Central Clearing in Europe – Implications for Pension Plans

Introduction
Currently, many over-the-counter (‘OTC’) derivatives are traded bilaterally. Figure 1 shows a bilateral trade between an investor (Client A) and an investment bank (Bank B).

In Brief
► Central clearing aims to reduce systemic risk associated with over-the-counter (‘OTC’) derivatives, giving counterparties the ability to maintain existing positions and collateral in the event of defaults.
► In Europe, the European Market Infrastructure Regulation (EMIR) will legislate for mandatory central clearing of eligible derivative contracts via a central counterparty (‘CCP’).
► The technical standards of EMIR are likely to be in place by the end of 2012 (meeting a G20 commitment) but mandatory clearing is not expected until mid to late 2013.
► Initially, only the clearing of new interest rate swap and credit default swap transactions is likely to be mandatory.
► Pension plan investors have an exemption from central clearing for three to six years but existing OTC positions may be moved on a voluntary basis in order to benefit from the advantages of the cleared infrastructure.
► Additional costs incurred through clearing could include, initial and variation margin, collateral transformation, and fees paid to the CCP, clearing and executing brokers.

The opinions expressed are as of July 2012 and may change as subsequent conditions vary.
Collateralization Requirements and Costs

The strength of a CCP

Central clearing does not fully remove counterparty risk, but transfers it from the executing broker to the CCP. If a clearing broker, or one if its clients, were to default, up to four levels of protection exist before the CCP itself would become insolvent.

Variation Margin (VM): The VM guards against the loss of unrealized gain on a derivative in the same way as daily collateral in the bilateral model.

Initial Margin (IM): CCPs collect IM to cover the expected loss on a derivative between the time of default and liquidation of the position.

Default Fund Contributions: A deposit paid by the clearing broker that provides a cushion to offset potential losses above and beyond those covered by IM.

CCP Contributions: Individual clearing houses may contribute a capped amount to the default fund. Generally these amounts may end up being relatively small when compared with the potential size of the default fund.

Implementation:
1. Client A initiates bilateral trade with Bank B
2. Client A affirms trade to Clearing Broker A and Bank B affirms trade to Clearing Broker B
3. Once all parties have affirmed the trade, it is automatically routed to the central counterparty (‘CCP’)

Counterparty risk is to the CCP

Following 18 months of negotiations, the European Market Infrastructure Regulation (‘EMIR’), was agreed politically on 9 February 2012. Now that primary legislation for OTC derivatives reform has been agreed upon (both in Europe and the US), attention is turning to convergence of secondary rule making and the sequencing of the implementation of central clearing.

Eligible Instruments

Only new transactions for eligible products will be mandated for central clearing and the initial focus on eligible asset classes has been interest rate swaps and credit default swaps.

Inflation swaps, swaptions and total return swaps, for instance, are not currently supported by any CCP; although several are working towards broadening their product scope to include these derivatives over the next few years.

This fragmentation is problematic for portfolios containing a mix of eligible and ineligible products which have historically shown some level of inverse correlation (for example interest rate and inflation swaps). Previously, when considered in combination, the changes in value of these portfolios may have displayed some level of offsetting, reducing the volatility of any collateral requirements. This benefit is lost when each portfolio is considered in isolation.

Collateralization Requirements and Costs

Variation Margin (VM)

Bilateral trades are generally collateralized on a daily basis by passing assets equal to the current value of the derivative between the counterparties. The list of eligible collateral for bilateral trades is flexible and varies from a narrow range (for example cash in the base currency of the derivative) to a broad selection of assets and currencies that could include corporate bonds.

In the centrally cleared model this daily collateralization is replaced by a daily VM. Importantly, only cash will be eligible as VM at the CCP. In the absence of a non-cash alternative, there may be a requirement for some investors to use collateral transformation facilities such as repurchase agreements (‘repo’) either through their investment manager, their clearing broker or a third party. A repo is the sale of a security together with an agreement for the seller to buy back the security at a later date. This would enable ineligible collateral to be converted into eligible cash, however the associated costs would be passed on. In addition, the investor would bear the roll and financing risk of these repo transactions.
Present value of one basis point, i.e. the change in swap value of a 0.01% move in interest rates

If the assets forming the IM are operationally and legally segregated from those of the clearing broker, they cannot be used to cover the liabilities of a separate defaulting client of the clearing broker, or the clearing broker itself.

