Frankfurt am Main,
31 January 2019

BVI[1] position on IOSCO Report: Leverage

It is of utmost importance to clarify a global approach for leverage in funds and its calculation to facilitate more meaningful monitoring of leverage for financial stability purposes. In particular, we see the need for a common understanding among regulators, asset managers and investors. This is also a crucial prerequisite in periods of market stress where timely decisions by national competent authorities (NCAs), supra national authorities and market participants are essential.

In light of this, we explicitly support the general understanding of what leverage in investment funds is: The ratio of the fund's market exposure over its net asset value. We take favourable note that this understanding is not open for consultation. In this respect, the use of leverage is not a risk as such rather than a purely technique that allows to assess whether there could be a risk. As IOSCO highlights, however, the main challenge is to define meaningful metrics with supplementary data points for the calculation of the market exposure to monitor funds from a macro-economic perspective.

In order to do so, we very welcome the proposed two step approach: Identifying and analysing funds that may pose a risk to financial stability as a first step and further analysis of this sub-set of funds as a second step. This approach appropriately takes into account that not all investment funds could pose financial stability risks. This applies, in particular, for small-sized funds. In this context, it is essential to highlight that as a consequence of the financial crisis very strict legal requirements in the asset management sector have already been implemented in the European Union. These requirements are intended to enhance the prudential resilience of asset managers and their funds under management, thereby materially excluding or reducing the possibility of any of them posing risks to financial stability, as well as protecting investors of funds.

However, we are aware that rules relating to measure and report market exposure of investment funds vary around the world. There is a wide variety of funds and fund strategies with different jurisdictions and market structures which allow different methods to increase the fund's market exposure beyond its net asset value. Moreover, national legal requirements could limit the use of leverage in certain funds such as retail funds or funds for institutional investors (e. g. limits for borrowing of cash, limits for using derivatives, and special requirements for borrowing of securities). Even if the use of methods by which the fund manager could increase the fund's exposure differs among investment funds on micro level around the world, the metric for the calculation of the market exposure for identifying macro-economic risks should be based, in principle, on the same method. Such an approach would efficiently ensure a sustainable and meaningful understanding and monitoring of leverage for financial stability purposes.

Therefore, we strongly request IOSCO to define one unified and clear metric for the proposed first step. We propose to keep the metric as simple as possible. In our view, an adjusted gross

[1] BVI represents the interests of the German fund industry at national and international level. The association promotes sensible regulation of the fund business as well as fair competition vis-à-vis policy makers and regulators. Fund companies act as trustees in the sole interest of the investor and are subject to strict regulation. Funds match funding investors and the capital demands of companies and governments, thus fulfilling an important macro-economic function. BVI's more than 100 members manage assets of some 3 trillion euros for private investors, insurance companies, pension and retirement schemes, banks, churches and foundations. With a share of 22% in the EU Germany represents the largest fund market as well as the second fastest growing market in the EU. BVI's ID number in the EU Transparency Register is 96816064173-47. For more information, please visit www.bvi.de/en.

BVI
Bundesverband Investment und Asset Management e.V.

Contact
Phone +49 69 15 40 90 0
www.bvi.de

BVI Berlin
Unter den Linden 42
10117 Berlin

BVI Brussels
Rue du Trône 14–16
1000 Bruxelles

BVI Frankfurt
Bockenheimer Anlage 15
60322 Frankfurt am Main

Executive Board
Thomas Richter CEO
Rudolf Siebel MD

notional exposure (GNE) approach (with moderate amendments compared to the adjusted GNE proposed by IOSCO) is particularly suitable.

Moreover, one of the important issues is the need at least to agree on global non-bank data reporting and exchange standards with the industry to enable better regulation and supervision. In particular, removal of regulatory provisions which hinder the efficient functioning of the capital markets should be considered an overarching priority. For financial stability purposes it is necessary that IOSCO defines on a global level which kind of data and in which frequency national competent authorities should collect data about leverage. This important task should not be left solely to national authorities. For a common and global understanding of systemic risks and in avoiding burden for cross border activities of asset managers, it is important that all managers of funds report such data in a uniform way and all supervisory authorities have a uniform understanding. With better data exchange cross border intervention by several regulators needing to act together can be better tailored to individual situations and markets.

