Pension Schemes and Clearing

A Viable Alternative to Bilateral Trading?

LCH The Markets' Partner

AN LSEG BUSINESS

"There are many drivers as to why PSAs voluntarily choose to clear today: increasing liquidity in cleared products, counterparty credit risk reduction and trading efficiency, economics of the trade, and cost advantages and netting margin efficiencies."

ESMA's Report on Clearing Solutions for Pension Schemes, Dec. 2020

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Executive Summary

Pension scheme arrangements (PSAs) still have a hard-won exemption from the swaps clearing obligation that applies to most other market participants. Its value, when first announced nearly 10 years ago, was high. The clearing of buy-side swaps was new for the market, and features of the services were highly disruptive to PSA investment strategies. In this light, a reluctance to clear was perhaps justified.

But that was then. Significant advances have been made on a number of fronts. The economics of clearing have been transformed, both by regulation and through CCP innovation: capital and funding requirements for clearing have improved, whilst the corresponding costs of bilateral activity have increased. There have also been improvements in customer protection, and in the workflows that enable efficient management of risks of all types. We can classify the resulting benefits into five main areas:

01. Large global cleared swap liquidity pools provide certainty and speed of execution even in volatile market conditions.

02. A broad, deep and active marketplace ensures tight execution pricing.

03. An immediate cleared outcome can offer significant operational benefits, with standardised workflows and lower processing and management overhead.

04. The use of cleared swaps, when deployed as part of integrated portfolio management strategy alongside bilateral OTC activity, can assist with UMR threshold management and overall risk management.

05. Cleared swaps offer valuable risk management gains, from collateral optimisation through counterparty risk management.

Maybe it is time to give clearing another look?

The paper comprises the following chapters, which analyse the current and future clearing ecosystem and regulatory environment:

01. Role of Cleared Swaps in Pension Scheme Investment Strategies

This chapter examines how cleared swaps fit into PSA investment strategies and why they are no longer disruptive (via yield drag). It addresses questions such as whether there is a need to change investment strategy and how collateral can be managed. It also looks at how clearing part of an OTC derivative portfolio is compatible with maintaining and potentially even boosting yield performance, and hence returns, for scheme members.

02. Costs and Pricing

This chapter looks at how the regulatory environment has changed bilateral and cleared costs for supplier banks, and the effect this has had on their appetite and pricing for OTC derivative new trades, unwinds and restructures. It also looks at how this has changed their capacity for OTC derivatives business and how it has fed into their offering to PSAs.

03. Benefits of Clearing in Portfolio Risk Management

This chapter covers LCH resilience in the cleared swap and repo market during the recent pandemic, and the factors that have benefitted round-trip execution and maintenance, whilst also enabling PSAs to work with their supplier banks to optimise allocation of capital and balance sheet.

