Policy Themes
Exchange Traded Funds – Under the Regulatory Spotlight

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"There are a number of disquieting developments in some [ETF] market segments which call for closer scrutiny" (FSB, April 2011)

"The disproportionately large size of some ETFs compared with the market capitalization of the underlying reference indices poses a risk of disruption in some markets from heavy ETF trading." (IMF, April 2011)

"As the volume of such products [ETFs] grows, the replication strategies can lead to a build-up of systemic risks in the financial system." (BIS, April 2011)

The Financial Stability Board (FSB), the Bank of International Settlements (BIS), and the International Monetary Fund (IMF) each published reports in April that raised concerns about Exchange Traded Funds (ETFs). The reports trace the evolution of the global ETF market from $410m in assets under management in 2005 to the current $1.3tr emphasising the market's dramatic change since then. Plain vanilla physically-backed equity structures have made way for a new breed of more complex ETFs that employ derivatives to generate synthetic replication, and new leveraged and inverse versions of ETFs have emerged. Synthetic swap-based ETFs now represent almost half of all ETFs in Europe[1], and it is primarily this new type of ETF that the regulators are most concerned with. However, activities associated with ETFs are also scrutinised in the reports, with regulators highlighting the potential risks associated with stock lending of the underlying securities in the physically-backed structures.

Concerns

The three reports explore the topic at different levels of detail, but essentially raise many of the same points. The FSB points to potential **systemic** risks and a source of contagion stemming from problems at banks that act as both ETF provider and swap counterparty. Both the BIS and FSB draw attention to **misaligned incentives / conflicts of interest** where a bank playing both roles views the ETF business as a way to finance illiquid assets more cheaply by transferring them as collateral to the ETF provider than funding them through unsecured or repo markets. There is currently no requirement that the collateral posted to the ETF sponsor matches the assets of the tracked index.

Collateral risks are underlined by all reports with concerns raised about the **quality of the collateral** and the increased **liquidity risk** in times of market stress. **Counterparty risk** is a related issue, where the reports warn that the benefits of reduced tracking error (when using synthetic replication) come at the cost of increased counterparty exposure. The IMF report goes further to caution that bankruptcy laws surrounding counterparty defaults could lead to the freezing of collateral pools. Counterparty risk is not unique to synthetic ETFs as both the FSB and IMF highlight that in physically-backed ETF structures, the securities are often lent out, which again increases risk of counterparty default.

The BIS report highlights two instances of **potential regulatory arbitrage**; 1) where a bank playing the dual role of ETF sponsor and swap provider is able to reduce regulatory capital charges through transferring more RWA intensive assets to the ETF provider, than the assets required to match the ETF index, or 2) banks being potentially able to reduce run-off rates under the LCR through a similar transfer. The IMF also reiterates concerns that heavy ETF trading could result in **market disruption risks** especially in small markets and commodities (where they partly attribute commodity price volatility to strong flows into commodity ETFs). Finally, the **complexity** of recent ETF innovations is something all reports touch on, with the FSB warning that such complexity and opacity may leave investors exposed to risks they had not anticipated.

[1] Sources: BlackRock / Bloomberg. Actual figure 45%

What next?

The FSB report ends with **three recommendations** aimed at the authorities, investors and ETF providers:

1) greater reporting requirements and management of conflicts of interest,

2) greater review of collateral, counterparty and funding liquidity risks, and

3) increased levels of transparency on product composition and collateral baskets.

It is not the first time such warnings have been sounded about the growth and increasing complexity of the ETF market – Bank of England Financial Stability Report June 2010 urged caution in ETF innovation, the Committee of European Securities Regulators called for greater transparency in 2010, and the FSA in their Retail Conduct Risk Outlook highlighted the potential risks associated with leveraged ETFs earlier this year. Additionally the European Securities and Markets Authority (ESMA) has indicated its plans to publish a report on ETFs in the coming weeks. Momentum for some form of additional reform is clearly building, especially as the IMF report concludes with the prediction that ETF market growth would accelerate over the near term and increase in complexity. The focus on ETFs also presents the first significant active example at the international and European level of the new discipline of **macro prudential supervision**, whereby regulators aim to anticipate and provide early warnings of potential systemic risks.

Although the total ETF market only represents 6% of the global mutual fund industry, it has caught the attention of global regulators – a fact explained by the fast growth and increase in complexity, the existence of differing regulatory regimes[2] and the perceived similarities with structured credit markets pre-crisis[3]. Whether through self-led industry reforms, or via regulatory change, it seems likely that increased disclosure on collateral pools, more frequent resetting of collateral NAV to the index value, and potentially a greater marketing distinction made between traditional and swap-based ETFs, will be among forthcoming changes for the industry.

SUMMARY OF MAIN CONCERNS RAISED BY EACH REPORT

Financial Stability Board: "*Potential financial stability issues arising from recent trends in Exchange Traded Funds"*

Synthetic ETFs

- **Systemic risk:** Increases in complexity and opacity in the synthetic ETF market may leave investors exposed to risks they had not anticipated. Specifically, if the ETF provider and the swap provider are the same entity any problems at those banks "*may constitute a powerful source of contagion and systemic risk."*
- **Misaligned incentives:** Incentives behind the creation of synthetic ETFs may not be aligned. Where banks play the dual role of ETF provider and derivative counterparty, as there is no requirement for the collateral to match the assets of the tracked index, the synthetic ETF creation process may be driven by the bank's desire to raise funding against an illiquid portfolio that cannot otherwise be financed in the repo market.
- **Liquidity shortfall:** if the collateral used in the creation of a synthetic ETF is illiquid, the provider of the ETF may experience difficulties liquidating the portfolio in times of market stress, leaving the bank with the option of suspending redemptions or experiencing a liquidity shortfall.

