X-pand into the Future

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Functional Release Notes - Eurex Repo

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Content may be most important for:	**Attachments:**
➲ Front Office / Trading ➲ Middle + Back Office ➲ Auditing / Security Administration	Functional Release Notes - Eurex Repo

You will find attached the Functional Release Notes for Eurex Repo, representing a further extension of Eurex Clearing AG's services.

In order to clear Repo trades, extension of the Eurex Clearing license is required. Details of the conditions for participation in Eurex Repo clearing will be published in a future circular.

The document describes the additional clearing functionality for repo trades and the handling of overnight repos.

While regulatory approval is still outstanding, the live production date is not yet firmly fixed. However, Eurex Repo members may now test the facilities in the simulation environment.

X-pand into the **Future**

Eurex Clearing AG

Functional Release Notes – Eurex Repo

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1 General Information

1.1 Overview

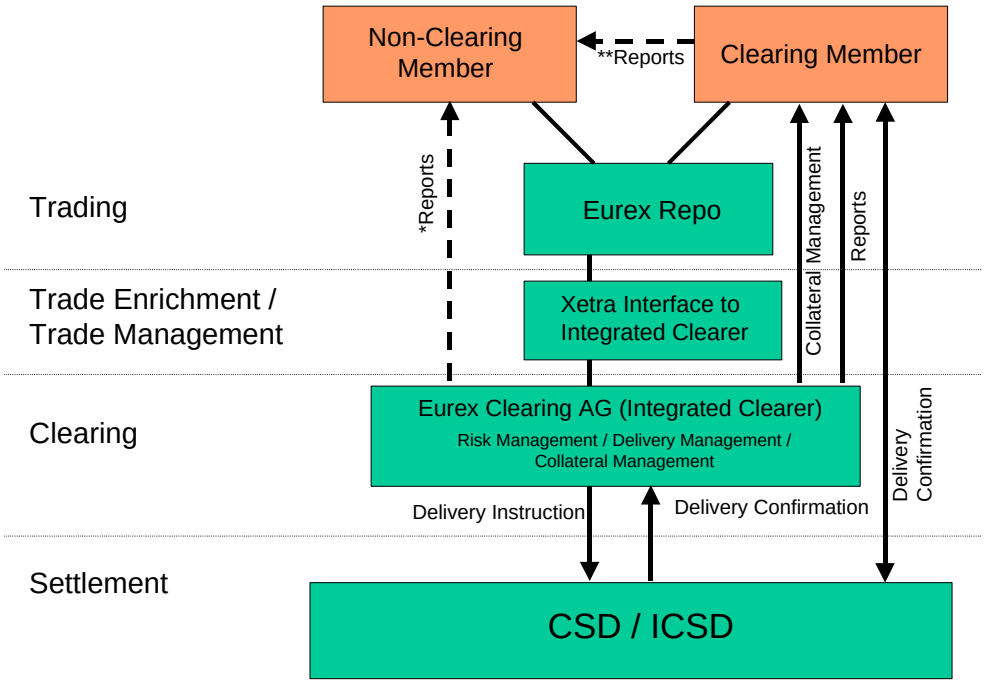
This document is addressed to Eurex Repo participants, i.e. both Eurex non-clearing members as well as Eurex clearing members who intend to provide additionally clearing services for Eurex repo trades of the Euro Repo Market. The reason is either their own participation at Eurex Repo or the trading participation of one of their non-clearing members. The document describes the planned expansion of Eurex Clearing AG's clearing activities:

- to provide additional clearing functionalities for repo trades.
- to support real time settlement for overnight repos.

The introduction of the repo functionality is planned in the second quarter 2001. There are no Technical Release Notes required because the repo functionality does not introduce changes on the relevant raw data and/or file interface.

1.2 Description of the Eurex Repo Platform

Eurex Repo is the trading portion of a fully integrated trading, clearing and settlement system for repurchase agreements. Eurex Repo members enter their quotes at the Eurex Repo trading system where they are processed.



* the report is received directly, in case the member is a Eurex Exchanges non clearing member or clearing member
** the report is received via the clearing member, in case the member is not a Eurex Exchanges non clearing member or clearing member

Matched trades are sent to Xetra for trade enrichment and afterwards to Eurex Clearing AG. With introduction of Eurex Repo for the pan-European Euro Repo Market, Eurex Clearing AG automatically stands as central counterpart for buyers and sellers and thus guarantees both the settlement and anonymity of all transactions executed via the system.

When the repo trades are sent to Eurex Clearing, the Integrated Clearer (IC), as part of Eurex, is involved in the risk margining, delivery management, and collateral management. Direct Links to Clearstream Banking Frankfurt AG (CBF) and Euroclear forward instructions automatically to the clearing member’s designated settlement organisation. Additional member reports for repos are available via the existing Eurex interface.

2 Functional Changes

2.1 Membership

The following membership structure of Eurex Clearing AG applies for participants who intend to trade via Eurex Repo in the pan-european repo market or want to provide clearing services therefor. The Clearing House has defined three types of membership that imply different duties and requirements: General Clearing members (GCM), Direct Clearing Member (DCM) and Non Clearing Member (NCM). GCMs and DCMs are referred to as Clearing Members (CM).

General Clearing Members:

- can trade on the market, can settle their own and their client transactions and the transactions of their Non-Clearing Members.
- are required to provide the Clearing House with margin for their own, their client and their Non-Clearing Member positions.
- are responsible for the settlement of their own, their client and their Non-Clearing Member contracts of cash settled products

The above mentioned criteria do not represent the requirements completely. A detailed description can be found in the Eurex Clearing System User Guide published in the internet.

Direct Clearing Members:

have the same duties and are subject to the same requirements as GCMs. However, a DCM may only clear for itself, its clients, and for Market Participants that are part of the same group of companies. This is, for example, the case when a branch of a DCM is registered as a separate Market Participant.

