Eurex Clearing’s Collateral Solutions

Reuse of GC Pooling® Collateral for Eurex Clearing Margining

February 2014

Service Description
Summary

GC Pooling Reuse Service enables efficient collateral management

What is Reuse?

- In light of the increasing demand for collateral, efficient usage of collateral is becoming increasingly important
- Therefore, Eurex Clearing accepts reuse of collateral which has been received from GC Pooling® cash provider activities across all GC Pooling® Baskets* covering the margin requirements arising from any product cleared by Eurex Clearing from Clearstream Banking Frankfurt (CBF) and Clearstream Banking Luxemburg clients (CBL)

Who can reuse GC Pooling® collateral?

- GC Pooling® Cash providers are allowed to use the transferred GC Pooling® collateral up to the amount of their full value. The service is available to CBF and CBL serviced clients.

What are the member benefits?

- The Reuse of GC Pooling® collateral can achieve the following:
  - reducing margin collateral funding cost
  - increasing the trading flexibility of own securities
  - reducing the operational effort to manage collateral substitutions
  - mobilizing further collateral
  - lowering securities handling fee (initially set to zero)

* Eligible GC Pooling® baskets are: GC Pooling® ECB Basket, GC Pooling® ECB EXTended Basket, GC Pooling® INT MXQ Basket & GC Pooling® Equity Basket
Eurex Repo GC Pooling® – Trading, Clearing, Settlement

Secured Euro and US Dollar cash funding – Straight Through Processing

Product
- GC Pooling® is the cash-driven General Collateral (GC) market segment of Eurex Repo
- Secured Euro and US Dollar cash funding collateralized by standardized high-quality collateral baskets

Trading
- Trading of standardized high-quality collateral baskets against secured money
- Anonymous trading on an open order book basis
- Reduced regulatory capital costs, depending on country of residence [Basel III outlook]

Clearing
- Eurex Clearing is the Clearing House and Central Counterparty (CCP) for all GC Pooling® transactions, thereby allowing settlement netting, exposure netting and balance sheet netting

Settlement
- CBF and CBL are providing settlement services for GC Pooling® transactions
- One virtual centralized collateral pool is being created by linking CBF and CBL assets
- Repo collateral is debited from the cash taker and credited to the cash provider via Eurex Clearing
- Reusability of received collateral with pledge towards the Eurosyste (Deutsche Bundesbank/ Banque Centrale de Luxembourg) as well as towards Eurex Clearing for margining
Eurex Repo GC Pooling® - keeps on growing

Accessing a constantly growing collateral pool for Eurex Clearing margining

Key Figures

- Average outstanding volume in Dec 2013: Total €197.1 bn (+3%); GC Pooling Market €154.7bn; CAGR 53% (2005-2013)
- Latest record of outstanding volume on June 13, 2013: Total €223.5bn; GC Pooling €185.5bn
Reuse of GC Pooling® Collateral for Eurex Clearing Margining

Claim based allocation and automatic substitution of basket securities

**GCP Front Leg**
- The cash provider gives cash – EUR or USD – in turn for collateral in scope of the respective GC Pooling® Basket
- The cash taker collateralizes the cash amount with eligible securities and receives the cash amount in return
- The transaction is processed anonymously via Eurex Clearing

**Reuse**
- Once the respective reuse contract for Eurex Clearing margining is concluded and a claim amount is specified, the “transferred” collateral is automatically allocated
- CBL acts as an agent on behalf of the CBL serviced Clearing Members using CmaX® to allocate reuse collateral via Clearstream Banking Frankfurt (Xemac®) to Eurex Clearing

**Automatic Substitution**
- Once a repo reaches the Term Leg settlement date, the allocated “transferred” securities will be automatically substituted by other “transferred” securities, if sufficiently available in Xemac®/CmaX® to ensure settlement of the GC Pooling® transactions in due time
- Alternatively the Reuse claim amount is to be reduced in time and replaced by other eligible collateral
How to participate in the Reuse service?

Reuse service requirements

| Target Group | • The Reuse service addresses Clearing Members with a Eurex Repo clearing license who act as cash providers in the GC Pooling® market |
| Participation Rules & Regs | • CBF serviced clients: Clearing Conditions, Xemac® Special Conditions, CMSA, Eurex Repo participation Form for the Reuse service.  
• CBL serviced clients: In addition to CBF’s Serviced Clients, a side letter to the CMSA and the acceptance of the Eurex Clearing Pledge Agreement is required.  
• Eurex Clearing allows Settlement Institutions to manage the collateral pool for the Reuse service for their clients. |
| Member Information & Forms | • For Further details regarding the service and the application procedures please see get in touch with our Business Development Team  
• Application forms and information are available on the Eurex Clearing website via:  
www.eurexclearing.com |
| Connectivity | • Technical connection requirements  
  – Technical connection to the Eurex Repo GC Pooling Market  
  – Technical connection and to CCP / Eurex  
  – Technical connection to Xemac or CmaX |
Contacts

