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LIQUIDITY RISKS FOR PENSION FUNDS RELATED TO MARGIN CALLS: SURVEY RESULTS

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LIQUIDITY RISKS FOR PENSION FUNDS RELATED TO MARGIN CALLS: SURVEY RESULTS

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ABSTRACT

This report presents the findings from the April/May 2023 survey, which aimed to investigate pension funds' practices related to margin and collateral call activities in IOPS Member jurisdictions. The survey specifically focused on capturing margin call activities conducted by pension funds, assessing the liquidity risks associated with these activities, and examining relevant regulatory measures to mitigate such risks.

A total of 37 IOPS Members (representing approximately 48% of the IOPS Governing Members) provided valuable insights and experiences on margin call activities, namely the use of derivatives and repos. The information shared covered various aspects, such as 1) margin call activities made by pension funds, 2) the utilisation of derivatives for liability-driven investment (LDI) strategies, 3) supervisory measures aimed at mitigating liquidity risks arising from margin calls, and 4) the availability of liquidity sources to address emergency margin calls.

The report highlights that margin call-related activities are present in approximately 38% of the surveyed jurisdictions, mainly for hedging, effective portfolio management, or implementing LDI strategies. LDIs were found to be utilised by 30% of the surveyed participants, yet it also turned out that in many LDI funds, either no derivatives or minimal usage of derivatives are employed. Most notably, all respondents reported no significant liquidity risks related to margin calls to date, and they assessed the current liquidity risks as very low.

Keywords: liquidity risks, margin calls, collateral calls, pension supervision, private pensions

JEL codes: G-32, J-32, G-28.

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Executive Summary

This survey is designed to gain an overview of pension funds' practices involved with margin/collateral liquidity needs as well as relevant regulatory measures in IOPS Members jurisdictions.

The key themes investigated in the survey include:

1. Margin call-related activities, including the types of financial instruments used by pension funds and their purposes;
2. Derivatives used for liability-driven investment (LDI) strategies;
3. Liquidity risks related to margin calls;
4. Supervisory measures to mitigate margin call-related liquidity risks; and
5. Liquidity Sources available to meet emergency margin call needs.

The report provides the following key findings on margin call-related practices and supervisory measures, drawn from responses of 37 IOPS Members (approximately 48% of Governing Members):

1. Margin call-related activities, notably derivatives and repurchase agreements, are utilised by pension funds in 37.8% of the responding jurisdictions (14). Currency and interest rate derivatives were identified as the key instruments widely used by pension funds for hedging purposes against foreign exchange exposure and reducing interest rate risk on long-term liabilities. Repurchase agreements are used in a few jurisdictions (5), and typically act as a short-term liquidity source in exceptional circumstances (e.g., large savings transfers or high liquidity needs due to rule changes and market distress).

2. Liability-driven investment (LDI) is used as one of the investment and hedging strategies by pension funds only in eleven surveyed jurisdictions (29.7%). Among these jurisdictions, 54.5% (6) engage in derivatives to implement LDI strategies, hinting that LDI does not necessarily entail the use of derivatives. All the responding jurisdictions with LDI funds stated that no liquidity issues associated with margin calls have arisen to date and assessed their LDI funds also appear to have sufficient liquidity to cover emergency margin calls.

3. Liquidity risks arising from margin calls, turned out to be very limited for most of the respondents. 33 out of 37 (91.9%) reported no liquidity issues so far, and assessed the likelihood of encountering liquidity risks due to margin calls also as very small.

4. Supervisory measures appear to play a vital role in mitigating liquidity risks. The surveyed jurisdictions have various regulatory measures in place, including 1) investment limits, 2) risk indicators in normal and adverse scenarios, 3) liquidity monitoring based on periodic reporting and 4) stress testing. In particular, many pension supervisors stressed that investment limits and liquidity monitoring act as key means of mitigating and managing liquidity risks associated with margin calls.

5. Liquidity sources that pension funds can tap into during emergency margin calls may include various options, yet the surveyed pension supervisors believe that priority should be given to asset sales (18) and cash management (17) over other approaches. It was also found that in some jurisdictions, pension funds can utilise through credit lines (5) and netting (5) to respond to emergency margin calls.