Non-Clearing Members

are Market Participants without Clearing License, but whose trades are cleared by the Clearinghouse through a CM. Non-Clearing Members do not need to have an account with CSD. The Clearinghouse does not set any margin requirements for Non-Clearing Members. A NCM may choose only one Clearing Member to clear its repo trades.

2.2 Central Counterparty Role

Similar to the central counterparty role that the clearing house plays for derivatives on Eurex Exchanges and for bond trades on Eurex Bonds, the same central counterpart role will exist for repo trading. For Eurex Repo trades[1], the Clearinghouse will be interposed between the primary counterparts and consequently take over the role as central counterpart. The following benefits will be realised for members:

- reduction of counterpart risk, because each market participant will have the Clearinghouse as its counterpart instead of the market participant with whom the trade was concluded
- complete trade and post trade anonymity; all Clearing Members will clear and settle their trades against the Clearinghouse

[1] For Overnight Repos the procedure differs because Eurex Clearing AG as central counterpart is involved after the settlement of the first repo leg. The exact procedure is described in detail in chapter 2.5 Delivery Management.

- consolidation of risk positions, allowing for a maximum of margin offset by applying the existing Eurex clearing collateralization process

2.3 Trade Management

As presented before, Eurex Repo is a non-exchange trading system, where the quotes for repo trades are entered. As soon as a trade is matched, trade confirmations are generated by Eurex Repo. The repo trade is transferred in parallel to Xetra.

The matched trades are enriched in Xetra and processed to the IC, where the risk calculation is done. These trades using the Clearinghouse as its central counterpart will be routed automatically to the Clearinghouse for processing like trades from other the Eurex Trading Platforms. Members do not have direct access to the trade management functionality, e.g. trade modifications."

2.4 Risk Management

2.4.1 Objectives

With the extension of its activities into the clearing of repo trades, the risk based margining system of the Clearinghouse has been conceived to achieve the following objectives:

- to maintain the same degree of risk coverage for Eurex Clearing AG as it is presently the case
- to require no systems changes for Eurex Exchange Participants and Clearing Members that do not engage in repo trades to be cleared by the Clearinghouse
- to leave intact the margining system as it applies to Non-Clearing Members, Direct Clearing Members and General Clearing Members
- to facilitate cross margining between derivative positions and related positions resulting from bond trades i.e. repo trades
- to provide members with electronic information necessary to reconcile all calculations performed in the risk based margining system

	Timeframe: yesterday to today				Timeframe: today to tomorrow	
Products	**Premium Margin**	**Variation Margin**	**Current Liquidating Value**		**Additional Margin**	**Futures Spread Margin**
Bond and Repo Trades				+		

Diagram: Types of Margin

Relevant margin type for repo trades
Margin type not relevant for repo trades

2.4.2 Risk Positions

As can be seen from the diagram presented above, the risk margining follows the same principles as does the risk management for bonds. To evaluate the correct risk margining for repos, the risk positions are defined in the following way: First, repo transactions are split into two separate legs (bond positions), one front leg and one term leg of the repo. Then, all bond trade positions are split for calculation purposes into separate cash and bond positions. Additionally, coupon compensation payments[2] that will be processed under repo transactions are also identified and set up as cash positions. The following table shows, from a member point of view, the positions that are created of different repo trade types.

	Bond Positions	Cash Positions
Front leg for a seller of a repo	Short	Long
Term leg for a seller of a repo	Long	Short
Front leg for a buyer of a repo	Long	Short
Term leg for a buyer of a repo	Short	Long
Repo Coupon Compensation for buyer of a repo	-	Short
Repo Coupon Compensation for a seller of a repo	-	Long

The bond long and short positions are kept per member (CM and NCM), account, security (ISIN), and settlement date. The cash long and short positions are kept per member (CM and NCM), account, security (ISIN)[3], currency, and settlement date.

In the event of a coupon payment on the underlying bond for which there is an outstanding repo term leg position, the Clearinghouse will process a transfer of the coupon amount from the buyer to the seller under the repo. The Clearinghouse will collect the coupon amount from the buyer by debiting its account (or the account of the buyer's Clearing Member) at the LZB. The Clearinghouse will transfer the same amount to the seller at its account (or the account of the seller's Clearing Member) at the LZB.

2.4.3 Risk Margining

The repo is split in two separate legs (front leg and term leg) and both of these legs are each divided into two positions, a bond and a cash position, as is explained in 2.4.2. Thus, the repo comprises four positions: the front leg with a physical and a cash delivery obligation and the term leg with a physical and a cash delivery obligationas well. Therefore, the risk evaluation takes place in the same way as it does for bonds.

[2] Future coupon payments on repo transactions during the repo period.
[3] Having the security (ISIN) as a grouping parameter allows linking of cash positions to bond positions at the level of classes.

The daily profit and loss evaluation results in the Current Liquidating Margin. The respective bond and cash positions are valued separately. Thus, the calculation of the net present value is the appropriate valuation method for cash, the evaluation of the market value, regardless of settlement date, is the appropriate method for the bond evaluation. The Current Liquidating Margin and the Additional Margin has to be provided in form of collateral. The term collateral contains, according to the Eurex nomenclature, all Eurex admissible securities that can be pledged at the clearinghouse to represent a fallback for losses of the member.

The potential profit and loss is covered by the additional margin. The cash side is not included in this worst case loss calculations. The volatility of bonds is used to evaluate worst case moves in connection with the settlement value of a bond. The bond volatility factor is used to address special bonds and futures in separate classes.

Cross margining between derivatives, cash/forward bond trades and repo transactions is possible.

For a detailed description of Position Valuation Methods please refer to the appendix or to the Eurex circular 67/2000.

2.5 Delivery Management

2.5.1 General Delivery Items

Clearing members of Eurex Repo need to have an account at the respective settlement location. Clearing of repo trades is handled with the same existing procedure as are derivatives and bonds. Clearing members have to deposit securities at the Clearstream Banking in Frankfurt (CBF) as collateral and they have to have an account at the LZB for cash transactions regarding coupon compensations or margin calls.

