PensionsEurope and ISDA joint paper

Potential demand for clearing by EU Pension Funds

Note: This paper presents the view of ISDA's pension fund members, a subset of the full membership.

Executive summary

We support the G20 reforms that aim to strengthen the financial markets, including mandated central clearing for derivatives. Furthermore, we welcome the recent initiative of the Financial Stability Board (FSB) and other bodies to analyse the incentives to clear derivatives, and to review the implementation of the G20 reforms to date[1]. We are pleased to have the opportunity to feed into this important work.

European pension funds are structurally different to pension funds in other jurisdictions, such as the US, and as such benefit from a temporary exemption from clearing within the European Market Infrastructure Regulation (EMIR). The requirement to post cash variation margin (VM), which has significant negative implications, is the key obstacle to clearing for European pension funds. This has been recognised by policymakers as the reason to provide these institutions with a temporary exemption from clearing in order to allow time to find a solution.

European pension funds support clearing and recognise that it is only a matter of time before they will need to clear in large scale, both because the exemption will expire and because liquidity is expected to shift to clearing due to strong incentives provided by the bank capital regime. European pension funds are keen, however, to find a robust solution to the cash VM issue that can be relied upon in stressed market conditions and we welcome the initiatives of the European Commission to encourage this through stakeholder dialogues.

This paper aims to illustrate important but second-order issues that are likely to emerge as European pension funds start to clear derivatives in large volumes once the cash VM issue is resolved. In particular, we broadly estimate that once European pension funds start to clear, the initial margin (IM) held by central counterparties (CCPs) could increase to c.EUR85bn over a number of years (or a full range of c.EUR58 to c.EUR111bn depending on varying assumptions). This is a significant increase: globally, CCPs currently hold c.EUR130bn of IM for interest rate swaps, of which only c.EUR77bn correspond to client-cleared trades.

We are concerned that the market capacity for client clearing service providers (CCSPs) will not meet this demand, leading to significant structural weakness in the clearing system.

We provide some potential policy recommendations to address these issues below.

Policy recommendations

1. Bank capital rules should be eased to make clearing more economic for CCSPs, encouraging new CCSPs to enter the market, thereby increasing competition and capacity.
2. Policymakers should provide support to encourage the development of hybrid and full direct-access clearing models for high credit quality clients. This should also release some CCSP capacity.
3. For entities or products that are not mandated to clear, bank capital rules should be eased to ensure the non-cleared markets remain workable and clearing policy objectives are not undermined.
4. Bank capital rules, including leverage ratio rules, should be amended to offer more proportionate treatment of repo and reverse repo ("repo") transactions to increase liquidity

[1] For more information, please see http://www.fsb.org/2018/08/incentives-to-centrally-clear-over-the-counter-otc-derivatives/

within these markets. This will aid any collateral transformation solutions developed by the European Commission's stakeholder discussions on the cash VM issue.

Background

Over-the-counter (OTC) derivatives are vital to manage European pension funds' solvency risks
Pension funds are asset-rich and typically considered to be of high credit quality. Structural differences mean that unlike US pension funds, European pension funds use OTC derivatives as an integral part of their investment approach to manage their financial solvency risk[2]. The use of OTC derivatives is often encouraged by regulations requiring pension funds to manage risks prudently and reduces the burden on pension funds' corporate (or other) sponsors.

The derivatives portfolios of European pension funds are typically large, long-dated and one-directional to offset risk relating to their liability profiles – these characteristics magnify the implications of OTC derivatives regulations for pension funds.

European pension funds expect to clear in the near future
We expect that market forces, driven by bank capital rules, are likely to increasingly shift liquidity to cleared trades and make the non-cleared market unworkable over time. If this trend continues, it is inevitable that pension funds will need to clear regardless of whether they are mandated to clear or not.

As the FSB Derivatives Assessment Team (DAT) study[3] indicates, the share of cleared transactions has increased significantly since the financial crisis. This trend is being driven in part by bank capital rules, including by expected changes to the rules. In the EU, lawmakers are still finalising the review of the Capital Requirements Directive and Capital Requirements Regulation, but it is clear the outcome will disincentivise non-cleared trades in a number of ways, including through the leverage ratio and standardised approach for counterparty credit risk.

In recognition of these regulatory and market developments, European pension funds have invested heavily in becoming operationally ready to clear and are working with policymakers and the industry on a solution for the cash VM issue which still remains the key obstacle to clearing for European pension funds (see below). European pension funds are keen to use the period of the temporary exemption constructively to find a robust solution for this issue that is reliable even in stressed market conditions. They are seeking to do so before they start clearing in large volumes, which is inevitable if liquidity shifts to clearing as expected.