In conclusion, **margin call-related activities by pension funds are present only in 40% of the IOPS responding jurisdictions.** Further, LDI strategies are associated with a quarter of IOPS respondents, of which only two-thirds are currently employing derivatives to implement LDI strategies. Despite the existence of these margin-call activities and the partial adoption of LDI strategies, **all responding jurisdictions have reported no (or no significant) liquidity risks related to margin calls, with current risks being assessed as very low.**

1. Background

The recent liquidity issues that certain pension funds in the United Kingdom had experienced, triggered by the emergency margin and collateral calls (hereafter referred to as "margin calls"), have raised awareness of the need to improve the resilience of margin call activities to market events.

In response, in the United Kingdom, several recommendations have been introduced to mitigate these liquidity risks, including the guidance issued by The Pensions Regulator (TPR)[1] and the Financial Conduct Authority (FCA)[2] on 24 April 2023.

Additionally, the Financial Stability Board (FSB) has established a new Working Group on Margin Preparedness (WGMP), engaging in policy efforts to reduce excessive procyclical behaviours of market participants in response to margin calls during times of market-wide stress. The IOPS was invited to contribute to this workstream.

2. Survey overview

The survey was designed to gain an overview of pension funds' activities and practices involved with margin/collateral liquidity needs, and among other things, regulatory approaches used for mitigating liquidity risks arising from such activities.

Although the survey had a limited timeframe, the survey aimed at capturing insightful information to be delivered to the FBS's Working Group. The survey included the following key areas and topics, which align with the primary tasks of the Working Group:

a. Margin call-related activities, including the types of financial instruments used by pension funds and their purposes;

b. Derivatives used for liability-driven investment (LDI) strategies;

c. Liquidity risks related to margin calls;

d. Supervisory measures to meet emergency margin calls and their liquidity management; and

e. Liquidity sources available to meet emergency margin call needs.

The questionnaire was circulated to IOPS Members on 31 March 2023. **Thirty-seven Members[3] (i.e., approximately 48.1% of IOPS Governing Members) completed the survey**. The detailed outcomes are outlined in the next section.

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[1] Using leveraged liability-driven investment, The Pensions Regulator (24 April 2023).

[2] Further guidance on enhancing resilience in Liability Driven Investment, Financial Conduct Authority (24 April 2023).

[3] Albania, Angola, Australia, Austria, Burundi, Bulgaria, Canada (CAPSA), Chile, Colombia, Croatia, Czech Republic, France, Georgia, Hungary, Iceland, India, Indonesia, Ireland, Liechtenstein, Lithuania, Macao (China), Malawi, Maldives, Mauritius, Mexico, Morocco, North Macedonia, Netherlands, Peru, Poland, Portugal, Romania, Slovakia, South Africa, Spain, Suriname and Uganda.

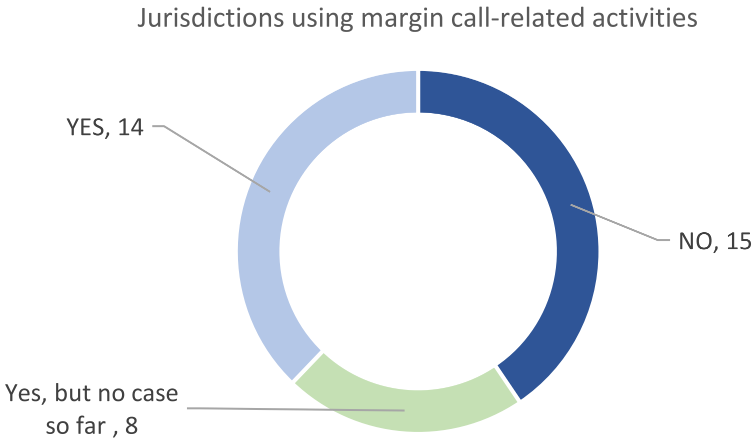
3. Survey results

3.1 Margin call-related activities

Depending on the jurisdiction, pension funds may partake in a diverse range of investment and hedging activities, some of which may also involve **the use of financial contracts and instruments associated with margin calls, notably derivatives and repurchase agreements (also known as "repos")**. The survey initially inquired whether pension funds in Member jurisdictions are involved in such activities. As a result, nearly 37.8% of the respondents (14) noted that pension funds in their jurisdictions are currently engaging in those activities. Another 21.6% of respondents (8) noted margin call-related activities can be used in principle, but no or few cases are identified in their jurisdictions.