Eurex Clearing Business Development
Mr. Maximilian Dannheimer
+44 207 8 62-76 40
Maximilian.Dannheimer@eurexclearing.com

Clearing Business Relations
ClearingRelations@eurexclearing.com
Backup
Integrated Market concept for GC Pooling®

1. Bank A quotes the GC Pooling® Basket ISIN.
2. Bank B hits the quote.
3. The GC Pooling® repo trade is concluded. Contracting parties are Eurex Clearing and the respective banks.
4. Eurex Repo submits the trading data to Eurex Clearing.
5. Eurex Clearing process the repo-trade enrichment process and calculates
   - the repo interest cash amount,
   - the cash amount for repo transaction (Term Leg) and report these figures to Eurex Repo.
6. Eurex Clearing sends the standard Clearing Reports to the banks including the GC Pooling® Basket ISIN.
7. Eurex Repo produces a trade slip for the involved parties.
8. Eurex Clearing submits the netted transactions as shaped settlement instructions to Clearstream.
9. The Xemac® /CmaX® Collateral Management System performs the collateralization by eligibility check, evaluation and allocation of individual securities.
10. CASCADE and/or Creation settles the cash instruction and the instructions of the securities allocated by Xemac® /CmaX® and produce the related settlement reports.
11. Eurex Clearing performs the margin/risk mgmt. supported by the Xemac® system.
GC Pooling® Transaction – Example

**Cash Provider**
- Cash: €100m
- Transferred Collateral: €105m Market value
- Margin req.: +€10m
- Collateral: €10m

**Settlement**
- Cash: €100m
- Collateral: €105m Market value

**Cash Taker**
- Front Leg Purchase Date

**A**
- Transferred Collateral: €105m Market value
- Cash: €100m + Interest
- Margin req.: -€10m
- Collateral: €10m

**B**
- Collateral: €105m Market value
- Cash: €100m + Interest
- Term Leg Re-Purchase Date
GC Pooling® Reuse Service – Operational Flow

**Xemac/CmaX® Pool (Transferred Securities)**

- **Eurex Margining Requirement**
  - Increase "Reuse Claim" (Allocation of transferred securities)
  - Amount EUR 100m**

- **Cash Provider**
  - Cash: EUR 100m
  - Transferred Collateral: EUR 105m Market Value
  - Amount EUR 0m

- **Settlement**
  - Transferred Collateral: EUR 105m Market Value
  - Cash: EUR 100m + Interest

- **Cash Taker**
  - Collateral: EUR 105m Market Value
  - Front Leg Purchase Date
  - Term Leg Re-Purchase Date

* Total Eurex Clearing Margining Requirement, including Margin requirement for specific GC Pooling® transaction
** Maximum Reuse Claim: Market value of Basket collateral - Haircut

www.eurexclearing.com
GC Pooling® Baskets of Eurex Repo

<table>
<thead>
<tr>
<th>Basket Specifics</th>
<th>GC Pooling® ECB Basket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specifics</td>
<td>Based on the ECB EAD*</td>
</tr>
<tr>
<td></td>
<td>Approximately 8,000 ECB eligible securities (High-grade subset of the ECB EAD)</td>
</tr>
<tr>
<td></td>
<td>Reusable towards the Eurosystem (if applicable) and towards Eurex Clearing for margining</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GC Pooling® ECB EXTended Basket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on the ECB EAD*</td>
</tr>
<tr>
<td>ECB Basket components and further fixed income securities, issuers include also agency credit and agency non credit institutions, approximately 22,000 ECB eligible securities</td>
</tr>
<tr>
<td>Reusable towards Eurex Clearing for margining (not reusable towards the Eurosystem)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GC Pooling® INT MXQ Basket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on Eurex Clearing Admissible Securities List (Margin Collateral)</td>
</tr>
<tr>
<td>Around 600 instruments of Central Banks, Central Governments, Supranationals</td>
</tr>
<tr>
<td>Reusable towards Eurex Clearing for margining (not reusable towards the Eurosystem)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GC Pooling® Equity Basket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top 50 selection of the HDAX® (highest traded volume in Xetra)</td>
</tr>
<tr>
<td>Reusable towards Eurex Clearing for margining (not reusable towards the Eurosystem)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valuation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Repo securities are valued by using prices determined by Eurex Clearing (including accrued interest) and the ECB haircuts**</td>
</tr>
</tbody>
</table>

