volatile market conditions. Moreover, trading systems and

[53] For example, as noted in the *Market Integrity and Efficiency Report*, high-frequency trading also shows different degrees of adoption across asset classes, much depending on the degree of liquidity of the instrument and the development of the trading and post-trading market infrastructure. One of the important asset classes where high-frequency trading plays a relevant role are ETFs. Supra fn 52.

algorithms should be robust and flexible, such that they are capable of adjusting to evolving market conditions.

When determining whether to implement single stock automatic trading halts[54], regulators should consider specific factors. First, in a context in which ETFs are generally listed and traded on several venues, rules or regulation should take into account the degree of market fragmentation across multiple platforms. For ETFs listed on multiple exchanges in one jurisdiction or ETFs that are listed in different jurisdictions, complications arise relating to how to harmonize trading interruptions.[55] Secondly, as liquidity shocks may, for the above-mentioned reasons, spread from one asset class to another, rules or regulations should take into account whether trading in underlying index securities, as well as in index derivatives based on these same assets, should be interrupted. For those jurisdictions with automatic trading halts already in place, regulators might consider refining these market protections further (e.g. by incorporating a limit-up/limit-down type mechanism). In addition, regulators should consider having exchanges adopt clear and transparent standards for breaking erroneous trades in ETFs, offering certainty on which trades will be broken and allow market participants to better manage their risks during times of extreme volatility.

Whereas adopting trading interruption mechanisms constitutes a pragmatic step towards managing risks on the secondary market of ETFs, recommendations could also be devised with a view to manage the causes of such fluctuations, namely certain incentives of market participants. Accordingly, Recommendation 1 of the Report provides that regulators should require trading venue operators to provide fair, transparent and non-discriminatory access to their markets, as well as to their relative products and services. In the case of ETFs, regulators could implement this principle by considering whether there should be (additional) obligations to ensure fair and orderly markets. In this regard, regulators may study the impact of multiple trading protocols at ETF exchanges, including the use of trading pauses or prohibitions of *stub quotes*[56] in ETF markets altogether.

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54 For the purpose of a survey it has launched, IOSCO uses the following definitions: An automatic trading halt refers to a trading halt triggered in a non-discretionary way on the basis of pre-set parameters (e.g., market rules). Such a halt stops trading when large fluctuations in a security's price, or the market more generally jeopardize, an orderly marketplace. Examples of automatic trading halts include circuit breakers and price limits. The duration of automatic trading interruptions is usually shorter than that of discretionary ones. For example, disclosing collateral on an e.g. quarterly basis (i.e. a snapshot) could be easily circumvented: firms may be tempted to use quality collateral only in proximity of their quarterly disclosures.

Please note that information-based trading halts (e.g. as reaction to *ad-hoc* disclosures) shall for the purpose of the above survey not be included in the definition. A trading limitation refers to actions intended to stem volatility of a particular security, such as liquidity replenishment points (LRPs), or the procedure known as *limit up-limit down*. See *SEC Announces Filing of Limit Up-Limit Down Proposal to Address Extraordinary Market Volatility***,** 2011-84**,** Washington, D.C., April 5, 2011 available at http://www.sec.gov/news/press/2011/2011-84.htm).

55 For example, bilateral agreements with exchanges in different jurisdictions or other means of greater cooperation on information sharing between jurisdictions and markets could be helpful.

56 So-called *stub quote*s are designed to technically meet a requirement to provide a *two sided quote* but are at such low or high prices that they are not intended to be executed. Market-makers maintain these nominal quotes to meet exchange requirements that they maintain a two-sided quote throughout the trading day. Regulators may consider a variety of alternatives to deter or prohibit such quotes, including (1) requiring all market-makers to maintain *bona fide* quotes in ETFs that are reasonably related to the market, e.g. by using objective parameters that are consistent across markets; or (2) relaxing requirements that market-makers maintain a two-sided quote throughout the day, and thereby obviate the need for market-makers to post stub quotes that could be executed against in severe market

2. ETFs and market integrity (risk of abusive behavior)

The *Market Integrity and Efficiency Report* recommended that market authorities monitor for novel forms or variations of market abuse that may arise as a result of technological developments and take action as necessary. Some in the industry have raised concerns that ETFs (as well as other ETPs) potentially could be used to manipulate prices in underlying asset markets, particularly in illiquid markets such as those for commodities.[57] However, recent enforcement-related regulatory actions brought by market authorities and other regulators have not revealed widespread ETF-related wrongdoing.[58] Moreover, there also have been questions about whether the structure and operation of ETFs, in practice, would likely limit the scope of such potential wrongdoing.

Some IOSCO members remain concerned that the extent to which ETFs are subject to algorithmic and high-frequency trading and the complexity and magnitude of order flow on secondary markets have considerably increased the cost and difficulty of detecting abusive and manipulative behaviour.