01. Role of Cleared Swaps in Pension Scheme Investment Strategies

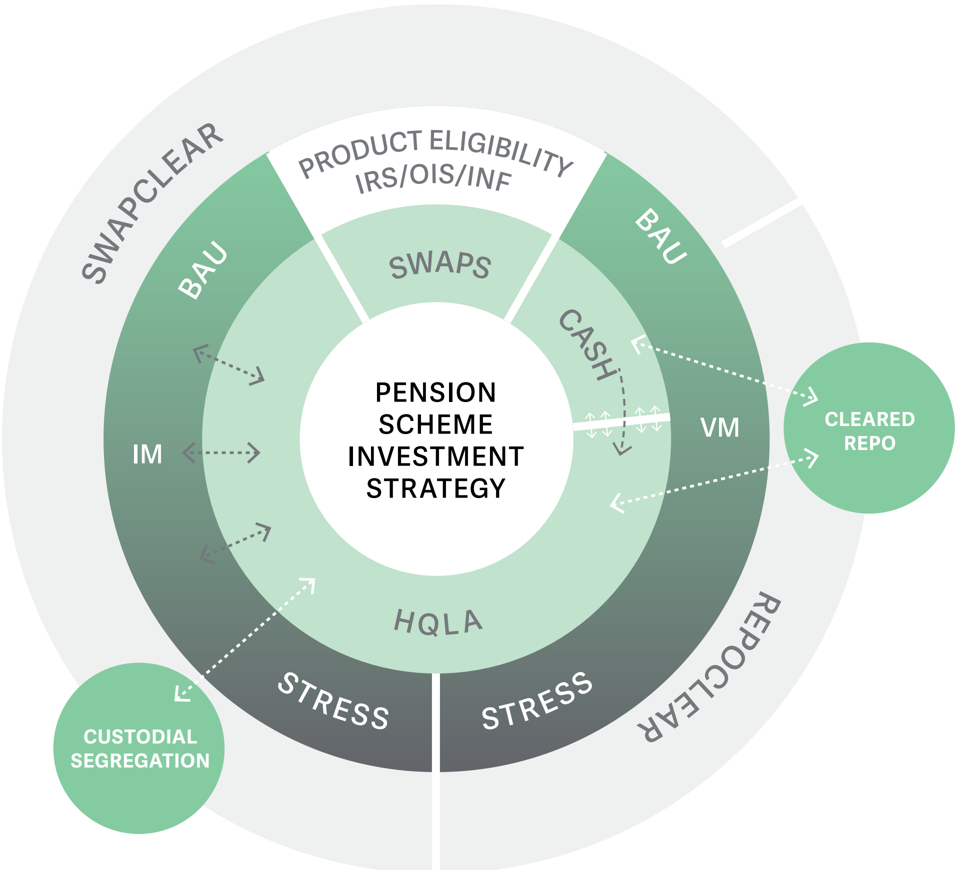
Allowing a pension scheme investment strategy to remain undisturbed is at the heart of any approach to including cleared derivatives in a portfolio. Over the past few years, LCH has worked with the market to deliver a solution for PSAs to allow them to incorporate cleared derivatives without creating a yield drag on their portfolio from increased cash funding for Variation Margin (VM).

Sponsored Clearing at LCH RepoClear enables PSAs to access cleared repo to generate cash for VM cleared swaps. LCH SwapClear has also introduced segregated client accounts, which address mutualisation issues and manage and optimise collateral. Critically, these solutions are equally operable in both normal and stress conditions (which historically has been difficult through the bilateral market), as Figure 1 illustrates below.

The PSA investment strategy (at the core of Figure 1) continues to include a combination of high-quality liquid assets (HQLA, bonds), cash and swaps, and incorporates cleared swaps (IRS, OIS and inflation) via LCH SwapClear.

Figure 1.

Pension Scheme Investment Strategy Incorporating LCH Solution



OPTION TO POST INITIAL MARGIN DIRECTLY TO THE CCP

Let us first look at Initial Margin (IM). Once a cleared swap is executed via an Executing Broker (EB) and registered at LCH SwapClear, the pension scheme is required to post IM. This requirement can be met directly out of HQLA holdings (illustrated at left), posting via their appointed Clearing Broker (CB) or directly to LCH into a choice of account types.

Regulation, which introduced the strong "individual segregation" requirements of EMIR, and then innovation from CCPs, means that PSAs now have several robust segregation models to choose from.

Initial concerns amongst PSAs, which were to some extent justified, regarding the strength of the account protections, have been dealt with. Regulation, which introduced the strong "individual segregation" requirements of EMIR, and then innovation from CCPs, means that PSAs now have several robust segregation models to choose from.

The key benefit is a high likelihood of portability of swap positions and of collateral in the event of a CB default. Safe in this knowledge, clients can post additional margin, which can reduce a CB's trade exposures against the client and, therefore, potentially reduce costs. LCH regularly reviews the range of eligible IM collateral that meets its risk policy; for example, with the recent inclusion of Network Rail collateral.

MEETING SWAP VM CALLS WITH SPONSORED CLEARING

Let us turn now to VM. If and when the swap(s) go out of the money, the pension scheme will be required to post cash VM via its CB. When mandatory clearing was introduced, this presented a challenge to PSAs, which had always been able to post bonds under their bilateral bank CSAs.