However, pension funds engaging in such activities appear to have very limited exposure to such instruments. According to the survey, **the applications of derivatives and repos, in most jurisdictions, are generally limited to specific purposes,** such as hedging, arbitrage opportunities, efficient portfolio management or meeting short-term liquidity needs. As a result, **derivatives and repo holdings normally represent a relatively small percentage of total pension assets.**

Figure 1



Source: IOPS liquidity survey conducted in April-May 2023

Types and Purposes of Margin call-related Activities

The survey included a question about what types of margin call-related financial contracts are commonly used by pension funds. The jurisdictions involved in such activities (22) answered that currency derivatives (15) are most frequently utilised by pension funds, followed by interest rate derivatives (11), other types of derivatives[4] (8) and repurchase agreements (5). The survey found that **the use of derivatives appears to be primarily associated with hedging against foreign currency and interest rate exposures, and repos are generally used for the purpose of meeting short-term liquidity needs in only a few jurisdictions.**

- **Currency derivatives** are used by pension funds that need to reduce foreign currency exposures either as part of their own risk management strategies or to comply with regulatory requirements. Most of the respondents using currency derivatives (15) noted that pension funds,

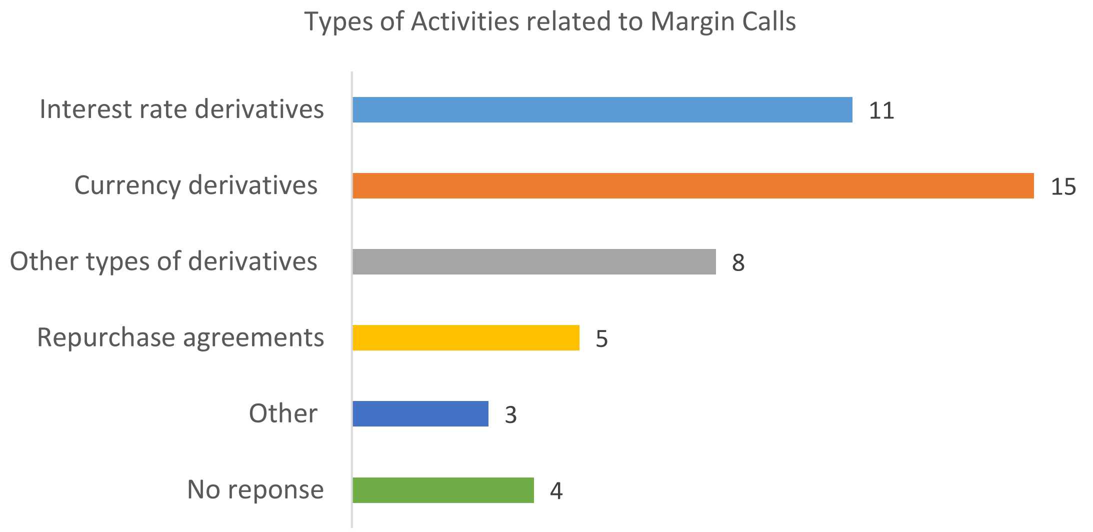
[4] This refers to derivatives other than currency and interest rate derivatives, such as equity derivatives, commodity derivatives and credit derivatives.

particularly those with investments in foreign assets, require such instruments to hedge their foreign currency exposures effectively. **It appears that currency swaps and FX forwards are among the most effective tools available for hedging foreign currency exposures.**

- **Interest rate derivatives** generally relate to the need for hedging interest rate exposures on liabilities of pension funds, particularly for defined benefit pensions with long maturity liabilities, guaranteed benefits or implementing liability-driven investment (LDI) strategies. Although the survey captured only a few cases where interest rate derivatives are used for reducing interest rate exposures, it is commonly recognised[5] that interest rate swaps (IRS) are often over other financial instruments for interest rate hedging mainly due to their dual advantage: 1) higher availability for long maturity hedging and 2) accurate matching of pension fund liabilities by using tailored derivatives, which is not normally possible with bonds.

- **Repurchase agreements** are not widely permitted across the surveyed jurisdictions. In fact, it turned out that, **only in five jurisdictions, repurchase agreements are allowed to be used by pension funds.** It is important to note that even in such jurisdictions, the use of repurchase agreements may be limited to addressing liquidity needs resulting from specific circumstances, such as emergency margin calls[6], large transfers of accumulated pension savings due to fund winding up or mergers, and significant pension benefit payments triggered by changes in laws[7].

