clear to trade

eurex clearing *circular 105/13*

Date: 18 September 2013

Recipients: All Clearing Members of Eurex Clearing AG, all Trading Participants of Eurex Deutschland and Eurex Zürich and Vendors

Authorized by: Heike Eckert

⚠ **Action required** ⚠ **High priority**

FX products: Required settlement process in case of physical delivery via CLS

Related Eurex Clearing Circular: 094/13

Related Eurex Circular: 186/13

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Content may be most important for:	**Attachment:**
➲ All departments	FX Products Settlement Process Description

Summary:

The Executive Board of Eurex Clearing and the Management Boards of Eurex Deutschland and Eurex Zürich decided to introduce FX futures and FX options, initially offering six currency pairs (EURUSD, EURCHF, EURGBP, GBPUSD, GBPCHF, USDCHF) with effect from **7 October 2013**.

Clearing of FX futures and FX options is subject to prior approval of the Supervisory Board of Eurex Clearing AG. The consultation of the Risk Committee, required for the approval of the Supervisory Board, has already been successfully carried out. The approval of the Supervisory Board is expected for end of September 2013.

This circular provides further details on the CLS settlement process of Eurex FX futures and FX options.

FX products: Required settlement process in case of physical delivery via CLS

The Executive Board of Eurex Clearing and the Management Boards of Eurex Deutschland and Eurex Zürich decided to introduce FX futures and FX options, initially offering six currency pairs (EURUSD, EURCHF, EURGBP, GBPUSD, GBPCHF, USDCHF) with effect from 7 October 2013.

The clearing of FX futures and FX options is subject to the prior approval of the Supervisory Board of Eurex Clearing AG. The consultation of the Risk Committee, required for the approval of the Supervisory Board, has already been successfully carried out. The approval of the Supervisory Board is expected for end of September 2013.

The FX derivatives will be physically delivered through the multi-currency settlement system Continuous Linked Settlement (CLS). CLS mitigates settlement risk in FX transactions of its participants by settling two legs of a FX transaction simultaneously. Once a transaction is settled in CLS, it is final and irrevocable.

For further details on the CLS settlement process of Eurex FX futures and FX options, please refer to the attachment of this circular.

Formal requirements for Clearing Members (CMs)

Before start of trading and clearing of FX products, CMs must submit the following forms:

- **Clearing Agreement**
- **Application for Set-up/Deletion/Change of Securities Accounts and Clearer Cash Accounts**
  In this form, please take special care to fill in the following fields:
  - BIC of the account holder,
  - BIC of the addressed CLS account,
  - SWIFT address of the account holder.
- **Application to participate in FX Trading**
  Required by CMs who are Trading Participants in these products offering clearing for Non-Clearing Members (NCMs).
- **NCM/RC/CM Clearing Agreement for the Elementary Clearing Model**
  Please fill in, if applicable
- **NCM/CM Clearing Agreement for the Net Omnibus Clearing Model**
  Please fill in, if applicable
- **Clearing Agreement for the Participation in the Individual Clearing Model under Eurex Clearing AG Documentation**
  Please fill in, if applicable
- **Use of Accounts**
  Please fill in, if the CM is using a third-party service provider as a correspondent bank for CLS.

The forms listed above will be available on the Eurex Clearing website www.eurexclearing.com under the following link and will be valid as of 7 October 2013:

Resources > Forms

Technical requirements

As a technical requirement for participation in clearing of FX products, it is necessary to install a so-called "RMA service" (SWIFT Relation Management Application) and a "SWIFT Closed User Group".

As described in the attachment, CMs will receive the relevant Eurex Clearing reports and SWIFT messages with the related currency pairs for settlement within the CLS system. To send MT300 messages from Eurex Clearing to the CMs, the following system-related requirements must be fulfilled:

Technical setup has to be performed by the CM's IT-SWIFT department. In the first step, the RMA service between Eurex Clearing and the CM must be set up. This will be done via the exchange of the "RMA key". The RMA key maintains the business relation and addresses between two SWIFT participants.