Cash VM requirements remain the primary concern for European pension funds
CCPs' operational models only permit VM to be posted in cash, while non-cleared derivatives transactions with banks traditionally allow pension funds to post high-quality government bonds, with appropriate haircuts, as VM.

Pension funds are asset-rich and often do not have an allocation to cash, but they do typically have a large allocation to high-quality government bonds, usually matching the currency of their liabilities.

[2] European pension funds typically have longer duration of liabilities than US pension funds; liabilities valuation basis is typically based on government bonds or swap rather than AA corporate bonds as for US pension funds; and European corporate bond market is less deep when compared to the US. All of these factors lead to European pension funds using swaps as a key instrument for managing financial solvency risk as opposed to corporate bonds in the US.

[3] For more information, please see http://www.fsb.org/2018/08/fsb-and-standard-setting-bodies-consult-on-effects-of-reforms-on-incentives-to-centrally-clear-over-the-counter-derivatives/

Pension funds therefore wish to carry on using high-quality government bonds that already form part of their investment portfolio for VM posting (either directly or via collateral transformation solutions).

Holding a large cash buffer can undermine efforts to manage risk prudently. It would increase the financial solvency risk of pension funds as cash is not a good matching asset for pension funds' liabilities, and would reduce return potential and the expected income for retirees. It must also be noted that holding a large cash buffer exposes pension funds to non-sovereign credit risk as cash must be invested in bank deposits or other financial instruments.

An independent report published by Europe Economics and Bourse Consult in 2014 for the European Commission estimated that if European pension funds were required to post VM in cash, the total cash collateral needed by them to support a 100bp (1%) move in rates would amount to €205 billion to €255 billion, increasing to €420 billion in more stressed scenarios. It further estimates that this would cost European pensioners between €2.3 billion and €4.7 billion annually[4].

For these reasons, policymakers provided a transitional provision within EMIR, giving European pension funds a temporary exemption from the requirement to centrally clear derivatives and to provide time to find an alternative solution for the issue of posting cash VM. In the meantime, European pension funds can carry on using the non-cleared markets while posting high quality government bonds as VM.

The European Commission has set up a stakeholder group which brings together pension funds, CCPs, banks and central banks in order to work on a solution for the cash VM issue. This could involve, for example, repo market solutions to transform high-quality government bonds into cash. However, for a solution to be robust and reliable in stressed market conditions, there must be assurance of a liquidity provider to transform high-quality government bonds into cash, at a cost. We believe this role can only be played by central banks.

As a policy request we believe that more proportionate treatment of repos within bank capital rules, including leverage ratio rules, to increase liquidity within the repo markets would be sensible. While this does not negate the potential need for central banks to provide the certainty of a cash provider in stressed market conditions, it should reduce that burden on them.

Given the potentially large opportunity costs and negative impact to financial solvency risk, the cash VM issue remains the primary concern related to clearing for pension funds in Europe. We strongly support the work of the stakeholder group set up by the European Commission and believe the temporary exemption should be maintained until a robust solution, that can be relied upon in stressed market conditions, is developed by stakeholders.

Recalibration of policy to meet demand for clearing once European pension funds adopt clearing in wide scale

This paper aims to illustrate the broad order of magnitude of the potential demand for clearing once European pension funds start clearing in large volumes after the cash VM issue is resolved[5].

[4] Baseline report on solutions for the posting of non-cash collateral to central counterparties by pension scheme arrangements: a report for the European Commission prepared by Europe Economics and Bourse Consult. Please see: https://ec.europa.eu/info/system/files/emir-art-85-baseline-report-25072014_en.pdf

[5] It is not the intention to provide an exact prediction of the IM increase, but instead to arrive at a figure that demonstrates the order of magnitude of the required capacity increase.

Based on broad assumptions we estimate that IM of c.EUR85bn would be posted over a number of years (or a full range of EUR58bn to EUR111bn depending on varying assumptions). This is based on estimated volumes from Netherlands, Denmark and the UK.

This is significant when compared with c.EUR77bn of client IM, or c.EUR130bn of total IM (house and client positions) held by the three major CCPs for interest rate swaps. This illustrates the magnitude of the potential CCSP demand that lies ahead when pension funds start clearing in large volumes. The c.EUR85bn estimate is greater than the amount of client IM held by the CCPs, which is an indicator of current CCSP capacity that is being used for interest rate swaps clearing.

