

## LEVERAGE

# ESMA Report Highlights Funds' Rising Use – and Potential Impact on Market Stability – of Synthetic Leverage From Derivative Instruments

By Michael Washburn

Synthetic leverage – the use of derivative instruments, rather than direct borrowing, to gain exposure in financial markets – has grown in popularity with investment funds. The rising prominence of this practice has attracted a correspondingly greater level of attention from regulators, making it critically important for hedge fund managers to be aware of the risks it poses to financial stability and how regulators may respond to its use. See *“European Central Bank Official Regards Hedge Fund Leverage As Risk to Financial System”* (Mar. 24, 2016).

A recent report published by the European Securities and Markets Authority (ESMA) contains a section entitled “Synthetic leverage in the asset management industry” (Section), devoted to analyzing these risks in a regulatory enforcement context. This article highlights the key takeaways of the Section most relevant to hedge fund managers deploying, or considering using, synthetic leverage.

For more on alternative methods by which hedge funds obtain leverage, see our three-part series on subscription credit and other financing facilities: *“Needed Liquidity and Advance Planning”* (Jun. 2, 2016); *“Greater Flexibility”* (Jun. 9, 2016); and *“Operational Challenges”* (Jun. 16, 2016).

### ***Definition of Synthetic Leverage and How It Works***

#### ***Defining Synthetic Leverage***

ESMA defines “synthetic leverage” as a different form than financial leverage; specifically, exposure is generated through the use of derivative instruments such as futures, options and swaps, rather than through direct borrowing from counterparties. This is ESMA’s definition, but it is not universally acknowledged.

Noting the lack of a formal definition of synthetic leverage at an international level, ESMA mentioned that the United Kingdom’s financial regulator, the Financial Conduct Authority, describes synthetic leverage as borrowing money or securities from counterparties by the use of derivative instruments. In that sense, synthetic leverage contrasts with financial leverage obtained through borrowing money or securities directly from counterparties.

#### ***Using Synthetic Leverage***

“When you go long and you use derivatives, you don’t really have to pay and you don’t buy the security,” explained Fabien Carruzzo, head of the structured finance and derivatives practice at Kramer Levin. “The dealer who gives you the swap goes out and buys a hedge for the security, using the dealer’s own money to buy the security. You’re paying them an interest on the money to buy the security.”

“It’s synthetic because you’re making use of derivative instruments as opposed to entering into a loan agreement where you pledge certain assets and get a loan,” Carruzzo added, offering the following example of how positive margin – with the same effect as leverage generated by borrowing – can be created through the use of derivatives:

A dealer may only come up with 80% of the price. If they spend \$100 to buy the security, you pay them interest on the \$100. You receive exposure to the security, but you didn’t really spend money on it at the time. If the security goes down to zero, you have the payment obligation of \$100. You have leverage because you didn’t buy the security in the first place.

Carruzzo reiterated that synthetic leverage introduces the enhanced risk that a market participant can lose more than its original investment in the product. If the value of instruments and assets goes down to zero, then the effect is amplified by the existence of leverage created by the use of derivatives, he explained.

### ***Factors for Moving Away From Traditional Financing***

The Section points out that derivatives are most commonly used by alternative investment funds (AIFs) and exchange-traded funds for investment strategies utilizing synthetic structures. However, ESMA expressed uncertainty regarding whether derivatives will continue to primarily be used only by this limited subset of collective investment vehicles. ESMA posited that derivative instruments may become more widely used in time due to the convergence of several factors, including:

- the development of automated trading strategies and other structural changes in how financial markets function;
- changes in market participants' behavior caused by the low interest-rate environment; and
- new incentives created by banking sector prudential requirements.

Another factor highlighted by ESMA which could contribute to the use of derivatives is the heightened risk appetite and tolerance of investors, incentivizing funds to adopt alternative strategies that employ derivatives in pursuit of greater returns. Recently there has been an increase in the number of funds using these alternative strategies – 17% growth annually, as compared to 8% growth for the entire industry – which potentially foreshadows continued interest in the use of derivatives.

In addition to these factors, ESMA also highlighted the role of the lending industry in perpetuating the use of derivatives to create synthetic leverage. ESMA explained that “the emergence of synthetic prime brokerage reflects an attempt by banks to diversify away from physical financing (i.e.

securities financing transactions), as business models continue to adapt to the new trading environment and to regulatory requirements.”

The Section notes that one of the primary services prime brokers offer to their clients is financing – one of the ingredients in leverage. While physical financing has grown expensive from the point of view of bank capital, derivatives permit banks to develop similar exposures at lower costs based on the comparatively smaller market value of swaps or futures. The result is that these benefits to lenders incentivize them to favor synthetic leverage ahead of physical financing, facilitating enhanced access for prime broker clients to derivatives.

### ***Sources and Effects of Systemic Risks From Synthetic Lending***

#### ***Potential Types of Systemic Risk***

While the above factors are part of the reason synthetic leverage is increasing in use, ESMA emphasized that this growth may have consequences for the stability of the financial market as a whole. From the perspective of systemic risk, ESMA views synthetic leverage as an important issue for a number of reasons:

- It may increase the likelihood of default by enhancing the impact of asset price changes on an entity's solvency;
- The margining practices involved in derivatives transactions may contribute to pro-cyclicality by bolstering asset price movements, in some cases causing fire sales during selloffs; and
- By creating contagion channels – interconnectedness – between market participants, it creates negative externalities for actors not dealing directly in the markets in question.