Therefore, we propose a single regulatory reporting mechanism which would reduce operational effort and burden for asset managers as well as supervisory authorities, and which would nicely meet the G20 aim of improving data collection and exchange. In particular, it could be helpful to set a reporting threshold for small-sized funds (such as funds whose assets under management do not exceed € 500 million) and funds with low leverage (based on the metric proposed above). Such a threshold would ensure that information relating to the build-up of systemic risk is collected throughout the world in a consistent way and provides certainty to all investment funds. However, competent authorities may request additional information where necessary for the effective monitoring of systemic risks.

In this context, we also very welcome the proposed step 2 to focus on risk-based analysis on the subset of funds identified in step 1. In particular, **we support IOSCO's view that it should be up to each jurisdiction to determine the most appropriate risk assessment to undertake, depending on the characteristics and investment strategies of each fund.**

However, we strongly disagree with the proposed examples for counterparty risk in Appendix C of the consultation paper based on tables and formulas for the use in the banking sector (such as BASEL III and BIS/IOSCO). We expressly request IOSCO to delete these examples based on banking requirements.

Step 1: Analysis of potential metrics

Questions on GNE

Question 1: Do respondents agree with the discussion above concerning the information that can be provided by this metric as well as its limitations?

As described by IOSCO, the GNE without adjustments represents the gross market exposure of a fund which is calculated by summing the absolute values of the notional amounts of a fund's derivatives and the value of the fund's other investments. We agree that the GNE has its advantage by applying a basic method which is consistent across different types of funds and by using simple data points. However, we not agree with the following alleged limitations of the GNE metric:

- It is not a limitation that the GNE does not reflect the fact that a fund could be using derivatives for hedging or other purposes. In fact, the GNE indicates the extent of usage of any kind of market exposure that is necessary for a macro-prudential supervision. Because netting and hedging arrangements are crucial in determining the market exposure of the fund and therefore the degree of leverage, the existent provisions of different legislations for calculating the market exposure following the approach of Net Notional Exposure (NNE) can be very misleading for some portfolios, for example for funds which pursue strategies with vega exposure (volatility risk) or use non-linear derivatives exposed to higher moments (e.g. gamma or convexity) risk.

- It is not a limitation that the GNE does not differentiate between exposures to different asset classes. The aim of the metric is to identify funds which may pose a risk to financial stability as a first step on a macro level. The outcome of the leverage degree is not a risk figure rather than a purely technique that allows to assess whether there could be a risk. Therefore, the GNE is designed to calculate a simple metric that allows competent authorities to analyse weather there is a need to look through to the potential risks of the individual fund. Analysing the risks of certain asset classes could be an outcome of step 2, where appropriate and required. Therefore, we do not see the need to compare the leverage amount by types of funds or asset classes in step 1.

- As well as the outcome of the leverage degree is not a risk figure, the value of each calculated fund's market exposure is not a risk figure that could be aggregated. The GNE only gives an expectation of the market exposure of each individual fund that is not comparable with other funds' gross exposures. There is no added value to aggregate the multiple funds' gross exposures to create a picture of the fund's overall market exposure. Hence, competent authorities (will) get an overview of the overall market situation by screening supplementary data points that are generally objective and are already collected in many jurisdictions (such as the AIFMD reporting in Europe). Therefore, we disagree that it would be a limitation that there could be risk that the aggregate figure may present an incomplete, and potentially misleading, picture of the fund's overall market exposure.

The only limitation of the GNE is that it tends to overstate leverage, in particular when the fund uses options. The calculation of GNE involves that derivative instruments should be converted into the market value of the equivalent underlying position. We share the approach to set forth a non-exhaustive table of definitions of the method that a fund might determine the notional amount for certain simple or standard derivatives. However, contrary to the introduction text of Appendix A of the consultation paper, the proposed examples for calculation are not equal to the gross method of the AIFMD (cf. Annex II of the Delegated Regulation (EU) 231/2013) and of the CESR Guidelines for UCITS[2]. The European legislator correctly concluded that options should be delta adjusted because changes in the price movements of the underlying are not 1:1 correlated with the price movement of the options and therefore including the notional value of the option would not be the 'equivalent position'. Therefore, this effect must be taken into account in avoiding to overstate the leverage.

In addition to the proposed conversion methodologies listed in Appendix A of the consultation paper (as well as under the AIFMD and the CESR Guidelines for UCITS), we have the following suggestions regarding certain conversion formulas:

[2] Cf. CESR's Guidelines on Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS (Ref. 10-788).

- **For swaps**: The definitions used in Appendix A of the consultation paper and in Annex II of the Delegated Regulation (EU) 231/2013 as well as in CESR Guidelines for UCITS vary. There should be a consistent approach and understanding.