We believe this raises some structural questions and concerns:

- Is there enough capacity within CCSPs to support this and to ensure spare capacity exists for porting to work when required?
- Given the long-dated nature of these swaps, typically averaging 20 years, it is important that CCSP capacity is reliable for a long period of time to ensure pension funds do not lose their protection.

We are concerned that current CCSP capacity is very far from being able to meet this demand. If the policy intention is to strongly incentivise clearing, as is the case with recent and ongoing reforms of bank capital rules, then it should also follow that bank capital rules are modified to strongly incentivise banks to provide CCSP offerings to make this possible.

However, we question whether this much extra capacity can be produced from easing bank capital rules alone for CCSPs. We request that policymakers encourage the development of direct-access clearing models for high credit quality clients such as pension funds.

Finally, we also request that policymakers ease the general demand for clearing by ensuring that trades not required to clear are not overly penalised within the bank capital rules. This would include derivatives that are not mandated to clear as well as trades with any entity benefitting from an exemption.

It must also be noted that while pension funds are large holders of high-quality government bonds, meaning meeting IM requirements should not be challenging in the same manner as for cash VM requirements, the opportunity cost of encumbering this collateral in clearing – instead of it being used to finance investments – would likely have a negative impact on the real economy.

We believe policymakers could undertake the aforementioned policy recommendations to address these challenges.

Assessment of IM need for the UK, Netherlands and Denmark

Why assess the IM needs for specifically the UK, Netherlands and Denmark?

Following the lapsing of the clearing exemption, pension funds in the EU and EEA will need to start clearing. The European funded occupational pensions landscape is very heterogeneous in terms of size, types of vehicles and the nature of the pension promise. Some countries mainly rely on the pay-as-you-go first pillar to provide for adequate pensions and again others rely on third pillar private pensions. This means that only in a number of countries, (quasi-)mandatory occupational pensions play a very big role ensuring decent replacement rates. In the EU, second-pillar assets as a share of

GDP are the highest in the UK (95%), the Netherlands (180%) and Denmark (209%)[6]. These countries represent a significant share of pension fund assets in the EU and are therefore a good starting point to understand the challenges ahead.

Table 1: Potential cleared future IM estimates for UK, Dutch and Danish pension funds

	UK		NL		Denmark		TOTAL
	Current	Future	Current	Future	Current	Future	
Total liabilities (EUR bn)[7]	2,380	2,380	1,230	1,230	510	840	
Percentage of liabilities hedged[8]	55%	70%	40%	50%	60%	40%	
Percentage use of swaps[9]	15%[10]	50%	63%	63%	50%	50%	
Swaps notional (EUR bn)	197	835	308	385	153	168	
IM (as a % of swap notional)[11]	8%	8%	8%	8%	8%	8%	
IM (EUR bn)	15.7	66.7	24.6	30.8	12.2	13.4	
Average duration (yrs)[12]	20	20	21	21	20	20	
PV01 (EUR bn)	0.4	1.7	0.65	0.8	0.3	0.3	
IM if new swaps cleared (EUR bn)		51		6.2		1.2	58.4
IM backbook (EUR bn)							
- **if 0% of backbook cleared**		0		0		0	0
- **if 50% of backbook cleared**		7.9		12.3		6.1	26.3
- **if 100% of backbook cleared**		15.7		24.6		12.2	52.6
Total IM: new and backbook (EUR bn)							
- **if 0% of backbook cleared**							58.4
- **if 50% of backbook cleared**							84.7
- **if 100% of backbook cleared**							111

Methodology

The estimate is based on available data and estimates provided by industry experts from the pension fund sector. The purpose of this exercise is to estimate broadly the magnitude of the challenge the market may face. We acknowledge that the exact number depends significantly on the assumptions made and that there is room to discuss their accuracy. Nevertheless, the estimate provides a methodology for assessing the IM increase and even under more conservative assumptions the number remains significant.

[6] Pensions at a Glance 2017: OECD and G20 I

[7] For the UK: The Age of Peak LDI by Hymans Robertson and Nomura April 2018, FX rate of GBP to EUR of 1.11 assumed. For the Netherlands: Dutch Central Bank. For Denmark: Insurance & Pension Denmark (IPD), Annual report 2017 ATP, Danish FSA, Industry assumption.

[8] For the UK: The Age of Peak LDI by Hymans Robertson and Nomura April 2018. Netherlands and Denmark: industry estimates.

[9] Industry estimates.