Members are responsible for ensuring that they have the cash and securities necessary in order to successfully settle all transactions. Settlement instructions that remain unsettled at the end of one settlement day remain in the settlement locations for settlement during the next subsequent settlement process, except for overnight repos.

Each leg of the repo will be settled as would any single bond trade due on a specified date and specified amount. The only exception is the overnight repo which is described below.

The Clearinghouse will confirm the upcoming settlements in form of reports transmitted to each clearing member.

It is important to notice, that the Eurex Clearing House does not mark repo delivery obligations as specified in chapter 2.5.2. From delivery management perspective there is no differentiation between bond deliveries and deliveries from repo trades.

The Clearinghouse is a direct delivery counterpart for each delivery obligation trade and maintains a settlement account in CBF and Euroclear. Therefore, repos can be settled in all settlement locations for which the clearing service is provided. The delivery will take place as a delivery to and from Eurex through an Eurex account in the preferred settlement location of a member. Cross border imbalances are addressed by randomly assigning cross border settlements to Eurex.

2.5.2 Different Kinds of Repo Contracts

Eurex clearing house will provide clearing service for the repo transactions on the basis of government bonds and jumbos. A detailed specification of underlying bonds is published in the internet at eurexrepo.com.

No	Contract Type	Settlement of Front Leg **T_x= T_0 (Trade date) + x business days**	Settlement of Term Leg **T_y= T_0 (Trade date) + y business days**	Send instruction out
1	Overnight	on T_0	on T_1 = T_0 + 1 business day	intra-day (both legs)
2	Tom Next	on T_1 = T_0 + 1 business day	on T_2 = T_0 + 2 business days	intra-day (both legs)
3	Spot Next	on T_2 = T_0 + 2 business days	on T_3 = T_0 + 3 business days	2 days before settlement date in the end-of-day batch
4	Others (already implemented)	on T_x (= T_2) = T_0 + 2 business days	on T_y = T_0 + max 364 business days (after the settlement of the Front Leg)	2 days before settlement date in the end-of-day batch

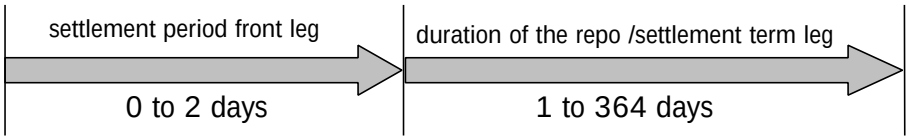
Table: Contract Types

For contract types no. 1 – 2, the IC will pass delivery instructions of the matched repo trades to the settlement locations intra-day, i.e. after a repo trade with settlement period of the front leg < 2 business days has been matched, a delivery instruction is instantly created and sent to the respective settlement location. The attached term leg will be treated identically. This ensures that both legs are passed to the CSDs intra-day.

Generally, for the contract types no. 3 and 4, the delivery instructions will be sent to a settlement location 2 business days before settlement day (=standard settlement period).

- In case of overnight repos, the IC proceeds in the following way:
  - If the settlement location information of the original buyer's and seller's repo trade is the same (EoC-EoC or CBF-CBF) a RTS (real-time-settlement) instruction for the front leg is sent out to the CSD. In the same time the standard instruction is sent out for the term leg.
  - If the settlement location information of the original buyer's and seller's repo trade is different (EoC-CBF and vice versa) the standard settlement instruction is sent out to the CSD's
- The IC accepts overnight repos only by a certain time at the same business day in order to ensure the timely transfer of delivery instructions to the CSDs and therefore, the settlement of the front leg on the same day.

- Eurex Clearing AG stands as central counterpart in an overnight repo contract only if its front leg is settled in T_0 (=T) until a specified time. Otherwise the overnight repo is canceled. With canceling the deliveries in Eurex Clearing, the repo is neither shown in any Eurex member report (independent from CSDs cancellation confirmation) nor is margin calculated. On request the Clearinghouse is able to reveal the members, who were the initial counterparts of the repo transaction.



It is significant for all repo contract types that the settlement period of the front leg is between 0 and 2 days and that the duration of the repo (starting after the settlement of the front leg) is between 1 and 364 days.

A settlement of the first repo leg is possible at T_x (=T_0 + x business days). The settlement of leg 1 has to take place at T+364 at the latest. The duration of the repo is at maximum 364 days; i.e. the second leg has to be settled at latest 364 days after the first leg's settlement.

2.5.3 Interface to Settlement Locations

For repo transactions the Clearinghouse participates directly in batch and real time settlement processes as necessary to ensure full settlement.

The Clearinghouse submits settlement instructions to the relevant settlement locations for itself and for its members. Members must authorize the settlement location to accept settlement instructions submitted on their behalf by the Clearinghouse. Settlement instructions are submitted to settlement locations in the evening 2 days before settlement day[4].

2.5.4 Cross Border Settlement

In general, each member's deliveries and receipts are settled through the Clearinghouse's account in the member's chosen settlement location. Due to the fact that underlying trades may be concluded between members preferring different settlement locations, settling in each member's preferred settlement location generally would lead to imbalances between deliveries from, and receipts into, the Clearinghouse's accounts in each settlement location. In order to balance its settlement accounts, the Clearinghouse determines net cross border settlement transactions for each security for each involved settlement location per settlement day. These calculated settlement transactions are randomly assigned to members who originally were involved in cross border trades. A member receiving an assignment of such a settlement transaction is required to deliver from its preferred settlement location to the Clearinghouse at a different location.

[4] Except for Overnight Repos and TomNext Repo

2.5.5 Partial Deliveries

In case of failure by Clearing Members to deliver a security timely on settlement date to the Clearinghouse, the Clearinghouse (i) will not be able to fulfill all of its settlement obligation on the scheduled settlement date and (ii) could, if it took no further action, be forced to carry a long security position from one day to the next. In such a case, the Clearinghouse does make a partial delivery in order to reduce its long security position to zero.