Additionally, each CM has to ensure via its IT-SWIFT department that the Closed User Group at SWIFT is established to receive the MT300 messages. Afterwards, MT300 messages and CLS delivery instructions and confirmations can be transferred via the SWIFT network.

If you have any questions regarding the technical setup, please contact Ernst Karbe at tel. +49-69-211-1 54 88 or e-mail: ernst.karbe@eurexclearing.com.

If you have any questions about participation in the new service offering, please contact your Key Account Manager for additional information.

18 September 2013

FX products: Settlement process description

Process

Trading of FX futures and options results in physical delivery once a month (payment vs. payment):

- T+2 days after the third Wednesday of the contract month (value date “S”),
- options are European style.

FX futures that have not been closed out before expiration and FX options that have been exercised and assigned at expiration date result in physical delivery of the corresponding currencies.

Potential payments are summarized out of the relevant futures and options positions per account analogue to the following Eurex reports:

CE050 “Expiration Payment vs. Payment” (exercised and assigned option positions as well as notified and allocated future positions which are going in delivery) and

CE051 “FX Transactions & Instructions” (delivery instructions effectively resulting from this with appropriate settlement status):

- summarized on currency rate (final settlement price for futures, strike price for Put/Call options) for each currency pair,
- consolidated per Clearing Member (CM) and Non-Clearing Member (NCM) as well as per segregated customer.

Final payment instructions are generated by Eurex Clearing’s Cash Management Engine for transmission to Continuous Linked Settlement (CLS) via a CLS third-party service provider:

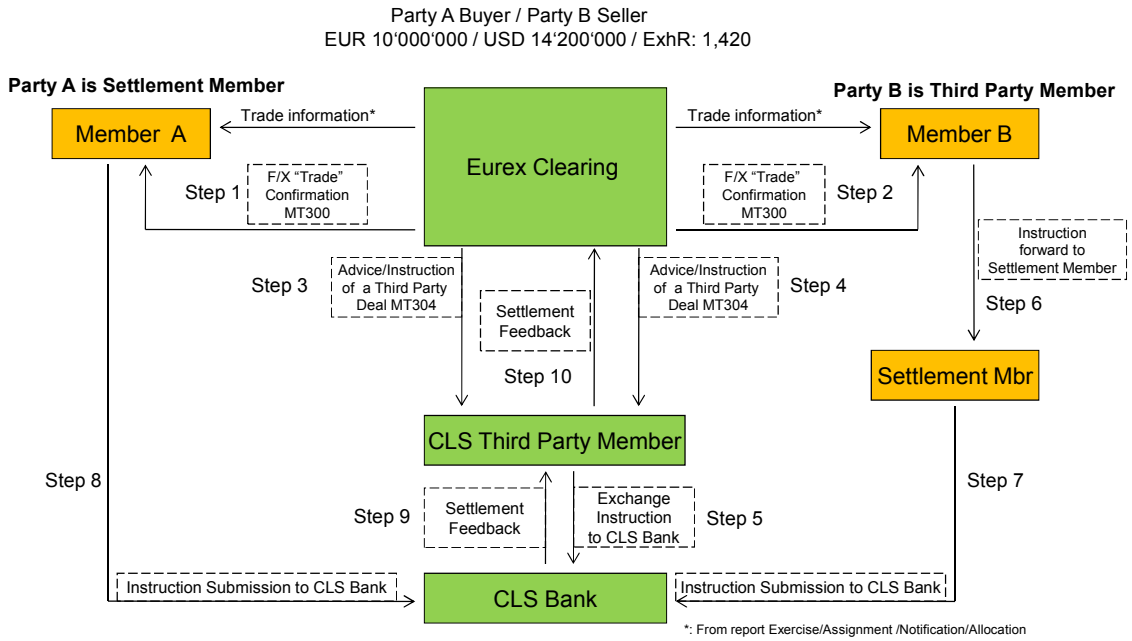
- subject to requirements of the CLS third-party service provider (related to CLS rules),
- Eurex Clearing´s instructions (MT304) are sent to Eurex Clearing’s CLS third-party service provider,
- results are sent via SWIFT as F/X “Trade” Confirmation MT300 to the CM for information and further processing by the CM.

