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Submitted via webportal

1 September 2020

Dear Sir or Madam,

AIMA Response to ESMA consultation on Guidelines on Article 25 of Directive 2011/61/EU

The Alternative Investment Management Association Limited (AIMA)¹ welcomes the opportunity to provide input to the European Securities and Markets Authority (ESMA)'s consultation on Guidelines on Article 25 of Directive 2011/61/EU ('AIFMD') (the 'proposed guidelines').

Most AIMA members use leverage as a structural part of their investment strategies. Our members, therefore, view issues related to leverage and any potential policy interventions related to leverage as high priority. We generally believe that attempts to limit leverage for sophisticated investment funds are likely to be misguided and not achieve the stated policy objectives. The main reason for this is that it is close to impossible to assess systemic risk at the level of an individual fund or group of funds in a way that would allow policymakers to determine 'safe' levels of leverage without possibly needlessly disrupting the essential operation of particular investment strategies.

Existing measures of leverage under the AIFMD are inappropriate

One of the reasons why imposing leverage limits under the existing AIFMD framework is likely to be a frustrating and possibly futile exercise is the fact that 'leverage' as defined under the gross and commitment methods has little to no connection to risk whether defined at the individual position or fund level. The same observation can be made about a group of funds with similar

¹ AIMA, the Alternative Investment Management Association (AIMA) is the global representative of the alternative investment industry, with around 2,000 corporate members in over 60 countries. AIMA's fund manager members collectively manage more than \$2 trillion in hedge fund and private credit assets. AIMA draws upon the expertise and diversity of its membership to provide leadership in industry initiatives such as advocacy, policy and regulatory engagement, educational programmes and sound practice guides. AIMA works to raise media and public awareness of the value of the industry. AIMA set up the Alternative Credit Council (ACC) to help firms focused in the private credit and direct lending space. The ACC currently represents over 170 members that manage \$400 billion of private credit assets globally. AIMA is committed to developing skills and education standards and is a co-founder of the Chartered Alternative Investment Analyst designation (CAIA) – the first and only specialised educational standard for alternative investment specialists. AIMA is governed by its Council (Board of Directors). For further information, please visit AIMA's website, www.aima.org.

strategies. We document the issues with the leverage definitions in the Annex to this paper and would contend that before the definition of leverage is rethought, implementing leverage limits on metrics which are flawed is itself likely to be flawed.

This is further underlined by the fact that the global consensus on the matter regarding the way of measuring leverage has moved away from using methodologies which aggregate fund leverage into a single number irrespective of the exposure directionality (long or short) as well as underlying asset classes to which leverage is applied. Indeed, the International Organization of Securities Commissions (IOSCO) in its recent Recommendations for a Framework Assessing Leverage in Investment Funds (the ‘Leverage Framework’)² calls for a revision of the measurement of leverage which should, according to the Leverage Framework, be based on asset class-by-asset class data (e.g., equity securities, fixed income securities, interest rate derivatives), broken out by long and short exposures. We support this recommendation, as well as IOSCO’s acknowledgement that national competent authorities (‘NCAs’) should consider circumstances and factors relevant in their jurisdictions and specific to the AIF, its size, characteristics and strategies to assess whether the AIF may or may not present leverage-related risk.

Data collection and analysis need to be improved

We are concerned that proposing guidelines before refining data collection and taking several necessary empirical and analytical steps has the potential to result in ill-conceived and damaging limitations to investment management that may achieve the reduction of leverage but without necessarily improving financial stability, investor protection or the orderly functioning of markets.

So far, the only and most comprehensive public study carried out on the regulatory data gathered from the largest sample of alternative investment funds shows that there is a negative correlation between risk and leverage (measured using multiple metrics).³ Data we obtained from a private study carried out by third party risk management vendor appears to point to a similar conclusion when looking at two periods of significant market stress in Q4 2018 and Q1 2020. In both periods, fund strategies deploying higher levels of leverage enjoyed significantly better performance than funds using lower levels of leverage. This suggests that the link posed in EU legislation and the delegated regulation between higher levels of leverage and higher levels of risk is only conceptual, based on a set of narrow theoretical assumptions about the use of leverage in the investment process.

We respectfully suggest that, before finalising the guidelines, ESMA conduct a similar examination of data gathered under the AIFMD to that carried out by the U.S. authorities with a view of determining what links, if any, there are between leverage, performance and risk in the EU alternative investment industry. Individual Member State’s NCAs are not in a position to conduct such an exercise as the data they have is only a partial picture of the EU activity.

² IOSCO, [Recommendations for a Framework Assessing Leverage in Investment Funds](#) (December 2019).

³ Daniel Barth, Laurel Hammond and Phillip Monin from the Office of Financial Research of the U.S. Treasury (OFR), [Leverage and Risk in Hedge Funds](#), OFR Working Paper 20-02 (25 Feb. 2020) (‘OFR Working Paper’).

A robust theory of the impact of leverage on the riskiness of individual portfolios and systemic risk needs to be developed

Once data is collected, we would suggest that ESMA attempts to provide a more rigorous and detailed theoretical framework as the basis for any leverage limitations. The proposed guidance does not put forward a theory that would allow one to understand and quantify the notion of excessive leverage for the purpose of the legislation.

The existing guidance is not capable of providing any level of predictability or consistency regarding the way leverage limits could be applied as it does not provide even a range of outcomes that could be acceptable as potential future limits on fund activity. It may also be overinclusive in identifying funds for additional regulatory scrutiny that do not present any systemic risk, while at the same time failing to identify other funds that may pose greater risks. The existing guidance only suggests what leverage (and other metrics) NCAs may need to look at, but in no way suggests how exactly the limitation of leverage (as defined in the AIFMD) could translate into a meaningful reduction of systemic risk, and be thus justified.

Conclusion

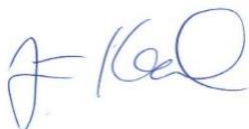
Understanding leverage and its impact on portfolio performance and financial stability is an extremely complex task. We do not claim that the use of leverage is always divorced from micro- or macro-level risk, but wish to point out that, in sophisticated investment strategies, the link between leverage and risk is likely to be nuanced and counterintuitive. This is due to the fact that most strategies that use leverage will do so to manage, reduce or transform risk in a manner that is not consistent with a less sophisticated deployment of leverage in other sectors of the financial market.

As we have pointed out (and as ESMA acknowledges in parts of its consultation document), we believe the existing AIFMD framework is not yet complete to allow for the kind of analysis that would enable the implementation of leverage limits in the EU. We would therefore strongly urge ESMA to postpone the finalisation of the guidelines until a better foundation for the policy is developed.

We provide more detail to substantiate our claims and to answer the consultation questions in the Annex to this letter.

If you would find our comments helpful, we would be happy to share and discuss with you further, for any other information, please contact Marie-Adélaïde de Nicolay, head of Brussels Office (madenicolay@aima.org).

Yours faithfully,

A handwritten signature in blue ink, appearing to read "J. Król".

Jiří Król
Deputy CEO
Global Head of Government Affairs
AIMA

ANNEX

I- ESMA's Article 25 guidelines should provide a more robust approach to the assessment of any potential systemic risk that may stem from the use of leverage

We note that the purpose of ESMA's guidelines is to "implement a framework for NCAs to monitor the level of leverage and deleveraging process of highly leveraged alternative investment funds." While we agree with the need to adopt a consistent approach in the EU towards the use and supervisory approach, we respectfully raise some practical concerns with the proposed guidelines.

We note that ESMA requires NCAs to adopt a "common methodology and indicators" to assess potential leverage-related systemic risk, which, if our understanding is correct, would be limited to:

- 1- identifying funds with substantial levels of leverage (as per the AIFMD definition of substantial leverage, based on the commitment method) or any fund with more than EUR 500 million AUM using leverage;
- 2- assessing these funds against a range of indicators as provided under Table 2 of the proposed guidelines; and
- 3- applying qualitative judgement (no other indications on what the qualitative judgement should take into account is given).

Such high-level guidelines to conduct an exercise as complex as analysing potential systemic risk that may stem from the use of leverage lacks certain essential elements which are necessary to guide NCAs in their assessment.

We are indeed under the impression that ESMA has not yet formulated either a theoretical framework or an empirical study of leverage in the asset management sector that would allow for either identification or measurement of any potential systemic risk arising from individual funds or group of funds, or for a well-calibrated approach that could be usefully implemented to mitigate any such systemic risks while preserving the ability for different strategies to exist.

