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The hidden structural risks in Exchange-Traded Funds

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This article focuses on explaining what Exchange-Traded Funds (ETFs) are, how “physical” and “synthetic” ETFs differ, and, with reference to the types of legal contracts used, what sorts of risks lie in the practices which some ETFs engage in

INTRODUCTION

The strong growth in the market for Exchange-Traded Funds (ETFs) in Europe in recent years has resulted in an increasing number of headlines alluding to the risks (purported or actual) inherent in – or presented by – these products.

On the face of it these would appear to be passive investment products which pose little risk. However, scrutiny by regulators and commentators is justified, as a look behind the curtain might reveal a different picture. This article focuses on explaining what ETFs are, how “physical” and “synthetic” ETFs differ, and, with reference to the types of legal contracts used, what sorts of risks lie in the practices which some ETFs engage in. In particular, this article examines some of the structural risks in ETFs, where “structural” refers to the composition of the product itself and what is going on within that structure. Contrast this with “market risk”, which refers to the general risks of investing in any market, to which all investors are exposed.

An ETF is a fund which tracks a basket of assets, for example an index like the FTSE 100 Index, S&P 500 etc. The fund itself issues shares which are traded on a stock exchange. ETFs experience price changes throughout the day as they are bought and sold, typically reflecting changes in the value of the basket of assets held by the ETF. Investors buy and sell ETFs as a way of gaining exposure to certain baskets/markets without having to buy the constituents of the relevant basket or market.

ETFs are different to mutual funds insofar as they can be bought and sold on an exchange at any time at the prevailing market price (which is set by investors), whereas shares or units in mutual funds are purchased directly from the fund at Net Asset Value (NAV) and priced once a day.

SYNTHETIC vs PHYSICAL

Much of the debate in the European market around risk issues with ETFs has thus far focused on the way in which an ETF replicates the return on the basket of assets which it tracks. In other words, the debate has focused on the differences between physical ETFs, which replicate the basket by physically holding the constituents of the basket (ie the fund owns the constituents directly) and synthetic ETFs, which deliver the basket return via a swap contract with a swap counterparty, which will typically be one of the large investment banks. To take a very basic example, a physical ETF replicating the return on the FTSE 100 Index would hold (ie directly own) all 100 constituent stocks in the relevant proportions which make up the index. A synthetic ETF, on the other hand, also replicating the return on the FTSE 100 Index, would receive the return on the FTSE 100 Index from its swap counterparty under the terms of the swap contract. The synthetic ETF will have a collateral basket (ie a basket of real assets which the fund directly owns but which typically comprises acceptable collateral

rather than having any correlation with the basket of assets which the ETF is tracking) and will enter into a swap contract under which it agrees to swap the return on its own basket of collateral for the return on the basket of assets which the ETF is tracking (for example, the FTSE 100 Index).

COUNTERPARTY RISK

A synthetic ETF therefore owns two assets as such, the first being its collateral basket and the second being its swap contract. The swap contract will continue to deliver the return on the basket of assets which the ETF is tracking for so long as neither party defaults under the swap contract. Should a default (by either party) occur, the ETF would be left with the contents of the collateral basket and a balancing payment would be payable under the swap contract. The synthetic ETF investor is thus exposed to the credit risk of the swap counterparty, but only to the extent of the difference between the value of the collateral basket and the value it would have received under the swap. The value and quality of the collateral is crucial – it should hold its value and be easily liquidated (ie sold and converted into cash to repay investors). Contractual risk can be added as a further element of counterparty risk, as buy side parties to swap contracts – particularly the type of structured contract which a synthetic ETF would enter into – typically have to accept worse terms on their side of the deal than their investment bank swap counterparty, which has typically drafted the contract in the first place. This further contractual risk – including any loopholes in the swap contract – could be significant for the synthetic ETF.

The justification for the existence of synthetic ETFs is that they will generally benefit from lower management fees and more accurate tracking, as compared to a physical ETF which holds the underlying assets directly. Regulatory measures applicable to synthetic ETFs mitigate against counterparty risk to some extent. For example, a synthetic ETF which is a UCITS fund must ensure that its net counterparty risk to its investment bank counterparty (as a qualifying credit institution under UCITS regulations) via a swap does not exceed 10% of its NAV. In effect this means that 90% of the synthetic ETF must be collateralised.