In line with the regulatory objectives of facilitating the participation of PSAs in central clearing, LCH has partnered with the market — resulting in Sponsored Clearing being added to LCH RepoClear. Sponsored Members (PSAs themselves) are direct members at LCH RepoClear, sponsored by an Agent Member (bank). This gives PSAs direct access to LCH's large liquidity pool, where they can transform their HQLA into cash to meet their LCH SwapClear VM calls. In Figure 1 (at left), the dark green zone depicts how cash VM requirements can be met by LCH RepoClear, even in stressed markets, as an extension of BAU activity. There was continuous liquidity in the short dates during COVID-19, enabling trades to be rolled. There was continuous liquidity in cleared repo markets throughout the COVID-19 stress scenario, due in part to the netting benefits to dealers within the service.

Sponsored Clearing is currently available in LCH RepoClear at LCH Ltd for Gilts and for EUR Government/Supra/Agency debt via LCH RepoClear at LCH SA. The structure has been developed with the buy-side to ensure it meets pension scheme needs to provide additional sources of liquidity in all market conditions for meeting their VM cash margin calls.

In summary, since the introduction of mandatory clearing, LCH SwapClear has expanded its cleared swaps accounts and product suite as well as its range of eligible IM collateral. The introduction of further EMIR-compliant client-clearing accounts has addressed concerns about mutualisation, enabled retention of beneficial ownership of collateral and also provided a facility to post IM directly to LCH to enhance collateral access and efficiency. Furthermore, LCH RepoClear has added Sponsored Clearing to enable PSAs to meet their swap VM calls via cleared repo and benefit from access to the large liquidity pool and lower trade execution costs resulting from banks' increased netting of positions.

02. Costs and Pricing

This chapter describes how LCH innovation and regulatory change will improve PSAs' incentives to clear through potential improvements in execution pricing and clearing broker fees (indirect costs). This is in addition to PSAs facing potentially higher costs on bilateral swaps versus cleared swaps as a direct result of UMR.

PSAs are likely to see improvements in cleared pricing and a worsening of bilateral pricing for new swaps and unwinds as some of the relative clearing cost benefits are passed on.

Figure 2 (next page) illustrates the evolution of aggregate direct and indirect costs (funding, capital and clearing) and pricing for all participants in the system when trading a 30-year bilateral and cleared swap. It highlights the increasing difficulty for banks to sustainably absorb the worsening costs of bilateral swaps over the improving costs of cleared swaps. Consequently, PSAs are likely to see improvements in cleared pricing and a worsening of bilateral pricing for new swaps and unwinds as some of the relative clearing cost benefits are passed on.

LCH has improved the incentives to clear through innovative solutions such as Settlement-to-Market (STM), Sponsored Repo, Custodial Segregation and Stress Loss Margin. Furthermore, LCH has advocated for improvements to regulation — such as the move from trade exposure methodology, the Current Exposure Method (CEM), to the Standardised Approach for Counterparty Credit Risk (SACCR) and allowing client-cleared IM recognition under Leverage Ratio — which better align true risks and improve the cost of clearing. UMR and Net Stable Funding Ratio (NSFR) also further improve the relative cost of clearing through additional capital and funding requirements for bilateral swaps.

Until now, EBs have provided some PSAs with better bilateral pricing than cleared and have therefore absorbed the greater capital costs in bilateral. EBs face a higher counterparty risk weight (100% for some PSAs and 2% for a CCP) and additional balance sheet use for leverage exposure from receiving non-cash VM, both of which worsen capital costs for bilateral exposures than cleared.

Figure 2: Swap Trade Economics: Past, Present and Future

CLIENT-CENTRED INNOVATION

To date, the regulatory-driven standardised approach that banks have to rely on to capitalise counterparty exposure is a non-risk-sensitive method — CEM. This methodology does not recognise full netting benefits; at the same time, there is also no Leverage Ratio exposure reduction allowed for CBs receiving IM from their cleared PSAs. As a result, LCH worked with market participants to develop clearing solutions that better enable PSAs to maintain their investment strategies.

LCH SwapClear introduced STM (not generally available in the bilateral market[1]) to give participants the flexibility to reduce credit exposure (and, consequently, capital) by settling daily moves in swap net present value (NPV) instead of collateralising them.