There are a number of oversimplistic theories of leverage in the non-bank financial system (Markowitz⁴, Sharpe⁵, Lintner⁶) that predict that higher leverage numbers correlate linearly with higher risk. These theories assume homogenous portfolios across investor types and no constraints on leverage (both on the long and short side) among investors. These theories, as well as experience from the banking sector, have often led to the assumption (which was ultimately adopted as part of the AIFMD framework) that higher levels of leverage will generally be associated with higher levels of risk.

However, more recent literature and empirical evidence points to a different picture which should be considered by regulators assessing the risk of leverage in funds. That recent framework, which

⁴ Harry Markowitz, [Portfolio Selection](#), The Journal of Finance, Vol. 7, No. 1 (Mar. 1952), pp. 77-91.

⁵ William F. Sharpe, [Capital asset prices: a theory of market equilibrium under conditions of risk](#), The Journal of Finance, Vol. 19, No. 3 (Sept. 1964), pp. 425-442.

⁶ John Lintner, [Security prices, risk and maximal gains from diversification](#), The Journal of Finance, Vol. 20, No. 4 (Dec. 1965), pp. 587-615.

is probably best formulated in Frazzini and Pedersen (2013),⁷ Garleanu and Pedersen (2011),⁸ Boguth and Simutin (2018),⁹ contends that leverage is used by financial actors in a manner that does not necessarily lead to a rise in risk at the level of portfolios or, for that matter, the level of the financial system.

The most recent test of the hypothesis that higher leverage does not necessarily equal higher risk is best summarised in the recent OFR Working Paper,¹⁰ three economists at the OFR, reviewing the most comprehensive hedge fund data provided under the Form PF reporting requirements in the United States. The authors of the OFR Working Paper put forward the following conclusion:

“The use of leverage is often considered a key potential systemic risk in hedge funds. Yet, data limitations have made empirical analyses of hedge fund leverage difficult. Traditional theories predict leverage and portfolio risk are positively linearly related. Alternatively, an emerging wave of theories of leverage constraints predict leverage and asset risk are negatively correlated, and therefore leverage and portfolio risk may be unrelated or even negatively related. **Consistent with theories of leverage constraints, we find that hedge fund leverage and portfolio risk are weakly negatively correlated.**” (emphasis added)

Building up on the research conducted by the OFR, our members are of the view that ESMA’s proposed guidelines would benefit from further analysing and conceptualising the relationship between the use of leverage and the potential build-up of systemic risk in financial markets, and that a few conceptual elements should be defined at the start of any potential guidelines on the topic.

A simple analysis by third party vendors of global hedge fund strategy leverage and performance distribution appears to point to similar conclusion. In two periods of significant market stress (Q4 2018 and Q1 2020), it has been demonstrated that fund strategies that entered the stress period with higher level of leverage enjoyed better performance than lower levered strategies. As an example, event driven and activist funds which are usually less levered have experienced double-digit negative performances during the COVID-19 pandemic, when strategies running higher levels of leverage (often times more than ten times higher) – such as Global Macro and Fixed Income Arbitrage - have experienced positive returns.

Our suggestion would therefore be for public authorities (be it the ESRB or ESMA) to first conduct a more thorough examination of leverage and risk from the available Annex IV data, similar to the work carried out by the U.S. OFR economists. If such background work is not conducted beforehand as a contextual and theoretical foundation for ESMA’s guidelines, then the proposed guidelines risk allowing supervisory approaches or risk analysis which might be contrary to the overall policy objective and might not allow for a well-founded and thorough assessment of the actual risks at stake.

⁷ Andrea Frazzini and Lasse Heje Pedersen, [Betting against beta](#), Journal of Financial Economics (2013).

⁸ Nicolae Garleanu and Lasse Heje Pedersen, [Margin-based asset pricing and deviation from the law of one price](#), The Review of Financial Studies, Vol. 24, No. 6 (2011).

⁹ Oliver Boguth and Mikhail Simutin, [Leverage constraints and asset prices: Insights from mutual fund risk taking](#), Journal of Financial Economics, Vol. 127, No. 2 (2018), pp. 325-341.

¹⁰ OFR Working Paper, *supra* note 2.

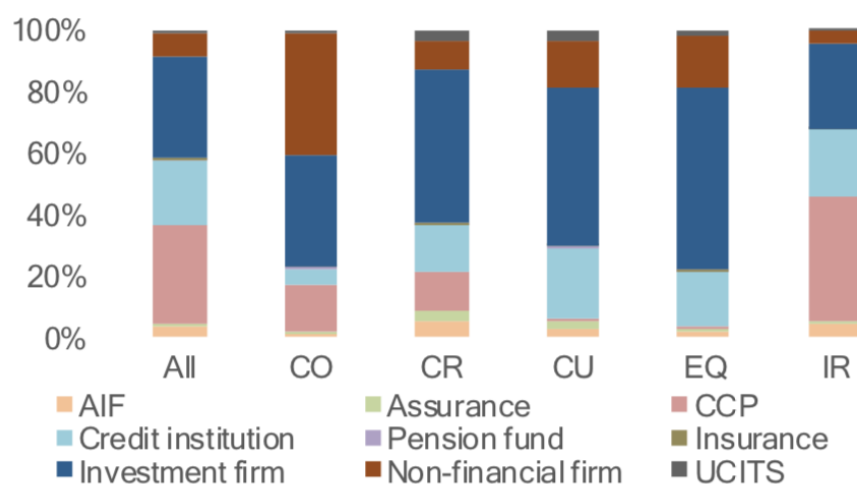
Quantifying and identifying the potential risk stemming from the use of leverage is of course made difficult by the quality of data currently available, as recognised by ESMA in section 10: “The proposed guidelines are based on AIFMD data. ESMA acknowledges that data quality issues may exist”. Nevertheless, we do not think this challenge should preclude ESMA from conducting such a thorough examination as, we believe, it would most likely lead to a deeper reflection about the type and nature of data that needs to be collected before a rigorous systemic risk analysis could be carried out.

We would therefore recommend that ESMA consider the following elements as a background work for its guidance on the assessment of leverage-related risk:

- a) **Scope:** Which markets is ESMA recommending that individual NCAs should be ‘responsible for’ when it comes to their own systemic risk mandate? When reading the proposed guidelines (including references to “market footprint” in Table 2), it is not clear whether the risks considered should be the risk for the national market for which NCAs are responsible, or whether the risks considered are those towards regional (EU or European) markets or even global markets. ESMA should clarify the scope of the markets at stake which, in turn, could have an impact on the quantitative thresholds used to define at what stage a fund poses any potential systemic risks for the relevant market (see next point).
- b) **Significance/materiality:** ESMA should develop a framework for thinking about significance or materiality of asset managers’ presence in the market as related to any potential systemic risk. For example, does it make sense to think of leveraged equity hedge funds in the context of AIFMD Article 25 at all if their overall participation in equity market trading is below a certain share of the market, as measured by either notional traded, value traded or number of transactions? As a reminder, EU hedge funds (including UK) represented EUR 264 billion in net asset value in 2017 – around 3% of the EU market capitalisation – of which only EUR 52.8 billion is managed by EU AIFMs (20% of all current EU hedge funds).¹¹ Furthermore and as an example, EU AIFs have a small exposure to the broad EU derivatives market compared to other financial institutions: EU AIFs account for 5% of the total EU credit derivatives and around 4% or less of the other derivatives markets (interest rates, equity, commodities, etc.), as shown in the table below.

¹¹ ESMA Annual Statistical Report, [EU Alternative Investment Funds](#), 2019.

CCPs have major exposures in IRDs and credit, non-financials in commodities



Note: Proportion of total notional amount outstanding (not reconciled) by counterparty and asset class, in %.

Sources: TRs, ESMA.

Source: EU Derivatives Markets, ESMA, 2019 ¹²

The EU hedge fund industry's global and regional market share will further dramatically decrease due to the departure of the United Kingdom from the European Union, with the result that EU AIFs will probably represent less than 1% of the overall market size in all major asset classes. We believe that any attempt to assess the potential systemic risk of the EU alternative investment management industry cannot be divorced from the overall proportion of AIFs size or activity in the EU financial markets.

