

Bank of England Public Comment on IOSCO Report: Leverage

This document presents the Bank of England's response to the IOSCO consultation report on the use of leverage by investment funds. ¹

Key points:

- Leverage can support financial market functioning, and so the provision of market-based finance to the real economy.
- But it can also expose funds to greater losses and sudden demands for liquidity, which can give rise to financial stability risks.
- Where the potential for greater losses threatens the solvency of funds' systemically important counterparties (such as large banks) or investors, this should be mitigated by post-crisis reforms, such as capital requirements, central clearing and collateralisation of uncleared derivatives.
- But risks from potential sudden liquidity demands remain. If a fund does not have sufficient liquid assets to meet these demands, it may be forced to sell less liquid assets, potentially depressing prices, causing losses for other institutions and impairing the functioning of markets.
- In the UK, the Financial Policy Committee (FPC) has undertaken an in-depth assessment of the role of leverage in the non-bank financial system, especially leverage created through the use of derivatives. This was based on work undertaken jointly by the Bank of England and the Financial Conduct Authority.
- The FPC's assessment focused on the capacity of non-banks – including funds – in the UK to cover the posting of variation margin on over-the-counter interest rate derivatives. Most non-banks appear to have sufficient liquid assets to meet such calls.
- However, this is only one example of the potential risks that are associated with leverage. And while risks of forced sales to meet derivative margin calls are currently limited, more comprehensive and consistent monitoring by authorities is needed to keep this under review.
- Data currently reported to the supervisors of funds do not include all the information needed to monitor the risks appropriately.
- **For IOSCO to deliver the objective of the FSB's recommendation to develop consistent leverage measures for funds the FPC considers that a core set of measures will need to be consistent globally.** Such measures will need to enable monitoring not only as to whether funds are using borrowing or derivatives, but also the potential losses and liquidity demands those funds could face. This would enable effective global risk assessment and support supervisors' decision-making

¹ [IOSCO Report: Leverage Consultation Paper](#)

Investment funds have grown rapidly over the past decade, part of a broader increase in market-based finance.² This is bringing welcome diversity to the financial system. But it also increases the importance of understanding the potential risks arising from funds' behaviours.

In this context, the Bank has been very supportive of the Financial Stability Board's (FSB's) recommendations to address structural vulnerabilities from asset management activities,³ which IOSCO is operationalising. We have appreciated the opportunity to engage with IOSCO on these topics.

Through its FPC, the Bank identifies, assesses, monitors and takes action in relation to financial stability risks across the UK financial system. In this context, the FPC has recently completed an in-depth assessment of the risks associated with leverage from the use of derivatives in the non-bank financial system (including investment funds). The FPC's full assessment was published in our November 2018 Financial Stability Report.⁴

This response explains why it is important to monitor risks from leverage from funds, and why that monitoring needs to be consistent globally, across jurisdictions.

Leverage in funds could give rise to systemic risks through higher losses and greater liquidity demands...

The use of leverage by funds can support financial market functioning, and so the provision of market-based finance to the real economy. But it can also expose funds to greater losses and sudden demands for liquidity, which can give rise to financial stability risks.

Losses may be greater when leverage is used to increase a fund's overall exposure to risk. The potential for greater losses may adversely affect the solvency of a fund's systemically important counterparties (such as large banks) or investors. Greater losses may also lead to investor redemptions from funds, leading to forced sales of potentially illiquid assets.⁵

A similar dynamic arises in the face of sudden liquidity demands. Funds largely obtain leverage through collateralised transactions, such as derivatives and repo. Therefore, they may face liquidity demands to meet calls for additional collateral, or 'margin', on transactions.⁶ They may also face the risk of short-term borrowing not being rolled over. If a fund does not have sufficient liquid assets to meet these demands, it may be forced to sell less liquid assets, such

² Global assets under management have grown from around \$50 trillion a decade ago to \$80 trillion in 2017. See Bank of England (2018), '[True Finance – Ten years after the financial crisis](#)', speech by Governor Mark Carney, Economic Club of New York, 19 October 2018.

³ See Financial Stability Board (2017), '[Policy recommendations to address structural vulnerabilities from asset management activities](#)', January.

⁴ See Bank of England (2018), '[The FPC's assessment of leverage in the non-bank financial system](#)', November.

⁵ See Baranova, Y, Coen, J, Lowe, P, Noss, J and Silvestri, L (2017), '[Simulating stress across the financial system: the resilience of corporate bond markets and the role of investment funds](#)', *Bank of England Financial Stability Paper No. 42*, July.

⁶ Even if the asset that the derivative is hedging gains in value, one would need to sell the asset to realise the gain in order to meet such liquidity demands.

as corporate bonds.⁷ This in turn could depress prices, causing losses for institutions holding those assets, and potentially impairing the functioning of markets important for the real economy.

...but while post-crisis reforms have addressed solvency concerns, fund liquidity risks remain.

Where the potential for greater losses threatens the solvency of its systemically important counterparties (such as large banks) or investors, this should be mitigated by post-crisis reforms, such as capital requirements, central clearing and collateralisation of uncleared derivatives.