A further concern is that some ETF-related trading, be it of the ETF share itself or of underlying assets, occurs over-the-counter (OTC)[59] where transparency differs across jurisdictions.[60] Suspected trade processing and/or backlog problems seem to have

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conditions. Another alternative to address concerns about trades in an ETF being executed at a price that is too distant from previously prevailing market price would be for a regulator to consider a requirement that a quote be posted within a fixed percentage of the last indicative NAV for the ETF. On November 8, 2010, the U.S. SEC approved new rules proposed by the U.S. exchanges and FINRA to strengthen the minimum quoting standards for market-makers and effectively prohibit stub quotes in the U.S. equity markets. See *SEC Approves New Rules Prohibiting Market Maker Stub Quotes* 2010-216, Washington, D.C., Nov. 8, 2010, available at: http://www.sec.gov/news/press/2010/2010-216.htm.

57 In the U.S., exchange rules for index-based ETFs require that the components of an underlying index meet certain minimum liquidity and diversification requirements to deter manipulation or other trading abuse of the underlying securities.

58 In September 2011, the U.S. SEC instituted its first insider trading enforcement action involving ETFs. The U.S. SEC charged a former Goldman, Sachs & Co. employee and his father with insider trading on confidential information about Goldman's trading strategies and intentions that he learned while working on the firm's ETF desk. The U.S. SEC's Division of Enforcement has alleged that this former employee obtained non-public details about Goldman's plans to purchase and sell large amounts of securities underlying the SPDR S&P Retail ETF (XRT) and tipped his father. Father and son then illegally traded in four different securities underlying the XRT with knowledge of massive, market-moving trades in these securities that Goldman would later execute. The case marks the U.S. SEC's first insider trading enforcement action involving ETFs. See *SEC Charges Former Goldman Sachs Employee and His Father with Insider Trading* September 21, 2011, available at http://www.sec.gov/news/press/2011/2011-188.htm.

59 According to Deutsche Börse, for example, trading of ETFs listed on its XTF market segment amounted to EUR72bn in August 2011, whereby EUR27bn were traded on the market and EUR45bn OTC pointing to a ratio of about 1/3 for *lit* trading vs. 2/3 for "dark" trading. This order of magnitude is confirmed by other industry estimates for non-U.S. markets. In the U.S. post-trade transparency of ETF trades, whether on exchange or off, is mandated.

60 In Europe, the Markets in Financial Instruments Directive (MiFID), as implemented from November 2007, left provisions for non-equity securities subject to later review, thus not making ETF post-trade transparency a European regulatory requirement. This point is currently being addressed by the European Commission in the context of the present MiFID review process.

contributed in one case to wrongdoing remaining undetected.[61]

Regulators should consider implementing Recommendation 5 of the above Report in the ETF market, whereby they would monitor for novel forms, or variations of, market abuse resulting from technological developments and take action as necessary. Regulators should also review their arrangements (including cross-border information-sharing arrangements) and upgrade their monitoring of order and trading flow to an ongoing basis. In this regard, regulators should consider whether the establishment of a consolidated audit trail system would improve their market surveillance and monitoring capabilities.

3. Risks to financial stability and avenues for future FSB work

In its note of April 2011, the FSB expressly pointed to potential risks for financial stability deriving from the increasing opacity and complexity of ETFs. Such risks are however not exclusive to the ETF industry and would therefore need to be addressed from a broader perspective.

Question for the consultation: Are there particular financial stability concerns raised by ETFs that are not addressed by this paper?

a) Securities lending

Securities lending is not exclusive to ETFs or even to CIS but rather occurs on a global scale in other areas of the financial industry, and its systemic implications remain to be better quantified.[62] Greater recourse to securities lending could raise concerns in the absence of appropriate safeguards as to counterparty and liquidity risks, which would tend to materialise particularly in the presence of liquidity shocks. For instance, [in some jurisdictions,] where securities lending is particularly prevalent, there could be a risk of a market squeeze in the underlying securities if lenders were to suddenly recall on-loan securities on a large scale in order to meet redemptions. Such trends have also recently prompted the new European Securities and Markets Authority (ESMA) to draft new policy orientation guidelines on these matters.[63] In this regard, the FSB is currently working on a set of policy recommendations in the area of shadow banking, with a work steam also dedicated to study the systemic

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61 In particular, UBS traded in ETFs using settlement dates that extended weeks into the future without post-trade checks occurring. "*When I found out banks were not confirming forward ETF [trades] until settlement date, I was pretty surprised*," Conrad Voldstad, chief executive of ISDA, the trade association for the world's over-the-counter derivatives market, said on Sep. 20, 2011 (source: Reuters), available at: http://blogs.reuters.com/felix-salmon/2011/09/21/the-etf-loophole-almost-everyone-missed/.