- c) **Examination of existing 'natural' leverage limits:** The leverage of AIFs is almost exclusively arranged through transactions with regulated counterparties such as prime brokers and derivatives clearers (there are only a handful, mainly U.S., managed funds that have actually raised debt directly from investors). Capital requirements (applying mainly to banks), margin requirements for listed derivatives (generally set by the central counterparties) and minimum initial and variation margin rules applying to over the counter ('OTC') derivatives as well as minimum haircut rules for repo transactions set very clear "natural" limits on how much leverage can be obtained in the market. The ESRB itself recognises the crucial role of margin calls in mitigating or amplifying systemic risk. According to ESRB's own analysis on the procyclicality of margin, if margins have been set appropriately, this will limit the potential for margin calls during a stress on the markets and any potential systemic risk posed by leverage positions. In a recent paper,¹³ the ESRB states that it "now places greater weight on tools designed to reduce liquidity strains during times of market stress than on those that constrain the build-up of leverage during booms. Reflecting the centrality of SFT (Securities Financing Transactions) markets, the policy options described (...) **are predominantly designed to reduce**

¹² ESMA Annual Statistical Report, [EU Derivatives Markets](#), 2019.

¹³ ESRB Expert Group on the Macroprudential Use of Margins and Haircuts, [Mitigating the procyclicality of margins and haircuts in derivatives markets and securities financing transactions](#) (Jan. 2020).

liquidity strains from variation margins, initial margins and haircuts during times of stress.

They may, however, also have a desirable side effect in that they contribute to reducing the build-up of leverage during booms". Banks, prime brokers and central counterparties have specialist teams focusing on the collateral requirements to be applied to specific transactions as well as counterparties. The methods used for determining such requirements are increasingly sophisticated and may include considerations related to correlations, hedges, trading styles, etc. As such, any assessments of leverage-related risk need to consider the broader market impact of where funding for this leverage comes from, as well as the role played by CCPs.¹⁴

- d) **Leverage is also limited by the collateral value of the assets:** Risky and illiquid securities often have large haircuts, which effectively constrains leverage. These natural leverage limits already operate in a manner which responds to market developments with various central counterparty clearing houses by, for example, changing margin requirements as appropriate. There needs to be an examination of whether leverage in the system is better controlled via the appropriate setting of these market-wide prudential requirements rather than by imposing limits on individual funds or groups of funds. For example, there is evidence from the most recent market turmoil that aggressive increases in initial margin at CCPs and dealer counterparties led to possible stress situations which could have been avoided if margins/haircuts have been set in a less pro-cyclical manner.
- e) **Mechanics of leverage limitations:** Given the existence of 'natural' leverage limits, certain strategies become unviable if leverage limits are set in an arbitrary way – something which is a real risk given the limits are to be applied using inappropriate measures of leverage. Linked to this, it is crucial for many hedge fund investors, 40% of which are pension funds,¹⁵ to have the opportunity to choose which strategy best meets their portfolio needs. Many institutional investors do invest in funds with a specific risk/liability profile because they match their own needs. Should there be considerations to manage the levels of leverage on behalf of the asset manager (which is what setting limits would entail) and arbitrarily restrict the levels of leverage, investors will be incentivised to redeem to other strategies and the limitation on leverage will risk undermining investor liability matching strategies. Many strategies that rely on higher levels of leverage provide an important function in strategic markets such as short-term interest rates, corporate debt, government debt, foreign exchange as well as associated derivatives markets associated with it. Reducing leverage for certain strategies below a critical threshold could lead to binary outcomes where managers would withdraw from the market and materially impacting liquidity. Furthermore, many strategies that rely on higher levels of leverage are in fact relatively low risk. Regulatory leverage limits could be impacting funds that do not present any systemic risk concerns, and by limiting leverage they may make these strategies no longer viable from an investment perspective. This in turn would limit choices for clients because the leverage is what makes low risk strategies workable from a return on capital perspective.

¹⁴ Mark Paddrik and Simpson Zhang, [Central counterparty default waterfalls and systemic loss](#), OFR Working Paper 20-04 (18 June 2020).

¹⁵ Preqin, 2019.

f) **Risks identified by ESMA:** Potential systemic risks related to high levels of leverage are identified by ESMA as:

- Amplifying the price impact of adverse market movements, especially during stressed times due to the need to obtain more liquidity to cover margin calls and higher haircuts (risk of market impact);
- Fire sales, which can adversely affect other financial market participants owning the same assets or highly correlated assets.;
- Contagion effect to the banking system (risk of direct spillover); and
- Interruption in direct credit intermediation, which can amplify the credit cycle (risk of interruption in credit intermediation).

For each of these risks, we would strongly recommend that ESMA or any NCA consider the root of the potential adverse effect on the market. Usually the impact of the use of leverage or deleveraging decisions by asset managers represents a small portion of the actual market event. For example, in a recent research paper, the OFR found that “...while the general evidence points to sales of the basis by hedge funds during March, we do not find conclusive evidence that these sales in turn caused greater illiquidity in the Treasury market”¹⁶. The above risks are largely mitigated by the capital requirements on banks as well as mandatory collateral requirements (discussed above).

g) **Reference to existing AIFMD tools:** We finally note the absence of reference to tools that have been implemented by the AIFMD in relation to financial stability, such as the obligation for a fund manager to set its own maximum levels of leverage and disclose them to investors. On this point, our members would be interested in understanding how these maximum levels of leverage have worked in relation to financial stability and whether NCAs have been monitoring these in comparison with markets’ movements.

We recommend that ESMA takes these considerations into account when designing its approach to leverage-related risks.

Conducting such foundational work seems essential in order to establish a sophisticated and thorough approach to mitigating potential systemic risk, so as to calibrate any supervisory responses and ensure financial stability is maintained, while allowing a diversity of strategies to co-exist.

II- The use of leverage in the alternative investment management industry

As stated in our introduction, our members have noted that the proposed guidelines generally consider the use of leverage as one general concept which necessarily implies greater risk, especially as regards Step 1 of the proposed guidelines.

We respectfully disagree with this approach and would recommend that ESMA’s guidance reflects the diversity of sources and uses of leverage. ESMA should also recognise the fact that one unit

¹⁶ Daniel Barth and Jay Kahn, [Basis Trades and Treasury Market Illiquidity](#), OFR Brief Series 20-01 (16 July 2020).

of leverage in a specific strategy is not equivalent to the risk born by a unit of leverage used in another strategy as part of Step 1 of the assessment process.

Indeed, if we take the main strategies used by alternative investment fund managers where leverage is fully embedded and is essential to deliver a strategy, one can see very different levels and types of risks (or lack of).

- *A long short equity* strategy entails buying undervalued stocks (going long) and borrowing and then selling overvalued stocks (going short). The short position entails the use of leverage as the security will be borrowed before being sold. The purpose of the short position is to mitigate risks, rather than amplifying the exposure. Risks for the market stemming from this strategy is therefore usually relatively low. Managers who invest using an equity long/short strategy (i.e., equity long/short, long-biased, short biased or equity market neutral) tend to use modest levels of leverage (balance sheet leverage ranging between 1-2 times assets) for more concentrated discretionary portfolios, for systematic managers that are able to manage very diversified portfolios the leverage may be higher at 4-8 times assets. Leverage used in equity long/short strategies is typically prime broker financing where the fund provides securities and cash as collateral based on the margin requirements of the prime broker.

Furthermore, short positions in such strategies are always taken relative to the strategy's long position. Therefore, measuring leverage as gross notional leverage without taking into account the investment strategy of the related/hedging long and short positions will not reflect the reality of the fund's exposure. Finally, applying limits to leverage related to short positions of a long/short equity strategy risks unbalancing the whole portfolio and increasing the overall adverse impacts, rather than mitigating them.

- *A long short credit* strategy is relatively similar to the long/short equity one, but the manager of this type of strategy will invest across the capital structure of corporates on both a long and short basis. This strategy can also be deployed through credit derivative instruments such as credit default swaps ('CDS'). CDS, which work as a type of insurance for the buyer, offers the possibility to manage an exposure to credit instruments of a sector or a geography, without the need to borrow and short the relevant instrument. The use of derivatives here entails the use of leverage. Indeed, most derivatives will require a small margin payment compared with the acquired notional exposure which is why such instruments create leverage – a small investment could result in a large exposure to an asset, rate or economic variable because the contract's value may fluctuate more than the change in value of the underlying asset or variable. As such, derivatives are very versatile instruments that allow asset managers to gain or hedge economic exposure to various risks without necessarily obtaining control or ownership of the underlying assets. The use of derivatives also allows managers to reduce a risk exposure without necessarily selling positions and is, therefore, a less costly strategy to deploy.¹⁷ Many managers use derivatives precisely with the objective to reduce transaction costs.