The partial delivery is assigned to the Clearing Member whose unsettled receipt from the Clearinghouse is the smallest. If there is more than one such receipt, the partial delivery is assigned randomly. The Clearinghouse informs the Clearing Member of the pending delivery selected for partial settlement and, for itself and on behalf of the relevant Clearing Member, submits instructions to cancel the pending delivery in question and to replace it with two new settlement instructions in the amount of the desired partial delivery and the resulting remaining amount.

Additionally, it is important to notice, that partial deliveries are not relevant for overnight repos, because this trade is finalized with the complete settlement of the first leg. Otherwise this repo trade is cancelled.

2.5.6 Cash Transactions

All repo coupon compensation cash payments will be incorporated in the summary report “Daily Cash Account Statement”. Coupon compensation payments related to late deliveries are not included in this report.

If there is a coupon payment during the duration of an underlying security the cash provider is automatically charged with the amount of the interest payment. The cash taker (this means the original seller of the bond/repo) receives the credit note. The credit or charge of the coupon payment amount takes place together with the daily LZB accounting between Eurex clearing and the clearing Members.

2.6 Master Data

There is no change in master data necessary.

3 Reports

As a matter of principle, all reports that were introduced with IC release 2000 for Eurex Bonds are still relevant for Eurex Repo. In addition, the following reports apply for repos only:

- RPTCD190 Coupon Compensation
- RPTTC750 Open Repo Trades.

Additionally, the report RPTCD010 Daily Cash Account Statement is adopted to show payments resulting from coupon compensation. Furthermore, a the report for fees RPTCB200 Bond/Repo Fees Overall Summary is introduced.

These reports are presented in the appendix in detail.

Report	Report Name	New (N) Change (C)	Raw Data avail.	Recipients
RPTTC700	Pending Trades		Y	CM, NCM
RPTTC710	Daily Trade Maintenance		N	CM, NCM
RPTTC750	Open Repo Trades	New	Y	CM, NCM
RPTCC011	Current Liquidating Margin		Y	CM, NCM
RPTCC031	Theoretical Values II		N	CM, NCM
RPTCC041	Liquidating Values II		Y	CM, NCM
RPTCC045	Additional Margin		N	CM, NCM
RPTCC050	Daily Margin		N	CM, NCM
RPTCC060	Daily Margin Summary		N	CM, NCM
RPTCD190	Repo Coupon Compensation	New	Y	CM, NCM
RPTCE200	Pending Delivery		Y	CM
RPTCE210	Settled/Cancelled Delivery		Y	CM
RPTCD010	Daily Cash Account Statement	Change	N	CM
RPTCB200	Bonds/Repo Fees Summary	New	N	CM

4 Appendix

4.1 Risk Management

4.1.1 Detailed Description of Position Valuation Methods

When the trade is processed by Eurex the Risk Margining is done by the IC. Since the risk is now calculated on the basis of the underlying Risk Management procedure is consistent with the risk margining described in the Functional Release Notes for IC Release 2000 (Eurex Bonds) and is mentioned here again adapted for Eurex Repo Trades.

Signs

The following sign convention is used in risk based margining calculations and reports. For member short positions, where the Clearinghouse is due to receive cash or bonds, the associated value will be assigned a positive sign, consistent with the fact that this position is of positive value to the Clearinghouse. For member long positions, where Eurex Clearing AG is due to deliver cash or bonds, the associated value will be assigned a negative sign. When summed together, positions with a total net value that is positive represent net positive value from the perspective of the Eurex Clearing AG and will give rise to positive margin requirements. The opposite is true for positions whose total net value is negative. Please note that different sign conventions are used in certain other (i.e. non risk based margining) calculations and reports.

4.1.1.1 Calculation of Current Liquidating Value (CLV)

CLV of a Cash Position

The current liquidating value of a cash position will be its value as of valuation date after performing a time value of money adjustment. For cash positions to be paid in the future, the CLV will be lower than the nominal amount of the cash position. Money market interest rates will be used to make these adjustments.

More specifically, the CLV of a cash payment will be calculated by the following formulae

$CLV = C / (1+ r * t /365)$ for cash payments in the future or

$CLV = C$ for past due cash payments, where

- C is the size of the cash payment,
- t is the number of days from the valuation date to the settlement date, and
- r is a money market rate for the time period from the valuation date to the settlement date

In order to protect Eurex Clearing AG against shifts in market rates, the CLV of a cash payment will be calculated with a degree of conservatism to protect Eurex Clearing AG against any default. The rate used to discount positive cash positions (r_D) will be below market rates, thereby overstating the value to the Eurex Clearing AG of the expected cash receipt (called "Risk adapted market interest rate – down"). The rate used to discount negative cash positions (r_U) will be above market rates, thereby understating the cost of the cash flow to Eurex Clearing AG (called "Risk adapted market interest rate – up"). The combined effect of the above is to overstate the value to Eurex Clearing AG of its net cash positions, resulting in a higher current liquidating value of transactions and therefore a higher margin requirement, i.e. providing greater protection to the Eurex Clearing AG. R_D and r_U will be set by Market Supervision to create the appropriate level of protection against market movements in short term rates.

The formulae for valuing a cash position will therefore be:

$CLV_{cash} = C / (1+ r_D * t /365)$, for positive Cs, i.e. for member cash short positions

$CLV_{cash} = C / (1+ r_U * t /365)$, for negative Cs, i.e. for member cash long positions

CLV of a Bond Position

Bond values will be calculated by reference to market prices as of the valuation date. With the exception of cases where there are coupon payments between valuation date and settlement date, bond valuation will not (and need not) take account of the settlement date of the bond position.

The approach to bond valuation will be (i) to ascertain the spot market price of the bond as quoted on the valuation date, (ii) to determine the amount of cash that would be exchanged for the bond based on such price, (iii) to determine the date on which the bond would be exchanged for cash at such price (e.g. on trade date plus 2 days for T+2 securities), and (iv) to discount the cash amount back to the current valuation date.