62 More generally, as part of their investigations financial regulators on shadow banking, securities lending has been identified as an area where more detailed work is warranted to help gauge the case for further regulatory action, see *Shadow Banking: Scoping the Issues - A Background Note of the Financial Stability Board*, Financial Stability Board, 12 April 2011, available at: www.financialstabilityboard.org/publications/r_110412a.pdf). IOSCO takes part in this joint investigation of prudential and securities regulators.

63 See Discussion paper *ESMA's policy orientations on guidelines for UCITS Exchange-Traded Funds and Structured UCITS*, ESMA/2011/220, 22 July 2011, available at: http://www.esma.europa.eu/popup2.php?id=7682.

implications of securities lending and repo well beyond the ETF/fund management industry.[64]

b) Counterparty risks

By their nature, counterparty risks should be understood globally. This would call for applying regulatory provisions consistently to all sources of such risks, including those from collateral management, across jurisdictions and beyond the ETF industry (e.g. in securities markets, in the banking and insurance industry realm, etc.).

Question for the consultation: Are there particular counterparty risks raised by ETFs? If so, should the FSB or the Joint Forum[65] carry out further work to address counterparty risks?

As anticipated in Chapter 4 above, the Bank for International Settlements (BIS) has furthermore exposed a potential risk consisting in the incentive that banks would have to avoid the more stringent liquidity standards of Basel III by posting their riskier and more illiquid assets as collateral to third counterparties, including to ETFs. Thus, while counterparty risk is a concern across not only securities markets but also for banks, IOSCO has not identified particular work to do in that respect at ETF level as collateral requirements for ETFs outlined in Chapter 4.2 (e.g. liquidity and high quality) may partially address the concerns.

Question for the consultation: Should the FSB or the Joint Forum, acting on the basis of their broader mandates, further study these concerns?

c) Impacts on underlying market price formation

Some IOSCO members have expressed concerns that ETPs, including ETFs, may influence the price formation of assets composing their underlying indices, especially if the size of their assets under management becomes significant compared to that of the size of the underlying asset market. In practice, ETPs rarely account for more than a few percent of the underlying broader asset market, making effects on price formation likely to be negligible. A material impact may be possible in specific or niche market segments (e.g. commodities or particular emerging markets), where ETPs or ETFs may account for a substantial market share. However no conclusive evidence of such an impact has been document to date.

In particular, some IOSCO members have express concerns about trends in the commodity market. Commodity investing has grown over the last decade as investors have sought to include assets uncorrelated to traditional asset classes to their portfolios. With regard to futures-based ETPs, academic studies have found no evidence that new index investing has

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64 See *Financial Stability Board publishes recommendations to strengthen oversight and regulation of shadow banking*, Press Release, Financial Stability Board, 27 October 2010, available at: http://www.financialstabilityboard.org/press/pr_111027.pdf

65 The Joint Forum was established in 1996 under the aegis of the Basel Committee on Banking Supervision (BCBS), the International Organization of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS) to deal with issues common to the banking, securities and insurance sectors, including the regulation of financial conglomerates. The Joint Forum is comprised of an equal number of senior bank, insurance and securities supervisors representing each supervisory constituency.

impacted underlying prices.[66] Where, the underlying asset is a commodity held in its physical form, such as a metal, some argue that there is a potential to impact underlying asset prices. There is again, however, no conclusive evidence of such an impact.[67]

Looking more closely at commodity markets, some IOSCO members have observed a "financialisation" trend in recent years. This trend would be characterised by a fast-paced development of product innovation, targeting both retail and institutional investors in search for greater yields, and leading to a significant growth in a traders' share of commodity derivatives. Concomitantly, this trend may have had the effect of increasing the correlation of commodity and other financial market assets, thus inducing risks to financial stability. Similarly, liquidity effects induced by the trading of certain ETPs - among which notably ETFs - have the potential to impact underlying asset prices. Thus, even in market segments where ETPs or ETFs may account for a small market share of the underlying asset market, they may generate significant liquidity effects.

As renewed concerns have been expressed in the context of the financial crisis, in particular by the G8 and G20, various international bodies, both at a global[68] level and more specifically in Europe[69], are presently taking stock of existing rules and considering

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66 See Stoll and Whaley (2010), Irwin and Sanders (2010), and Sanders, Irwin and Merrin (2009).

67 In terms of a regulatory response, some jurisdictions have developed frameworks for certain commodity markets with a view to mitigate the risk that excessive speculation in the build-up of positions by some market participants may exert a direct influence on price formation, or bring about excessive volatility. In the U.S., for example, CFTC rules fix position limits to market participants in some derivative market segments.