Each Eurex Clearing Member participating in clearing of the product group “FX products” needs to instruct the mirror settlement instructions via SWIFT to obtain mandatory matching of settlement instructions:

- Eurex Clearing delivers templates via the F/X “Trade” Confirmation MT300 to the CM,
- The CM must instruct matching instructions to match Eurex Clearing’s MT304 instructions,
- Eurex Clearing submits all CLS-eligible trades with its BIC EUXCDEFZXXX
- MT300 for Settlement Member of CLS must have the following information in field 82A: EUXCDEFZXXX, after field 32B: the field 56A: CLSBUS33XXX and field 57A: MIDLGB22XXX (CLS third-party service provider of Eurex) also after field 33B: field 57A: CLSBUS33XXX.
- MT300 for a CM’s third-party service provider must quote in field 82A: EUXCDEFZXXX and after field 32B: field 56A: CLSBUS33XXX and field 57A: MIDLGB22XXX (CLS third-party service provider of Eurex) and after field 33B: the field 56A: CLSBUS33XXX and 57A: with the BIC of the CLS Settlement Member which provides the third-party service for the CM.

Please see the settlement procedure message flow in the following diagram:

Settlement Procedure - Message Flow



Step 1: Eurex Clearing sends F/X "Trade" Confirmations - MT300 messages - for information to Member A, who is a Settlement Member at CLS. These messages are in line with corresponding Eurex report RPTCE051.

Step 2: Eurex Clearing sends F/X "Trade" Confirmations - MT300 messages - for information to Member B, who is not a Settlement Member at CLS, but uses a Settlement Member as a third-party service provider. These instructions must be forwarded to the Settlement Member (step 6) but can also directly be sent to the Settlement Member (instead of step 2). These messages are in line with the corresponding Eurex report RPTCE051.

Step 3: Eurex Clearing sends MT304 messages to its third-party service provider, who is a Settlement Member at CLS, as settlement instructions for Member A as one counterparty.

Step 4: Eurex Clearing sends MT304 messages to its third-party service provider, who is a Settlement Member at CLS as settlement instructions for Member B as the other counterparty.

Step 5: The third-party service provider sends all instructions received from Eurex Clearing to CLS.

Step 6: see step 2.

Step 7: The Settlement Member of Member B instructs the corresponding instructions into the CLS system to match them with Eurex Clearing's instructions.

Step 8: Member A instructs the corresponding instructions into the CLS system to match them with Eurex Clearing's instructions.

Step 9: The third-party service provider receives the confirmation of settlement from CLS and books the corresponding payments on the relevant currency accounts for Eurex Clearing.

Step 10: Eurex Clearing receives the confirmations from its third-party service provider to finalize physical delivery towards the involved CMs.

Steps 1 to 4 are performed overnight between the last trading day and S-1 (value date -1). Step 5 is performed early on S-1. Step 6 to 8 must be performed on S-1 by 23:00 CET the latest. Step 9 and 10 are performed on S (value date) after the CLS batch, at approx. 09:30 CET.

Afterwards, Eurex Clearing releases the margins held and the collateral pledged for the related FX futures and options positions.

Pre-requisite for trading of FX futures and options

Eurex Clearing requires all interested CMs to have a CLS connectivity in place. This can be achieved either by an own CLS Settlement Membership or through a CLS third-party service provider.

Without this infrastructure, CMs and their associated NCMs are not allowed to trade FX products.

Reports

Below is a sample of an **MT300** report for information to a CM which is a Settlement Member at CLS itself.
In this example, the CM bought Euro and sold U.S. dollar (EURUDS):

Swift Sender: Eurex Clearing	{1:F01EUXCDEFZAXXX0000000000}
Swift Receiver: Eurex Clearing Member	{2:I300CLRTDEFFXXXXN}{4:
:15A: New Sequence	:15A:
:20: Sender Reference	:20:TESTXXXX52657194
:21: Related Reference	:21:TESTXXXX52657194
:22A: Type of Operation	:22A:NEWT
:94A: Scope of Operation	:94A:AGNT
:22C: Common Reference	:22C:CLRTFF0131EUXCFZ
:82A: Party A	:82A:EUXCDEFZXXX
:87A: Party B	:87A:CLRTDEFFXXX
:15B: New Sequence	:15B:
:30T: Trade Date	:30T:20130816
:30V: Value Date	:30V:20130818
:36: Exchange Rate	:36:1,31
:32B: Currency & Amount – Bought	:32B:EUR10000000,
:56A: Intermediary	:56A:CLSBUS33XXX
:57A: Receiving Agent	:57A:MIDLGB22XXX
:33B: Currency & Amount – Sold	:33B:USD13100000,
:57A: Receiving Agent	:57A:CLSBUS33XXX