Figure 2



1) Multiple responses were possible in this question
Source: IOPS liquidity survey conducted in April-May 2023

[5] The Consultation Paper on central clearing solutions for pension scheme arrangements, published by the European Securities and Markets Authority (ESMA) in April 2020, explains why (interest rate) swaps are frequently employed by European pension funds. Further details are available at: Consultation Paper.

[6] A few jurisdictions (Canada (CAPSA), Colombia and the Czech Republic) reported that repurchase agreements could be used as liquidity sources to meet emergency margin calls.

[7] In Malawi, for instance, the recent legislative amendment allows pensioners who are within five years before retirement to access up to 50% of their pension entitlements. This change has generated a surge in pension benefit claims in the early days of implementation, permitting pension funds to use repurchase agreements to meet these liquidity needs.

Additionally, based on the survey results, it can be inferred that in these jurisdictions where derivatives are allowed and used by pension funds, they substantially engage in over-the-counter (OTC) derivatives. This is particularly evident given that currency and interest rate derivatives, primarily used by pension funds, are the most actively traded instruments in the OTC market and that several respondents (Australia, Croatia, and the Netherlands) indicated pension funds in their jurisdictions are engaging in OTC derivatives. However, information about the proportions of centrally cleared[8] and bilateral derivatives has not been captured in the survey.

Box 1 – Liability-driven investment (LDI)

Liability-driven investment (LDI), an investment strategy aiming at aligning a pension fund's investment strategy with its future payment obligations, turned out to be **used in eleven responding jurisdictions (29.7%)**. However, the use of LDI significantly appears to vary depending on the jurisdiction. For instance, in one jurisdiction, LDI is used by nearly two-thirds of their defined benefit (DB) schemes, representing approximately 10% of all DB assets. In contrast, another jurisdiction reported that only a limited number of pension schemes, particularly small ones, currently use LDI strategies.

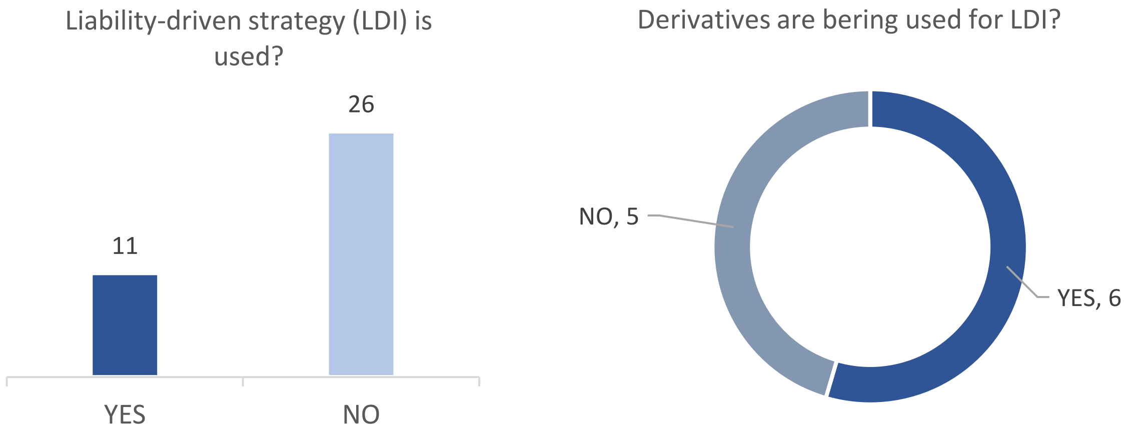
The survey confirmed that **LDI strategies normally entail the use of derivatives, notably interest rate derivatives, in hedging interest rates and inflation risks. However, it appears that LDIs do not necessarily build on the use of derivatives.** In theory, an LDI fund with alternative instruments that can be used for hedging, may not require derivatives. This is supported by the survey results that **1) 45.5% of the jurisdictions with LDI funds (5) are currently not using derivatives** and **2) in jurisdictions where derivatives are employed for LDIs, only a few LDI funds utilise derivatives for LDI implementation.** The survey also sought to determine the extent to which LDI strategies rely on derivatives. However, only one jurisdiction provided such information, reporting that less than 25% of all derivatives in use were for LDI strategies, which amounted to only 2% of the funds' net asset value (NAV).