#### ***Causes of the Systemic Risk***

These issues are caused by the effect of magnifying losses, which occurs when the amount of potential losses grow outsized due to the presence of leverage. When

synthetic leverage is widely used by a large number of actors or derivatives positions, particularly when highly concentrated by asset or counterparty, it can create excessive system-wide leverage.

Further, while this risk can be reduced by the use of netting – reducing gross exposures by offsetting some of the risks, such as counterparty credit risk – at an individual level, the gross derivative exposure for the industry at large can stress the markets, creating negative externalities for other participants.

An example used in the Section illustrates some of these issues in the context of the hedge fund industry, showing how derivatives can be used to hedge against risks (e.g., currency, counterparty credit or interest rate risk) and as part of a trading strategy. A hedge fund may offer to pay a fixed rate to an insurance company against a floating rate by using an interest rate swap. The insurer plans to hedge against downside changes in the floating rate, while the fund hopes to generate a profit from upside movements. While the swap in this example allows both counterparties to work toward their respective goals, it also can create negative externalities for the insurer by complicating and increasing the nature of the risk it faces.

### *Tracking the Usage of Synthetic Leverage*

The systemic risk described above is exacerbated by the fact that, as ESMA explained, “traditional on-balance sheet metrics such as debt-to-equity ratios do not adequately capture the risks associated with synthetic exposures,” making it difficult to gauge how pervasive they are among funds. This status of synthetic leverage as a largely off-balance sheet practice prevents agencies such as ESMA from being able to track its growth and ensure proper measures are adopted to limit the industry-wide harm described above.

### *Current E.U. Methodologies*

The Section notes that some of these challenges in capturing the amount of synthetic leverage currently being utilized are rooted in the approaches under

AIFMD and the Undertakings for Collective Investments in Transferable Securities (UCITS) to capture this data. In the E.U. regulatory framework, leverage is calculated via the concept of global exposures, which includes on-balance sheet (e.g., collateralized and uncollateralized borrowing) and off-balance sheet (e.g., derivatives) exposures. The effect of this approach is that synthetic leverage is reflected as “a subset of overall leverage which is neither explicitly identified in E.U. regulation nor calculated separately from financial leverage.”

In light of this calculation method, E.U. transparency requirements include three approaches for determining investment fund exposures:

- Commitment Approach – Used by both UCITS and AIFMD, this includes (1) the sum of cash-equivalent positions to those of derivatives’ underlying assets, after netting and hedging arrangements; (2) the market value of the cash collateral reinvested, or, in the case of AIFs, reused non-cash collateral; and (3) for AIFs, all other assets plus the reuse of cash borrowing.
- Gross Approach – Only used under AIFMD, this entails looking at the absolute value of AIF assets without applying hedging and netting arrangements.
- Value-at-Risk (VaR) Approach – Used under AIFMD and by UCITS for funds with complex investment strategies, this measures the maximum potential loss due to market risk. UCITS utilizing this approach must also disclose their maximum realized leverage, determined as the absolute value of derivatives notional divided by net asset value (NAV).

While these approaches are imperfect for capturing the amount of synthetic leverage that exists in the market, ESMA highlighted how UCITS mitigate leverage risk. UCITS can only maintain on-balance sheet leverage on a temporary basis of up to 10% of their assets, while off-balance sheet leverage cannot exceed the total net value of its portfolio. These measures combine to ensure that all leverage for UCITS, including that sourced from the use of derivatives, cannot exceed 2.1 times their NAV.

However, this risk mitigation is limited to “plain-vanilla” UCITS funds, since those with complex investment strategies are subject to a more permissive standard based on the VaR approach. Further, no similar E.U. regulatory limits exist for AIFs, permitting them to utilize synthetic leverage largely unchecked by authorities for the time being.

### *ESMA Proposals*

Ultimately, the Section suggests that two critical steps are necessary for addressing the use of synthetic lending. First, regulators need to undertake a comprehensive risk assessment to understand the impact of synthetic leverage on market stability for the purpose of identifying and addressing all potential issues resulting from its use. Beyond any practical approach or change, this represents a call to action for the industry to direct its attention to this as a growing – and potentially dangerous – issue.

Second, measures need to be implemented, and methodologies created, to assist with tracking the amount of synthetic leverage being used by the market at any given time. To this end, the Section proposes a “tentative methodology” directed towards this task, based on two main criteria:

- **Beta Coefficient** – A fund’s beta reflects the sensitivity of its portfolio against a benchmark, with a higher beta reflecting denoting greater volatility of the fund and, potentially, the use of synthetic leverage. ESMA used the S&P 500 Index as a benchmark for determining the beta – 1.26, as compared to 0.75 for a sample of 10,000 funds – of 97 self-reported leveraged funds.
- **Cash Holdings** – Funds following high leverage strategies tend to retain a larger amount of cash holdings as a percentage of their assets under management (AUM) in order to meet their potential repayment obligations. Conducting the same benchmarking analysis as with the beta coefficient criteria, ESMA found that cash holdings of leveraged funds represent 44.4% of their AUM as compared to a mere 5.2% for funds in the sample.

Based on these findings, ESMA proposed the use of beta coefficient and cash holdings percentage benchmarks of 1.19% and 9.1%, respectively, for filtering funds and identifying those that potentially use synthetic leverage. Of the 63 funds qualifying for both of these criteria in the sample of 10,000 used by ESMA, 32 are self-reported leveraged funds, while a review of the prospectuses of the remaining funds confirmed that they rely on derivatives for their portfolios.

ESMA acknowledged the imperfections of this methodology – including the fact that it does not differentiate gross and net leverage – for tracking the use of synthetic leverage. However, it has presented it as a starting point for exploring ways to confront potential issues resulting from its use in the private funds industry.