clear to trade

e u r e x c l e a r i n g *circular 006/12*

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⚠ **High priority**

EurexOTC Clear: Eurex Clearing FpML Interface and further Information

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Content may be most important for:	**Attachments:**
Ü Front Office/Trading Ü Middle + Backoffice Ü Auditing/Security Coordination	On Eurex Clearing website only: 1. EurexOTC Clear Reports – Sample Reports 2. FpML Sample Messages 3. EurexOTC Information Schedule 4. EurexOTC Clear Report Manual (updated version)

Summary:

As part of the EurexOTC Clear Service, Eurex Clearing will introduce the FpML (Financial products Markup Language) Clearing Interface as a new optional clearing interface. The FpML Clearing Interface is an XML-based protocol for electronic trading and processing of complex financial products.

With this circular Eurex Clearing provides information about the Eurex Clearing FpML Interface, EurexOTC Clear sample reports as well as further information about EurexOTC Clear simulation.

The documents described in this circular have been published on the Eurex Clearing website under the path:

www.eurexclearing.com > Member Section > Releases > EurexOTC Clear > Interest Rate Swaps

Click here to be directly forwarded to the documents:
https://www.eurexchange.com/members/releases/otc_clear/

Should you have any questions or should you require additional information, please contact Matthias Rohe at tel. +49-69-211-1 78 86.

EurexOTC Clear: Eurex Clearing FpML Interface and further Information

As part of the EurexOTC Clear Service, Eurex Clearing will introduce the Eurex Clearing FpML (Financial products Markup Language) Interface as a new optional clearing interface. The Eurex Clearing FpML Interface is an XML-based protocol for electronic trading and processing of complex financial products.

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Eurex Clearing FpML Interface

The Eurex Clearing FpML Interface provides EurexOTC Clear participants with a highly flexible and cost-effective opportunity for entering and modifying their EurexOTC Clear data. This is achieved through

- easy integration in existing IT infrastructure; no requirements regarding operating system, hardware or programming language
- reduced roll-out costs thanks to intrinsic backwards compatibility of the interface layer
- optionality to use the hardware and software components recommended by Eurex Clearing or own developed software
- message layout formatting by means of FpML as widely accepted OTC industry standard
- support of a new, open and standardised transport layer which also reduces long-term licence fees.

The Advanced Message Queuing Protocol (AMQP), version 0.1, is used as transport layer for the distribution of FpML Messages. AMQP is an open standard with special focus on the financial services industry which can be used free of licence fees. Participants can use the platform and programming language for their client applications. Further information about AMQP can be found on the website http://www.amqp.org/. The Eurex Clearing FpML Interface is created using Red Hat MRG Messaging Software (which is based on Apache Qpid). Further information is available on the Red Hat website under http://www.redhat.com/mrg/messaging.

For those Members with an existing WebSphere MQ infrastructure, Eurex Clearing will also offer WebSphere MQ as an alternative to AMQP as the transport layer in the third quarter of 2012. Eurex Clearing will connect directly to the WebSphere MQ server on the Member's side.

The target version which should be used for the FpML syntax definition is "FpML Version 5.0".

Planned FpML Transactions

The first release of the Eurex Clearing FpML Interface includes the features "Trade Notification" and "Take-up Confirmation". In simulation, these features will be available as of the beginning of April 2012, their introduction in production is scheduled for May 2012. Eurex Clearing will introduce further post-trade events in the Interface in subsequent releases.

Transactions not supported by the new Eurex Clearing FpML Interface are available via the EurexOTC Clear GUI.

Connection alternatives for the new Eurex Clearing FpML Interface

In order to facilitate utilization of the new FpML interface it is recommended to use the existing lines:

- In contrast to the Enhanced Risk Solution, a redundant line is recommended
- The channel for Eurex contains both trading and clearing requests. Customers who use their connection for clearing and trading should ensure that the new clearing interface does not interfere with trading with its high latency requirements

The following connection alternatives (leased line) are available to the participants for usage of the Eurex Clearing FpML Interface:

- usage of the capacity of an existing 1 Mbit/s Eurex channel
- usage of a new 1 Mbit/s channel on an existing leased line (E1 or higher bandwidth connection)
- usage of a 1 Mbit/s leased line exclusively for the FpML Interface

It is required for the Eurex Clearing FpML Interface to generate a certificate and upload it in the Eurex Member Section. This will be possible for simulation as of beginning of April 2012 and for production as of May 2012.

Eurex Clearing FpML Interface Documentation

Further details about the Interface are contained in the documents listed below. Their publication is scheduled as follows:

Document	Scheduled publication
Eurex Clearing FpML Interface Specification – Volume 1: Overview	Mid-February 2012
Eurex Clearing FpML Interface Specification – Volume 2: Connectivity	Mid-February 2012
Eurex Clearing FpML Interface Specification – Volume 2-A: WebSphereMQ Connectivity	End of June 2012
Eurex Clearing FpML Interface Specification – Volume 2-B: AMQP Programming Guide	End of March 2012
Eurex Clearing FpML Interface Specification – Volume 3: Trade Information & Trade Registration	Mid-February 2012
Network Access Information (IP addresses and ports for simulation and production)	End of March 2012

These documents will be available on the Eurex Clearing website under the path:

www.eurexclearing.com > Member Section > Releases > EurexOTC Clear > Interest Rate Swaps > Interfaces

Click here to be directly forwarded to the documents:
https://www.eurexchange.com/members/releases/otc_clear/irs_interfaces_en.html

