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# Opinion of the EBA on Good Practices for ETF Risk Management

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## Abbreviations

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| AP | Authorised Participants |
| CCR | Counterparty Credit Risk |
| ETF | Exchange Traded Fund |
| M-t-M | Mark to Market |
| NAV | Net Asset Value |
| TRS | Total Return Swap |
| UCITS | Undertakings for Collective Investment in Transferable Securities |

# Introduction

1. The use of ETFs has grown significantly in Europe over recent years. Banking groups are major participants in the ETF business and can be involved in a number of different ways: as ETF providers, swap/securities lending counterparties, authorised participants/market makers, or investors (on own account).

2. This report is designed to outline a high level description of Good Practices with respect to the management of key risks that credit institutions encounter through their ETF business units, or when dealing with ETFs. Good Practices attempt to ensure that potential risks associated with ETFs are managed adequately from the perspective of the credit institution – and indirectly from the perspective of its customers. More specifically, the Good Practices intend to bring some guidance to the evaluation of risk that might emerge at bank level through their operational relationships with ETFs. These Good Practices do not focus on risk management on fund level or on direct aspects of consumer protection.

3. The actual mode of implementation of the Good Practices will depend heavily on the very specific setting and characteristics of the institutions concerned, including the level of their involvement in the ETF business and the relevance of those activities. While some Good Practices may already be applied, for some market participants even stronger standards may be appropriate.

4. Most ETFs in the European Union are governed by the requirements of the UCITS Directive[1], which puts in place a comprehensive regulatory framework that helps ensure high standards on such aspects as organisational requirements, risk management, investment limits and disclosure.

5. For the purpose of this report the definition of UCITS ETF adopted in ESMA's Guidelines on ETFs and other UCITS issues[2] (hereinafter 'the ESMA Guidelines') will be used:

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

6. It is worth noting that the ESMA Guidelines already strengthen significantly the regulatory framework for UCITS ETFs by putting in place additional disclosure requirements, detailed provisions on collateral management and the rules to be respected when ETFs engage in such activities as securities lending and repo. Credit institutions, and their supervisors, should as a first

[1] Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)

[2] See Annex 1[1]

step assess whether the ETF in question is covered by the ESMA Guidelines. The fact that an ETF is subject to the ESMA Guidelines should provide a level of comfort as to the requirements that apply directly at the level of the ETF (notwithstanding the separate considerations arising at the level of the credit institution).

7. This report is an Opinion addressed to competent authorities as defined in the Capital Requirements Directive[3] is based on Article 29(1)(a) of the EBA Regulation[4] 1093/2010. It is intended to assist supervisors in gaining an accurate picture of the kind of involvement and the subsequent risks for credit institutions which participate in ETF business. Such opinions are designed to contribute to building a common Union supervisory culture and consistent supervisory practices. Competent authorities should therefore take this opinion into account in supervising credit institutions which participate in ETF business. In particular, competent authorities should be aware of the risks institutions might take when involved in ETF business in any of the roles presented in this report.

[3] Directive 2006/48/EC of the European Parliament and of the Council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions

[4] Regulation (EU) No 1093/2010 of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC.

# I. Good Practices for ETF business

Credit institutions participate in the ETF market in several roles. Institutions that have business units managing ETFs within their group are particularly exposed to specific risks. Typically there are strong trading relationships between ETFs and the parent institution or other related group entities, which could expose the group to specific risks. Risks arising from trading activities (e.g. liquidity, credit and market risk) aide, additional reputational or legal risks might arise, which need to be addressed.

Credit institutions may act as counterparties in swaps, securities lending and repos, as market makers/authorized participants, or as ETF investors. The Good Practices are relevant to institutions that do not provide ETFs but act as counterparties but competent authorities may decide to apply them to a lesser extent where risks are assessed to be less significant. Also the degree of involvement of the credit institution in comparison to overall activities of the group should be taken into account when determining the appropriate level of compliance of credit institutions and their groups with these Good Practices.