LCH SwapClear's Custodial Segregation account would allow the PSA to post additional margin directly to LCH without increasing its exposure to the CB.

Additionally, LCH SwapClear has made it possible for clients to post Stress Loss Margin in the form of additional IM to help improve its CB's risks and costs, a benefit that could be passed on to the client in the form of improved pricing or increased capacity. The additional margin, which is likely to be available to PSAs with large holdings of HQLA collateral, can offset the CB's default fund-related liabilities incurred from providing clearing services to the PSA. LCH SwapClear's Custodial Segregation account would allow the PSA to post additional margin directly to LCH without increasing its exposure to the CB.

Lastly, Sponsored Clearing allows EBs to reap capital benefits from multilateral netting and offer better cleared repo pricing to its end users, including PSAs (Sponsored Members).

THE IMPACT OF NEW REGULATION ON PSAS

The third and fourth states in Figure 2 (previous page) capture the effect of the various new regulations that are due to be implemented from 28 June 2021 in the EU. A move in exposure calculation methodology from CEM to a risk-sensitive SACCR will improve EBs' costs through better recognition of multilateral netting (available under clearing) and LCH's reduced rate of capitalising default fund contributions (C-Factor under SACCR). Simultaneously, bilateral costs to EBs will worsen under SACCR against long-term and unidirectional portfolios; additionally, non-cash VM CSAs face higher capital and potentially long-term funding requirements under NSFR. Banks' bilateral transactions will continue, as before, to attract a higher counterparty risk weight (100% for some PSAs and 2% for a CCP). As a result, PSAs may benefit from receiving better relative cleared pricing from Valuation Adjustment (XVA) desks.

CBs will also benefit due to the reduced C-Factor and the upcoming regulation to allow client-cleared IM to reduce CB's Leverage Ratio exposure despite increases in PSA trade exposures versus CEM.

In the final state, bilateral swap costs are further magnified with respect to funding, capital and operations as UMR has brought into scope more PSAs in Phase 5 this September and Phase 6 in September 2022. Banks and PSAs in scope will both need to post IM on new uncleared trades, with margin levels likely to be higher than clearing due to fewer bank netting opportunities and different margin methodologies.

It is expected that banks will find it difficult to sustainably absorb these relatively higher bilateral costs versus clearing and, consequently, PSAs are likely to benefit from better relative pricing in clearing.