- **For bond futures**: According to the explained formula (number of contracts * notional contract size * market price of the cheapest-to-deliver reference bond), it is not easy to identify the "market price of the cheapest-to-deliver reference bond" because this bond could be subject to variation. Therefore, we would like to propose to take the future price into account that would simplify the conversion formula for futures as follows:

  Bond future: Number of contracts * notional contract size *** future price**

  Moreover, the formula proposed by IOSCO leads to a severe underestimation of the GNE. For example, Euro-Bund-Futures (Fixed Income Futures on long-term debt instruments issued by the Federal Republic of Germany) are priced currently about 165, whereas the CTD is quoted at 104. Therefore the GNE would be too low by a factor of 0.63.

Question 2: Do respondents see merit in scoping out of step 1 assessments certain funds, such as for example, smaller funds? Please elaborate.

Yes. Such an approach is well known in Europe. In particular, the AIFMD provides a lighter regime for management companies which either manage portfolios of AIFs whose assets under management in total do not exceed € 100 million or manage portfolios of AIFs whose assets under management in total do not exceed € 500 million when the portfolios of AIFs consist of AIFs that are unleveraged and have no redemption rights exercisable during a period of 5 years following the date of initial investment in each AIF. Although the activities of the funds concerned are unlikely to have individually significant consequences for financial stability, it is possible that aggregation causes their activities to give rise to systemic risks. Consequently, those managers should, inter alia, provide their competent authorities with relevant information regarding the main instruments in which they are trading and on the principal exposures and most important concentrations of the funds they manage.

A comparable approach also applies in Luxembourg[3] for the UCITS reporting. UCITS meeting one or both of the following criteria have to provide reporting sheets with detailed risk data:

- UCITS with total net assets at the reporting reference date equal or higher than € 500 million;

- UCITS using the Value-at-Risk (VaR) method for calculating the global exposure as further detailed by CESR's Guidelines for UCITS with an arithmetic average leverage (calculated as the sum of the notionals of the derivatives used) over the reference semester greater than or equal to 250% of the UCITS total net assets.

Therefore, it could be helpful to set a threshold for small-sized funds (such as funds whose assets under management do not exceed € 500 million) and funds with low leverage. Such a threshold would ensure that information relating to the build-up of systemic risk is collected throughout the world in a consistent way and provides certainty to all investment funds. However, competent authorities may request additional information where necessary for the effective monitoring of systemic risks.

[3] Available under the following link: http://www.cssf.lu/fileadmin/files/Metier_OPC/GuidelinesUCITSreporting122018.pdf.

Question 3: Is this an appropriate metric to use as part of this two-step framework? Does it provide any information that is not provided by the other potential step 1 metrics discussed below?

We request IOSCO to define one unified and simple metric for the proposed first step. In our view, the Gross Notional Exposure (GNE) approach without adjustments is not appropriate to identify funds which may pose a risk to financial stability as a first step on a macro level because it tends to overstate leverage, in particular when the fund uses options (please see our answers to questions 1 and 5).

Questions on Adjusted GNE

Question 4: Do respondents agree with the discussion above concerning the information that can be provided by this metric as well as its limitations?

As described by IOSCO, the adjusted GNE is based on the GNE metric with adjustments for interest rate derivatives and options. With regard to the limitations of the GNE metric, we refer to our answer to question 1.

Question 5: Do respondents agree with the proposed adjustments of the gross notional exposure? To what extent would these adjustments provide improvements to the listed metrics and address the concern that metrics based on gross market exposure could overstate a fund's market exposure? Would respondents favour further adjustments and if so which one(s)? For example, should a measure of adjusted gross notional exposure consider adjusting a derivative's notional amount based on the volatility of the underlying reference asset? If so, what would be an appropriate measure of volatility? What other adjustments would be appropriate and why?

Options: As explained above (answer to question 1), options should be delta adjusted because changes in the price movements of the underlying do not have a 1:1 correlation with the price movement of the options and therefore including the notional value of the option would not be the 'equivalent position'. Hence we agree with the proposed adjustment because this effect must be taken into account in avoiding to overstate the leverage.