¹⁷ CASS/HEC, [The Unintended Consequences of Banning Derivatives in Asset Management](#) (Sept. 2013).

In the case of derivatives, there is no “borrowing” made in the strict sense. The notion of leverage here is rather linked to the exposure a fund obtains to an underlying security through a derivative instrument, without actually owning or having borrowed the relevant security.

- Managers that deploy a *global macro* strategy research the global economic landscape and seek to profit from any macro-economic imbalances and/or geopolitical events. A global macro fund manager can hold both long and short positions in various equity, fixed income, currency, interest rate and commodity derivatives markets. The manager can dynamically allocate capital to the asset class, sector or region in which it thinks the best opportunities currently lie.

Most global macro managers rarely hold cash securities and will transact largely in derivatives across all asset classes: options, futures, forwards and OTC derivatives. These financial instruments have embedded leverage within the financial instruments being traded, in addition to any modest leverage available from external financing. The highest embedded leverage is available in sovereign bond, foreign exchange and OTC derivative securities markets, such as interest rate swaps and foreign exchange swaps. These transactions permit higher levels of leverage and the derivatives enable investors to have large notional exposures with little or no initial investment or collateral. Similarly, implied leverage levels are high in futures markets because the margin requirements are generally lower (relative to notional exposure) than in equity markets.

- Managers of *CTA/managed futures* funds actively trade futures, forward and swap contracts on physical commodities, financial assets and exchange rates to earn the risk and return from active management within these markets. CTAs almost exclusively trade exchange-traded futures across equities, fixed income, currencies and commodities. These funds are among the most liquid vehicles available, enabling them to move rapidly and at a limited cost. The key metric to understanding the amount of leverage being used in a CTA or macro fund is the amount of cash needed to margin (during the lifetime) and settle (at maturity) any futures contracts. The use of margined derivative instruments allows the creation of synthetic leverage in a portfolio. The majority of such instruments are standardised with the minimum margin requirements determined by the central counterparties of the applicable derivatives exchange. A CTA fund only has to put up, on average, only a few percentages of margin to acquire 100% of notional exposure to a position. Typically margin to equity levels for CTA funds range between 10% and 30% depending on the targeted risk level of the strategy.
- A *relative value arbitrage* strategy seeks to take advantage of pricing discrepancies between multiple securities and scale it up profitably. In its simplest form, a relative value arbitrage strategy involves purchasing a security that is expected to appreciate in value, while at the same time selling short a related security that is expected to decline in value. This strategy can be used across a wide range of security types whether investing in equities, fixed income or derivatives. Given that the price discrepancies in relative value arbitrage strategies are very small, it tends to use relatively more leverage (which may exceed 10x depending on the underlying asset class) to enable it to scale the returns risk levels to where they represent meaningful positions for investors.
- *Fixed income arbitrage* strategies seek to profit from the spread that exists between cash market securities and derivatives (to garner some kind of risk premium, anomaly or liquidity

premium). The key leverage risk associated with these strategies is counterparty risk, that is having the counterparty withdraw its financing which will trigger an unwinding of their position or require it to take delivery of the cash security outright.

Fixed income arbitrage funds may deploy relatively higher levels of leverage. The higher leverage levels are typically due to the larger notional exposures in the derivative contracts that are usually employed to hedge out any credit and interest rate risk, and traders that take these positions only require a low margin payment. Further, these strategies usually hold a sizable amount of cash as protection to offset the counterparty risk when taking on such a position.

- *Convertible arbitrage* strategies tend to use between 2x-6x¹⁸ balance sheet leverage when arbitraging prices between a convertible bond and the stock of the same company. However, the derivative hedge is paired with the convertible security to reduce the overall risk profile.
- Under an *event-driven* strategy, a hedge fund takes positions based upon an event, which can include: (i) a merger between two or more companies; (ii) an activist manager influencing a company's management to take action to increase the value of the company's stock; (iii) taking a controlling position in the debt or equity of a distressed company with severe financial problems; and (iv) seeking to profit from other types of stock-specific events, such as spin-offs or changes in capital structure.

These types of trades are sometimes called special situations due to the uniqueness of the event involved in determining the price of the security or securities. Classic merger arbitrage involves buying shares of a company that is being acquired (i.e., the target company) and shorting the shares of the acquirer company as a hedge (assuming this is a stock-for-stock deal). The objective of the trade is to capture the *arbitrage spread* – the difference between the acquisition prices and the price at which the target's stock trades before the merger is realised.

By deploying prudent amounts of leverage the hedge fund manager can increase its exposure to generate more attractive returns from the arbitrage opportunity. For deals with tight spreads, hedge funds will often apply moderate amounts of leverage so the return is more attractive (see example below). The risk of such a trade is that the spread widens due to the deal collapsing or due to uncertainty in the deal closing which will result in a loss.

- *Closed-ended funds*: Closed-ended funds raise capital through binding, contractual commitments from institutional investors. This capital is only drawn down when a suitable investment has been identified. This is particularly the case for direct lending funds where investments are only made after necessary due diligence has taken place, or in line with the business activities of the borrower (for example to finance expansion). It is typical for closed-ended funds to arrange subscription line financing secured against the capital commitments from their investors. Such commitments are typically not reflected in the net asset value of the fund as the size of the subscription line is matched to the size of the binding contractual capital commitment made by the investor.

¹⁸ As per various prime brokers' estimates.

The use of leverage by AIFMs is therefore very heterogeneous and warrants a more granular and sophisticated approach by policymakers to assess the potential risk borne by the funds they manage. We would recommend this is reflected in ESMA's general approach and proposed guidance to ensure that all EU NCAs approach their assessment with the same level of granularity and the same concepts in mind.

III- Measures of leverage under the AIFMD do not allow for meaningful analysis of risk and cannot serve as a basis to assess risks born by a fund

Although we believe ESMA should better calibrate and conceptualise its approach to systemic risk and the use of leverage, we also recognise that it does not have at its disposal the necessary tools and metrics to do so.

The AIFMD's leverage calculation methodologies are not adequate for the purpose of measuring risk related to leverage. Gross and commitment indicators should not be used as the basic metrics to inform supervisors on the level of risks carried by a fund as they do not provide an adequate picture of the potential risk, as demonstrated in the section below. Such measures should be further refined and complemented by other metrics – from the beginning of the analysis (i.e., Step 1) - to provide a better reflection of potential risks.

Leverage is not being considered appropriately in the AIFMD framework

Leverage in the AIFMD is viewed through the lenses of two calculation methodologies: the gross and the commitment methods. However, both the gross and commitment methods have resulted in distorted leverage numbers for AIFs for at least two key reasons: (1) they provide a single aggregated number that does not provide any meaningful information about the actual risk of leverage used by the fund (discussed further below), and (2) they fail to properly account for the use of interest rate, currency and other types of derivatives. AIFs that use these types of instruments are required to use notional amounts of such contracts in those calculations where the notional amounts do not reflect, for example, the maturity, the type and/or the underlying of a particular contract. To illustrate, let us compare the 3-month U.S. T-bill futures contract with the 10-year U.S. T-note futures contract. One single 10-year U.S. T-note contract effectively covers the interest rate risk over a period equal to the period covered by 40 consecutive 3-month U.S. T-bill futures contracts. However, the aggregate underlying value of these 40 U.S. T-bill futures contracts is 40 times as high as the underlying value of the single U.S. T-note contract, causing leverage of the first position, though similar from a risk perspective, to be 40 times as high. The gross market exposure may provide NCAs with a measure for the footprint of a fund or strategy in the capital markets but does not give an adequate measure for market risk or leverage. The commitment method suffers from the same flaws in terms of aggregating notional exposures of substantially different instruments to constitute one risk number (although it does allow for certain netting, i.e., a very limited reduction of hedging positions). None of these measures take into account correlations within a portfolio.

We consider that the gross and commitment methods currently used under the AIFMD are not sufficient or appropriate for all types of AIFs and are misleading to managers investors and competent authorities. The measures are indeed over-inclusive for some types of investments (some fairly low volatility strategies may appear riskier under the measures, while other high volatility strategies may appear less risky). In addition, it is difficult if not impossible for competent

authorities to derive more meaningful measures of leverage without requesting additional data from the managers, which undermines the effectiveness of the AIFMD framework.