[10] Current use of swaps in the UK is unusually low due to gilt versus swap yields. The use of swaps is likely to increase as this reverts over time to historical norms.

[11] Industry estimates.

[12] Industry estimates.

Future numbers are based on an industry assumption of increased hedging over a period of approximately 10 years which is assumed to be cleared. Further, we assume a base case of 50% of existing uncleared positions (i.e. "back-book") being cleared but also provide the full range if 0%, or 100%, of back-book is cleared.

The analysis focuses only on Netherlands, Denmark and UK pension funds and does not take into account any further demand from other European countries. Broadening it to include other countries could increase the estimates from above.

The estimate also assumes that all pension funds will be required to clear once the EMIR exemption runs out and does not take into account the small financial counterparty exemption that is currently under discussion within the EMIR Review. However, for Denmark and the Netherlands this threshold is of minor importance given the concentrated pension fund landscape. More generally, there is a trend of consolidation and concentration of funds[13]. For the UK, the small financial counterparty exemption is more relevant but if liquidity shifts to clearing and the non-cleared markets become increasingly unworkable as a result of the strong incentives provided by bank capital rules, these entities are likely to voluntarily choose to clear anyway once the cash VM issue is resolved.

Table 2: IM for interest rate swaps at the major CCPs (EUR bn)[14]

	LCH Ltd	Eurex	CME	All CCPs
House	47.8	1.5	4.5	53.8
Client	60.8	1.3	14.7	76.9
Total	108.7	2.8	19.3	130.7

The above shows the total amount of IM that is held at the major CCPs for interest rate swaps. Interest swaps IM was chosen for the analysis because the largest use of swaps by European pension funds relate to interest rate and inflation swaps to manage their interest rate and inflation liability risks. Typically interest rate and inflation swaps are treated as being within the interest rate swap default fund at CCPs.

[13] See: "2017 Market development report on occupational pensions and cross border IORPs", EIOPA.
[14] CPMI IOSCO disclosure for Q1 2018 for LCH Ltd, Eurex and CME.
FX rates assumed: GBP to EUR of 1.11; USD to EUR of 0.86

About PensionsEurope

PensionsEurope represents national associations of pension funds and similar institutions for workplace and other funded pensions. Some members operate purely individual pension schemes. PensionsEurope has **23 member associations** in 18 EU Member States and 3 other European countries[15].

PensionsEurope member organisations cover different types of workplace pensions for over **110 million people.** Through its Member Associations PensionsEurope represents more than **€ 4 trillion of assets** managed for future pension payments. In addition, many members of PensionsEurope also cover personal pensions, which are connected with an employment relation.

PensionsEurope also has **30 Corporate and Supporter Members** which are various service providers and stakeholders that work with IORPs.

PensionsEurope has established a **Central & Eastern European Countries Forum (CEEC Forum)** to discuss issues common to pension systems in that region.

PensionsEurope has established a **Multinational Advisory Group (MAG)** which delivers advice on pension issues to PensionsEurope. It provides a collective voice and information sharing for the expertise and opinions of multinationals.

What PensionsEurope stands for

- A regulatory environment encouraging workplace pension membership;
- Ensure that more and more Europeans can benefit from an adequate income in retirement;
- Policies which will enable sufficient contributions and good returns;

Our members offer

- Economies of scale in governance, administration and asset management;
- Risk pooling and often intergenerational risk-sharing;
- Often "not-for-profit" and some/all of the costs are borne by the employer;
- Members of workplace pension schemes often benefit from a contribution paid by the employer;
- Wide-scale coverage due to mandatory participation, sector-wide participation based on collective agreements and soft-compulsion elements such as auto-enrolment;
- Good governance and alignment of interest due to participation of the main stakeholders.

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[15] EU Member States: Austria, Belgium, Bulgaria, Croatia, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Luxembourg, Netherlands, Portugal, Romania, Spain, Sweden, UK. Non-EU Member States: Iceland, Norway, Switzerland.

About ISDA

Since 1985, ISDA has worked to make the global derivatives markets safer and more efficient. Today, ISDA has more than 900 member institutions from 68 countries. These members comprise a broad range of derivatives market participants, including corporations, investment managers, government and supranational entities, insurance companies, energy and commodities firms, and international and regional banks. In addition to market participants, members also include key components of the derivatives market infrastructure, such as exchanges, intermediaries, clearing houses and repositories, as well as law firms, accounting firms and other service providers. Information about ISDA and its activities is available on the Association's website: www.isda.org. Follow us on Twitter @ISDA.