For securities that are quoted on a clean price basis, the amount of cash that would be exchanged for bond on the spot settlement date, as a percentage of nominal, would be:

$MV_{SpotSettlement\ Date} = P + A$

where

- P is the clean price, i.e. a price quote exclusive of accrued interest, expressed as a percentage of nominal, and
- A is the amount of accrued interest (expressed as a percentage of nominal) on the bond as of the spot settlement date. Accrued interest will be calculated according to the convention adopted for the bond in question, e.g. on an actual/actual basis for German government bonds

This market value is as of the settlement date for a spot transaction in the bond and must, therefore, be adjusted back to the current valuation date. The market price of the bond as of valuation date is therefore:

$MV_{valuation\ date} = (P + A)/ (1+r * t' /365)$, where

- t' is the number of days between (i) the valuation date and (ii) the settlement date of a spot transaction concluded on the valuation date for the relevant security (please note that t' is not the number of days between valuation date and settlement date of the position), and
- r is the relevant interest rate for the period between the valuation date and the date of settlement of a spot transaction[5]

The value of a bond position can be calculated from the above by taking into account the nominal size of the bond position and by adjusting for any coupons that may fall due between the valuation date and the settlement date of the position (this is described in detail below). The full formula is

$CLV_{bond} = X * \{(P+ A) / (1+r * t' /365) +/– \text{Coupon Adjustments}\}$, where

- X is the nominal size of the position, with a positive sign for member short positions and a negative sign for member long positions

Coupon Adjustments

Coupon adjustments are required when the bond position includes different coupons than those reflected in the spot price for the bond and the calculations performed above. Two examples where there is a discrepancy between the two are shown below.

The calculation of the coupon adjustment proceeds in four steps.

1. Identify the coupon discrepancies, i.e. determine the differences, if any, between the coupons valued in the standard valuation formula and the coupons that are covered by the bond position in question. For longer term transactions in bonds with coupons paid more frequently than annually, the discrepancy could be more than one coupon. This is performed as follows.

- Find the coupons that should be valued in the position: all coupons that are due on a date **after** the **settlement date** for the position
- Find all coupons that are included in the normal valuation (i.e. prior to making any coupon adjustment) for the bond: These will be all coupons that are due on a date **after** the **valuation date** plus the standard settlement cycle
- Identify: (i) "extra" coupons in normal bond valuation and/or coupons "missing" therefrom

Extra and missing coupons give rise to a coupon adjustment, calculated for each individual "missing" or "extra" coupon.

[5] Note that we do not use the r_U and r_D rates as for cash. This is because the additional margin for bonds covers the risk of price movements in bonds.

2. For each coupon requiring adjustment, determine whether the adjustment is a "+" or a "–" adjustment

- "extra" coupons ➔ "–"
- "missing" coupons ➔ "+"

3. Determine whether the coupon adjustment should be performed using the present value or the future value formula

- If coupon payment date >= Valuation Date ➔ use the "present value formula"
- If coupon payment date < Valuation Date ➔ use "future value formula"

4. Add together the coupon values calculated immediately above.

Present value calculation

In most cases, the adjustment will involve adding or subtracting the present value of a future coupon. In case of settlement delays extending beyond the coupon date, the adjustment could relate to a past coupon, necessitating a future value calculation.

In the case of future coupons, the expression used is

$d / (1 + r * t /365)$

In the case of past coupons, the expression used is

$d * (1 + r * t /365)$

where,

- d is the coupon, expressed as a percentage of nominal
- t is the number of days from the valuation date to the coupon payment date
- r is the money market interest rate applicable for this period

4.1.1.2 Calculation of Potential Losses

Potential losses are calculated for bond positions only. They are calculated with a risk parameter of a specified percentage rate taken into consideration. Eurex Clearing AG evaluates the movements in short term rates and their impact on cash payments by the choice of r_U and $r_{D,}$ as described above.

Potential losses in bond positions can result from upward or downward movements in prices, depending on whether a position is long or short. For this reason, it is necessary to calculate the change in the CLV of a bond position that would result from a specific upward or downward movement in the price of the bond. The change in CLV is calculated by adjusting the current clean price upward and downward by a volatility factor. These modified clean prices are then inserted into the CLV formula presented above to arrive at the CLV for the position for the worst case upward and downward price movement in the bond. Mathematically, the calculations are performed as follows.

The highest and lowest potentially possible clean price, PU and PD, is predicted for each underlying bond using the current clean bond price P and the largest absolute movement δ. δ is set by the Clearinghouse and is based on current volatility assessments and on historical volatility.

Projected prices:

upside-price PU = P + δ

downside-price PD = P – δ

The highest risk in value for a net bond position is calculated for each net bond position for each settlement date by computing the liquidating value of the bond position based on the clean upside-price and down-side price and using the CLV formula. In the notation below, LV and ΔLV, denote liquidating value and change in liquidating value, respectively.

$$\Delta LV_{up} = \left[LV_{bond/net}(PU) - CLV_{bond/net}\right]$$

$$\Delta LV_{down} = \left[LV_{bond/net}(PD) - CLV_{bond/net}\right]$$

These calculated value changes are then used at the class level building up to the Additional Margin requirement as described in the next section.

4.1.2 Calculation of Margin Requirements

The calculation of Current Liquidating Margin (CLM) and of Additional Margin (AM) is performed according to established Eurex Clearing AG calculation logic, utilizing margin classes and groups. Having performed the specific value calculations for positions arising from bond trades, it remains to feed these values into the existing methodology, as will be described below.

4.1.2.1 Current Liquidating Margin of a Margin Class

The CLM of a margin class is equal to the sum of the CLVs of all bond and related cash positions in such margin class. Because the CLVs of the cash and the bond sides of a transaction are included in the same class, the impact of a single transaction on the CLM of a margin class is at most equal to the difference between the CLVs of the bond and cash sides of the transaction.

4.1.2.2 Additional Margin

Additional Margin will be calculated for each margin class. It is important to note that margin classes containing positions from bond trades and margin classes containing Eurex trades may be assigned to the same margin group.