## 1.1 Good Practices regarding risk governance/Permanent ETF risk management function

Credit institutions should cover and organize within their risk management function the oversight of the combined impact of the ETF business on the group, including liquidity and market risks, and should regularly report to the relevant management body, supporting a risk-adjusted view of profitability. While risks of the ETF business are regularly incorporated on an institution-wide base in general risk management (based on exposures), a regular holistic analysis of all risks stemming from ETFs may enhance transparency and is recommended, since the risks of ETFs can have very particular dynamics.

## 1.2 Introduction of new ETFs

The ETF risk management function should have the necessary authority and access to all information it considers relevant in order to play a key role in the internal approval process regarding new ETFs and in the on-going risk assessment of the ETF business. Processes should ensure swift information sharing with other departments or divisions, including middle office and trading.

## 1.3 Defined risk appetite/exposure limits for the ETF business

Credit institutions should articulate their group-wide risk appetite for ETF business, including setting and monitoring of thresholds and limits for each entity involved. In this context, the risk management function should provide reports to the relevant management body on (i) the consistency between the current level of risk incurred and the thresholds or limits agreed and (ii) any actual or foreseeable breaches of such thresholds or limits so as to ensure that prompt and appropriate action can be taken. The risk management function should report on the adequacy and effectiveness of the ETF risk management process and should advise, where appropriate, on amendments of arrangements and/or procedures.

### 1.4 Defined market concentration limits

The risk management function should define limits for the credit institution's exposure to each ETF, taking into account its respective group-wide exposure on the market for the underlying assets (including market capitalization and trading volume).

### 1.5 Documentation of risk policies, methodologies and procedures

The risk management function should properly document, review and keep updated the risk policies, methodologies and procedures related to ETF business. These should be approved by the relevant management body.

## 2. Good Practices regarding general funding requirements and liquidity

### 2.1 Quantifying and monitoring funding needs

The risk management function of the credit institution should quantify and monitor the overall funding needs as well as resources generated by ETF activities: i.e. seed investments and the use of own securities inventories. If relevant, banking groups should carefully assess the importance of the ETF business as a source of financing and liquidity for the whole group in order to avoid any unduly funding concentrations or liquidity difficulties due to possible withdrawals.

### 2.2 Liquidity risk associated to sudden withdrawals

Credit institutions should ensure they have a comprehensive understanding of the liquidity risk if the ETF business were to face a sudden, unexpectedly large withdrawal. This is especially relevant for banking groups which include an undertaking which offers ETFs. Liquidity risk associated with sudden withdrawals should be transparent, regularly monitored and communicated to both the treasury and risk management functions.

### 2.3 Franchise liquidity risk and liquidity metrics

Given that in a run on ETFs, the sponsoring bank part of the group may need to step in to provide liquidity rather than rely on liquidating the direct portfolio in a disorderly market, the group should also consider holding additional contingent liquidity against the franchise liquidity risk exposure. There should be overall limit triggers calibrated to average daily volumes on the relevant markets.

These risks should be included adequately in the liquidity stress metrics of the credit institution. Moreover, because potential stress can be understated as fund shares can be redeemed instantly, credit institutions should consider the appropriateness of applying behavioural maturities. Liquidity metrics should include realistic assumptions of additional funding needs in the event of substantial withdrawals. Even if funding could be sourced in the market, credit institutions should assess the extent to which additional haircuts would be applied by the market in a period of stress.

# 3. Good Practices regarding credit risk and collateral management

## 3.1 Counterparty credit risk

Credit institutions should manage their counterparty risk exposure to the ETF provider adequately using risk-sensitive measurement and should set a credit line based upon the amount of exposure they would be willing to take. In addition, credit institutions should have in place policies regarding the selection and the daily monitoring processes of its counterparties' credit limits and total exposures. Business with ETFs as counterparties might cause greater sensitivity to sudden changes in risk profiles of ETFs as they might be prone to runs in the event of entity-specific rumours or especially adverse market developments.