Interest rate derivatives:

a) **Ten-year bond equivalents**: The proposed ten-year bond equivalent is not a common market practice in Europe, in particular, it is not consistent with the AIFMD requirements in Annex III of the Delegated Regulation (EU) 231/2013.

b) **Target duration: We disagree with the proposal to adjust the fund's interest rate derivatives relative to the fund's target duration, for funds that have target durations.** Target duration means the portfolio market value sensitivity to interest rate movements. The calculation is very complex and could lead to difficulties and inaccurate results. In particular, the target sensitivity of the fund can be longer than the sensitivity of the derivative while the equivalent underlying position is relatively small. This can result in high levels of leverage within the fund. Moreover, the target duration may be defined quite arbitrarily, for example in cases of funds with long duration which invest in very short-term derivatives.

c) **Short-term interest rate (STIR) futures:** We would like to propose further adjustments for STIR futures. The general formula for interest rate futures considers simply the 'number of contracts * the notional contract size'. This formula overstates the leverage because it does not consider the risk exposure as the quantified potential for loss that might occur as a result of some activity. We therefor propose to take also account of the lifetime element of the instrument.

Example:

The notional amount (or notional principal amount or notional value) on a financial instrument is the nominal or face amount that is used to calculate payments made on that instrument. This amount generally does not change hands and is thus referred to as notional.

Therefore in the case of the purchase of one Euribor Future (front month) contract on the Eurex, where the contract size is € 1 Million, the contract should be considered on annualised basis (as it concerns an annualised interest rate).

According to the contract definition the contract months run into the future for up to 60 months: i.e. the twenty nearest quarterly months of the March, June, September and December cycle. The front month contract is defined as the next quarterly expiry from the time of purchase/sale.

Variation margin payments on the three month interest rate futures contract reflect the loss/profit that might occur and are calculated on the basis of the price quotation (in percent) with four decimal places, expressed as 100 minus the traded rate of interest and take account of the time factor (term) of the contract. The minimum price change for one Euribor (STIR) contract is 0.0025 points, equivalent to a value of € 6.25.

The notional value to pay for one contract = the price change/100 (as price is a percentage) * contract size * lifetime of the 3 month contract

Example for one contract: Amount to pay per contract = 0.0025/100 * 1,000,000 * 90/360 = € 6.25

Therefore the notional contract size for interpretation in the market exposure calculation, for such a cash settled future must take account of the lifetime element of the instrument and thus can be regarded as follows for each three month futures contract as: € 1,000,000 x 90/360 = € 250,000

Volatility: Funds that deal significantly with volatility (e.g. volatility swaps), credit spreads (e.g. CDS), or commodities could have as a benchmark component a volatility index (e.g. VIX), a basket of CDS (e.g. ITRAXX), or a commodity index (e.g. IPD).

Question 6: With respect to the duration adjustment, do respondents agree that it would be appropriate to express interest rate derivatives as ten-year bond equivalents? Would respondents favour adjusting the fund's interest rate derivatives relative to its target duration rather than a ten-year bond equivalent? If the "10-year-bond equivalent" approach were preferred, which reference bond(s) should be used depending on market? If the "fund's target duration" were preferred, what should be done with the funds that have no target duration? Are there alternative approaches that should be considered? Which ones and why?

We disagree to use the target duration as an adjustment. We refer to our answer to question 5.

Moreover, according to the European requirements, only funds which primarily invest in interest rate derivatives **may** make use of specific duration netting rules in order to take into account the correlation between the maturity segments of the interest rate curve. In this context, the proposed calculation is not equal to the duration netting rule of Annex III of the Delegated Regulation (EU) 231/2013, in particular, the formula and the maturities ranges. Furthermore, duration netting rules only apply in Europe when the manager calculates the exposure of funds according to the commitment method (as the net notional exposure with netting and hedging). Duration rules are not allowed under the GNE approach in Europe.

Moreover, the proposed 'ten-year-bond equivalent' would be informative only to a limited degree and would favour bond funds. Its implementation (also on micro level) could lead to an administrative burden because not all data are available for the calculation, in particular those that are necessary for identifying a reference bond. **Therefore, if the 'ten-year-bond equivalent' approach were preferred as an option, the formula should be very simple without a reference bond**.

However, if a reference bond were required, one of our members provided the following example for a reference bond:

> "A ten-year synthetic government bond denominated in the fund currency with a coupon of 6 per cent would be conceivable (see underlying of Euro-Bond-Future: fictional bond of the Federal Republic of Germany with a coupon of 6 per cent and a remaining term of ten years on the delivery day of the futures). "

Question 7: Are there any funds that could be missed as a result of an analysis using adjusted gross notional exposure metrics but may warrant further regulatory attention? For example, a fund that invests significantly in investments with embedded leverage (e.g., an inverse floating rate note) may have a low gross notional exposure while nonetheless having highly volatile returns. As another example, if options are delta adjusted, would this raise the concern that a deeply out-of-the money option (with a corresponding low delta) could be given a very low adjusted gross notional exposure value but could represent a significant risk? If respondents agree with this risk, how could it be mitigated?