[1] *Settlement-to-Market is available at SwapAgent for bilateral contracts.*

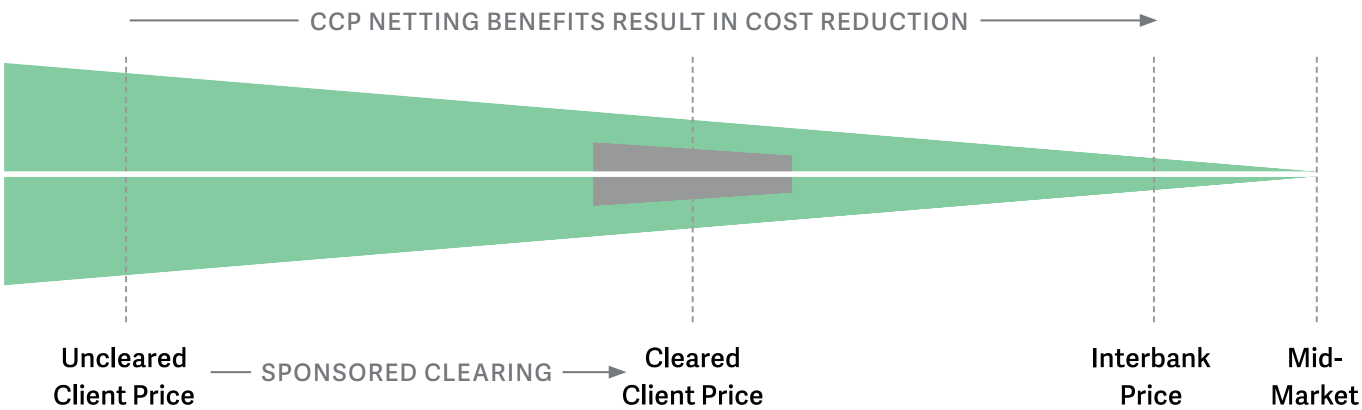
REPO TRADE ECONOMICS

PSAs can fund the cash VM for their swap portfolio through repos. Pricing for repos continues to improve for PSAs in clearing over bilateral. For a bank intermediary in bilateral repo transactions, capital and balance sheet costs are largely due to physical settlement and a lack of offset opportunities, especially for unidirectional PSAs, whose individual portfolios contain limited netting opportunities. The introduction of Leverage Ratio amplified this, with each bilateral repo having a hurdle cost of capital (where non-netted) as much as 30 bps[2], assuming a 10% return and BIS 3% Leverage Ratio. LCH RepoClear's Sponsored Model addresses the lack of netting, as the EB can have both the pension scheme and the offsetting transaction at LCH. Netting benefits can be reaped if the counterparty, currency, settlement date and settlement location are all the same. This, in turn, has resulted in improved pricing for the Sponsored Member (the pension scheme), as shown in Figure 3, below.

As can be seen in this stylised example, a combination of innovative clearing solutions and a levelling of the regulatory environment has reduced the overall cost of clearing for banks, which we expect to translate into better swap and repo pricing for PSAs. To summarise, PSAs should reconsider how cost and pricing dynamics have changed to use clearing as a tool for their overall portfolio risk management.

Figure 3.

Repo Trade Economics



[2] *Costs are dependent on Leverage Ratio regulation (for example, US G-SIB is 5%) and target returns, which vary by bank.*

03. Benefits of Clearing in Portfolio Risk Management

In this chapter, we examine clearing benefits for swaps and repos, both in their own right and when incorporated into the overall management of a pension scheme's portfolio, starting with the resilience of clearing. Throughout the market volatility and increased volumes at the onset of the COVID-19 pandemic, LCH provided a stable and reliable clearing capability, enabling deep and continuous liquidity across LCH SwapClear and LCH RepoClear products for their members and PSAs. Clearing operated without disruption to execution access, operational workflow or margin methodology.

Figure 4 (at right) illustrates the benefits directly related to the clearing of transactions in more typical market conditions and how these can be incorporated into a pension scheme's overall portfolio risk management.

On the left side of Figure 4, we highlight the access that PSAs gain to LCH's market-leading liquidity pool in both LCH SwapClear and LCH RepoClear. It is relevant for execution with the dealer community when pricing new swap and repo trades as well as restructures and unwinds, either directly with EBs or through trading venues. This access to liquidity and execution compares favourably to the bilateral market, where pricing is often on a trade-by-trade basis.