But risks from potential sudden demands for liquidity remain. If a fund does not have sufficient liquid assets to meet these demands, it may be forced to sell less liquid assets, potentially depressing prices, causing losses for other institutions and impairing the functioning of markets.

In the case of derivatives, liquidity is increasingly demanded on a daily basis to cover mark-to-market declines in their value ('variation margin'). These demands can arise regardless of whether a fund is using a derivative to increase its overall exposure to risk or to hedge other risks.

The FPC's assessment focused on the capacity of non-banks in the UK – including UK investment funds⁸ and hedge funds reporting to the FCA – to cover the posting of variation margin on over-the-counter (OTC) interest rate derivatives. Most non-banks appear to have sufficient liquid assets to meet such calls.

However, this is only one example of the potential risks that are associated with leverage. And while risks of forced sales to meet derivative margin calls are currently limited, more comprehensive and consistent monitoring by authorities is needed to keep this under review.

Data currently reported to the supervisors of funds are not sufficient to measure the risks from leverage

Investment fund data reporting has increased post-crisis. However, whilst measures currently collected monitor some of the risks in some funds, data currently reported are not sufficient to measure all the key risks from leverage.

To monitor the potential financial stability risks from fund leverage, supervisors need information on funds':

- (i) use of borrowing and derivatives;

⁷ The impact of this can be dampened by funds selling a vertical slice of their assets, as in the case of meeting large redemption requests.

⁸ Specifically, UK undertakings for collective investment in transferable securities (UCITS).

- (ii) potential losses across their whole portfolios; and
- (iii) potential liquidity demands, relative to available liquid assets, either from collateral calls on their derivatives and repo, or from their short-term borrowing not being rolled over.

(i) Use of borrowing and derivatives

Comparing a fund's gross notional exposure (GNE), which is the sum of the market value of assets and the notional amounts of derivatives, to its net asset value can be a good indicator of whether borrowing or derivatives are being used.

(ii) Funds' potential losses

However, GNE is not informative about the potential losses and liquidity demands that a fund could face:

- Notional amounts say nothing about the sensitivity of derivatives to different risk factors. For example, derivatives with two identical notional amounts could have underlying risk factors with very different volatilities (for example, interest rates versus commodities) and therefore different risk profiles. But GNE would not distinguish between the two.
- Aggregating absolute values ignores the potential for offsetting exposures. For example, a portfolio with £100 million GNE of 10-year interest rate swaps all paying the floating rate will have the same GNE as a portfolio consisting of £50 million of nine-year interest rate swaps paying the floating rate and £50 million of offsetting 11-year interest rate swaps (paying fixed and receiving the floating rate). But these two portfolios will have very different risk profiles.
- There is no distinction made as to the purpose of the exposure. So a fund with a large notional amount of interest rate swaps used for hedging, and therefore reducing its potential losses, could have a higher GNE than an institution with a small notional amount of credit default swaps used for increasing exposure to credit risk.

A 'net notional exposures' metric can partially address some of the issues with GNE. However, such a metric is still not informative about potential losses and liquidity demands that a fund could face.

Value at Risk (VaR) on a fund's whole portfolio can measure potential losses, and some funds do report VaR to their supervisors. However, EU guidelines allow for VaRs to be calibrated using a one-year window of historical observations. This could underestimate funds' potential losses if recent financial market volatility has been low. A longer window than one year, and the inclusion of a stress period, would mitigate this, as in international standards on initial margin calculations.⁹

⁹ See Bank for International Settlements (2015), '[Margin requirements for non-centrally cleared derivatives](#)', March.

(iii) The potential liquidity demands funds could face

With regards to liquidity risk, a good metric for how large potential variation margin calls could be is the initial margin required from a non-bank by its counterparties (it will be mandatory for non-banks to post initial margin on new derivatives trades by 2020). International standards require initial margin to be sufficient to cover extreme but plausible estimates of potential variation margin calls. In addition to measures of potential outflows related to derivatives, reporting by funds of the residual maturity breakdown of their outstanding borrowing would be informative of their potential vulnerability to rollover risk.

Conclusion: the need for globally consistent metrics

Investment funds operate globally. They are often domiciled and managed in different jurisdictions to the location of their investors or the markets they operate in. There therefore needs to be a core set of measures of leverage risk across jurisdictions.

Having a core set of measures collected by all jurisdictions should help comparability across funds and at a global level. It is also necessary for FSB Recommendation 12, which says that "IOSCO should collect national/regional aggregated data on leverage across its member jurisdictions based on the consistent measures it develops".

For IOSCO to deliver the objective of the FSB recommendation to facilitate more meaningful monitoring of leverage for financial stability purposes, and help enable direct comparisons across funds at a global level, the Bank and FPC consider that a core set of measures will need to be consistent globally. Such measures will need to enable monitoring not only as to whether funds are using borrowing or derivatives, but also the potential losses and liquidity demands those funds could face. This would enable effective global risk assessment and support supervisors' decision-making.

IOSCO's operationalisation of the FSB's recommendation to develop consistent leverage measures for funds provides an opportunity to significantly improve the monitoring of potential risks from fund leverage.

The Bank looks forward to engaging with IOSCO in its continued work to operationalise the FSB's recommendations on leverage in investment funds.