From a European point of view, we already use adjusted GNE metrics. We do not see any need to define further metrics that may warrant further regulatory attention.

Questions on NNE

Question 8: Do respondents agree that information about a fund's net exposure, when used in conjunction with metrics based on gross market exposure, may provide additional information about a fund's potential leverage? Please elaborate.

As described by IOSCO, the Net Notional Exposure (NNE) considers the extent to which the fund's investments may be netted, i. e., where some positions eliminate all or part of the risks linked to other positions. This metric considers a fund's net exposure, in conjunction with metrics based on gross market exposure, and may help correct some of the limitations of GNE and adjusted GNE.

NNE is one of the longest established types of leverage definition found in asset management regulation which clearly encompasses a broad range of fund types and is intended to cover the implied risk basic investment strategies. Derivative exposures are converted into equivalent positions after netting

and hedging. The challenge lies in proving the proper netting characterisation of the used derivatives. This may result in difficulties to reach an easy to understand comparison between the funds. It reaches some limitation in properly covering risk factors that change quickly in stressed market conditions. The regulation followed a more sophisticated approach for complex strategies to better grasp their "riskiness". The information about a fund's net exposure may provide additional information about a fund's potential market risk. **However, the NNE approach is not designed to define a simple metric to identify funds which may pose a risk to financial stability as a first step on a macro level.**

Question 9: To what extent should netting assumptions be considered to ensure that netting conventions applied may not impair consistent calculation of one fund's net exposure to another and from one jurisdiction to the other? We invite respondents to comment on the approach set forth in Appendix A.

In our view, the NNE approach should be further used on a micro level, for instance to inform investors about the market risk of the investment fund. In this context, it could be helpful to review the existent netting and hedging rules. The proposed approach in the consultation paper to combine trades on derivative instruments and/or securities position referring to the same underlying assets is comparable to the European UCITS and AIF regime, but with a limited set of assumptions under which netting would apply. In view of the fact that the NNE approach is already established in Europe, a limited set of assumptions could have the disadvantage that not all risks could be taken into account. Therefore, the current European requirements established in the CESR Guidelines for UCITS and under the commitment method of the AIFMD framework as well as the practical experiences should be considered. We are willing to closely cooperate with IOSCO and the NCAs to exchange views and interpretations on the various existing netting and hedging rules and their pros and cons for the different types of investment funds.

Question 10: Do respondents agree with the proposed conditions of currency hedging arrangements?

We disagree with the proposed new approach for currency hedging arrangements because it seems difficult to implement. According to the European requirements, derivative instruments used for currency hedging purposes and that do not add any incremental exposure, leverage or other risks shall not be included in the NNE calculation. We are in favour to further use this approach for the calculation of the NNE.

Question 11: Are there any funds that may warrant further regulatory attention but that could be missed as a result of an analysis using NNE based on the approach proposed in Appendix A?

We do not see any need to define further metrics that may warrant further regulatory attention.

Question 12: Would information that serves as a proxy for potential offsetting relationships be informative when evaluating a fund's potential leverage? How comparable would these proxies be across jurisdictions? Do respondents believe the examples discussed above would be informative? Are there other proxies that would be informative?

We disagree with the proposed second NNE approach to consider information by asset class or sub-asset class that indicates possible netting (or hedging) relationships among a fund's position without seeking to define mechanistic rules to identify specific trades that may be netted. IOSCO refers, for example, to cases where regulators collect information about the allocation of a fund's exposure to long and short positions. In this context, IOSCO proposes that the regulator could

view those proportions as a proxy for potential offsetting relationships amongst the fund's position, particularly if the regulator collects this information by asset class or sub-asset class. These data collections are not implemented in all jurisdictions. Moreover, competent authorities would be required to assess the risks posed by the funds by their own analysis systems. The proposed metric by asset classes does not define a calculation method of market risk exposure of the fund. Hence, this proposal is focused on reporting requirements. This could be, if necessary, a method used by competent authorities to identify certain risk in step 2, but not in step 1. In this context, we also disagree to define the proposed netting based on maturity buckets explained in Appendix A as a binding metric for step 1.