Lastly, **all the respondents with LDI funds (11) noted that no liquidity issues related to margin calls arose so far, and they assessed that most of the LDI funds in their jurisdictions have sufficient liquidity to respond to margin calls**. One jurisdiction has indicated that LDI funds have sufficient liquidity to cover margin calls given that they must hold between 2-4% of total assets in cash. [9]

[8] In multiple jurisdictions, central clearing through a central clearing counterparty (CCP) is required for certain types of OTC derivatives, such as interest rate swaps (IRS). For instance, the European Market Infrastructure Regulation (EMIR) provides that European pension funds involved in such derivatives must clear their transactions through CCPs depending on specific regulations in each jurisdiction.

[9] For instance, among the 22 pension funds registered in France as of 2022, 14 of them reported zero holdings of derivatives. The remaining funds have only minimal positions and seldom employ derivatives that could potentially create liquidity requirements for the pension funds.

Figure 3



Source: IOPS liquidity survey conducted in April-May 2023.

3.2 Liquidity risks related to margin calls

Posting margins and collaterals is a standard practice in derivative and repo contracts. Pension funds that enter into such agreements are exposed to margin and collateral calls during the contract's lifespan, which requires additional margin or collateral posting. It is widely acknowledged that rapid price volatility could provoke a substantial amount of extra collateral posting, placing pension funds at risk of liquidity shortages, especially those lacking the at-hand resources to meet such liquidity needs. The survey queried how margin calls from such financial instruments may lead to liquidity risks for pension funds:

- **Derivatives**: Several jurisdictions have indicated that liquidity needs associated with margin calls normally stem from initial/variation margin requirements for OTC derivatives. One jurisdiction, in particular, noted that variation margin calls could potentially give rise to greater liquidity risks for pension funds in adverse scenarios. This statement could be further buttressed by the fact that 1) variation margins generally exceed initial margins in many OTC derivative contracts, and 2) in times of market stress, variation margins tend to be more procyclical and volatile than initial ones[10].

- **Repurchase Agreements**: Pension funds using repos as a repo borrower may be required to post additional collaterals when the value of the collateral falls below the required level of margin ("haircut"). One jurisdiction noted that such margin calls may lead to additional financing or the sale of available assets, which could negatively impact the liquidity and soundness of pension funds, particularly those with limited liquid assets.

The survey also collected pension supervisors' views on the likelihood of liquidity risks for pension funds in their jurisdictions. As a result, **almost all supervisors (34 or 91.9% of the respondents[11]) answered that no liquidity issues have arisen to date and evaluated that the probability of encountering liquidity risks provoked by margin calls appears to be very small** as a result of the

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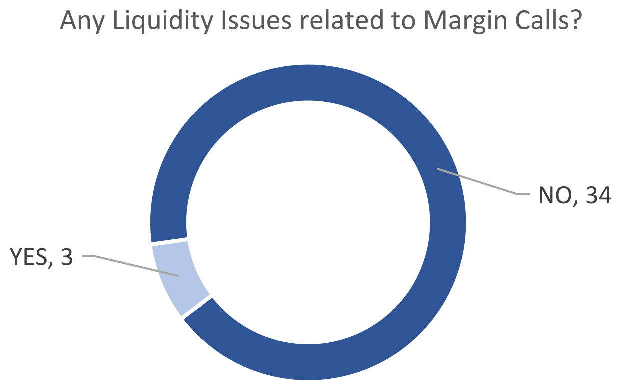
[10] The impact of derivatives collateralisation on liquidity risk: evidence from the investment fund sector, ECB Working Paper No. 2756, December 2022

[11] Although three jurisdictions reported emergency margin calls in derivatives contracts used by some pension funds during the Covid pandemic, these pension funds do not appear to have experienced liquidity shortages or risks as a result.

implemented liquidity measures and investment restrictions, which are outlined in detail in the next section.

Figure 4



Source: IOPS liquidity survey conducted in April-May 2023

3.3 Supervisory measures

Pension supervisors play a critical role in ensuring the financial stability of supervised entities and the financial markets. In this process, they introduce and implement various measures to mitigate risks arising from pension funds' activities. These measures could include liquidity risk mitigation tools covering issues related to margin calls as well as means to strengthen the liquidity preparedness of the supervised entities. To gain insight and better practices into these regulatory approaches used by pension supervisors, the survey focused on compiling such measures:

Investment limits

Investment limits[12] appear to be the most frequently used risk control mechanism among pension supervisors.[13] In fact, **many pension supervisors surveyed have investment caps in place, allowing pension funds to invest in derivatives or repos only up to a certain level** (e.g., 5% of a fund's net asset value). As detailed earlier, these jurisdictions gauged that the investment limits significantly contribute to curbing liquidity risks possibly caused by derivatives and repos, including liquidity risks from margin calls. Meanwhile, a few jurisdictions without direct investment limits also stated that their **prudent person rule and/or overall portfolio risk management suggested by supervisors may contribute to restricting margin call-related activities.**

Conversely, there is a case where **maintaining a minimum percentage (floor) of highly liquid assets is required.** One jurisdiction (Peru) has reported that pension funds are required to retain a specific level of highly liquid assets (e.g., cash or cash equivalents) as a strategic approach to mitigating liquidity risk. However, this differs from investment limits set by regulations in that the proportion of these liquid

[12] The OECD Annual Survey of Investment Regulation of Pension Funds and Other Pension Providers provides a variety of investment limits imposed on derivatives and repos.

[13] Since the survey items related to supervisory measures were not presented in a multiple-choice format, the extent of adoption of these categorised measures across IOPS jurisdictions remains undetermined. However, the number of jurisdictions that did mention using these measures is as follows: 1) investment limits (five jurisdictions; 22.7% of those who mentioned their pension funds were engaging in margin call activities), 2) risk indicators (four; 18.2%), 3) stress testing (two; 9.0%), and 4) reporting and monitoring (twelve; 54.5%).

assets is typically determined by pension fund administrators based on a comprehensive review of evaluations and the monitoring of various other liquidity metrics in use.

Risk indicators

Along with investment limits, it turned out that **risk metrics also serve as, directly or indirectly, liquidity risk controls** in several jurisdictions. For instance, Mexico stated that liquidity ratio indicators, along with the Provision for Exposure of Derivative Instruments (PID) are in place to discourage pension funds' short-term tactical investment strategies and to ensure acquiring liquidity resources to respond to cash outflows. In addition, CAPSA noted that a Canadian jurisdiction is undertaking the implementation of a Liquidity Coverage Ratio (LCR) framework for the large public sector pension plans to obtain relevant data and metrics in a timely manner.

In addition, it may be worth paying attention to what one jurisdiction (Colombia) pointed out regarding liquidity indicators. The jurisdiction mentioned, given no liquidity indicators can fully explain whether pension funds hold sufficient liquidity to respond to emergency margin calls[14]**, it may be more effective to have a pension fund meet the required liquidity indicators under stress/simulated conditions on a regular basis.**

Reporting requirements and monitoring

Pension supervisors regularly gather information on the use of derivatives/repos from supervised entities as a form of periodic reporting. From the survey, it can be inferred that captured information serves as a crucial source for supervisory monitoring. In fact, 12 respondents, representing 54.5% of the jurisdictions having pension funds that invest in derivatives and/or repos (22), **periodically collect such information for monitoring purposes**[15]. The collected information typically encompasses 1) pension funds' exposure to derivatives/repos, 2) the volume of margins (i.e., initial and variation margin), 3) sensitivity to market/price changes (e.g., the "Greeks"), 4) the volume of (highly) liquid assets, 5) asset allocation of pension assets, 6) actuarial valuation reviews and 7) liquidity reports.

Stress Testing

Stress testing appears to be an imperative tool for several pension supervisors in the context of liquidity management related to margin calls. Colombia noted that they conduct stress tests by comparing the available liquid asset of a pension fund to liquidity mandates from proxy margin calls. In a few jurisdictions, **entity-level stress testing** is used as part of pension funds' own liquidity management. Australia stated they require pension entities to implement liquidity stress testing for each investment option, and Colombia also answered the results of stress/reverse stress tests[16] conducted by pension fund managers are used for monitoring and oversight purposes.

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[14] Given that liquidity needs from margin calls tend to greatly increase in times of market-wide stress, simply meeting liquidity indicators during normal times may not be sufficient to ensure that a pension fund can handle the liquidity needs arising from margin calls.

[15] Daily (2), quarterly (3), semi-annually (1), annually (2) and no information provided (4). Additionally, it needs to be noted that it is unclear whether periodic reporting on derivatives or repos is required in the rest of the jurisdictions as they did not provide such information.

[16] Colombia mentioned that reverse stress testing is used to identify risk triggers and scenarios similar to liquidity contingencies arising from the use of derivatives such as margin calls.