Below is the corresponding **MT304** report from Eurex Clearing to its third-party service provider HSBC.
In this example, the CM bought Euro and sold U.S. dollar (EURUDS):

Swift Sender: Eurex Clearing	{1:F01EUXCDEFZAXXX0198000673}
Swift Receiver: CLS Service Provider	{2:I304MIDLGB22XXXXXN}{4:
:15: New Sequence	:15A:
:20: Sender Reference	:20:TESTXXXX52657159
:21: Related Reference	:21:TESTXXXX52657159
:22A: Type of Operation	:22A:NEWT
:94A: Scope of Operation	:94A:ASET
:83D: Fund	:83D:NA
:82A: Fund Manager	:82A:EUXCDEFZXXX
:87A: Executing Broker	:87A:CLRTDEFFXXX
:15B: New Sequence	:15B:
:30T: Trade Date	:30T:20130816
:30V: Value Date	:30V:20130818

:36: Exchange Rate	:36:1,31
:32B: Currency & Amount – Bought	:32B:USD13100000,
:53A: Delivery Agent	:53A:CLRTDEFFXXX
:56A: Intermediary	:56A:CLSBUS33XXX
:57A: Receiving Agent	:57A:MIDLGB22XXX
:33B: Currency & Amount – Sold	:33B:EUR10000000,
:57A: Receiving Agent	:57A:CLSBUS33XXX

Below is the corresponding counterparty **MT300** for information to the CM which is not a Settlement Member at CLS itself, but uses a third-party service provider for its CLS business.
In this example, the CM sold Euro and bought U.S. dollar (EURUDS):

Swift Sender: Eurex Clearing	{1:F01EUXCDEFZAXXX0000000000}
Swift Receiver: Eurex Clearing Member	{2:I300ABCIDEFFXXXXN}{4:
:15A: New Sequence	:15A:
:20: Sender Reference	:20:TESTXXXX52657345
:21: Related Reference	:21:TESTXXXX52657345
:22A: Type of Operation	:22A:NEWT
:94A: Scope of Operation	:94A:AGNT
:22C: Common Reference	:22C:ABCIFF0131EUXCFZ
:82A: Party A	:82A:EUXCDEFZXXX
:87A: Party B	:87A:ABCIDEFFXXX
:15B: New Sequence	:15B:
:30T: Trade Date	:30T:20130816
:30V: Value Date	:30V:20130818
:36: Exchange Rate	:36:1,31
:32B: Currency & Amount – Bought	:32B:USD13100000,
:56A: Intermediary	:56A:CLSBUS33XXX
:57A: Receiving Agent	:57A:MIDLGB22XXX
:33B: Currency & Amount – Sold	:33B:EUR10000000,
:56A: Intermediary	:56A:CLSBUS33XXX
:57A: Receiving Agent	:57A:COMMDEFFXXX

Below is the corresponding counterparty **MT304** from Eurex Clearing to its third-party service provider HSBC.
In this example, the CM sold Euro and bought U.S. dollar (EURUDS):