Typically the IM increases with tenor, and varies for pay and receive fixed interest rate swaps, reflecting the historically observed changes over the past few years. Current estimates of IM for fixed interest rate swaps traded through the one UK based clearing house are around 50 times the PV01\(^1\) of the swap.

Similar requirements for IM are currently being drafted for ineligible derivatives which remain on a bilateral basis. Possible outcomes include posting of IM by both counterparties to a third party or one way posting from the investor to the clearing broker. Margin levels for uncleared trades are likely to be similar if not greater than their centrally cleared equivalents.

When the assets are segregated on a legally segregated operationally comingled (‘LSOC’) basis, the assets supporting any one client’s positions are kept in the same account at the clearing broker but are legally segregated. This method is less expensive than full operational segregation, but still retains many of the benefits of legal segregation.

### Initial Margin (‘IM’)

In addition to VM, each trade will be subject to an IM. IM is a deposit posted to cover an estimated, potential change in value of the trade, and acts as a buffer should a counterparty default. Acceptable non-cash assets (generally restricted to highly liquid instruments such as government bonds) as well as cash can be used to cover this requirement. Pension plan investors have not always been required to post IM and as such this will be a new cost for many investors, such as UCITS investors.

The calculation of IM will differ from one CCP to the next but most are expected to use Value At Risk (‘VaR’) methodologies. These methodologies calculate an estimated worst loss by using historical market data to simulate changes in portfolio value. As such a portfolio’s IM will vary slightly day by day and investors will need to have sufficient eligible assets available to meet the requirement and potential future increases.

Typically the IM increases with tenor, and varies for pay and receive fixed interest rate swaps, reflecting the historically observed changes over the past few years. Current estimates of IM for fixed interest rate swaps traded through the one UK based clearing house are around 50 times the PV01\(^1\) of the swap.

### Other Costs

In addition, clearing brokers and the CCPs themselves may impose clearing fees in a similar way to the existing exchange traded derivatives market place. Competition between market participants may help to keep these fees to a minimal level.

### Timeline

The European Securities and Market Authority (‘ESMA’) is required to draft technical specifications by September 2012. These will then be approved by the European Commission by the end of 2012 and the timeline for implementation imposed.

A phased approach to implementation is expected such that the majority of the rules may be finalized by the end of 2012, but will only take effect during 2013 or later. The requirement to centrally clear eligible contracts is not expected until the second or third quarters of 2013 at the earliest.

Pension plan investors have been granted a grace period of three years after the implementation of mandated clearing, during which time they will not be required to clear eligible products through a CCP. This three year exemption can potentially be extended a further three years so that qualifying pension plan investors may not be required to clear centrally until 2018. The grace period is designed to allow CCPs to expand the list of acceptable VM assets from cash only to include government bonds.

---

1. Present value of one basis point, i.e. the change in swap value of a 0.01% move in interest rates

---

<table>
<thead>
<tr>
<th>Table 1: Central Clearing - Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What is changing?</strong></td>
</tr>
<tr>
<td>All “eligible” derivative trades (CDS and interest rate swaps) must be centrally cleared through a central clearing counterparty (‘CCP’)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

---

1. Present value of one basis point, i.e. the change in swap value of a 0.01% move in interest rates
Pension plan investors can however choose to clear centrally voluntarily and there may well be compelling reasons to do so including benefitting from the lower risk environment and potential higher costs of maintaining a bilateral position.

The Reporting Requirement
The financial crisis highlighted the fact that there was insufficient information about the OTC derivatives market available to regulators. To address this issue, market participants, with the support of the regulatory community, committed to establishing and utilizing trade repositories. These centralized registries will maintain electronic databases of open derivative transaction records, ensuring that industry supervisors have the information necessary to manage systemic risk. BlackRock is engaged with regulators in an attempt to ensure that considerations related to trade reporting, such as timing (pre-trade, real-time, or post-trade), liquidity and anonymity, are adequately addressed.

Conclusion
The aim of central clearing is to reduce systemic risk from OTC derivatives.