Before looking in more detail at the gross and commitment method, it is worth noting that for portfolios containing derivatives, leverage can be an inadequate measure of exposure to financial markets, risk or size of potential loss. There are a number of reasons why we consider this to be the case including the following:

- **Offsetting:** The current AIFMD leverage measures do not allow for the offsetting of positions that might decrease or eliminate risk in a portfolio. These leverage measures generally include all positions, even those that offset risks arising from an AIF's investment portfolio. For example, the gross and commitment methods count the full notional value of a swap that offsets currency or interest rate risk of an equity or debt position held by an AIF, despite the swap serving to decrease or neutralise the exposure of the AIF. Similarly, these leverage measures would either (i) count twice the full notional values or (ii) not permit the full netting of two perfectly offsetting positions, even though the AIF's net economic exposure would be zero. Additionally, the AIFMD leverage measures ignore the possible risk reducing effects of (low or negative) correlation between markets traded in a portfolio. For example, a calendar spread on an interest rate market effectively eliminates the common interest rate risk factor in both legs of the spread. If one leg of this spread would be left out, the risk of this position would thus increase while the amount of leverage would decrease by half. The risk reducing effect of a calendar spread is commonly endorsed by clearing houses as they typically apply initial margin reductions to such spreads as compared to the individual legs.
- **Relative risk of different types of derivatives:** The gross and commitment methods do not account for the relative risk of different types of derivatives positions held by an AIF. For example, in related contexts, global regulators have consistently recognised that derivatives referencing short-term interest rates are less risky, given a particular amount of notional exposure, than those referencing long-term interest rates or other asset classes such as currencies, equities or commodities.
- **Nature of the risks of options:** The gross and commitment methods do not take account of the non-linear nature of the risks arising from options and other similar derivative positions. An AIF whose derivative positions consist only of purchased options may have a high gross leverage, but the maximum possible loss is the current value of the options, a figure that may be orders of magnitude lower than the notional. For example under the gross method, which specifies that the "exposure" of an option is the delta-equivalent amount, a one-month at-the-money call option on the S&P 500 index generally will have a value of approximately 1% of its notional amount compared to its delta of 50%; the gross method would indicate an exposure for such an option position which is 50 times greater than its maximum possible loss.

The gross and commitment methods yield very high leverage numbers for AIFs that use interest rate, currency or other types of derivatives. The notional amounts of such contracts (rather than their risk adjusted market exposures) are required to be included in the calculations under both methods. This particularly affects AIFMs employing relative value, macro and managed futures strategies. AIFs using these types of instruments generate leverage figures under the gross and commitment methods that are not necessarily reflective of the risk of those AIFs. These factors

pose difficulties both for NCAs when seeking to assess the build-up of any potential systemic risk in the financial system and for investors in terms of making meaningful comparisons between different AIFs.

Leverage as a risk mitigation technique

One aspect of effective risk management in AIF portfolios is the ability to hedge positions. As shown in the section presenting the main investment strategies used by hedge fund managers, some leveraged strategies use derivatives for hedging purposes. Others, such as 'relative value' strategies, may use long and short positions in similar instruments (e.g., two bonds issued by the same issuer) to hedge the risk instead of, or in combination with, derivatives.

Under the gross and commitment methods, these two risk mitigation approaches differ. Both positions would display the highly similar risk characteristics to the position holder; however, the AIFM's choice of derivative versus short position in these circumstances could be dictated by a range of external factors. These include: (i) access to financing (i.e., a bond is a fully-funded instrument and a swap is not); (ii) access to executable swap markets; (iii) the availability of a functioning repo market in the relevant bond; (iv) exposure to counterparty credit risk (some sovereign bonds would be zero risk rated whereas, by contrast, OTC derivatives would always carry counterparty risk); (v) the ability to price positions; and (vi) margin considerations.

It is important for investors to ensure that AIFMs remain free to use any tools available to them to manage the risks within AIF portfolios effectively without having regard to leverage ratios that favour one risk mitigation technique over another. Moreover, penalising one risk mitigation strategy by implementing leverage limits could potentially have adverse consequences for the effective functioning of EU markets at certain times.

Concerns with the gross method

The gross method first of all suffers from all of the deficiencies noted in the section above. Additionally, the method specifies that the "exposure" of an option is the delta-equivalent amount; this is a slight improvement to using the notional amount but is still an inadequate measure of option risk. For example, as stated above, a one-month at-the-money call option on the S&P 500 Index generally will have a value of approximately 1% of its notional amount compared to its delta of 50%; the gross method would therefore indicate an exposure for such an option position which is 50 times greater than its maximum possible loss.

Under the gross method, the exposure of an AIF is the sum of the absolute values of all positions valued in accordance with the AIFMD. Where an AIF invests in derivative instruments, the absolute positions of each derivative instrument will be added to each other, which can lead to some odd results, as shown by the following example involving call options:

Trade with two option legs on S&P 500 (SPX)

SPX Spot: 1999

Both options are expiring on October 18, 2019 (same day)

Short SPX Option Strike 2000 (Delta mid: -49%) Absolute value: 49%

Long SPX Option Strike 2010 (Delta mid: +41%) Absolute value: 41%

Sum of absolute value of delta: $49\% + 41\% = 90\%$

Sum of delta: $-49\% + 41\% = -8\%$

1) The 90% delta result is inaccurate as the maximum that can be lost in this trade is 10 points difference between the two strikes, less the premium credit ($2010 - 2000 = 10$ points)

2) If SPX moves up by 1%, the 2000 call will move by 0.49% (delta adjusted), and the 2010 call will move by 0.41%. The net move against the trade -0.08% ($-0.49\% + 0.41\%$), which refers to delta of -8% .

Multi-leg trades on options are a way to minimise overall risk and exposure to the underlying move. However, adding absolute values together, as per the AIFMD gross methodology inflates the leverage calculation and may mislead investors about the true risk level. For example, a 10y interest rate swap, which if broken down as 5y + 5y by 5y interest rate swap doubles the exposure with no economic implication, would be treated in the same way under the AIFMD leverage calculations as a 1y vs 10y swap which has different risks but the same notional value.

Concerns with the commitment methodology

The commitment method addresses some of the issues inherent in the gross method (as outlined above) through the application of netting and hedging arrangements and the use of duration netting rules. Although this is an improvement on the gross method, the commitment method still suffers from a number of deficiencies which makes it unfit to adequately reflect the risk borne by an investment fund. The limits of the commitment method are:

- **Intention at the time of the trade:** Under Article 8(3)(a) of the Level 2 Regulation, netting is only permitted under the commitment method where “trades on derivative instruments or security positions are concluded with the sole aim of eliminating the risks linked to positions taken through the other derivative instruments or security positions”. This is therefore dependent on the intention at the time of the trade, which is a subjective test. There has been no further guidance as to how this intention can be ascertained and determining when netting is permitted is therefore a matter of interpretation for each AIFM which gives rise to uncertainty. It is therefore unclear what the conditions for permitted netting are;
- **Potential for excessive netting:** Article 8(3)(a) of the Level 2 Regulation also provides that netting is permitted across derivatives “which refer to the same underlying asset... irrespective of the maturity date”. This would therefore permit the netting of a very long term interest rate derivative (for example, a 30 year swap) with a short term interest rate derivative (for example, a 2 year swap), or a long-dated commodity derivative (for example, natural gas futures with 5

year maturity) with a short-dated commodity derivative (for example, natural gas futures for December 2025 maturity). This leaves the potential for excessive netting which may mask real exposures;

- **Application of duration netting rules:** The commitment method permits “duration netting” under certain conditions. Article 8(9) of the Level 2 Regulation provides that “AIFMs managing AIFs that, in accordance with their core investment policy, primarily invest in interest rate derivatives shall make use of specific duration netting rules in order to take into account the correlation between the maturity segments of the interest rate curve as set out in Article 11.” In relation to this provision, Article 11 provides that:

“The duration-netting rules shall not be used where they would lead to a misrepresentation of the risk profile of the AIF. AIFMs availing themselves of those netting rules shall not include other sources of risk such as volatility in their interest rate strategy. Consequently, interest rate arbitrage strategies shall not apply those netting rules... The use of those duration-netting rules shall not generate any unjustified level of leverage through investment in short-term positions. Short-dated interest rate derivatives shall not be the main source of performance for an AIF with medium duration which uses the duration netting rules.”