68 In 2008, the G8 called for an examination of the functioning of certain commodity futures markets. In November 2010, the G20 directed that IOSCO should report to the Financial Stability Board (FSB) by April 2011, see Seoul Communique, G20, 11-12 November 2010, available at: http://www.ibtimes.com/articles/81220/20101112/communique.htm and the G20 agenda on commodities presented in January 2011, see http://www.euractiv.com/cap/sarkozy-lays-g20-agenda-targets-commodities-news-501535.

Building on its March 2009 Report *Task Force on Commodity Futures Markets*, Report of the Technical Committee of IOSCO, March 2009, available at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD285.pdf. IOSCO's Task Force on Commodity Futures Markets reported in November 2010 to the G20 and in April 2011 to the Financial Stability Board.

See OR08/10 *Task Force on Commodity Futures Markets Report to the G-20*, Report of the Technical Committee of IOSCO, 1 Nov 2010, available at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD340.pdf, and see OR01/11 *Task Force on Commodity Futures Markets - Report to the Financial Stability Board*, Report of the Technical Committee of IOSCO, 15 Apr 2011, available at: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD352.pdf. Basing on a review of the Task Force's progress these reports stress previous recommendations to improve market transparency and overall functioning, and the need for further examination, particularly with a view to extend investigations, beyond the scope of oil markets, and particularly to agricultural markets.

69 In Europe, the European Commission stated in its December 2010 public consultation on the review of the MiFID that: "Recent developments in commodity markets have highlighted a number of challenges. Many commentators have raised concerns that the increased presence of financial investors, especially in some key benchmark commodity derivative markets (e.g. oil and agricultural markets) may lead to excessive price increases and volatility. Others have pointed to more technical problems and price dislocations. Finally concerns over market integrity have been raised, namely in EU energy and carbon markets". See *Public Consultation Review of the Markets in Financial Instruments Directive (Mifid)*, European Commission, 8 December 2010, available at: http://ec.europa.eu/internal_market/consultations/docs/2010/mifid/consultation_paper_en.pdf.

amendments to their respective regulatory frameworks.

Others have raised concerns that ETFs may impact market functioning. In particular, concerns have been raised that trading by leveraged and inverse ETFs at market close could impact underlying asset prices or that trading by ETFs with illiquid underlying assets (e.g. emerging market ETFs) could impact underlying asset prices. However, these concerns also remain to a large extent subject to further investigation[70]. It should be noted in this regard that the Technical Committe Standing Committee on Secondary Markets is currently engaged in a project that is examining the fragmentation of markets where equities (including in particular ETFs) are traded. Additionally, IOSCO can continue monitoring trends in this area.

[70] Assessing such effects indeed requires analyzing the impact of trading strategies of various types of market participants (e.g. proprietary traders, institutional investors, financial intermediaries, etc.) and understanding their interactions. Accordingly, a closer look at liquidity formation and the capacity of ETFs (and their potential counterparties) to manage liquidity shocks could be required.

Appendix A – List of Proposed Proposals

Principle 1 *Regulators should encourage disclosure that helps retail investors to clearly differentiate ETFs from other ETPs.*

Principle 2 *Regulators should seek to ensure a clear differentiation between ETFs and traditional CIS, as well as between index-based and non index-based ETFs through appropriate disclosure requirements.*

Principle 3 *Regulators should encourage all ETFs, in particular those that use or intend to use more complex strategies, or other complex techniques, to assess the accuracy and completeness of their disclosure, including whether the disclosure is presented in an understandable manner and whether it addresses the nature of risks associated with such strategies or techniques.*

Principle 4 *Regulators should consider imposing disclosure requirements with respect to the way in which an ETF will replicate the index (or the asset basket or the reference portfolio) it tracks (e.g., physically holding a sample or full basket of the securities composing the index (or the asset basket or the reference portfolio) or synthetically).*

Principle 5 *Regulators should consider imposing requirements regarding the transparency of an ETF's portfolio or other appropriate measures in order to provide adequate information to investors concerning: i) the index (or the asset basket or the reference portfolio) tracked and its composition; and ii) the operation of performance tracking in an understandable form.*

Principle 6 *Regulators should consider imposing requirements regarding the transparency of an ETF's portfolio or other appropriate measures in order to facilitate arbitrage activity in ETF shares.*

Principle 7 *Regulators should encourage the disclosure of fees and expenses for investing in ETFs in a way that allows investors to make informed decisions about whether they wish to invest in an ETF and thereby accept a particular level of costs.*

Principle 8 *Regulators should encourage disclosure requirements that would enhance the transparency of information available with respect to the material lending and borrowing of securities.*

Principle 9 *All sales materials and oral presentations used by intermediaries regarding ETFs should present a fair and balanced picture of both the risks and benefits of such products, and should not omit any material fact or qualification that would cause such a communication to be misleading.*

Principle 10 *In evaluating an intermediary's disclosure obligations, regulators should consider who has control over the information that is to be disclosed.*

Principle 11 *Before recommending the purchase, sale or exchange of an ETF, particularly a non-traditional ETF, an intermediary should be required to take reasonable*

steps to ensure that recommendation is based upon a reasonable assessment that the product is consistent with such customer's experience, knowledge, investment objectives, risk appetite and capacity for loss.