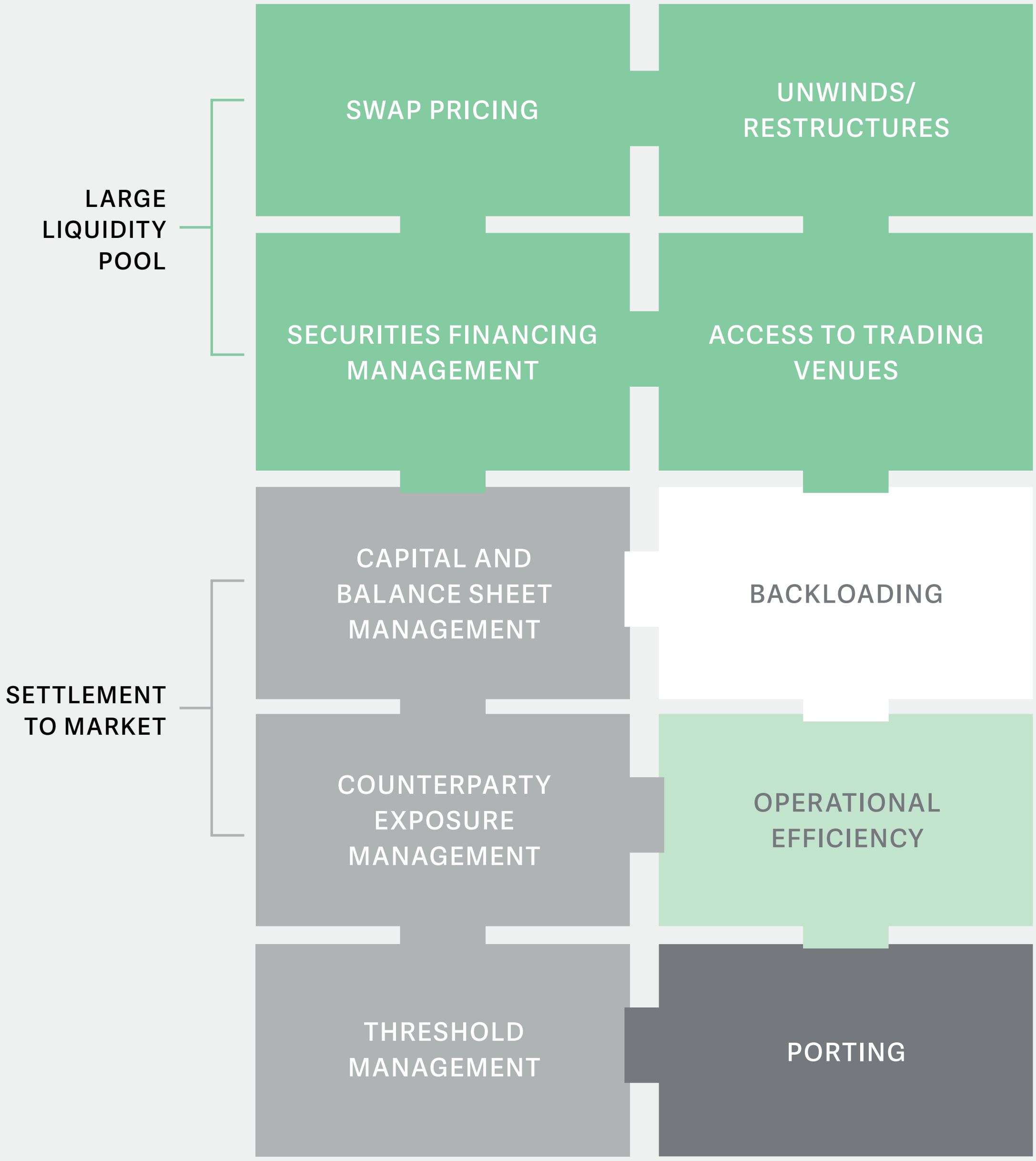
Novations require an additional layer of consideration between the step-in and step-out EBs, which is often time consuming and often results in pricing differentials and inconsistencies.

Pricing of bilateral swaps can be based on a number of contributing factors, including the overall portfolio, CSA terms, mark-to-market and collateral postings. It may also vary if the EB is constrained by capital or balance sheet availability. Novations require an additional layer of consideration between the step-in and step-out EBs, which is often time consuming and often results in pricing differentials and inconsistencies. Hence, during the stressed market conditions of 2020, PSAs took advantage of the liquidity and execution benefits of clearing to manage their risk.

As noted in Chapter 2 (Costs and Pricing), repo pricing benefits from improved netting, as the EB will face only one counterparty (LCH) instead of trading bilaterally with a pension scheme and its related hedge trade.

Cleared swap trades can be executed once the standard Cleared Derivatives Agreement is signed with each EB. By comparison, PSAs captured in Phase 5 or 6 of UMR will be required to repaper their VM CSAs and sign additional CSAs to post and collect IM. As each set of documents will be negotiated bilaterally, like the current CSAs, it is unlikely that they will be standard across all EBs. Additional documentation is also required for the segregation of the IM in custodial accounts.

Figure 4: Clearing as a Portfolio Risk Management Tool



> “Cleared repo markets should have the advantage of being more liquid than the bilateral markets, as banks are in principle more willing to trade cleared repos rather than bilateral repos — not least because they can net their positions with the CCP.”