* Eligible Asset Database from the ECB
** Haircuts will be increased by Eurex Clearing in case a theoretical price is applied
Reuse of GC Pooling® Collateral for Eurex Clearing Margining
February 2014

Eurex derivatives are currently not available for offer, sale or trading in the United States or by United States persons (other than EURO STOXX 50® products) before doing so. Clearing process provided by EurexClearing, should consider legal and regulatory requirements of those jurisdictions relevant to them, as well as the risks associated with such circumstances, including, without limitation, in connection with actual trading or otherwise or for any errors or omissions contained in this publication. This publication is published for information purposes only and shall not constitute investment advice respectively does not constitute an offer, solicitation or recommendation to acquire or dispose of any investment or to engage in any other transaction. This publication is not intended for solicitation purposes but only for use as general information. All descriptions, examples and calculations contained in this publication are for illustrative purposes only.

Eurex and Eurex Clearing offer services directly to members of the Eurex exchanges respectively to clearing members of Eurex Clearing. Those who desire to trade any products available on the Eurex market or who desire to offer and sell any such products to others or who desire to possess a clearing license of Eurex Clearing in order to participate in the clearing process provided by Eurex Clearing, should consider legal and regulatory requirements of those jurisdictions relevant to them, as well as the risks associated with such products, before doing so.

Eurex derivatives are currently not available for offer, sale or trading in the United States or by United States persons (other than EURO STOXX 50® Index Futures, EURO STOXX 50® ex Financials Index Futures, EURO STOXX® Select Dividend 30 Index Futures, EURO STOXX® Index Futures, EURO STOXX® Large/Mid/Small Index Futures, STOXX® Europe 50 Index Futures, STOXX® Europe 600 Index Futures, STOXX® Europe 500 Banks/Industrial Goods & Services/Insurance/Media/Travel & Leisure/Utilities Futures, STOXX® Europe Large/Mid/Small 200 Index Futures, Dow Jones Global Titans 50 IndexSM Futures (EUR & USD), DAX®/MDAX®/TDAX® Futures, SMIM® Futures, SLI Swiss Leader Index® Futures and VSTOXX® Mini Futures as well as Eurex inflation/commodity/weather/interest rate derivatives).

Trademarks and Service Marks
Bux®, DAX®, DivDAX®, eb.rexx®, Eurex®, Eurex Bonds®, Eurex Repo®, Eurex Strategy Wizard®/LSF®/Euro GC Pooling®, FDAX®, FWB®, GC Pooling®, GCPI®, MDAX®, ODAX®, SDAX®, TecDAX®, USD GC Pooling®, VDAX®, VDAX-NEW® and Xetra® are registered trademarks of DBAG. Phelix Base® and Phelix Peak® are registered trademarks of European Energy Exchange AG (EEX). The service marks MSCI Russia and MSCI Japan are the exclusive property of MSCI Barra. RDX® is a registered trademark of Vienna Stock Exchange AG. IPD® UK Annual All Property Index is a registered trademark of Investment Property Databank Ltd. IPD has been licensed for the use by Eurex for derivatives. SLI®, SMI® and SMIM® are registered trademarks of SIX Swiss Exchange AG. The STOXX® indexes, the data included therein and the trademarks used in the index names are the intellectual property of STOXX Limited and/or its licensors Eurex derivatives based on the STOXX® indexes are in no way sponsored, endorsed, sold or promoted by STOXX and its licensors and neither STOXX nor its licensors shall have any liability with respect thereto.

Dow Jones Global Titans 50 IndexSM and Dow Jones Sector Titans Indexes®SM are service marks of Dow Jones & Company, Inc. Dow Jones-UBS Commodity IndexSM and any related sub-indexes are service marks of Dow Jones & Company, Inc. and UBS AG. All derivatives based on these indexes are not sponsored, endorsed, sold or promoted by Dow Jones & Company, Inc. or UBS AG, and neither party makes any representation regarding the advisability of trading or in investing in such products.

All references to London Gold and Silver Fixing prices are used with the permission of The London Gold Market Fixing Limited as well as The London Silver Market Fixing Limited, which for the avoidance of doubt has no involvement with and accepts no responsibility whatsoever for the underlying product to which the Fixing prices may be referenced. PCS® and Property Claim Services® are registered trademarks of ISO Services, Inc. Korea Exchange, KRX, KOSPI and KOSPI 200 are registered trademarks of Korea Exchange Inc. BSE and SENSEX are trademarks/service marks of Bombay Stock Exchange (BSE) and all rights accruing from the same, statutory or otherwise, wholly vest with BSE. Any violation of the above would constitute an offence under the laws of India and international treaties governing the same.
The names of other companies and third party products may be trademarks or service marks of their respective owners.