We think it is the quite wrong approach to overrule the established reporting requirements around the world with the SEC's Form PF approach. Rather, we need at least to agree on global non-bank data reporting and exchange standards with the industry to enable better regulation and supervision. For financial stability purposes it is necessary that IOSCO defines on a global level which kind of data and in which frequency national competent authorities should collect data about leverage. For a common and global understanding of systemic risks and in avoiding burden for cross border activities of asset managers, it is important that all managers of funds report such data in a uniform way and all supervisory authorities have a uniform understanding. With better data exchange cross border intervention by several regulators needing to act together can be better tailored to individual situations and markets. **We therefore propose to focus only on the data needed for the calculation of the adjusted GNE (adjusted with regard to options).**

Questions on GNE, Adjusted GNE or NNE

Question 13: GNE represents the gross market exposure of a fund which is calculated by summing the absolutes values of the notional amounts of a fund's derivatives by asset class plus the value of the fund's other investments by asset class, as noted above. Should cash and cash equivalents be included in the calculation of exposure, or not? Please explain.

Cash and cash equivalents should be excluded from the calculation of the GNE as they are not deemed to increase exposure. It is important that the managers can use their judgement as to whether a position should be considered as cash or cash equivalent. The AIFMD requirements already consider this approach in such a way that the manager shall exclude the value of any cash and cash equivalents which are highly liquid investments held in the base currency of the fund, that are readily convertible to a known amount of cash, are subject to an insignificant risk of change in value and provide a return no greater than the rate of a three-month high quality government bond (cf. Article 7 of the Delegated Regulation (EU) 231/2013). These instruments are readily convertible to a known amount of cash, subject to an insignificant risk of changes in value and which provide a return no greater than the rate of the 3-month high quality government bond and are ancillary to the investment strategy of the fund.

Question 14: Should the greater of the cash borrowed and the current value of the assets purchased with the borrowings be retained when calculating the metrics or should it consider, once cash is reinvested that the value of the corresponding investment should be used? In some jurisdictions, regulatory calculations include the greater of the amount of cash borrowed or the value of the investments purchased with the borrowing. For example, if a fund borrows $100 and invests all of it in securities that later decline in value to $50, under this approach the calculation would include the greater amount of the cash borrowing, rather than the value of the security. Please elaborate.

We refer to the existent approach under the AIFMD requirements in Article 7 of the Delegated Regulation (EU) 231/2013 that

a) exclude cash borrowings that remain in cash or cash equivalent as referred to in point (a) and where the amounts of that payable are known and
b) include exposure resulting from the reinvestment of cash borrowings, expressed as the higher of the market value of the investment realised or the total amount of the cash borrowed.

Question 15: GNE and adjusted GNE discussed above, are both presented on a gross basis, that is, the metrics represent the sum of the absolute values of long and short positions and by asset class, without any netting or hedging. Where positions are closed out with the same counterparty and result in no credit or market exposure to the fund, should they be excluded from these metrics? This would be consistent with data reporting on the SEC's Form PF, for which advisers do not include these closed-out trades when reporting the aggregate value of all derivatives positions. For example, if a fund enters into a future contract to sell a given commodity, and then enters into a contract to buy the same commodity for the same delivery month on the same futures exchange in order to eliminate the fund's exposure under both contracts, should the metrics exclude those contracts' notional amounts from any exposure figure?

In our view, it is important that transactions which have the same maturity and the same counterparty (such as DTGs with the same currency) are excluded from the calculation because they do not result in any market exposure of the fund.

Presentation of GNE, Adjusted GNE or NNE by asset class

Question 16: Would notional exposure metrics allocated across asset classes allow for more effective step 1 screening for leverage and leverage-related risks than aggregating a fund's exposure into a single figure? That is to say, would this approach more effectively achieve the goal of step 1—efficiently excluding from consideration funds that are unlikely to pose significant leverage-related risks and which thus do not warrant further analysis? Do respondents further believe that the additional inclusion of a "total" aggregated number could be of interest under the proposed approach? Please elaborate.

We refer to our answer to question 12. We disagree with the NNE by asset class because such a metric does not define a calculation method of market risk exposure of the fund. This could be, if necessary, a method used by competent authorities to identify certain risk in step 2, but not in step 1.