Swift Sender: Eurex Clearing	{1:F01EUXCDEFZAXXX0198000673}
Swift Receiver: CLS Service Provider	{2:I304MIDLGB22XXXXXN}{4:
:15: New Sequence	:15A:
:20: Sender Reference	:20:TESTXXXX52657321
:21: Related Reference	:21:TESTXXXX52657321
:22A: Type of Operation	:22A:NEWT
:94A: Scope of Operation	:94A:ASET
:83D: Fund	:83D:NA
:82A: Fund Manager	:82A:EUXCDEFZXXX
:87A: Executing Broker	:87A:ABCIDEFFXXX
:15B: New Sequence	:15B:
:30T: Trade Date	:30T:20130816
:30V: Value Date	:30V:20130818
:36: Exchange Rate	:36:1,31
:32B: Currency & Amount – Bought	:32B:EUR10000000,
:53A: Delivery Agent	:53A:COMMDEFFXXX
:56A: Intermediary	:56A:CLSBUS33XXX
:57A: Receiving Agent	:57A:MIDLGB22XXX
:33B: Currency & Amount – Sold	:33B:USD13100000,
:56A: Intermediary	:56A:CLSBUS33XXX
:57A: Receiving Agent	:57A:COMMDEFXXX

Late delivery handling

Given that CLS runs only one settlement cycle and CMs have to input their own instructions into CLS, there may be failure to settlement in CLS. In such cases, Eurex Clearing establishes a late delivery process to enable the settlement on value date after the CLS settlement cycle via its existing payment bank infrastructure. Nevertheless, the target is to settle in CLS. In exceptional cases, however, this late delivery process facilitates a clean-up on value date.

The following cases are considered in the process of handling late delivery:

- Members of Eurex Clearing or their third-party service providers have to submit an FX transaction to CLS; if transactions are not matched in CLS on S-1 by 23:00 CET, the latest, the FX transaction cannot be settled on value date and is therefore treated as “late“ by Eurex Clearing;
- Insufficient funding of the CM on the relevant CLS accounts (irrespective of any potential restrictions and penalties in CLS);
- Other reasons for delivery transactions not being matched and/or not being final after the batch run of CLS on settlement date;
- During the settlement process of FX delivery instructions, Eurex Clearing cancels all unmatched instructions in CLS on S-1 at 23:00 CET. These instructions are seen as “late” even before the CLS batch starts.

If a CM fails a CLS settlement, Eurex Clearing sets a non-automatic trigger event for the failing CM. If the CM confirms that it is able to remedy the termination event, Eurex Clearing may grant a grace period, which starts after the CLS batch on S. To remedy the “failure to pay”, Eurex Clearing runs a “late delivery handling”. The grace period is supposed to avoid termination of all positions for non-insolvency events. During this period, the CM may continue clearing as long as sufficient collateral is provided. If the CM is able to resolve the situation during this period, no close-out netting will be applied. If the CM is not able to resolve the situation during the grace period, the default handling applies, as described below.

Please note that Eurex Clearing identifies the causer of the failed delivery in CLS and applies the relevant fines. All other affected CMs have to follow the late delivery handling as well, irrelevant of all fines.

Additionally, settlement can fail during a CLS batch on S, if the CM has not provided sufficient funding on the relevant accounts debited by CLS.

From a functional point of view, both situations result in a failed delivery of FX instructions at CLS. During the grace period, the outstanding currency amount of each participant will be debited on the participants’ relevant payment bank/central bank account and transferred to the respective Eurex Clearing account of the particular payment bank/central bank.

The following accounts are affected for the respective currencies:

EUR	CHF	USD	GBP
Target2	SNB	Bank of America	Barclays plc
EuroSic	CHF SIC Account	Citibank N.A.	Citibank N.A. (London Branch)
		Deutsche Bank Trust Company Americas (DBTCA)	Deutsche Bank AG (London Branch)
		HSBC Bank USA N.A.	JP Morgan Chase N.A.
		JP Morgan Chase N.A.	HSBC Bank plc
			Royal Bank of Scotland plc

After successful debit, Eurex Clearing credits the relevant currency to the receiving participant. The same process is performed for each outstanding FX instruction on S via cash instructions by Eurex Clearing.

In its function as a Central Counterparty, Eurex Clearing uses funding functions of its third-party service provider within late delivery handling. This enables more efficient settlement of uncaused late deliveries of the CMs involved as counterparties.

