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IOSCO Recommends Framework for Assessing Fund Leverage

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ICI Global Members SUBJECTS: Derivatives
International/Global
Systemic Risk RE: IOSCO Recommends Framework for Assessing Fund Leverage

The International Organization of Securities Commissions recently recommended a two-step framework to regulators to facilitate more meaningful and consistent monitoring of fund leverage across jurisdictions for financial stability purposes.[1] The framework generally is consistent with IOSCO's November 2018 consultation on draft recommendations,[2] which ICI largely supported.[3] With the first step, regulators would use a gross notional exposure ("GNE")-based metric as a baseline analytical tool to identify those funds that are more likely to pose risks to the financial system. In this step, regulators could capture specific information on fund positions, including their directionality, through data separated by asset class and long and short positions. With the second step, regulators would employ risk-based measures to conduct a risk analysis of the subset of funds identified in step one.

Based on data available to it, IOSCO will publish an annual report reflecting global leverage trends within the asset management industry beginning in 2021.

IOSCO's leverage framework aims to address a Financial Stability Board recommendation to IOSCO "to identify and or develop consistent measures of leverage in funds to facilitate more meaningful monitoring of leverage for financial stability purposes and to help enable direct comparisons across funds and at a global level."[4]

Below we provide more detail on the framework, which includes four specific recommendations.

Recommendation 1: IOSCO recommends that regulators use a two-step analysis in assessing and monitoring leverage. Step one uses a GNE-based metric to measure leverage and identify and analyze funds that may pose risks to financial stability. Step two involves further risk analysis of the subset of funds identified in step one.

In describing the general framework, IOSCO explains the rationale for each step. Step one intends to enable regulators to efficiently identify funds that are more likely to pose risks to

the financial system using a GNE-based metric to filter and select a subset of investment funds for further analysis. IOSCO does not prescribe specific metrics or analytical tools for step two, because some measures or analyses are appropriate for some funds but not others. Instead, it leaves those up to regulators, who IOSCO believes are in the best position to appropriately assess fund risk.

The general framework also includes a definition of "fund leverage" and explains the challenges of measuring it. It defines "fund leverage" as the ratio of the fund's market exposure (however defined) over its net asset value.[5] Because derivatives use may not necessarily increase fund leverage, IOSCO states that derivatives use should not be seen as synonymous with amplification of risks and returns.

IOSCO notes that the difficulties in comparing leverage across jurisdictions stem from differences in rules, measurements, and monitoring. These include differences in the availability of data in those jurisdictions. IOSCO notes that, while the details of measurements are not identical, there is substantial overlap in the types of information covered. It states that the framework is based on existing measures that regulators collect, while facilitating collaboration across jurisdictions.

Recommendation 2: IOSCO recommends that regulators collect GNE or "Adjusted GNE" by asset class, and long and short exposure. Regulators can complement the GNE or Adjusted GNE analysis with net exposure measures using either a rules-based or analytical-based netting and hedging approach. In assessing fund leverage, which may pose significant leverage-related risks to the financial system, regulators may act, when and to the extent they deem appropriate.

Recommendation 2 provides additional information about step one of the framework, discussing ways that regulators can analyze a fund's exposure.[6] It provides two measures of gross exposure – GNE and "Adjusted GNE" – and demonstrates how those GNE-based metrics can be analyzed by classifying the exposures by asset class and long and short positions. IOSCO recommends a combination of gross and net exposure to better reflect a fund's potential leverage and to address the limitations of solely using gross exposure metrics. IOSCO recommends that regulators consider factors relevant in their respective jurisdictions to determine whether particular funds present leverage-related risks that warrant the collection of exposure-based or other metrics, including supplementary data points, as part of the framework. It also states that circumstances vary across jurisdictions and that regulators must consider proportionality while minding the need to preserve overall consistency.

Gross Notional Exposure. Regulators could capture GNE as a measure of gross exposure, summing the absolute values of the notional amounts of a fund's derivatives and values of the fund's other investments.[7] IOSCO recognizes the ease of computing this number and its application on a reasonably consistent basis across different funds using simple data points. It notes that the basic metric provides information about a fund's market footprint, however, it recognizes that GNE has several limitations, including that it could overstate a fund's exposure.[8]

Adjusted GNE. The IOSCO framework also contemplates using Adjusted GNE as a measure of gross exposure, which is computed the same way GNE is but that is modified for interest-rate derivatives and options.[9] Under the Adjusted GNE, a fund would scale its interest-rate derivatives notional amounts in terms of a ten-year bond equivalent or other appropriate bond or synthetic position that reflects risk-free interest rates. The duration (or

modified duration) of the interest-rate derivative would be presented relative to the duration of a ten-year equivalent position. A fund would delta adjust options to reflect the exposure the option creates to the underlying security by multiplying the option's notional amount by the option's delta.[10]

Both the interest-rate and options adjustments are designed to limit the overstatement of a fund's interest-rate derivatives and options.