Question 17: How granular should the split of asset classes be? Would the more granular presentations in Form PF and AIFMD requirements, for example, be most informative? Should the answer depend on the type of fund or regulations that apply to the fund's use of leverage (i.e., more granularity where the regulatory scheme permits greater leverage)? Would allocating exposure across major asset classes such as equities, commodities, credit, interest rates, or currencies, provide sufficient information?

We refer to our answer to question 12. We disagree with the NNE by asset class because such a metric does not define a calculation method of market risk exposure of the fund. This could be, if necessary, a method used by competent authorities to identify certain risk in step 2, but not in step 1.

Question 18: Would it be helpful to examine other details that could supplement the allocation of a fund's exposure by asset class - for example, identifying the types of derivatives instruments in which a fund invests? Different derivatives instruments can have different risks associated with them, such as different counterparty risk, or a linear risk profile (e.g. futures) versus a non-linear risk profile (e.g., options). A fund's allocation of exposure across asset classes also could include the relevant counterparty, or those counterparties to which the fund has significant exposure. Would this information be useful in evaluating potential impacts of a dealer or central counterparty coming under market stress? Do respondents think that such additional data points would provide useful information, taking into account allocation of exposure across asset classes? What other data points might be helpful in this regard?

We refer to our answer to question 12. We disagree with the NNE by asset class because such a metric does not define a calculation method of market risk exposure of the fund. This could be, if necessary, a method used by competent authorities to identify certain risk in step 2, but not in step 1.

Questions on supplementary data points

Question 19: Would these data points supplement step 1 metrics in a relevant manner? Do respondents believe that certain of these supplementary data points should be given more or less weight than others? Which ones and why?

Discussing relevant data points without knowing of the final metric for the first step is inefficient. **In our view, the important task of defining the relevant data points should be a second step and should be consulted separately by IOSCO.**

In any case, we propose a single regulatory reporting mechanism which would reduce operational effort and burden for asset managers as well as supervisory authorities, and which would nicely meet the G20 aim of improving data collection and exchange. The challenge would be to get an overview of the already existent data available for analysing potential risks of investment funds. In Europe, for instance, certain data are already available. However, the threatening jumble of different data standards and formats in regulatory reporting presents a huge burden for both the industry and the supervisory bodies in both operational and financial terms and impedes efficient supervision concerning the analyses of systemic risk within the financial markets. Enhancing consistency of regulatory reporting in terms of content is therefore strongly needed in order to enable the regulators across the board to use the stored data for the purpose of detecting systemic risk and to keep the administrative burden for market participants at a reasonable level.

Especially from the viewpoint of the supervised entity (e.g. investment fund management company) the intended purpose of the reporting is not always clear. Looking at the amount of often diverse but also often overlapping data points collected, there is the impression that the data requirements are defined by the rule of "as much as possible" instead of "as much as necessary". This impression is reinforced as it is not all transparent whether the data is really used or evaluated by the supervisory agencies. Better transparency why the data is collected and how it is actually used would help to improve market comprehension and acceptance.

The introduction of the EMIR reporting obligation in 2014 is a good example that central banks and national regulators face difficulties to analyse, aggregate and monitor systemic risk in the derivative market. Due to insufficient (regulatory) technical standards, the reporting entities sent their reports to the trade repositories without knowledge whether the reports of one reporting entity matched with the

reports of the other counterparty. Therefore, regulators were not able to use the reported data for the purpose to analyse the systemic risk in the derivative markets.

In any case, it could be helpful to set a reporting threshold for small-sized funds (such as funds whose assets under management do not exceed € 500 million) and funds with low leverage (based on the metric proposed above). Such a threshold would ensure that information relating to the build-up of systemic risk is collected throughout the world in a consistent way and provides certainty to all investment funds. However, competent authorities may request additional information where necessary for the effective monitoring of systemic risks.

Question 20: Are there other useful data points that would supplement step 1 metrics? Do respondents consider these or other data points as part of their leverage risk management? If so, which ones and how do respondents use them?

We refer to our answer to question 19.

Questions on step 1

Question 21:
a) Should we consider other metrics than the one consulted on? If so, which one(s) and why?
b) What's your view of the metrics detailed in appendix B?

a) We currently do not see any need to define further metrics on step 1 that may warrant further regulatory attention.

b) The introduced additional metrics of stress-based leverage and worst loss measure could be helpful to further analyse certain market risks. However, they could be, if necessary, used by managers or competent authorities in step 2 on a voluntary basis. Managers which already use these methods as well as competent authorities could monitor the further developments and the merit of these metrics.