Box 2 – Liquidity risk mitigation strategies that can be implemented by pension entities

In addition to the supervisory measures listed above, several strategies can be considered at a fund level to mitigate liquidity risk from margin calls. However, it should be noted that these approaches may be limited to certain types of derivatives or markets, as they were based on responses from a small number of jurisdictions.

Contractual Changes

- **Negotiation**: Pension fund managers may negotiate with their counterparties to adjust the standard terms of the contract in a way that reduces liquidity risks;
- **Novation**: Pension funds may use the novation process to replace one counterparty with another to transfer the rights and obligations of the original party to the new party to avoid liquidity risks, which could be achieved by negotiating with clearing houses; and
- **Re-couponing Clauses**: Pension funds may consider re-couponing clauses which allow for changes to the payment schedule.

Liquidity Measures

- **Liquidity Contingency Plans**, including asset sale policies which minimise the profitability of pension funds, can contribute to ensuring pension funds to secure the availability of liquid assets in times of market stress; and
- **Entity-Level Stress Testing** may help pension funds assess the sufficiency of liquid assets in different scenarios, leading to sufficient liquidity buffers to meet their obligations.

3.4 Liquidity sources

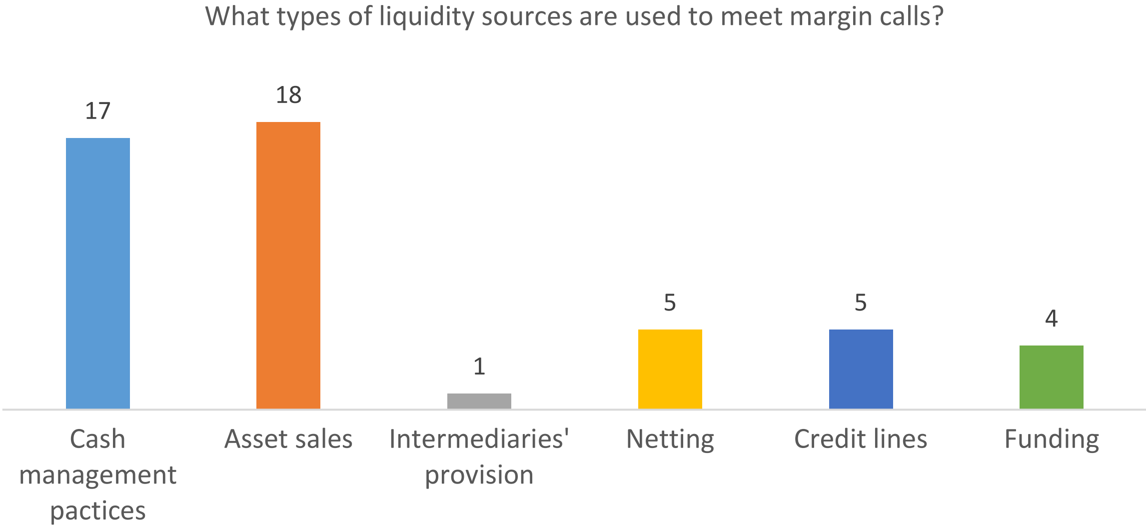
Despite various regulatory measures in place, pension funds may still face substantial liquidity needs from margin calls in times of market-wide stress. The survey asked what liquidity sources could be tapped in case of such emergency situations. The corresponding jurisdictions (22) noted that pension funds should first secure liquidity by selling their own assets (18; 81.8%) as well as through cash management (17; 77.3%), such as holding sufficient liquid assets based on their cash inflow and outflow schedules. The survey results also showed funding through a credit line (5) and netting (5) would be also available in a few jurisdictions. The following are the country examples gathered from the survey:

- **Slovakia** requires pension entities to immediately file all contract details and possible solutions to mitigate liquidity risks with the National Bank of Slovakia in the event of liquidity needs arising from margin calls. The authority stressed that pension management companies should seek liquidity solutions focusing on the best interests of pension members.

- **Colombia**'s central bank may activate additional funding and foreign currency sources to provide liquidity during times of market stress. These additional funding sources generally take the form of foreign exchange (FX) swaps and repos with the central bank as the counterparty.

- **Croatia** allows closed-end voluntary pension funds to finance up to 5% of the fund's net asset value from third parties to meet liquidity needs, including responding to emergency margin calls. However, Croatian Authority said that the funding should be made only for liquidity purposes and its maturity cannot exceed 3 months.