SECURITIES LENDING

Another risk area which has been attracting attention in the media in recent months concerns the practice of securities lending by physical ETFs. A physical ETF is an ETF which itself owns the constituents of the basket which it seeks to track and which can make a small additional return by lending out the relevant constituents to other market participants. This process of stock lending in fact involves transferring full legal and beneficial title in the securities to the borrower in return for the borrower delivering collateral to the lender. The risks in this process are similar to those outlined above in relation to synthetic ETFs, ie the physical ETF takes on the risk that the borrower will not be able to redeliver the securities, hence the type and value of the collateral which it holds as security is again crucial. The close-out and netting process under the securities lending agreement will operate such that, should a default occur, the ETF would get to keep the collateral and a balancing payment would be due between the parties. The ETF should hold collateral which will hold its value and be readily realisable, even in a less liquid and/or turbulent market.

In terms of protective measures, it is common practice for physical ETFs engaging in securities lending to ensure that the loans are fully collateralised. There is currently no regulatory limit on the amount a fund can lend out, but some ETF providers have voluntarily adopted maximum on-loan limits. Some also take out insurance against potential losses.

Contractual risk should be less in securities lending than in derivatives trading, as securities lending contracts are typically more genuinely bilateral and equal in their terms. The process of transferring an asset in exchange for collateral is inherently more simple than a derivatives transaction.

The practice of delivering shares of a different ETF to a physical ETF as collateral for a securities loan has emerged as a talking point. Any criticism of this practice is often less to do with liquidity and value than the type of collateral provided. For example, is it appropriate for shares of an ETF tracking an index of Chinese companies to be delivered as collateral to an ETF tracking government bonds? There is also the issue of quality – one would expect US treasury securities to be more reliable in terms of realising value than shares in an ETF, which will be smaller in issuance size and most likely less liquid. The liquidity of the underlying investments in the ETF is also key – if trading in the underlying investments is suspended in times of market crisis, then it becomes problematic to place a market value on the ETF for collateral purposes.

What does the fund really invest in?

The issue of what a fund is really invested in arises from time to time in the context of investment restrictions in offering memoranda for various types of funds. If a fund engages in derivatives or transactions involving securities lending or repurchase (or "repo") transactions, the nature of the collateral which it holds to back the performance of the derivative, securities lending or repo transaction might be at odds with the fund's investment guidelines. The fact remains that the fund owns the collateral in such circumstances and is hence de facto invested in it. Fund managers should therefore make sure that the holding of the collateral does not breach any applicable investment restrictions, ie were the fund invested in the collateral as an investment, as part of the fund's investment strategy, it would not be in breach of its investment restrictions. There are arguments to suggest that the holding of collateral is an entirely subsidiary aspect of a transaction, but one cannot deny the fact of ownership.

In relation to ETFs, the expectation of the investor on the Clapham omnibus would be that a synthetic ETF would be exposed to a complicated derivative contract with inherent derivative-type risks, but that a physical ETF would be a safer option as it actually owns the underlying investments itself. Look behind the curtain at any one time and one might find a range of collateral assets owned by the physical ETF which bear no relation to the basket being tracked. The risks to the physical ETF will be determined by the quality of the collateral, ie that it can be liquidated quickly and will hold its value.

A SUFFICIENT REWARD?

The return on a securities lending programme can be very low – for example as low as 10, 20 or 30 basis points for loaning out a substantial portion of an ETF's assets. Whether this sort of return (which most investors would regard as negligible) is worth the counterparty risks being taken is anyone's guess. The risks taken by physical ETFs in securities lending should be recognised in a similar light to those that warrant the "synthetic" moniker, as they are not dissimilar.

To put matters into perspective, it is important to recognise that counterparty risks taken by ETFs are likely to be no greater than counterparty risks taken by any other fund (be they alternative funds such as hedge funds, or traditional mutual funds which use derivatives and engage in securities lending), but the investor on the Clapham omnibus investing in physical ETFs may not consider that it would be taking any meaningful risk at all.