Articulation of one or more step 1 metrics with supplementary data points

Question 22: Do respondents agree that none of the metrics analysed can alone provide an accurate measure of leverage of a given fund or a group of funds? Would a combination of the suggested metrics or one of such metrics with supplementary data point suffice to meaningfully monitor leverage and identify funds that may need further risk assessment regardless of the market conditions? Please elaborate.

We request IOSCO to define one unified and clear metric for the proposed first step. We propose to keep the metric as simple as possible. In our view, an adjusted gross notional exposure (GNE) approach (with moderate amendments explained above) is particularly suitable.

Question 23: What are the challenges associated with the collection of data for each metric and/or of the supplementary data points suggested? Is the information readily available?

We agree that regulators should collect data about the use of leverage by funds for risk monitoring purposes using a consistent and comparable measure of leverage. This is complicated in light of the existence of multiple definitions of leverage. For a common and global understanding of systemic risks, it is important that all managers of funds report data about leverage in a uniform way. However, discussing relevant data points without knowing of the final metric for the first step is inefficient. In our view, the important task of defining the relevant data points should be a second step. We are willing to closely cooperate with IOSCO and the NCAs to exchange views and interpretations on the necessary data.

In any case, IOSCO should define which kind of data and in which frequency national competent authorities should collect data about leverage. Depending on existing data available, IOSCO should analyse possible data gaps and recommend additional reports, where necessary. However, the technical implementation of the current calculation methods and respective reports has been expensive and costly. Therefore we recommend taking the existing European legislations into account. In this context, IOSCO should take into account that under the current legislation in the EU data about leverage in funds are already available.

Question 24: Are there other approaches, rather than the two-step framework and alternatives identified above, that respondents believe we should consider? If so, what are these approaches and what are their advantages and limitations?

No.

Question 25: Is there one or more step 1 metrics, or specific supplementary data points, or both, that may be effective in facilitating a cross-border regulatory dialogue if collected across jurisdictions? If so, which metrics and/or data points and why?

In our view, an adjusted gross notional exposure (GNE) approach (with moderate amendments explained above) is effective in facilitating a cross-border regulation dialogue.

Analysing Funds in Step 2

Question 26: Do respondents believe that step 2 effectively reflects the inherent limitations in step 1 measures by recognising that, in step 2, regulators seeking to identify leverage-related risks may need to perform risk-based analyses that move beyond step 1 metrics? Why or why not?

We very welcome the proposed step 2 to focus on risk-based analysis on the subset of funds identified in step 1. In particular, we support IOSCO's view that it should be up to each jurisdiction to determine the most appropriate risk assessment to undertake, depending on the characteristics and investment strategies of each fund. The NNE approach as well as examples for market risk proposed by IOSCO in Appendix C (such as the value at risk approach and the portfolio sensitivity) could be options for such assessments.

However, we disagree with the proposed examples for counterparty risk based on tables and formulas for the use in the banking sector (such as BASEL III and BIS/IOSCO). We expressly request IOSCO to delete these examples based on banking requirements. Banks are materially different from asset management as they carry the risk of investment on their own balance sheets. This

applies all the more as already strict requirements (such as EMIR) with regard to counterparty risk are in place in the European Union.

Question 27: What types of more tailored or bespoke analyses do respondents believe would be most effective in step 2? Are there analyses that respondents perform, or data points that respondents consider, as part of their leverage risk management that they believe regulators should consider as potential step 2 approaches? Which ones and why?

From a German point of view, most of the funds are not substantially leveraged. The use of leverage is limited in Germany by legal requirements as a result of the micro-prudential supervision (such as legal limits for the use of derivatives and borrowing agreements). According to a survey within our membership in 2016, the exposure of nearly all German AIFs relating to borrowing arrangements and derivative instruments (with hedging and netting) does not exceed leverage on a substantial basis (three times the fund's net asset value). Moreover, all German AIFs observe the UCITS limit on global exposure to derivative instruments. We therefore do not see any need for further analyses in step 2.

Hence, the already implemented AIFMD reporting is designed to provide adequate findings in this regard. Therefore, as a first step, ESMA should be called upon to analyse the already reported data of AIFs. Only in the case that there is a need for more action, risk measures could be an instrument to overview systemic risks. Therefore, it must be avoided to set new risk indicators for reasons of macro-prudential supervision but with an effect that NCAs would be required to set these limits/indicators in their own supervision for individual funds.