## 3.2 Internal reporting

Specific reports should be compiled in order to assess the stock of assets in a credit institution's inventory, and the availability of high quality collateral that has been received or pledged. In relation to securities lending activities, obligations stemming from re-delivery should be monitored carefully.

## 3.3 Collateral management

Credit institutions should make sure that they hold enough inventory of additional collateral that meets the legal terms of bilateral contracts with ETFs in order to be able to meet additional collateral calls. Furthermore, credit institutions need to define stress test scenarios on their collateral assets provided to ETFs to assess potential effects of mass redemption from the ETFs, or from an increase in haircuts (e.g. due to a downgrade or increased risk of collateral).

## 3.4 Investment of cash collateral

Institutions should clearly define in their risk systems the liquidity level of invested cash collateral received from ETFs. Stress test scenarios simulating mass redemptions from ETF entities should be used to define the appropriate level of liquidity and amount of free (near-)cash items.

# 4. Good Practices regarding market risk

This section is intended to elaborate upon, not replace, the already existing ESMA guidelines,[5] by clarifying their application by supervisors of credit institutions.

## 4.1 On-going assessment of the tracking error/basis risk

The risk management function should make sure that proper policies are implemented regarding the management and monitoring process of the tracking error/basis risk in the hedging strategy[6]. This

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5 http://www.esma.europa.eu/content/Guidelines-ETFs-and-other-UCITS-issues

6 Even in the case of physical ETFs it is often the case that the fund holds index futures rather than the index itself, which introduces basis risk into the hedging strategy.

should include the computation methodology, limits and a tracking error minimising policy. The ESMA Guidelines are particularly relevant in this context (see Section V, paragraphs 9-11 of the Guidelines).

### 4.2 ETF pipeline risk

Positions held by authorised participants to purchase and redeem creation units should be adequately monitored in order to account for the market risk stemming from these inventory positions.

### 4.3 Market making/Authorised participants

Market makers should balance their current position against the liquidity of the ETF and the target assets to avoid being left with unintended high open positions in case of market stress.

### 4.4 Market discipline

Credit institutions that invest, or whose groups invest, in ETFs (whether for their own book or on behalf of clients – subject to other regulatory requirements) should assess the extent to which conflicts of interest and key risks are addressed, and the Good Practices outlined in this document are adhered to.

## 5. Good Practices regarding stress testing framework

### 5.1 Stress scenarios

A credit institution's stress framework should account for counterparty concentration risk, for example the risk of having only one (or very few) swap counterparties, which may even be related to the banking group. Alternative measures that could be taken at various stages – depending on the level of stress at the banking part of the group – need to be documented clearly. That should consist of defining specific procedures for the liquidation of collateral guarantees and the ability – if needed – to reset a new framework with substitute counterparties to close any open position. Credit institutions should also consider which measures could be taken to improve resiliency and minimise disruption in case of period of stress. Where asset managers and credit institutions are in the same group, this should also be considered as part of firm's recovery and resolution planning.

### 5.2 Holistic approach to measuring risks

Credit institutions need to be aware that risks of ETFs are interrelated across risk categories and business levels. For instance a run on ETFs may be a common trigger and lead to a materialisation of risks.

Therefore, it is essential that stress frameworks of credit institutions incorporate a holistic view on potential risks, including but not limited to the following points.

- A run on ETFs across funds may require credit institutions to unwind swaps and securities lending activities. Credit institutions should account for increased funding requirements as well as unexpected market losses.

- Simultaneously, ETFs may not be able to service large redemptions in case of a run, especially if the underlying asset markets become illiquid, pressuring the credit institution to step in and support the ETF due to reputational risk. Such interventions would trigger additional liquidity needs and lead to an increase in the assumed risk.

- Credit institutions should take into consideration wrong way risk when designing their stress test scenarios. Synthetic ETFs in particular are often closely associated with the sponsoring credit institution. Therefore, if the credit institution faces a stressful event, investors may quickly start to withdraw their interest from the concerned ETFs and thereby aggravate the crisis situation for the credit institution.