Principle 12 *Intermediaries should establish a compliance function and develop appropriate internal policies and procedures that support compliance with suitability obligations when recommending any ETF.*

Principle 13 *Regulators should assess whether the securities laws and applicable rules of securities exchanges within their jurisdiction appropriately address potential conflicts of interests raised by ETFs.*

Principle 14 *Regulators should consider imposing requirements to ensure that ETFs appropriately address risks raised by counterparty exposure and collateral management*

Principle 15 *ETF exchanges should consider adopting rules to mitigate the occurrence of liquidity shocks and transmission across correlated markets (e.g. automatic trading interruption mechanisms)*

Appendix B – Comparison of ETF Characteristics in the United States and Europe

United States

In the United States, ETF shares are approved for listing and trading on a national securities exchange (i.e., an exchange that has registered with the U.S. SEC under the Securities Exchange Act of 1934). The registered national securities exchanges promulgate and administer listing standards that govern the securities that may be traded in its market. The rules of national securities exchanges, including listing standards, also are subject to review by the U.S. SEC. ETFs accordingly are subject to the listing standards of the exchange on which their shares are listed and traded. For example, the NYSE Listed Company Manual currently includes generic listing standards for ETFs based on U.S. stock indexes, non-U.S. or global stock indexes, fixed income indexes and indexes consisting of both equity and fixed income securities. ETFs listed pursuant to such generic standards must be traded in all other respects under the exchange's existing trading rules and procedures that apply to ETFs and are covered under the exchange's surveillance programs for equities. ETFs in the U.S. can be traded on or off exchange. All trades in ETFs (subject to a few minor exceptions), on or off exchange, however, must be reported to the consolidated tape. The index underlying the ETF also must meet a variety of conditions set forth in such standards, including requirements related to the nature, liquidity, and diversification/weighting of securities in the index and requirements with respect to index methodology and index value dissemination.

Generally speaking, all ETFs are structured and operate in a similar way. Like operating companies, ETFs register offerings and sales of ETF shares and list their shares for trading. As with any listed security, investors may trade ETF shares continuously at market prices, but ETF shares purchased in secondary market transactions generally are not redeemable from the ETF except in large blocks called *creation units*. Unlike traditional CIS, ETFs do not sell or redeem their individual shares (ETF shares) to and from retail investors at NAV. Instead, certain financial institutions (known as *authorized participants* or *APs*) purchase and redeem ETF shares directly from the ETF, but only in creation units.

Most often, an AP that purchases a creation unit of ETF shares first deposits with the ETF a *purchase basket* of certain securities and other assets identified by the ETF that day, and then receives the creation unit in return for those assets. The basket generally reflects the contents of the ETF's portfolio and is equal in value to the aggregate NAV of the ETF shares in the creation unit. After purchasing a creation unit, the AP may hold the ETF shares, or sell some or all of the ETF shares in secondary market transactions. The redemption process is the reverse of the purchase process. The AP acquires (through purchases on national securities exchanges, principal transactions, or private transactions) the number of ETF shares that comprise a creation unit, and redeems the unit from the ETF in exchange for a "redemption basket" of securities and other assets. An investor holding fewer ETF shares than the amount needed to constitute a creation unit (e.g., most retail investors) may dispose of those ETF shares by selling them on the secondary market. The investor receives market price for the ETF shares, which may be higher or lower than the NAV of the shares, and pays customary brokerage commissions on the sale. The ability of APs to purchase and redeem creation units at each day's NAV creates arbitrage opportunities that may help keep the market price of ETF shares near the NAV per share of the ETF.[71]

[71] For example, if ETF shares begin trading on national securities exchanges at a price below the fund's NAV per share, authorized participants can purchase ETF shares in secondary market transactions and,

Europe/UCITS

Most often, an AP that purchases a creation unit of ETF shares first deposits with the ETF a *purchase basket* of certain securities and other assets identified by the ETF that day, and then receives the creation unit in return for those assets. The basket generally reflects the contents of the ETF portfolio and is equal in value to the aggregate NAV of the ETF shares in the creation unit. After purchasing a creation unit, the financial institution may hold the ETF shares, or sell some or all of the ETF shares in secondary market transactions. The redemption process is the reverse of the purchase process. The financial institution acquires (through purchases on national securities exchanges, principal transactions, or private transactions) the number of ETF shares that comprise a creation unit, and redeems the unit from the ETF in exchange for a *redemption basket* of securities and other assets. An investor holding fewer ETF shares than the amount needed[72] to constitute a creation unit (e.g., most retail investors) has to rely on the secondary market. The investor receives market price for the ETF shares, which may be higher or lower than the NAV of the shares, and pays customary brokerage commissions on the sale. The ability of financial institutions to purchase and redeem creation units at each day's NAV is actually crucial to the ability of the market to arbitrage between to keep continuously the market price of ETF shares close to the value of the ETF's underlying index basket.[73] It should be noted that all ETFs do not redeem in specie (namely for an in-kind exchange of the underlying asset basket) but also in cash, for example in the case of leveraged ETFs.