These tests lack clarity and determining whether duration netting rules may be applied, absent further guidance, is therefore a matter of interpretation for each AIFM, which gives rise to uncertainty and potential inaccuracy of the end number in relation to the actual risk related to the unit of leverage;

- **Maturity range buckets:** It may also be possible for the duration netting rules to lead to excessive netting. The duration netting rules specify that interest rate derivatives should be allocated to one of four maturity range buckets: 0-2 year, 2-7 years, 7-15 years and >15 years. Within each bucket, 100% offset is allowed. This means that under these rules, for example, a 2 year swap can be netted with a 7 year swap, leaving an exposure of zero. This leaves potential for excessive duration netting and can mask real exposures. The use of the four maturity range buckets and the offset percentages is also an arbitrary choice and bears no relation to risk measurement. For example, a 2 year vs 7 year offset will be fully netted, while a 1.9 year vs 7.1 year offset will only be netted 25%, despite these spreads having almost identical risk;
- **Target duration:** The use of “target duration” introduces inconsistencies between AIFs as the duration netting rules specify that all interest rate derivatives should be subject to a duration adjustment. This adjustment must be made with respect to the AIF’s “target duration”, defined as being “in line with the investment strategy, the directional positions and the expected level of risk at any time”. In principle this means that each AIF may have its own “target duration” and therefore leverage numbers calculated using this rule will be inconsistent and not comparable between AIFs. Furthermore, hedge funds do not generally utilise a pre-defined “target duration” as part of the investment/trading process and therefore the netting of such instruments is unclear and can vary according to each manager.

The industry itself is not using AIFMD leverage measures for risk management purposes, but rather its own calculations which are more appropriate for the investment strategies pursued. As such, even within the same strategy, levels of leverage will vary according to the method of

calculation applied by each AIFM. In regard to this matter, a third-party risk management vendor has established its own leverage calculations methodologies for each strategy, different to the AIFMD's methodologies, to enhance transparency and comparability among their clients' AIFs.

In line with our comments above, we agree with ESMA's recommendation in its recent letter to the European Commission¹⁹ to amend the commitment amount calculation by adjusting the notional amounts of interest rate derivatives contracts by the duration of the ten-year bond equivalent.

Comments on Step 1 assessment in the proposed guidelines

Concerns with the commitment method are especially important as the commitment method serves as a basis to assess "substantial leverage", as per Article 111(1) of Commission Regulation 231/2013 ('Level 2 Regulation'). Substantial leverage is proposed to be a key metric of Step 1 of the proposed guidelines, as it would determine whether an AIF should undergo a leverage-related risk assessment. We would strongly recommend that Step 1 of the proposed guidelines moves away from the Level 2 Regulation's concept of "substantial leverage" which does not appropriately reflect the potential risk related to leverage, as demonstrated above.

Our additional comments on the Step 1 approach in the proposed guidelines are set out below.

Considering *all* AIFs with more than EUR 500 million AUM which are employing leverage (as per point 13(b) of the proposed guidelines) regardless of the funds' strategies, their actual levels of leverage or the use they make of it, seems a disproportionate approach. As demonstrated above, two units of leverage can bear a very different level of risk depending on the underlying asset, the type of leverage (whether it is stemming from a derivative position, or from borrowing a stock, for example) or the investment strategy of the fund. Such a criteria will bring a very large number of AIFs into Step 1, and therefore Step 2 investigations. As an example, a third-party risk management vendor observed that such an approach would risk capturing more than 75% of all of the AIFs it is advising, no matter their strategy or the source of leverage. Although we understand that not all AIFs considered in Step 1 will be seen as bearing potential systemic risk to the market, passing the first step test will automatically lead to the NCA being required to ask further information as per Step 2 of the proposed guidelines, which will entail the use of a lot of resources and time both for the NCA and the fund manager, despite the fund not probably posing *any* risks to any segments of the market. Such a criteria as proposed in point 13(b), in our view, is therefore not economically justifiable.

We also note a potential oddity in comparing similar types of AIFs to determine a potential "unusual" level of leverage (as per point 14 of the proposed guidelines) while not also considering similar types of UCITS. We believe it would be better to focus on activities and to address challenges on all market players equally rather than singling out a type of fund or funds. This will simply displace the activity outside the types of funds being limited. We also note the limits of the AIFMD typology where so many funds are categorised as "Others". AIF typology as proposed by the AIFMD is not robust enough to be able to compare AIFs within each category used by the Annex IV reporting template.

¹⁹ ESMA letter to the European Commission, "[Review of the Alternative Investment Fund Managers Directive](#)" (18 Aug. 2020) ('ESMA Letter').

Indeed, looking at all “hedge funds” as a class and comparing them to determine “unusually high” leverage could result in both false positives and false negatives. It fails to acknowledge that some strategies inherently rely on higher amounts of leverage even if they are relatively low risk, but might be identified through this process despite them having less risk than other strategies that don’t employ as much leverage, as described in the OFR Working Paper.²⁰ Even within a certain narrow defined type of strategy, leverage levels may largely vary. Within the CTA space, leverage levels largely depend on the type of underlying asset classes traded (short-term interest rates versus other classes).

It could also result in false negatives where a risky fund would not be picked up where it does not use as much leverage as other strategies but focuses the leverage on a volatile asset class.

Overall, we think this portion of the framework should be removed as it could create problems for both funds and regulators.

Our recommendation for Step 1 is therefore to follow the IOSCO Framework regarding the assessment of the use of leverage and how it relates to potential systemic risk (see further details on the IOSCO’s recommendations below).

The section above answers ESMA’s questions 2 and 3 in respect of the proposed guidelines.

Comments regarding other metrics that should be looked at when assessing any potential systemic risk arising from leverage

Given the gross and commitment shortcomings, we believe that it is essential that these measures be supplemented with other criteria which should be taken into account, as follows:

- 1- Leverage measures should be accompanied by risk measures, such as value-at-risk (“VaR”) and stress testing. Using a risk measure like VaR alongside leverage measures is important when assessing the risk of a fund’s overall use of derivatives and leverage, particularly since a standalone leverage metric could misstate a fund’s true economic exposure and overall risk. Recognising that funds use derivatives to achieve investment objectives, align portfolio risks to benchmark risks, or to reduce overall risk, we recommend tailoring measures according to the different ways in which a fund uses derivatives, including measuring both absolute risk and risk relative to a benchmark (where applicable).
- 2- Stress testing is another means of assessing downside risk that is often used as a complement to standard VaR measures (or included in proprietary VaR measures by some managers). Stress testing looks at various stressed scenarios and assesses potential losses that could arise from such scenarios. To be clear, stress testing in this context is different than liquidity stress testing, as this type of stress testing relates to the mark-to-market losses a portfolio could experience during a period of market volatility, rather than on a fund’s ability to meet its redemption obligations. Stress testing addresses a valid criticism of standard VaR measures in that these standard VaR measures may not provide reliable insight as to the magnitude of potential losses in the tail of the distribution.

²⁰ OFR Working Paper, *supra* note 2.

- 3- There are additional measures we recommend that ESMA develop to further the framework for assessing leveraged-related risks they are specifically concerned by (e.g., counterparty risk, risk of market losses to investors, etc.) which may potentially have a systemic impact. This work should consider whether relevant data is already captured elsewhere in other sectoral reporting frameworks (e.g. reporting relating to the use of derivatives and securities financing transactions under EMIR and SFTR in the EU) or the oversight of CCPs and broker dealers who sit on the other side of transactions with investment funds. This may lead to the conclusion that further study will then be needed to fully understand the interaction between leverage and various forms of risk in different types of investment strategies.
- 4- Collateral: Furthermore, we are aware that many regulators wish to understand whether funds have sufficient liquid assets to meet calls for margin or collateral and whether funds can rehypothecate or reuse assets posted or set aside as collateral for their derivatives transactions and make suggestions of new data points to be collected as part of the AIFMD Annex IV reporting in the section below.
- 5- Look at the link between deleveraging and liquidity. During the March crisis we saw the highest levels of redemption in long-only fixed income and MMFs strategies, so funds' investors were not driving liquidity calls in hedge funds and liquid alternative strategies (rather procyclical policies by certain CCPs). This reinforces the importance of liquidity stress testing of liabilities (investors) asset stress testing (VaR) and stress testing risk assumptions in key market infrastructure such as CCPs.
- 6- Finally, we would recommend that the use of subscription line finance by closed-ended funds to bridge capital calls should not be considered leverage for the purposes of understanding any potential systemic risk. Including these commitments within the calculation may create a misleading impression of leverage within closed ended funds. As noted above, subscription line finance commitments are typically not reflected in the net asset value of the fund as the size of the subscription line is matched to the size of the binding contractual capital commitment made by the investor. We, therefore, recommend that NCAs exclude such types of financing in the step one assessment.