When running stress tests that take ETFs into account, credit institutions should outline explicitly which risks and business entities have and have not been considered in the framework.

# 6. Good Practices regarding the conflict of interest policy

## 6.1 Conflicts of interest within the group

A scenario whereby several ETF functions are located within a group (especially if the issuer is a subsidiary of a credit institution and the parent credit institution acts as custodian, swap counterparty and index sponsor), could result in a general relaxation of risk management standards, either in the way they are set or executed, as compared to third party transactions. Examples may be falling qualitative requirements as regards assets used as collateral. The conflict of interest policy established should include specific procedures, measures and responsibilities to address this risk.

## 6.2 Legal Documentation

The same trade documentation standards should be used for transactions which take place between different entities within a group as for third party business. Intra-group transactions should be negotiated on an arm's-length basis.

# II. Considerations for competent authorities

The following list of questions may help supervisors of credit institutions assess the relevance of risks stemming from ETF business:

- Liquidity

  - How does the risk function assess the liquidity of the fund?

    The risk management function should be able to explain whether the following procedures are in place:
    - a liquidity tolerance or a liquidity risk appetite statement;
    - limits for the main sources of liquidity risk (so-called 'risk drivers');
    - control systems and/or monitoring tools for monitoring liquidity positions against limits;
    - funding plan;
    - a contingency funding plan;
    - documentation on assumptions and expectations (regarding behavioural aspects and (stress test) scenarios) and approved (contingent) funding plans;
    - a mechanism for fund transfer pricing;
    - peer group reviews to benchmark the institution against its domestic and international peers;
    - a policy on the handling of exceptions;
    - a policy for escalation procedures;
    - signing off procedures;
    - relevant reconciliations.

  - Is the ETF business incorporated into the liquidity price transferring system of the credit institution?

    The treasury function should have the complete visibility of ETF business. To properly manage funding liquidity risk, credit institutions should charge rates based on their marginal cost of funds and matched to the expected maturity of the ETF at origination. Since ETFs are non-maturing products, blended marginal rates should be applied. In regard to the sizing of liquidity cushions, credit institutions should use the results of stress-testing and scenario analyses, which include idiosyncratic and market-wide disruptions, as well as a combination of the two. Assets held as part of credit institutions' liquidity buffers should be of the highest quality to ensure liquidity can be generated when needed. When the ETF business creates the need for additional liquidity this should be charged based on its expected usage of contingent liquidity.

  - How are the liquidity limits of the ETF established and monitored?

    The risk management function should establish appropriate limits suited to the scale and nature of the institution's ETF business and its risk profile, financial conditions and fund-raising capacity (funding gap limits from the perspective of funds risk and position limits from

the perspective of market liquidity risk). The method of establishing the limits needs to be revised regularly and the limits need to be established in a timely manner.

- Counterparty Credit Risk

    - Does the ETF use complex strategies or investments in securities derivatives?

      The credit institution should reveal the investment strategies of the ETFs and national supervisory authorities should make sure that the credit institution has proper policies in place regarding the use of complex strategies, securities derivatives or securities lending activities[7].

    - What is the quality of collateral received by the institution in comparison to the underlying securities of the tracked index[8]?

      The collateral or the direct investments held by the ETF should be sufficiently liquid, of high quality and prudently valued when used to mitigate the counterparty credit risk borne by the ETF (e.g. at least daily, independently, and allowing for haircuts and discount rates to mitigate valuation uncertainties). In this way, 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 in order to return the cash back to investors with a limited discount[9].

    - What kind of restrictions are there in place to ensure that non-cash collateral is not sold, pledged, or re-invested?[10]

      Competent authorities should assess whether there are effective policies in place to diminish the possible consequences of rehypothecation. Some ETFs that use physical replication engage in securities lending activities to boost the revenues of the ETF.

    - What is the nature and extent of the counterparty exposure?

      See footnote 7.

    - What are the concentration limits per counterparty of the ETF?