In Europe, the MiFID, as implemented from November 2007, left provisions for non-equity securities subject to later review, thus not making ETF post-trade transparency a European regulatory requirement.[74] This point is currently being addressed by the European Commission in the context of the present MiFID review process.

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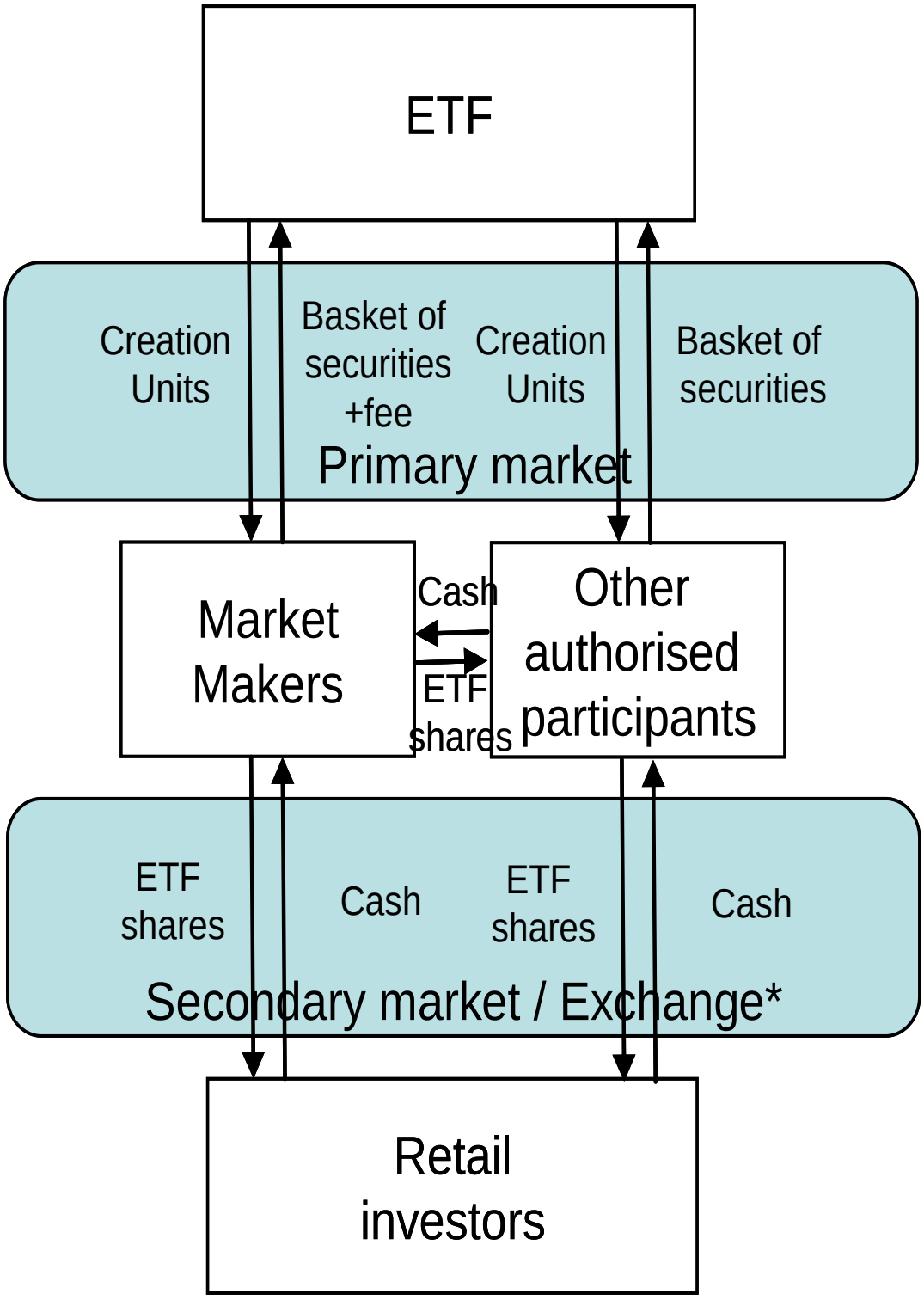
after accumulating enough shares to comprise a creation unit, redeem them from the ETF in exchange for the more valuable securities in the ETF's redemption basket. Those purchases create greater market demand for the ETF shares, and thus tend to drive up the market price of the shares to a level closer to NAV. Conversely, if the market price for ETF shares exceeds the NAV per share of the ETF itself, a financial institution can deposit a basket of securities in exchange for the more valuable creation unit of ETF shares, and then sell the individual shares in the market to realize its profit. These sales would increase the supply of ETF shares in the secondary market, and thus tend to drive down the price of the ETF shares to a level closer to the NAV of the ETF share.