In addition to the documents mentioned above we have already published the following FpML sample messages on the Eurex Clearing website:

- API Sample Technical Message “Takeup received and readable”
- API Sample Technical Message “Takeup received but not readable”
- API Sample Confirmation Message “Takeup granted by CM”
- API Sample Refusal Message “Takeup refused by CM”
- API Sample Trade Message “Trade details”
- API XML Schema

The sample files can be downloaded under the following path:

www.eurexclearing.com > Member Section > Releases > EurexOTC Clear > Interest Rate Swaps > FpML Interface Sample Messages and Sample Reports

Click here to be directly forwarded to the documents:
https://www.eurexchange.com/members/releases/otc_clear/irs_fpml_en.html

EurexOTC Clear Sample Reports and EurexOTC Clear Report-Converter

Sample Reports

With this circular we provide the following EurexOTC Clear sample reports:

- Trade Reports:

  CI200/CB200 - Trade Novation, CB201 - Trade Daily Summary, CB202 - Trade Full Inventory, CD200 - Cash Forecast, CD201 - Rate Reset, CD202 - Netting Forecast

- Risk Reports:

  CI205/CC205 - Incremental Risk, CC203 - Variation Margin, CC204 - Overall Margin

The sample reports are available under the following path:

www.eurexclearing.com > Member Section > Releases > EurexOTC Clear > Interest Rate Swaps > FpML Interface Sample Messages and Sample Reports

Click here to be directly forwarded to the documents:
https://www.eurexchange.com/members/releases/otc_clear/irs_fpml_en.html

EurexOTC Clear XML Converter

EurexOTC Clear reports are created in XML format. For easy conversion of reports in the CSV format, Eurex Clearing provides a converter. Information how to install and to use the converter is available in the EurexOTC Clear XML Converter Release Notes.

EurexOTC Clear Report Manual (updated version)

The document covers two different types of reports that are available with the EurexOTC Clear IRS service, i.e. trade reports and risk reports. The purpose of the IRS OTC Report Manual is to explain the content of the reports and to describe each report in detail (purpose, frequency, field description, recipient). The manual has been updated and enriched with direct links to the sample reports available on the Eurex Clearing website.

The EurexOTC Clear Report Manual is available immediately, the converter and the Release Notes will be provided in mid-February 2012 on the Eurex Clearing website under the following path:

www.eurexclearing.com > Member Section > Releases > EurexOTC Clear > Interest Rate Swaps > Technical Manuals

Click here to be directly forwarded to the documents:
https://www.eurexchange.com/members/releases/otc_clear/irs_manuals_technical_en.html

The already published EurexOTC Clear Information Schedule was extended by the above-mentioned documents. The document is available under the following path:

www.eurexclearing.com > Member Section > Releases > EurexOTC Clear > Interest Rate Swaps > Functional Manuals

Click here to be directly forwarded to the document:
https://www.eurexchange.com/members/releases/otc_clear/irs_manuals_functional_en.html

Information about EurexOTC Clear Simulation

Usage of Mega Bank set-up in simulation

In the MarkitWire UAT environment (test environment), "Mega Bank Ltd." (BIC: MEGA1234) is currently used simultaneously by several participants (each with individual user names). In order to ensure anonymity of the bilateral model, using this test entity is only possible if specific conditions are fulfilled:

- Client-clearing transaction with "Mega Bank Ltd." as Executing Broker
  1. The simulation participant as "Mega Bank Ltd." enters a transaction with his current MarkitWire login (Executing Broker)
  2. Simulation participant as "TestFund1" confirms the transaction and selects the Clearing Broker
  3. Simulation participant as e.g. "TestBank" carries out a take-up in the EurexOTC Clear GUI (Clearing Broker)
     - The transaction is booked on the P account of Clearing Member "Mega Bank Ltd." and on the A account of Clearing Member "TestBank" respectively on the account of Registered Customer "TestFund1"
     - The simulation participant has no access to the data of "Mega Bank Ltd." (EurexOTC Clear GUI, reports). If the simulation participant wishes to have the view of the Executing Broker, an additional MarkitWire ID and corresponding Eurex Clearing ID will have to be set up.
- Inter-dealer transaction with "Mega Bank Ltd." as dealer
  1. The simulation participant as "TestBank" enters a transaction in MarkitWire (Dealer 1)
  2. The simulation participant as "Mega Bank Ltd." confirms the transaction with his current MarkitWire login (Dealer 2)
     - The transaction is booked on the P accounts of Clearing Member "TestBank" and "Mega Bank Ltd."
     - The simulation participant has no access to the data of "Mega Bank Ltd." (EurexOTC Clear GUI, reports). If the simulation participant wishes to have the view of "Dealer 2", an additional MarkitWire ID and corresponding Eurex Clearing ID will have to be set up.

Eurex Clearing recommends using a new MarkitWire ID in simulation instead of using "Mega Bank Ltd.".

Participation in simulation

The simulation which has been running since end of November 2011 is already used intensely by a number of customers. Eurex Clearing recommends that all interested Members - Clearing Members as well as Members in the role of Registered Customer - take part in the simulation. Please use the Static Data Form to register for the simulation. The form can be downloaded from the Eurex Clearing website under the path:

www.eurexclearing.com > Documents > Forms > EurexOTC Clear > Single Forms > Interest Rate Swaps

Click here to be directly forwarded to the document:
http://www.eurexclearing.com/documents/forms/eurex_credit_clear/single/irs_en.html

Furthermore, we recommend that participants should instruct vendors with appropriate adjustments for the used applications in good time.

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February 1, 2012