Risks for market liquidity; Incentives for securities lending

- **Market liquidity risk: A** market sell off with large scale cash redemptions being made raises questions as to the exit strategies and liquidity risk of the ETF providers and swap counterparties.
- **Counterparty and collateral risks through securities lending:** in the case of plain vanilla ETF creation, the ETF provider often engages in securities lending to supplement their management fee income. This may create similar counterparty and collateral risks as synthetic ETFs. What is more, large scale recalling of on-loan securities could produce a short-squeeze in the underlying asset.
- **Incentives for extensive lending:** the FSB warns that as some providers generate more fee income on securities lending than from their traditional management fees, the incentive to engage in extensive lending is significant.

Risk implications for authorities, ETF investors and providers

- **Destabilising interaction with other financial innovations:** the FSB argues that the current low interest rate environment provides incentives for re-leveraging in non standard market segments. They warn that such potential destabilising effects could be amplified through interaction with other forms of financial innovation (e.g. high frequency trading).

Conclusions / Recommendations

[2] In the US regulatory rules encourage the adoption of plain vanilla structures; investment companies are required to hold at least 80% of their assets in securities matching the fund's name

[3] See BIS report: introduction

- *"Imposing higher disclosure and reporting requirements as well as regulatory and other limits could help to alleviate the risks emerging in complex instruments, and prevent the emergence of conflicts of interest."*
- *"ETF providers and investors should review the risk management strategies of ETFs, especially in areas such as counterparty risk and collateral management, as well as assessing their exposure to market and funding liquidity risks."*
- *ETF providers should consider enhancing the level of transparency they offer to investors on the entire range of ETF products, especially the more complex ones. In particular, they should make publicly available detailed frequent information about product composition and risk characteristics, including on collateral baskets and arrangements for synthetic ETFs and securities lending, to enable investors to exercise their due diligence and promote a better understanding of the ETF market at large."*

IMF: "*Key risks and challenges for sustaining financial stability"*

Counterparty and Mark-to-Market risk for the ETF provider

- **Counterparty risk:** while synthetic replication reduces tracking error, it comes at the cost of increased counterparty risk. Although UCITS regulations governing synthetic ETF funds limit the maximum risk exposure to a single Total Return Swap (TRS) counterparty to 10% of the fund's NAV, the gross exposures of these funds raises concerns on whether the current restrictions are sufficient to curtail counterparty risks from becoming systemic in times of market stress.
- **Securities lending:** counterparty risk in which a default of the securities borrower could potentially leave the ETF provider scrambling to replace the securities it lent out. The IMF also states that participants claim the process of adequately collateralising the securities lending lacks transparency.
- **Leverage risk for investors:** leveraged or inverse ETFs are one of the fastest growing sectors of the ETF industry. Aside from the leverage risk investors take on, most leveraged and inverse ETFs reset on a daily basis meaning that their long run performance may be significantly different from the underlying benchmark's performance.
- **Liquidity risk:** ETFs are subject to a lack of liquidity if the large market makers supporting them stop trading in illiquid conditions. If the ETF is invested in illiquid securities (e.g. emerging markets) during stress there is a further liquidity risk.
- **Market disruptions:** The IMF argue that the recent increase in flows to commodity ETFs (in particular gold ETFs) has contributed to the rise in commodity price volatility.
- **Legal and policy risks:** Bankruptcy laws surrounding counterparty defaults and the potential freezing of collateral at custodian banks is another area of concern highlighted by the IMF.

Conclusions / Recommendations

- *"ETF providers are likely to venture further into more complex instruments."*
- *"Investors are calling for a move toward exchange trading of the derivative based ETFs, standardising of reporting, and increased transparency of securities lending practices."*

BIS: *"Market structures and systemic risks of exchange traded funds"*

- **Counterparty risk:** ETF providers market the case of synthetic replication by highlighting the reduction in tracking risk and lower costs. However, the BIS report contends that, *"…in reality the increased popularity of ETF products among investors has led to greater competition between ETF sponsors, forcing them to seek alternative replication techniques to optimise fee structures."*
- **Misaligned incentives:** when both ETF sponsor and swap counterparty are housed within the same organisation, there are synergies if the (illiquid) assets used in the investment bank for market making are funded more cheaply by transferring them as collateral assets to the ETF provider than by funding through the unsecured or repo markets. The incentives are greater the more illiquid the securities are that are posted. Moreover, if the bank providing the TRS does so through an unfunded swap ETF structure, they may benefit from lower regulatory capital charges if the collateral posted would attract a higher charge than the assets required to match the ETF index.
- **Liquidity Coverage Ratio (LCR):** Liquidity regulation as proposed under Basel III may also create incentives for ETF providers to use synthetic replication. *"By employing equities and lower credit quality assets to collateralise the swap transaction with the ETF sponsor that might typically have a maturity greater than 1 year, the bank engaging in the swap will be able to reduce the run-off rate substantially on the collateral posted."*
- **Risks to financial stability could materialise through the following channels:**
    1. Co-mingling of tracking error risk with the trading book risk by the swap counterparty could compromise risk management
    2. Collateral risk triggering a run on ETFs in periods of heightened counterparty risk

3. Materialisation of funding liquidity risk when there are large investor redemptions
4. Increased product complexity and options on ETFs undermining risk monitoring capacity.

Conclusions / Recommendations

- None made

REPORTS

- **Financial Stability Board:** http://www.financialstabilityboard.org/publications/r_110412b.pdf
- **Bank of International Settlements:** http://www.bis.org/publ/work343.pdf
- **International Monetary Fund:** http://www.imf.org/external/pubs/ft/gfsr/2011/01/pdf/chap1.pdf

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