72 Another impediment for retail investors to access the primary market is the fixed fee structure adopted by ETFs for issuing creation units, which makes it very expensive to create small amounts of shares.

73 For example, if ETF shares begin trading on national securities exchanges at a price below the fund's NAV per share, financial institutions can purchase ETF shares in secondary market transactions and, after accumulating enough shares to comprise a creation unit, redeem them from the ETF in exchange for the more valuable securities in the ETF's redemption basket. Those purchases create greater market demand for the ETF shares, and thus tend to drive up the market price of the shares to a level closer to NAV. Conversely, if the market price for ETF shares exceeds the NAV per share of the ETF itself, a financial institution can deposit a basket of securities in exchange for the more valuable creation unit of ETF shares, and then sell the individual shares in the market to realize its profit. These sales would increase the supply of ETF shares in the secondary market, and thus tend to drive down the price of the ETF shares to a level closer to the NAV of the ETF share.

74 For example, according to Deutsche Börse, trading of ETFs listed on its XTF market segment amounted to EUR72bn in August 2011, of which EUR27bn was traded on the market and EUR45bn was traded OTC, pointing to a ratio of about 1/3 for *lit* trading versus 2/3 for *dark* trading. This order of magnitude is confirmed by other industry estimates for non-U.S. markets.

Schematic representation of ETF share issuance and acquisition



* NB: a majority of trading volumes in the secondary market of ETFs is actually traded OTC among APs.

Appendix C – Regulatory Structure for ETFs and ETPs in TCSC5 Member Jurisdictions

United States

1. ETFs regulated under the Investment Company Act of 1940

In the United States, ETFs are registered with the U.S. SEC and are organized either as open-end investment companies or unit investment trusts (UITs). Open-end CIS have investment portfolios that are subject to active management by investment advisers (operators) and are overseen by a board of directors or trustees. A UIT does not have an operator (or a board of directors) because its investment portfolio is not subject to active management. A UIT is organized under a trust indenture, contract of custodianship or similar instrument. ETFs in the United States generally meet the definition of *investment company* in the Investment Company Act because such entities issue securities and are primarily engaged (or propose to primarily engage) in the business of investing in securities. ETFs generally are subject to the same provisions as other mutual funds. Namely, ETFs generally cannot engage in affiliated transactions and their ability to use derivatives generally is limited.

Commodity ETFs

ETPs that are not based on securities and whose portfolios may consist of physical commodities, currencies, or futures are created and redeemed by APs and traded on a national securities exchange in a manner similar to ETFs, but the entities offering the ETPs are not registered or regulated as investment companies under the Investment Company Act. These include ETPs that invest primarily in commodities or commodity-based instruments, such as crude oil and precious metals or futures thereon (*commodity ETFs*). Commodity ETFs typically are organized as trusts or, in the case of commodity pools, as limited partnerships, and issue shares that trade on a securities exchange like other ETFs. An offering of shares in a commodity ETF is registered under the Securities Act of 1933 (Securities Act) and the issuer is subject to the periodic reporting requirements of the Securities Exchange Act of 1934 (Exchange Act).

- One type of commodity ETF is based on a physical commodity and uses its assets to buy and store the physical commodity itself. The product's price is based on the traded spot or cash market price of the physical underlying commodity (e.g. gold, silver, platinum, palladium,).

- A commodity ETF based on a physical commodity typically is not regulated as a *commodity pool* as defined under the Commodity Exchange Act, as amended (Commodity Exchange Act). The sponsor and the trustees of this type of commodity ETF also may not be subject to regulation by the CFTC as a commodity pool operator or a commodity trading advisor. However, ETFs holding physical commodities, warehouse receipts for physical commodities or some other physical commodity exposure essentially function as a substitute for a cash commodity position. Therefore, the clearing organization for options and futures on shares of a physical ETF has sought approval from the CFTC in each instance to permit the trading and clearing of such transactions as options on a security or as security futures, respectively.