Furthermore, and as regards Step 2 indicators, first and foremost, the mere existence of the Step 2 indicators shows that methodologies calculating leverage levels does not provide any meaningful information regarding leverage risks. Such numbers (gross and commitment) should not therefore be used if a limit is being considered.

In addition, ESMA should be conscious that there are a whole range of reporting changes coming through in EU legislation (either new or delayed) and new requirements run the risk of operational bottlenecks so ESMA should try to prioritise only that information which generates a material improvement.

IV- The AIFMD's Annex IV reporting should be amended in order to provide a relevant set of data

In addition to receiving inadequate leverage indicators as demonstrated above, NCAs and EU regulatory bodies also lack essential data that should underpin and inform any leverage-related risk assessment: asset class by asset class data as well as data related to margin. This section serves as our answer to question 5 of the consultation on the proposed guidelines.

IOSCO recommendation of asset-class by asset-class data

Our members welcome IOSCO's recommendations for the Leverage Framework and believe the changes in the definition and measurement of leverage should be integrated in the AIFMD framework in the Level 2 Regulation, as recognised by ESMA in its recent letter to the European Commission: "ESMA believes the IOSCO recommendations give rise to a need to amend the current reporting of the gross method calculation in Article 7 of the Commission Delegated Regulation (EU) No 231/2013, to ensure alignment with the IOSCO framework."²¹ Alignment with IOSCO's recommendations on leverage should notably include collecting data about leverage in AIFs on an asset class by asset class basis broken down by long and short exposures for risk monitoring purposes using consistent and comparable measures across different supervisory regimes. We agree with IOSCO's acknowledgement in the Leverage Framework that NCAs should consider circumstances and factors relevant in their jurisdictions and specific to the AIF, its size, characteristics and strategies to assess whether the AIF may or may not present leverage-related risk. We acknowledge that in order for NCAs to be able to do this, they will need the information about an AIF's portfolio to be presented somewhat differently than currently provided in the Annex IV reports.

In the Leverage Framework, IOSCO recommends retaining the gross and commitment methods (although these are respectively referred to in the IOSCO paper as GNE without adjustments and Adjusted GNE), but encourages the revision of the data collection forms to facilitate review of the data on an asset class by asset class basis (e.g., equity securities, fixed income securities, interest rate derivatives), broken out by long and short exposures. This would allow NCAs to see an AIF's basic asset allocation and to distinguish between AIFs with exposure to higher risk assets and those with exposure to lower risk assets, and the directionality of the AIF's exposures. This would permit NCAs to differentiate AIFs considering the risk profile - and not just the scale - of their investments. Fields 121-124 of the Annex IV reporting template, for example, currently require AIFMs to provide information on the individual exposures in which the AIF is trading and the main categories of assets in which the AIF invests in, broken down on a sub-asset type level asking for the gross value and the short and long values of the individual exposures. This could be supplemented by the form asking for the gross value for each asset type in Field 122 (which is not currently required) and adding Fields 123a and 124a to request the long and short values for each asset type to also be reported as a percentage of NAV as suggested by IOSCO.

We believe it would be the easiest way to improve the ability to compare data across supervisory regimes and thus improve the supervisory authorities' understanding of the risk exposures generated by AIFs. We do not feel it would be appropriate to aggregate the total amount of these asset classes, broken out by long and short exposures, into a single gross exposure number as we believe this number, on its own, is misleading in that it does not represent the amount of leverage or risk of an AIF's investment positions and it does not account for differences across different types of asset classes. The suggested breakdown would allow NCAs to consider implementing additional targeted measures aimed at the different asset classes, depending on their risk exposure. However, even though this would be an improvement to the current situation, this approach would still ignore the risk reducing effects of correlation. As mentioned above,

²¹ ESMA Letter, *supra* note 19.

additional metrics such as Margin to Equity or VaR figures could usefully supplement leverage-related metrics.

Seeking details on initial margin and variation margin posted as of the reporting date

AIFMD Annex IV reporting also lacks data on margin posted and various metrics that would allow for an analysis of leverage based on margin.

Currently, Annex IV reporting only requires the AIFM to provide the value of borrowing embedded in financial instruments separated by derivatives traded on exchanges and derivatives traded OTC. According to ESMA's guidelines on reporting obligations, all borrowing embedded in financial instruments must represent the total gross notional exposure in relation to these instruments, minus all margin used.

An additional set of data points that could assist NCAs in understanding the quantum of risk associated with derivatives transactions by AIFs is the amount of the AIF's outstanding posted initial margin as of the reporting date, separated by cleared derivatives and OTC/bilateral/uncleared derivatives of each major type of derivative instruments (credit, currency, interest rate, commodities, other) when possible.

Most AIFs are required to post initial margin for their cleared and uncleared derivatives positions, as well as their leveraged positions which are financed through borrowing. For many positions, AIFs must also exchange variation margin on a daily basis. In addition to mandatory clearing, global derivatives rules also provide for strict risk-mitigation requirements for non-cleared trades. EMIR transaction reporting requirements currently in effect require a variety of data on margin to be reported to trade repositories on a daily basis. The data required in the EMIR framework includes:

- Initial margin posted;
- Currency of the initial margin posted;
- Variation margin posted;
- Currency of the variation margin posted;
- Initial margin received;
- Currency of the initial margin received;
- Variation margin received;
- Currency of the variation margin received;
- Excess collateral posted;
- Currency of the excess collateral posted;
- Excess collateral received; and
- Currency of excess collateral received.

Such data points are essential for supervisors to assess risks related to derivative exposures, notably as regards what ESMA has identified as "market impact risks", which are related to the need of obtaining more liquidity to cover margin calls and higher haircuts.

Breaking down certain metrics by derivatives vs cash exposures

The additional metrics that allow supervisors to understand better an AIF's risk profile (although not always relevant for some strategies such as portfolios including commodities) include:

- DV01, which shows the change in price in dollars per basis point of change in yield; and
- CS01, which shows the change in value of 1 basis point in the credit spread.

We note that IOSCO's Leverage Framework has also referred to DV01 and CS01 as additional metrics to gather insightful data on analysing leverage-related risks in AIFs. Although these are already reported in AIFMD reporting, to achieve the most clarity from these measures, they should be broken down between cleared and non-cleared derivatives of each category and for each type of derivative instruments (credit, currency, interest rate, commodities, other) and separately for cash instruments.

We strongly view obtaining these three types of data as a pre-condition for any meaningful assessment of risk related to the use of leverage.

V- Analysis of leverage and performance during Covid-19 crisis

As the COVID-19 outbreak can be qualified as a live stress test, it provides a good opportunity to look at how the various strategies performed, relative to their use and levels of leverage. Good performance, or relatively low volatility, is indeed an indicator of low disruption in periods of market stress.