Figure 5



1) Multiple responses were possible in this question
Source: IOPS liquidity survey conducted in April-May 2023

4. Conclusions

The primary objective of this report is to examine the practices of pension funds and the approaches taken by supervisors in managing margin call-related liquidity risk. The key takeaways from this survey are as follows:

Margin call liquidity risks

Liquidity risks related to margin calls do not seem to be concern in most of the surveyed jurisdictions. In practice, various restrictions on derivatives and repos, such as investment caps and investment purpose regulations, appear to greatly contribute to reducing the likelihood of such liquidity risks, and so does liquidity risk management through risk metrics and stress testing. However, this may not be the case for all the IOPS jurisdictions, particularly where pension funds are permitted to extensively leverage derivatives for special purposes, such as liability-driven investments (LDI).

The possibility of risk evolution

While liquidity risks related to margin calls may currently be limited in many jurisdictions, it is worth noting that **this situation may not be persistent.** In fact, pension funds' investment patterns, the evolution of financial markets and regulatory changes could be all significant factors that may contribute to heightening margin call-related risks. For instance, the recent regulatory changes[17], such as the expansion of variation margin requirements and central clearing, may increase the frequency and magnitude of margin calls, thereby increasing the likelihood of liquidity needs. Furthermore, the interconnectedness of financial markets, or use by pension funds of similar assets as collateral, may exacerbate market risks during times of economic turmoil, resulting in emergency margin calls on derivative and repo contracts. As such, pension supervisors may need to consider proactive measures to mitigate margin call liquidity risks, even in cases where such risks are currently limited.

[17] https://www.bis.org/bcbs/publ/d317_summarytable.pdf

Regulatory actions that pension supervisors may consider

The experiences of the IOPS Members provide several key considerations that pension supervisors may wish to take into account to better manage liquidity risks related to margin calls. These considerations include the following:

- **Assessment in adverse scenarios**: Given that margin call risks typically emerge under market-wide stress, liquidity risk assessment in stress scenarios may provide pension supervisors with a more realistic assessment of liquidity risk status, enabling them to take appropriate actions to effectively respond to emergency liquidity needs. To this end, supervisors may consider requiring pension funds to meet risk metrics in unfavourable conditions and to carry out entity-level and systemic stress testing.

- **Cooperation with other industries**: It may be required for pension supervisors to collaborate with other industry watchdogs to effectively mitigate liquidity risks arising from the use of derivatives. These discussions may need to include a range of issues, such as the potential impact of other financial institutions' liquidity management practices, contagion risks in distressed scenarios, and the role of clearing houses in managing margin call risks.

- **Evaluation of rule changes**: Pension supervisors should also carefully evaluate the potential impacts of adopting new regulations and rule changes, thereby preparing proper measures to prevent unintended consequences. For example, while variation margin requirements may reduce counterparty risks, this may increase liquidity risks associated with margin calls. To mitigate these risks, supervisors may need to consider implementing additional liquidity risk mitigation measures specifically designed to address the impact of such rule changes.

Based upon the responses received so far, it can be concluded that margin call-related activities by pension funds are present only in one-third of the IOPS responding jurisdictions. Additionally, LDI strategies are associated with a quarter of IOPS respondents, of which only two-thirds are currently employing derivatives to implement LDI strategies.

To date, no (or no significant) liquidity issues have been reported in the reporting jurisdictions and liquidity risks related to margin and collateral calls have been assessed by pension supervisors as very low.

References

Bank for International Settlements, *Summary of changes to the implementation of the margin requirements for non-centrally cleared derivatives*

European Central Bank (2022), Working Paper No. 2756, *The impact of derivatives collateralisation on liquidity risk: evidence from the investment fund sector*

European Market Infrastructure Regulation (2012), *Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories*

European Securities and Markets Authority (2020), *First Report for Consultation Central Clearing Solutions for Pension Scheme Arrangements*

Financial Conduct Authority (2023), *Further guidance on enhancing resilience in Liability Driven Investment*, the United Kingdom

IOPS (2011), Working Paper No. 13, International Organisation of Pension Supervisors, *Pension Fund Use of Alternative Investments and Derivatives: Regulation, Industry Practice and Implementation Issues*

OECD (2021), Organisation for Economic Co-operation and Development, *The OECD Annual Survey of Investment Regulation of Pension Funds and Other Pension Providers*

The Pensions Regulator (2023), *Using leveraged liability-driven investment*, the United Kingdom