It is expected that the central clearing of new eligible transactions (initially interest rate and credit default swaps) will be mandatory from mid to late 2013, however pension plan investors have an exemption for three to six years. It is anticipated that a number of pension plan investors will choose to clear centrally voluntarily in order to benefit from the advantages of the centrally cleared infrastructure.

The additional costs associated with central clearing are not yet finalized, but will include the cost of posting IM and VM (although many pension plan investors already implement daily collateralization) as well as fees payable to the CCP, clearing and executing brokers.

BlackRock continues to support initiatives to strengthen oversight of the OTC derivatives market and is working directly with regulators, CCPs and clearing brokers in both Europe and the US to shape policy to the benefit of clients.

From a practical perspective BlackRock has engaged a number of brokers to act as clearing brokers for our centrally cleared positions and are actively clearing OTC derivatives across a large number of accounts in the US. Although European CCPs are much less developed than US CCPs we are taking similar steps to ensure we are capable of clearing voluntarily ahead of the clearing requirement from EMIR where we (in agreement with clients) view this as beneficial.

The next few months will see a number of CCPs entering the European market (for example CME and Eurex) with viable buy-side models, as well as further clarification of the regulations.

This paper is part of a series of BlackRock public policy ViewPoints and is not intended to be relied upon as a forecast, research or investment advice, and is not a recommendation, offer or solicitation to buy or sell any securities or to adopt any investment strategy. The opinions expressed are as of June 2012 and may change as subsequent conditions vary. The information and opinions contained in this paper are derived from proprietary and nonproprietary sources deemed by BlackRock to be reliable, are not necessarily all-inclusive and are not guaranteed as to accuracy. As such, no warranty of accuracy or reliability is given and no responsibility arising in any other way for errors or omissions (including responsibility to any person by reason of negligence) is accepted by BlackRock, its officers, employees or agents.

This paper may contain “forward-looking” information that is not purely historical in nature. Such information may include, among other things, projections and forecasts. There is no guarantee that any forecasts made will come to pass. Reliance upon information in this paper is at the sole discretion of the reader.

Issued in Australia and New Zealand by BlackRock Investment Management (Australia) Limited ABN 13 006165975. This document contains general information only and is not intended to represent general or specific investment or professional advice. The information does not take into account any individual’s financial circumstances or goals. An assessment should be made as to whether the information is appropriate in individual circumstances and consideration should be given to talking to a financial or other professional adviser before making an investment decision. In New Zealand, this information is provided for registered financial service providers only. To the extent the provision of this information represents the provision of a financial adviser service, it is provided for wholesale clients only. In Singapore, this is issued by BlackRock (Singapore) Limited (Co. registration no. 200010143N). In Hong Kong, this document is issued by BlackRock (Hong Kong) Limited and has not been reviewed by the Securities and Futures Commission of Hong Kong. In Canada, this material is intended for permitted clients only. In Latin America this material is intended for Institutional and Professional Clients only. This material is solely for educational purposes and does not constitute an offer or a solicitation to sell or a solicitation of an offer to buy any shares of any fund (nor shall any such shares be offered or sold to any person) in any jurisdiction within Latin America in which an offer, solicitation, purchase or sale would be unlawful under the securities law of that jurisdiction. If any funds are mentioned or inferred to in this material, it is possible that they have not been registered with the securities regulator of Brazil, Chile, Colombia, Mexico and Peru or any other securities regulator in any Latin American country and no such securities regulators have confirmed the accuracy of any information contained herein. No information discussed herein can be provided to the general public in Latin America.

The information provided here is neither tax nor legal advice. Investors should speak to their tax professional for specific information regarding their tax situation.

FOR MORE INFORMATION: www.blackrock.com

BlackRock® is a registered trademark of BlackRock, Inc. All other trademarks are the property of their respective owners.

© 2012 BlackRock, Inc. All Rights reserved. BLACKROCK, BLACKROCK SOLUTIONS, ALADDIN, iSHARES, LIFEPATH, SO WHAT DO I DO WITH MY MONEY, INVESTING FOR A NEW WORLD, and BUILT FOR THESE TIMES are registered and unregistered trademarks of BlackRock, Inc. or its subsidiaries in the United States and elsewhere. All other trademarks are those of their respective owners.