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[7] For more details on ETF structures and investment strategies see: Overview of EBA work 2011-2012, Annex 2: Exchange Traded Funds, February 2012http2012http://eba.europa.eu/Publications/Consumer-Protection-Issues.aspx

[8] ESMA's Guidelines cover the type of collateral that UCITS, including ETFs, should accept from counterparties of financial derivative instruments and efficient portfolio management techniques (such as securities lending). This section is intended to assist supervisors of credit institutions assess the relevance of risks stemming from ETF business. It is without prejudice to the regulatory requirements that apply directly at the level of the ETF, including the ESMA Guidelines.

[9] For more guidelines and additional safeguards regarding collateral management and counterparty credit risk see: Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS – July 2010, http://www.esma.europa.eu/content/Guidelines-Risk-Measurement-and-Calculation-Global-Exposure-and-Counterparty-Risk-UCITS

[10] ESMA's Guidelines (Section XII, paragraph 43(i)) state that non-cash collateral received should not be sold, re-invested or pledged.

Pursuant to Article 52 of the UCITS Directive[11] the risk exposure of a UCITS to a counterparty in an OTC derivative transaction may not exceed 5% of the assets of the UCITS. This limit is raised to 10% if the counterparty of the ETF is a credit institution.

- Operational Risk/ Conflict of Interests

  - What are the constituents of the reference portfolios or indexes that are tracked?

    Appropriate policies should be established regarding the disclosure of the constituents of the reference portfolio or the custom index that is tracked, especially when ETFs track indexes that are provided by an affiliate.[12]

  - How is the performance tracking done and monitored?

    It has been noticed that index-based ETFs may not disclose their performance in a standardized way, therefore competent authorities should make sure that proper disclosure policies are in place regarding intra-day monitoring and measurement of ETF performance, and tracking error. A tracking error minimizing policy should be put in place as well.

  - What is the impact of fees and expenses on the performance of the product?

    The cost structure of the ETF has to be transparent and both competent authorities and investors should be able to know what the impact of the revenues and the costs incurred by the fund would be on the overall performance. ETF trading costs supported directly by investors can be considered the bid-ask spreads or the changes in discounts and premiums between the ETF's shares and the ETF's NAV. There may also be indirect costs borne by an ETF like trading costs incurred when a physical ETF purchases its underlying securities. Another factor that can impact the total cost might be the investment strategy. For example passive vs. actively managed ETFs[13] strategies have a high impact on trading costs and commissions.

  - What are the relations between the index provider, the authorised participants and the sponsor of the ETF?

    In order to avoid conflicts of interest within a financial group, governance policies should be established and made easily accessible to competent authorities. Fees charged by affiliated entities as well as the quality of the services provided should be fair and comparable to industry practice.

[11] See footnote 1.
[12] The ESMA Guidelines (see in particular Section XIII) set out specific safeguards to cover situations where a UCITS wishes to gain exposure to a financial index.
[13] The ESMA Guidelines (see in particular Section VIII) put in place additional disclosure requirements in order to address the specific risks arising from actively-managed ETFs.

# Annex 1: Related publications


[1] **ESMA** – Guidelines on ETFs and other UCITS issues, December 2012, ESMA/2012/832, http://www.esma.europa.eu/content/Guidelines-ETFs-and-other-UCITS-issues

[2] **IOSCO** – Principles for the Regulation of Exchange Traded Funds, March 2012 http://www.iosco.org/library/pubdocs/pdf/IOSCOPD376.pdf

[3] **EBA** – Overview of EBA work 2011-2012, Annex 2: Exchange Traded Funds, February 2012 http://eba.europa.eu/Publications/Consumer-Protection-issues/Financial-Innovation-and-Consumer-Protection.aspx

[4] **FSB** – Potential financial stability issues arising from recent trends in Exchange-Traded Funds (ETFs), April 2011 http://www.financialstabilityboard.org/publications/r_110412b.pdf

[5] **CESR** – Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS, July 2010, CESR/10-788 http://www.esma.europa.eu/content/Guidelines-Risk-Measurement-and-Calculation-Global-Exposure-and-Counterparty-Risk-UCITS