GNE or Adjusted GNE by Asset Class. The framework recommends that regulators collect GNE or Adjusted GNE by major asset classes (such as equities, commodities, credit, interest rates, and currencies) and broken out by long and short positions that provide more meaningful information than simply summing those figures. This presentation enables regulators to see a fund's basic asset allocation and to distinguish funds with exposure to higher risk assets and the directionality of their positions. It also allows regulators to identify funds of interest and their exposure more meaningfully in a manner that provides better estimates of potential market exposure. IOSCO provides a sample template, by asset class and long and short positions:

Market Exposure

Investment Type

Position (base currency)

Percentage of Net Asset Value ("NAV")

Long

Short

Long

Short

Equity securities

Equity derivatives

Fixed income securities

Credit derivatives

Non-base currency holdings

Foreign exchange derivatives

Interest-rate derivatives

Commodities

Commodity derivatives

Cash and cash equivalents

Other

Net Exposure Measures. IOSCO states that regulators at their option can use net exposures to help identify whether a fund's derivatives positions create effective leverage positions or if they are being used to offset or otherwise limit the portfolio's exposures. IOSCO states that that the consideration of a net notional metric might be performed under two approaches:

- *Analyzing a fund's GNE or Adjusted GNE by asset class and long and short positions*, which provides information that allows a regulator to assess potential netting and/or hedging relationships among a fund's positions.
- *Rules-based approaches,* in which a regulator provides the conditions under which the netting and hedging relationships are determined.[11] IOSCO cautions, however, that this approach requires regulators to exercise care when setting the conditions to avoid excluding a particular fund's level of leverage. As an example, IOSCO cites to the AIFMD framework in which regulators define the circumstances under which positions will be permitted to net[12] and hedge.[13]

Supplementary Data Points. IOSCO clarifies that regulators can evaluate supplementary data points that generally are objective as part of the step one or step two analysis.

Recommendation 3: IOSCO recommends that in applying step two of the leverage framework, each regulator determines its own approach to defining appropriate risk-based measures to further analyze funds identified under step one that may potentially pose significant leverage-related risks to the financial system. Regulators may consider using the leverage-related risk measures the framework suggests, taking into account the fund's characteristics and potential market, counterparty, or liquidity risks.

IOSCO clarifies that step two of the analysis is designed to mitigate the inherent limitations of the step one metrics by recognizing that, to better understand leverage-related risks funds identified in step one potentially pose, regulators may need to perform risk-based analyses. It clarifies that a closer look at identified funds in step two does not reflect any presumption that such funds pose any risks to financial stability.

IOSCO recognizes that some risk-based measures or analyses are appropriate for some funds and not others.[14] It concludes that there is no one-size fits all risk-based approach, measures, or methodologies that may be standardized across funds and jurisdictions.

Thus, as part of step two, IOSCO lists several factors and/or data points that regulators could consider, including:[15]

- Availability of assets to meet margin or collateral calls
- Percentage of cleared and uncleared transactions
- Posted or received collateral or margin, as a percentage of NAV
    - Cash and cash equivalent collateral
    - Security collateral (other than cash)
    - Other collateral (letters of credit or other)
- Amount re-hypothecated or allowed to be re-hypothecated
- Holding of cash or cash equivalents
- Value of aggregate borrowings and cash financings available to the fund (drawn/undrawn, committed/uncommitted credit lines, term financing) (absolute amounts)
- Percentage of assets under management/total net assets ("TNA") that can be liquidated in a day

Data points to estimate the effects of changes in market factors:

- DV01[16] and CS01/SDV01[17] for interest-rate and credit-sensitive instruments
- Estimates of the change in fund value in response to prescribed changes in market factors
- Betas, or the measurement of an investment's volatility relative to the market, with respect to instruments referencing equities, FX and commodities
- VaR measures (*e.g.*, absolute VaR or relative VaR, showing how the fund's VaR compares with the VaR of a benchmark)

Other general information about the fund:

- Geographical regions (North America, Europe, etc.) and/or markets invested in (developed, emerging, mixed)
- Investor split between retail/institutional (absolute amounts and/or percentage of TNA)
- Potential size of fund relative to the underlying market

- Investment strategy
- Counterparty exposures held by fund toward its counterparties (absolute amounts and percentage of NAV)
- Counterparty exposures held by third parties toward the fund (absolute amounts and percentage of TNA)
- Leverage structure (*e.g.*, amount of cash borrowings, including external/prime broker financing, as a percentage of NAV)
- Cash lenders to the fund (absolute amounts and/or percentage of TNA)
- Securities lenders to the fund (absolute amounts and/or percentage of TNA)
- Liquidity demands, taking into account target investor base, investor profiles, and expected redemption patterns under normal and stressed market conditions
- Respective values of securities financing techniques (securities lending, repurchase and reverse repurchases transactions and borrowings) as absolute amounts and/or percentage of NAV, together with minimums, maximums, and arithmetic average

Recommendation 4: IOSCO recommends that regulators that do not already make the following leverage data publicly available do so, or annually provide: (i) GNE or Adjusted GNE aggregated by asset class, including long and short exposures for funds assessed in step one; and (ii) criteria of exclusion used to exclude funds from step one, along with the aggregate amount of assets under management of funds excluded in proportion to the total assets under management within their jurisdiction.