Default handling

During the grace period, CMs can meet the delivery obligations, which failed in CLS. If this does not take place on S and the CM is not able to remedy the termination event, the automatic trigger event is set for the CM, i.e. the CM is in default and insolvency proceedings are opened. In case the CM files for bankruptcy before the final settlement of the FX products on the last trading day has taken place, the general default procedure of Eurex Clearing applies with the pre-defined close-out process. If the CM files for bankruptcy before the finality of the CLS settlement took place, the default handling described in the following will apply. Payments/settlements, which are confirmed within the relevant payment/settlement systems (e.g. CLS system) are finalized (per definition) and cannot unwind.

Default handling of derivative positions

Once the insolvency proceedings are opened, all derivatives positions of a defaulting CM are set to close-out netting (depending on the chosen segregation model).

Default handling of pending deliveries

If a CM with pending deliveries is in default, Eurex Clearing will step into the delivery process to guarantee delivery of the non-failing CM. The default CM will be closed-out in line with Eurex Clearing's existing procedures. In general, the non-failing CM has to credit Eurex Clearing's account at the particular payment bank.

If Eurex Clearing is not able to act on the spot market for any reason, cash settlement of the open positions has to be performed to close the pending deliveries on value date S.

Cash settlement

If physical delivery of a currency is not completed by 11:00 CET on settlement day, Eurex Clearing has the right to close the delivery obligation with a cash settlement whereby economical compensation of the "non-failing" CM is ensured. The failing CM has to cover potential losses of the cash settlement (defaulting CM by insolvency estate, or by the lines of defense of Eurex Clearing, respectively) and has to bear the respective penalties.

The cash settlement price is determined by the exchange rate price of the failed delivery instruction, i.e. final settlement price for futures and strike price for options. The announcement of cash settlement will be published only to the relevant parties by Eurex Clearing AG. The price of the covering trade has to be within the accepted price range which will be determined by the Clearing Conditions. If a necessary replacement FX deal cannot be finalized by Eurex Clearing on value date S, execution of the remaining deliveries will be performed/finalized on the next business day.

Determination of the cash settlement price if both Members fail to deliver

The cash settlement price for futures is based on the final settlement price determined on the last trading day. The cash settlement price for options is based on the final settlement price of the option underlying determined on the last trading day.

Determination of the cash settlement price if one leg (CM) fails

Settlement is based on the executed FX replacement transaction:

- If the FX replacement deal can be performed by one transaction, this price is used as the cash settlement price.
- If the FX replacement deal can be performed only by partial transactions, the cash settlement price is calculated based on the volume-weighted average price of the single transactions.

Boundaries of the price of the FX replacement deal

The price of the FX replacement deal is limited to the following upper and lower boundaries for futures and options transactions:

- Futures transaction: ±100 percent of the final settlement price.
- Options transaction: ±100 percent of the final settlement price of the underlying.

In relation to the delivered currency of the replacement deal, the reciprocal value of the final settlement price is used to calculate the boundaries (for quotation currency).

Risk

The standard Risk Based Margining method (RBM) is applied, i. e. one margin class is set up for each currency pair. The FX products will be integrated into Prisma at a later stage.

Products	Yesterday to Today		Today to Tomorrow	
	Premium Margin	Variation Margin	Additional Margin	Futures Spread Margin
FX Options	✓		✓	
FX Futures		✓	✓ for Non-Spreads	✓ for Spreads

For the option pricing model Garman Kohlhagen (technically Black 76) is used. Margin parameters (MP) are based on an EWMA (Exponentially-Weighted Moving Average) volatility (30 or 250 days) and on a liquidity factor:

- Assumption Holding Period 2 days,
- MP = $\text{Volatility}_{\text{EWMA 30d or 250d}}$ x Risk Factor x Liquidity Factor,
- The minimum margin parameter is set at 3.5 percent for non-CHF pairs and 5.5 percent for CHF pairs.

Minimum MP	EURUSD	GBPUSD	USDCHF	EURGBP	EURCHF	GBPCHF
MP [%]	3.5	3.5	5.5	3.5	5.5	5.5

Margin offsets are granted by margin class, i.e. for futures and options on the same currency pairs whereas they are not granted by margin group, i.e. for futures and options on different currency pairs (inherent risks in the settlement procedure). FX products are included in the Standard Clearing Fund. The margin requirement is valid until final settlement of the physical delivery (T+2). After expiration, only the additional margin is required.