As such, here are a few real-life examples of funds managed by EU AIFMs:

FUND A – Strategy: Fixed Income Relative Value

Performance Q4 2019	Performance Q1 2020	NAV (end of 2019 in \$m)	Max levels of leverage (gross methodology) 2019 (% of NAV)	Max levels of leverage (commitment methodology) 2019 (% of NAV)	Levels of leverage used in 2019 (gross) (% of NAV)	Levels of leverage used in 2019 (commitment) (% of NAV)
0.66%	1.07%	132.74	11,471%	11,091%	8,829%	8,442%

FUND B– Managed Futures

Performance Q4 2019	Performance Q1 2020	NAV (end of 2019 in \$m)	Max levels of leverage (gross methodology) 2019 (in % of NAV)	Max levels of leverage (commitment methodology) 2019 (in \$m)	Levels of leverage used in 2019
-2.33%	1.11%	2.961	N/A	N/A	1,312%

FUND C- Credit long/short

Performance Q4 2019	Performance Q1 2020	NAV (end of 2019 in \$m)	Max levels of leverage (gross methodology) 2019 (in % of NAV)	Max levels of leverage (commitment methodology) 2019 (in \$m)	Levels of leverage used in 2019
1.8%	-10.8%	53	N/A	N/A	192%

FUND D – Commodity fund

Performance Q4 2019	Performance Q1 2020	NAV (end of 2019 in \$m)	Max levels of leverage (gross methodology) 2019 (in % of NAV)	Max levels of leverage (commitment methodology) 2019 (in \$m)	Levels of leverage used in 2019
-3%	58%	600	100%	75%	43%

As we can see in the example above, two funds with the high level of leverage (Fund A and B) have experienced positive returns during the COVID-19. Fund C with lower amounts of leverage has, on the contrary, experienced a double-digit negative performance during COVID-19 outbreak. Interestingly, based on the examples above, the levels of returns' correlation with the levels of leverage seems relatively low. This could be explained by the fact that the underlying instruments of Fund A and B are very low risk financial assets, as presented in the research conducted by the OFR.²²

Furthermore, Fund A and B present low levels of volatility, whereas fund D which has low levels of leverage, has experienced higher volatility during the COVID-19 outbreak. This can also be seen as a key indicator for disruptive – or absence of disruptive- effects on the markets.

Funds like the Fund A example (Fixed Income Arbitrage (FIA)) have high leverage but not as high volatility compared to other strategies in this period. Leverage of the funds within the strategy usually ranges between 20x-50x.

The distinction between strategies is therefore a key element to the analysis of potential systemic risk arising from leverage and has to be taken into account at the outset of any risk assessment (i.e., from Step 1).

²² See OFR Working Paper, *supra* note 2.

Furthermore, illustrative data from HFR₂₃ and from the research report published by the OFR₂₄ shows that there is no conclusive evidence that the use of leverage by hedge funds contributes to market instability.

Firstly, the OFR finds that “market beta in particular drives the negative relationship between leverage and systematic risk”. Therefore, we would expect that those hedge fund strategies with less exposure to the broader market to have higher fund-level leverage.

Relationship between fund leverage and fund strategy for Macro and Equity Hedge Funds, by percentile

	HFR Macro (Total) Index	Macro Hedge Funds' Leverage	HFR Equity Hedge (Total) Index	Equity Hedge Funds' Leverage
Mean	0.31%	2.11	0.61%	1.57
10th	-1.31%	1.01	-3.94%	1.00
25th	-0.59%	1.04	-1.19%	1.03
50th	0.34%	1.18	1.54%	1.34
75th	1.12%	1.92	2.80%	1.71
90th	2.31%	3.42	5.33%	2.59
STDV	1.13%	2.64	3.76%	0.84

Macro hedge funds tend to have a low market beta (exposure to broader market), while equity hedge funds tend to have a higher market beta. The data above illustrates that the strategy which should, in theory, increase systemic risk through leverage (due to higher market beta) has both lower leverage and higher performance. As such, there is evidence which suggests that higher leverage is not necessarily linked to increased systemic risk: the more leverage the hedge fund strategy presents, the less exposure to the market it has. Furthermore, the lack of conclusive link between more leverage equals more system risk can be deduced from the behaviour of the equity hedge fund strategy: it has lower leverage levels than the macro strategy but it has higher market beta and higher performance, overall. One would expect that lower leverage would result in lower performance as well, suggesting that the mix of higher market beta and lower leverage profile may be a factor of overperformance – this is counterintuitive to the notion that higher leverage is necessarily associated with more exposure to the broader market, demonstrating that the link between leverage levels and systemic risk is not as clear as previously thought. This strongly underlines the need for a better understanding of hedge fund leverage in a practical context before moving forward.

²³ Performance data Jan 2019 – June 2020.

²⁴ See OFR Working Paper, *supra* note 2.

Indeed, the table below shows a large discrepancy between various hedge fund strategies and their leverage levels. It is often assumed that higher leverage necessarily results in a higher risk/reward profile of a fund. In other words, that a more levered hedge fund should deliver higher returns because it took on more risk. From here, the implication is made that this practice increases system risk. If you look at the mean figures, you can clearly see that higher leverage does not mean higher returns necessarily – more so, the difference between intra-percentile ranges highlights this point further (data to be read horizontally). This suggests that higher leverage does not necessarily mean higher risk / return profiles, questioning the above made supposition.

	HFRI FWC	All Hedge Fund Strategies' Leverage	HFRI Macro (Total) Index	Macro Hedge Funds' Leverage	HFRI Relative Value (Total) Index	Relative Value Hedge Funds' Leverage	HFRI Equity Hedge (Total) Index	Equity Hedge Funds' Leverage	HFRI Event-Driven (Total) Index	Event Driven Hedge Funds' Leverage
Mean	0.40%	1.74	0.31%	2.11	0.19%	3.02	0.61%	1.57	0.19%	1.53
10th	-2.95%	1.0	-1.31%	1.01	-1.87%	1.0	-3.94%	1.00	-1.87%	1.01
25th	-0.53%	1.03	-0.59%	1.04	0.05%	1.06	-1.19%	1.03	0.05%	1.06
50th	0.82%	1.19	0.34%	1.18	0.53%	1.41	1.54%	1.34	0.53%	1.19
75th	2.03%	1.66	1.12%	1.92	1.51%	2.43	2.80%	1.71	1.51%	1.44
90th	3.61%	2.65	2.31%	3.42	2.36%	4.76	5.33%	2.59	2.36%	1.95
STDV	2.83%	2.29	1.13%	2.64	2.52%	5.53	3.76%	0.84	2.52%	1.92

However, even with this data, we are still missing large pieces of the bigger picture here – a key consideration should be the sources of leverage and how, in the cases of some strategies, the collateral against which they borrow is used within broader financial markets.

VI- Restrictions on the use of leverage have a high probability to cause unintended consequences

Although we understand that the proposed guidelines are merely operationalising powers which are already made available to NCAs by AIFMD Article 25, we would nonetheless respectfully present considerations as regards guidance to NCAs.

As explained above, the use of leverage is essential to the delivery of some strategies, and the possibility of capping or restricting the use of leverage could put at risk an entire portfolio, especially if such decision is taken on the basis of indicators which, as demonstrated above, do not reflect the reality of a fund's exposure or potential risk.

Given the importance of the use of leverage in some strategies, as demonstrated above, the fact that it can result in an increase of risks (as recognised by ESMA itself in section 30(c)) and that this could lead to a change in the investment strategy of the relevant fund (as implied by section 30(c)),

ESMA should remind NCAs that powers granted by AIFMD Article 25 should only be considered as a last resort measure and other tools should be considered first. Indeed, section 30(c) shows the deep impact setting leverage limits can have on portfolio management and especially on risk management. This is also recognised in the recent paper published by the OFR:²⁵

“Our results provide context for evaluating policy proposals related to limits on private fund leverage, such as those being considered in the European Union. **Perhaps most important is that limits on leverage may have unintended consequences.** Limits on leverage may make previously unconstrained funds leverage constrained, since leverage unconstrained funds are likely to be the heaviest users of leverage. But if leverage-unconstrained funds’ appetite for risk remains the same, then such funds may tilt toward higher risk — and in particular higher market beta — assets. That is, leverage limits may push funds to invest in higher beta assets, which may lead to more correlated and crowded trades and more coordinated outcomes. Further, the riskiest funds are likely to be those that leverage high-risk assets. But for reasons discussed in this paper, those funds may not be the most highly leveraged, since risky assets are often accompanied by large haircuts and margin requirements.”

In order to mitigate the risks that would result from setting leverage limits, ESMA recommends a suite of restrictions which could, as we see it, directly impact the contractual relationship of the asset manager and its client (the fund) and, by extension, the investors’ understanding of the fund they are investing in. Restrictions to the proportion of certain assets in the portfolio, their sensitivity to market risk factors or to the liquidity of the portfolio are inherent features of the contractual relationship with a fund (and by extension the disclosure to the investors) and amending such elements on a unilateral basis, even temporarily, without the client’s approval is contrary to the asset manager’s core fiduciary duty and will fundamentally change the economics of the investment for investors. This is a problem because institutional investors invest in multiple funds to create balanced and diversified portfolios of investments to meet their particular needs. If there can be no certainty about whether and to what extent the regulator may or may not choose to create a negative externality for the investor by imposing a leverage limit or other restriction, the investor will choose to invest in places where this arbitrary risk does not exist.

²⁵ Id. at pp. 33-34.