IOSCO will begin aggregating data in 2020 and will issue its first report in 2021.

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endnotes

[1] *See* IOSCO, Recommendations for a Framework Assessing Leverage in Investment Funds (Dec. 13, 2019), *available at* https://www.iosco.org/library/pubdocs/pdf/IOSCOPD645.pdf.

[2] For a summary of IOSCO's November 2018 consultation, see ICI Memorandum No. 31511, *available at* https://www.ici.org/my_ici/memorandum/memo31511.

[3] For a summary of ICI's comment letter, see ICI Memorandum No. 31595, *available at* https://www.ici.org/my_ici/memorandum/memo31595.

[4] The recommendation added that "IOSCO should also consider identifying and/or developing more risk-based measure(s) to complement the initial measures with a view to enhance authorities' understanding and monitoring of risks that leverage in funds may create. In both cases, IOSCO should consider appropriate netting and hedging assumptions and, where relevant, build on existing measures." *See* FSB, Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities (Jan. 12, 2017), *available at*: https://www.fsb.org/wp-content/uploads/FSB-Policy-Recommendations-on-Asset-Management-Structural-Vulnerabilities.pdf.

[5] IOSCO describes “leverage” as a technique that allows funds to increase potential gains and losses through increased market exposure (through financial instruments or borrowings) beyond its net asset value.

[6] Appendix B to the framework provides detailed examples of how to calculate and report GNE-based metrics.

[7] Appendix B to the framework provides a non-exhaustive table of examples showing how funds might determine the notional amounts for certain futures, forwards, options, and swaps. IOSCO states that it would expect both GNE and Adjusted GNE to exclude positions that are closed out with the same counterparty and result in no credit or market exposure to the fund.

[8] IOSCO identifies several limitations of GNE including that: (i) it does not reflect whether derivatives are used for hedging or other purposes; (ii) it may overstate a fund’s exposure; (iii) it could fail to capture those derivatives with less leverage but that present greater market risk; (iv) it does not differentiate between exposures to different asset classes, unless presented that way; and (v) if multiple funds’ gross exposures were aggregated, there is a risk that the aggregate figure may present an incomplete and misleading picture of the overall market exposure.

[9] Appendix B to the framework provides examples of how funds can scale interest-rate derivatives and delta adjust options.

[10] IOSCO cites an example of delta adjusting an option when a fund sells an at-the-money call option on a particular security with a notional amount of $100 and a delta of -0.5. In that case, the option would have a delta-adjusted notional amount of $50.

[11] Appendix B to the framework provides an example of a rules-based approach for determining whether positions could be treated as netting or hedging arrangements based on the Alternative Investment Fund Managers Directive (“AIFMD”) regulatory framework used in the European Union.

[12] Under AIFMD, a “netting arrangement” means a combination of trades on derivative instruments and/or securities positions referring to the same underlying assets.

[13] Under AIFMD, a “hedging arrangement” is a combination of trades on derivative instruments or security positions not referring to the same underlying asset if those trades are concluded solely to offset risks linked to positions taken through the other derivative instruments or positions.

[14] For example, IOSCO notes that: if a fund invests significantly in government bonds, a regulator may look to risk measures that include duration; if a fund is focused on corporate bonds, ratings and default models may be more appropriate; if a fund invests primarily in stocks, volatility risk measures may be most appropriate; and if a fund invests in alternative investments (such as real estate), diversification and liquidity risk and redemption conditions might be most relevant. IOSCO states that regulators also may analyze a fund’s specific holdings, counterparties or other factors, rather than or in addition to redemption conditions.

[15] Appendix C to the framework provides detailed examples of market risk factors (*e.g.*, portfolio sensitivity, value-at-risk (“VaR”) measures), counterparty risk factors (*e.g.*, potential loss estimates based on asset classes or whole-netted portfolios), and liquidity risk

factors (*e.g.*, based on margin calls), as well as supplementary data (*e.g.*, posted and received margin and/or collateral, value of cash and unencumbered cash, exchange-traded v. over-the-counter derivatives, amount of cash borrowings and synthetic borrowings, value of borrowings and cash financings available to the fund) that regulators could consider as part of the step two analysis.

[16] DV01 is the estimated change in the value of the fund's portfolio resulting from a 1 basis point change in interest rates.

[17] CS01/SDV01 is the estimated change in the value of the fund's portfolio resulting from a 1 basis point change in credit spreads.