- Another type of commodity ETF is based on futures and other derivatives. These products hold futures contracts (i.e., agreements to deliver a certain commodity at a certain date in the future for a price paid today) that trade on exchanges and do not require storage like a physical commodity does and may be cash-settled (as opposed to physical settlement). Commodity futures contracts are regulated under the Commodity Exchange Act administered by the CFTC. Commodity ETFs based on futures typically are used for exposures which cannot be physically stored or which represent a basket of commodities. The price of such commodity ETFs is based on an index level which is derived from underlying futures contracts (e.g., agriculture, energy, industrial metals, livestock,). Such contracts generally maintain a strong correlation with movements in the spot price of the underlying assets.

- A commodity ETF based on futures may be organized as a limited partnership that is a commodity pool subject to the Commodity Exchange Act and whose general partner is registered as commodity pool operator with the CFTC. Alternatively, such a commodity ETF also may be organized as a trust that is a commodity pool subject to the Commodity Exchange Act and whose manager is registered as a commodity pool operator with the CFTC.

2. Other Exchange-Traded Products

Other ETPs include exchange-traded notes (ETNs) which, unlike interests in ETFs, generally are unsecured debt securities, issued by public companies, in most cases by bank holding companies or investment banks. ETNs also are exchange-traded securities that can provide the investor with investment exposure to certain market benchmarks or strategies. As ETNs are debt obligations of the issuer of the security, the ETN does not provide the investor with any ownership interest in the referenced security or securities in the referenced index. In addition, an investor in an ETN is exposed both to the market risk of the linked securities or index of securities and the credit risk of the issuer. ETNs do not share the same fund-like or trust-like structure as do other ETPs, and are not registered or regulated as investment companies under the Company Act. An issuer that publicly offers ETNs generally is required to register the offer and sale of the ETNs under the Securities Act and the issuer generally is subject to the periodic reporting requirements of the Exchange Act.

Europe/UCITS

According to a widespread terminology in use on the markets (cf. Blackrock and various exchanges such as NYSE Euronext), ETPs describe a wide range of products that bear some degree of substitutability with ETFs organized as CIS, and may share a number of similarities in the way they trade and settle on secondary markets.

While most such ETFs possess the legal form of a fund, other ETPs are often understood to be debt products such ETNs (notes issued by investment firms) or Exchange Traded Vehicles (ETVs) issued by special purpose vehicles.

Exchange-Traded Notes

More specifically with regard to products which aim to replicate the performance of an underlying portfolio or an index are structured as notes, ETNs are structured products that are

issued as non-interest paying debt instruments whose prices fluctuate with an underlying index or an underlying basket of assets. Because they are debt obligations, ETNs are backed by the full faith and credit of the issuer and subject to the solvency of the issuer. They have maturity dates. So, when investor holds an ETN until the maturity date, he receives a one-time payment based on the performance of the underlying asset, index or strategy. He can also sell on the open market as these products are open-ended securities which offer a real-time pricing and intraday liquidity.

ETNs vs. ETFs:

Tracking Error: The tracking error of an ETF can be non negligible. It depends on the replicating strategy used by the fund (synthetic replication, physical replication or representative sampling strategy). In the ETN case, investors receive the underlying index return without any tracking error to the index. Indeed, the ETN issuer guarantees the holder a return that is an exact replica of the underlying index (minus expense fees). This makes ETNs attractive to investors as "tracking error" risk is borne by the issuer.

Regulatory Framework: ETNS and ETFs have different regulatory frameworks. Unlike ETFs which have to comply with the Directive 2009/65/EC rules, ETNs can be considered as *risky assets* and less protective of investors:

- they don't have to comply with an appropriate risk management and control rules (no counterparty risk control, no depositary, no auditor, no fiduciary duty etc.)
- they don't have to comply with eligibility rules or diversification requirements. The underlying index tracked by an ETF should comply with index eligibility criteria. ETNs can replicate a performance of a single asset or a non-diversified underlying portfolio. For instance, Commodity ETNs can replicate the spot price of an underlying commodity. They are usually exposed to a single asset or a concentrated portfolio which are composed of few assets belonging to the same commodity sub-market (Gold, Oil, Wheat…).

Exchange-Traded Vehicles

Exchange-Traded Vehicles are listed products (Euronext) which deliver the same kind of payoff as ETFs (index replication) and ETNs (tracking individual assets or asset indexes).

ETNs are debt securities and are necessarily issued by a credit institution while ETVs are *open-ended securities* which can be issued by a *Special Purpose Vehicles*. Therefore, the credit risk is totally borne by investors. When investing in ETNs, the issuer rating can help investors to measure the credit risk they take. In the ETVs case, investors do not have any material information which allows them to assess the solvency of the SPV.

Exchange-Traded Commodities

It matters here, in addition, to note that Exchange-Traded Commodities (ETCs), a market segment that has grown significantly lately, designates chiefly products that are structured as ETNs or as ETVs.