EC report on the Central Clearing Exemptions for Pension Scheme Arrangements (PSAs), Sept. 2020

CLEARING-DRIVEN OPERATIONAL EFFICIENCIES

Operational efficiency benefits are evident in a number of areas. Clearing has the significant advantage of reducing collateral exchanges, as there is only one counterparty (LCH). In contrast, bilateral collateral needs to be exchanged with each counterparty where there are live trades. The same is true for payments.

Unambiguous and independent valuations of portfolios, for both IM and VM, minimise collateral disputes. Straight-through-processing (STP) of trades that are electronically executed reduces operational risk. This automation also provides regulators with transparent reporting. This all compares favourably to the bilateral market, where each EB will require servicing across operations and default process.

The remaining sections of Figure 4 (on page 13) demonstrate the role clearing can play in overall portfolio risk management across counterparty risk and resource management. The pension scheme and its relationship banks can incorporate clearing to optimise allocated capital and balance sheets across all businesses.

ENHANCED PORTFOLIO RISK MANAGEMENT

Backloading and porting are integrated services provided by LCH that can assist in overall risk management of a portfolio.

Backloading and porting are integrated services provided by LCH that can assist in overall risk management of a portfolio. Backloading is the service that enables PSAs to clear their existing (legacy) bilateral trades. It may involve a price negotiation to switch effective CSAs. Once cleared, porting allows PSAs to manage bank exposures by moving their portfolios between their appointed CBs via LCH’s automated service, the LCH SwapClear Portal. Porting is also a frequent BAU activity, which continues to see growth and more customers using the service, even in stressed times. In 2020, for example, LCH ported 618 portfolios with over 25,500 trades across 113 asset managers.

Clearing also allows PSAs and their counterparties (across EB and CB relationships) to manage capital and balance sheet exposures, counterparty risk and UMR thresholds. The addition of cleared swaps and repos to the PSA toolkit enables them and their EBs to optimise allocation of resources across their portfolio.

Banks continually look to optimise against factors related to potential systemically important banks (G-SIBs), where the benefit of improved compression opportunities and STM in clearing may consequently improve execution pricing for PSAs or increase capacity.

Additionally, some PSAs have adopted clearing to manage their UMR threshold. They have monitored Average Aggregate Notional Amount (AANA) and IM posting levels to balance transactions between bilateral and cleared, so as to remain out of scope for UMR and/or remain under the €50m IM posting threshold.

Conclusion

LCH innovation has addressed many of the concerns identified by PSAs related to accounts segregation and has created solutions maximising the efficiencies for end clients. Additionally, further regulatory changes brought bilateral arrangements into closer alignment with clearing, such as through a requirement to exchange margin.

In addition, LCH provides access to large, deep and diversified liquidity pools in swaps and repo (across both LCH Ltd and LCH SA), which remain resilient and accessible in all market conditions. Equally, LCH has and will continue to partner with market participants so as to further evolve its offering and to support an efficient OTC derivatives and repo market ecosystem.

Our current and future solutions will align with the regulatory objective of promoting a central clearing as a key function in the OTC rates derivatives markets. With or without an extended exemption, PSAs are able to adopt clearing as part of their investment strategy. Doing so achieves the twin benefits of optimising portfolio risk management and maximising returns for scheme members.

Maybe it is time to give clearing another look?

GLOSSARY OF ACRONYMS

AANA	Average aggregate notional amount
BIS	Bank for International Settlements
CEM	Current exposure method
CSA	Credit support annex
EB	Executing broker
EMIR	European market infrastructure regulation
G-SIB	Global systemically important bank
HQLA	High quality liquid assets
IM	Initial margin
NSFR	Net stable funding ratio
OTC	Over-the-counter
PSA	Pension scheme arrangement
SACCR	Standardised approach for counterparty credit risk
STM	Settlement to market
STP	Straight-through-processing
UMR	Uncleared margin rules
VM	Variation margin
XVA	X-value adjustment

“It is only a matter of time before PSAs will need to clear their derivatives trades, not only because the exemption will eventually expire, but also because it provides very valuable safeguards.”

ESMA’s Report to the European Commission on Clearing Solutions for Pension Schemes, Dec. 2020

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