Margin classes for existing Eurex products will be treated in the AM calculations as they are currently. The ΔLV calculations for margin classes for bond trades will be included in the existing calculations as follows:

ΔLVup for a class are inserted into the column titled “Upside Class Curr” in report RPTCC045 and ΔLVdown are be inserted into the column titled “Downside Class Curr” in the same report. Report RPTCC045 also includes margin classes for Eurex products, whose potential upside and potential downside value changes continue to be inserted into the same columns. Offset factors are applied as currently to all potential upside and downside value changes for margin classes in the same margin group in order to calculate the AM for the margin classes in a margin group.

4.1.2.3 Overall Margin Requirement

The calculation of the overall margin requirement is performed by (i) treating the Current Liquidating Margin for each margin class analogously to the treatment of Premium Margin and (ii) otherwise completing the calculations as currently performed.

4.1.3 Coupon Compensations

Coupon compensation payments are made in the event of a late settlement obligation, where the seller was meant to deliver securities prior to the coupon payment date but does not do so until on or after the coupon payment date. Unless such coupon compensation payments are performed automatically by the settlement location, the Clearinghouse on actual settlement date will debit the account of the member that is late delivering to the Clearinghouse and will credit the account of the member who is late in receiving from the Clearinghouse.

4.2 Reports

4.2.1 RPTTC700 Pending Trades

This report lists all non-derivatives pending trades until settlement. Additionally, the trades settled or deleted during the relevant day are shown.

Layout:

```
            1         2         3         4         5         6         7         8         9         10        11        12        13
0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                                  PENDING TRADES                                                    PAGE:        1
02|RPTTC700                                                                                                          AS OF DATE: 23-10-00
03|                                                                                                                    RUN DATE: 23-10-00
04|CLEARING MEMBER    : ABCFR
05|MEMBER             : ABCFR
06|ACCOUNT TYPE       : PP
07|ISIN               : DE0001170165
08|SETTLEMENT DATE    : 26-10-2000
09|SETTLEMENT CURRENCY: EUR
10|TRADING LOCATION   : XYZABC
11|
12|TRADE        TRADE      TRADE   EXTERNAL TRADE    B       QUANTITY            PAY/RECEIVE         ACCRUED      STS    FREE TEXT
13|NUMBER       DATE       TIME         NUMBER        S                              AMOUNT           INTEREST
14|------------ ---------- ----- ------------------- - -------------------- ------------------- ----------------- --- ----------------
15|
16|123456789012 23-10-2000 11:22 0234567890123456789 B      25,000,000.000       18,552,500.00-        41,095.89- PEN 95180-WP
17|123456701234 23-10-2000 15:31 1123456789123456799 S      10,000,000.000-       7,412,000.00         16,438.36  PEN DEP-01234599445
18|
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```

4.2.2 RPTTC710 Daily Trade Maintenance

This report lists all non-derivatives pending trades that have been entered by Market Supervision on behalf of the Clearing Member.

Layout:

```
          1         2         3         4         5         6         7         8         9         10        11        12        13

0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                          DAILY TRADE MAINTENANCE                                                  PAGE:       1
02|RPTTC710                                                                                                          AS OF DATE: 23-10-00
03|                                                                                                                    RUN DATE: 23-10-00
04|
05|MEMBER             : ABCFR
06|ISIN               : DE0001170165
07|SETTLEMENT CURRENCY: EUR
08|TRADING LOCATION   : XEUR
09|
10|                              T L
11|               MAINT    MAINT Y E B                                      SETTLEM  ACC  CLG                  ON
12|  TRADE NUMBER  TIME     CODE  P G S       QUANTITY       PAY/RECEIVE AMOUNT  DATE     TYP MEMBER CSD SETTL ACC  BEHALF
13|-------------- -------- ----- - - - -------------------- ------------------- -------- --- ------ --- ---------- ------
14|12345670123456 15:16:24 DEL   S 1 S     140,000,000.000-     100,856,237.69  26-10-00 PP  ABCFR  CBF 7099       USER01
15|12345670123457 15:18:51 DEL   S 1 S       8,300,000.000-       5,267,179.27  26-10-00 PP  ABCFR  CBF 7099       USER02
16|
17|13345670123456 15:21:24 ADD   B 1 S     155,000,000.000      110,558,313.52- 26-10-00 A1  ABCFR  CBF 7099       USER01
18|
19|14345670123577 15:32:24 ORG   B 1 S     139,000,000.000      100,856,237.69- 26-10-00 A1  ABCFR  CBF 7099       USER01
20|14345670123577 15:33:47 MOD                                                                      EOC 8899001127
21|28345670123456 15:41:11 ORG   B 1 S      33,000,000.000       23,834,189.27- 26-10-00 A1  ABCFR  CBF 7099       USER02
22|28345670123456 15:43:56 MOD                                                                      EOC 1234567890
23|28345670123456 15:55:36 ORG   B 1 S      33,000,000.000       23,834,189.27- 26-10-00 A1  ABCFR  EOC 8899001129 USER02
24|28345670123456 16:01:41 MOD                                                      PP
```

4.2.3 RPTTC750 Open Repo Trades

Open repo trades are shown on this report from trade date until both legs are settled. The settlement status of each leg is shown.

Layout:

```
          1         2         3         4         5         6         7         8         9         10        11        12        13
 0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                                OPEN REPO TRADES                                                    PAGE:      1
02|RPTTC750                                                                                                      AS OF DATE: 23-10-00
03|                                                                                                                RUN DATE: 23-10-00
04|CLEARING MEMBER     : ABCFR
05|MEMBER              : ABCFR
06|ACCOUNT TYPE        : PP
07|ISIN:                : DE0001135135
08|SETTLEMENT CURRENCY : EUR
09|TRADE DATE          : 17-10-2000
10|
11|REPO TRADE    FRONT LEG    TERM LEG    FRONT LEG TERM LEG B        QUANTITY           FRONT LEG          TERM LEG     REPO RATE STS
12|NUMBER        TRADE NO     TRADE NO    SET.DATE  SET.DATE S                         PAYABLE AMOUNT     PAYABLE AMOUNT            F/T
13|------------- ------------ ------------ -------- -------- - -------------------- ------------------ ------------------ --------- ---
14|9876543210123 123456789012 987654321012 19-10-00 19-01-01 B       50,000,000.000      52,150,000.00      52,638,906.00   3.75000 S P
15|8765432101012 123456789020 987654321020 20-10-00 20-11-00 B       25,000,000.000      26,195,000.00      26,274,677.00   3.65000 S P
16|7654321012345 123456789013 987654321013 20-10-00 20-04-01 B      120,000,000.000     125,190,000.00     127,548,580.00   3.76800 S P
17|
18|
19|
20|
```

4.2.4 RPTCC011 Current Liquidating Margin

This report shows current liquidating values for a specific bond and cash position for different dates, as well as the sum of those values.

Layout:

```
          1         2         3         4         5         6         7         8         9         10        11        12        13
 0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                          CURRENT LIQUIDATING MARGIN                                                PAGE:        1
02|RPTCC011                                                                                                          AS OF DATE: 23-10-00
03|                                                                                                                    RUN DATE: 23-10-00
04|
05|CLEARING MEMBER: ABCFR BANK CORPORATION          ACCOUNT: PP                                          CURRENCY: EUR
06|EXCHANGE MEMBER: ABCFR BANK CORPORATION
07|
08|MARGIN CLASS: BD10     CASH INTEREST RATE:  3.00     RISK ADAPTED INTEREST RATES – UP: 3.50       DOWN:  2.50
09|ISIN: DE0001135135 – BUNDANL V.99/10                  CURRENT CLOSING PRICE: 100.56         COUPON RATE: 5.375
10|           SETTLMNT       SECURITY NET          CASH NET      DP     CURRENT LIQ.         CURRENT LIQ.
11|             DATE           POSITION            POSITION      UF    VALUE SECURITY        VALUE CASH
12|           --------  --------------------  ------------------ -- ------------------  ------------------
13|           19-01-01       50,000,000.000       52,638,906.00- DP      49,765,820.00       52,323,531.00-
14|           20-04-01      120,000,000.000      127,548,580.00- DP     119,437,969.00      126,003,739.00–
15|                                                                  ------------------  ------------------
16|                                                               (19) 169,203,789.00      178,327,270.00-
17|                                                                =================== ===================
18|
19|ISIN: DE0001170165 – BD.FDSV90 VIII(96-10)LS            CURRENT CLOSING PRICE:  74.00         COUPON RATE: 3.000
20|
21|           SETTLMNT       SECURITY NET          CASH NET      DP     CURRENT LIQ.         CURRENT LIQ.
22|             DATE           POSITION            POSITION      UF    VALUE SECURITY        VALUE CASH
23|           --------  --------------------  ------------------ -- ------------------  ------------------
24|           26-10-00       25,000,000.000-      18,552,500.00          18,542,928.00-      18,547,165.00
25|           27-10-00       10,000,000.000        7,412,000.00-          7,417,171.00        7,410,477.00-
26|           15-12-00        5,000,000.000        3,695,000.00-          3,708,586.00        3,681,635.00-
27|                                                                  ------------------  ------------------
28|                                                                       7,417,171.00-       7,455,052.00
29|                                                                  ================== ===================
30|
31|TOTAL CURRENT LIQUIDATING MARGIN FOR CLASS AND ACCOUNT                                      9,085,600.00–
32|                                                                                         ===================
```

4.2.5 RPTCC031 Theoretical Values II

This report derives from RPTCC030 (Theoretical Values (I)) and shows the theoretical liquidating value for bonds. Possible maximum up and down price movements are shown here. Additional information required for the risk based margining is also shown. All figures are displayed in the product currency.

Layout:

```
          1         2         3         4         5         6         7         8         9         10        11        12        13
 0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                              THEORETICAL VALUES II                                                PAGE:         1
02|RPTCC031                                                                                                          AS OF DATE: 23-10-00
03|                                                                                                                    RUN DATE: 23-10-00
04|
05|MARGIN CLASS: BD10          MARGIN PARAMETER:   1.60                                                    CURRENCY: EUR
06|CASH INTEREST RATE:  3.000
07|
08|    ISIN      COUPON  CURRENT CLOSING PRICE  MAX UP MOVEMENT   MAX DOWN MOVEMENT  CPN DATE    CPN ADJ
09|------------  ------  ---------------------- -----------------  -----------------  --------    --------
10|
11|DE0001135135   5.375            100.56              102.16              98.95     04-01-00     5.504
12|                                                                                  04-01-01     5.342
13|DE0001170165   3.000             74.00               75.18              72.82     03-10-00     3.005
14|                                                                                  03-10-01     2.916
15|
16|
17|
18|
19|
20|
```

4.2.6 RPTCC041 Liquidating Value II

This report is presented for bond products. It shows “positions” for every day and product (ISIN), where all transactions (buy/sell) of single product will be summed up. Liquidating value up and down and the difference to the current liquidating value will then be shown for these “positions”.

Only up and down maximums and no strikes in between (as there are no options in the margin classes) are used for the calculation of liquidating values.

Layout:

```
          1         2         3         4         5         6         7         8         9         10        11        12        13
 0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                                  LIQUIDATING VALUE II                                                 PAGE:        1
02|RPTCC041                                                                                                                AS OF DATE: 23-10-00
03|                                                                                                                          RUN DATE: 23-10-00
04|
05|CLEARING MEMBER: ABCFR BANK CORPORATION           ACCOUNT: PP                                              CURRENCY: EUR
06|EXCHANGE MEMBER: ABCFR BANK CORPORATION
07|
08|MARGIN GROUP: BND1  MARGIN CLASS: BD10  CASH INTEREST RATE:  3.000  RISK ADAPTED INTEREST RATES – UP:  3.500  DOWN:  2.500
09|ISIN: DE0001135135 – BUNDANL.V. 99/10                COUPON RATE:  5.375
10|CURR/ MAX UP/ MAX DOWN PRICE:  100.56    102.16    98.95
11|SETTLEMENT   SECURITY POSITION      CURRENT LIQ.     LIQUIDATING VALUE  LIQUIDATING VALUE    LIQUIDATING VALUE    LIQUIDATING VALUE
12|  DATE             NET             VALUE SECURITY          UP                DOWN              DIFF. UP             DIFF. DOWN
13|---------- -------------------- ------------------ ------------------ ------------------ ------------------ ------------------
14| 19-01-01       50,000,000.000       49,765,820.00       50,570,069.00       48,961,572.00          804,248.00          804,248.00-
15| 20-04-01      120,000,000.000      119,437,969.00      121,368,165.00      117,507,773.00        1,930,196.00        1,930,196.00-
16|                                                                                                 ------------------ ------------------
17|                                                                                                       2,734,444.00        2,734,444.00-
18|
19|ISIN: DE0001170165 – BD. FDSV 90 VIII (96-10)          COUPON RATE:  3.000
20|CURR/ MAX UP/ MAX DOWN PRICE:   74.00     75.18    72.82
21|
22|SETTLEMENT   SECURITY POSITION      CURRENT LIQ.     LIQUIDATING VALUE   LIQUIDATING VALUE   LIQUIDATING VALUE   LIQUIDATING VALUE
23|  DATE             NET             VALUE SECURITY          UP                DOWN              DIFF. DOWN           DIFF. UP
24|---------- -------------------- ------------------ ------------------ ------------------ ------------------ ------------------
25| 26-10-00       25,000,000.000-      18,542,928.00-      18,838,859.00-      18,246,997.00-          295,931.00-          295,931.00
26| 27-10-00       10,000,000.000        7,417,171.00        7,535,543.00        7,298,799.00          118,372.00          118,372.00-
27| 15-12-00        5,000,000.000        3,708,586.00        3,767,772.00        3,649,399.00           59,186.00           59,186.00-
28|                                                                                                 ------------------ ------------------
29|                                                                                                       118,373.00-         118,373.00
30|
31|                                                                                                 ------------------ ------------------
32|TOTAL LIQUIDATING VALUE DIFF. UP/DOWN FOR CLASS:                                                    2,616,071.00        2,616,071.00-
33|                                                                                                 ================== ==================
```

4.2.7 RPTCC045 Additional Margin

This report shows the calculation of the Additional Margin (displayed in the margin class currency).

When the margin class is not part of a margin group, the additional margin for the margin class is the difference between the current liquidation costs/proceeds, which represent the highest positive mathematical value. If both of the highest mathematical values are negative, the additional margin equals zero.

For Margin Classes that are part of a margin group, the differences between the immediate liquidation costs/proceeds, which are representing the mathematically biggest movements, are converted to the Clearing Member currency. In case the value is negative it is multiplied with the offset factor. These values (Adjusted Upside / Downside) are then added over the Margin Group for both Up- and Down-Side to determine the highest risk (Up- or Down-Side). The Additional Margin Amount is the amount displayed in the highest risk column and multiplied with the offset factor in case the value is negative.

The Additional Margin Amount is displayed in the Margin Class Currency.

Layout:

```
          1         2         3         4         5         6         7         8         9         10        11        12        13
 0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                          ADDITIONAL MARGIN                                                          PAGE:      1
02|RPTCC045                                                                                                          AS OF DATE: 27-01-99
03|                                                                                                                    RUN DATE: 27-01-99
04|
05|CLEARING MEMBER: ABCFR ABC BANK CORPORATION         ACCOUNT: PP                                 CLEARING CURRENCY: EUR
06|EXCHANGE MEMBER: ABCFR ABC BANK CORPORATION
07|
08|
09|               MGN
10|  MARGIN       CLS      UPSIDE          DOWNSIDE    OFFSET                    ADJUSTED        ADJUSTED          ADDITIONAL
11|GRP    CLS     CUR    CLASS CURR       CLASS CURR   FACTOR  EXCHANGE RATE     UPSIDE (EUR)    DOWNSIDE (EUR)      MARGIN
12|------ ------ ----- --------------- --------------- ------ ---------------- ---------------- ---------------- ----------------
13|
14|       AUA     EUR    1,000,091.70-     199,881.30                                                                  199,881.30
15|       BAY     EUR          697.30-       3,768.20                                                                    3,768.20
16|       BMW     EUR        2,414.90-       2,422.60-                                                                       0.00
17|       CIBA    EUR        3,681.30-       3,175.40                                                                    3,175.40
18|       DBK     EUR       42,348.60-      55,686.20                                                                   55,686.20
19|       FUSD    USD       12,000.00       12,000.00-                                                                  12,000.00
20|       PEP     USD        7,279.20-      53,124.30                                                                   53,124.30
21|BOBU   FGBL    EUR      165,000.00-     330,000.00   0.00         1.0000000           0.00        330,000.00      330,000.00
22|                                                                 ---------------- ----------------
23|
24|BOBU   TOTAL:                                                            0.00        330,000.00
25|DMIX   DAX     EUR      144,017.10       25,111.70   1.00         1.0000000      144,017.10         25,111.70      144,017.10
26|DMIX   DOW     USD        4,277.60-       3,365.30   1.00         1.7623400        7,538.61-         5,930.82        4,277.60-
27|                                                                 ---------------- ----------------
28|
29|DMIX   TOTAL:                                                          136,478.49         31,042.52
30|
31|
32|
33|
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```

4.2.8 RPTCC050 Daily Margin

Report RPTCC050 deals with the daily margin requirements (or margin credit) of each Market Member Account. The margin requirement is calculated based on the Option Premium Margin, Futures Spread Margin and Additional Margin; all margin components are shown here. All figures are displayed in the product currency. No changes for bonds positions and corresponding cash positions are required, bond products are treated like any other product.

Layout:

```
          1         2         3         4         5         6         7         8         9         10        11        12        13
 0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                              DAILY MARGIN                                                          PAGE:        1
02|RPTCC050                                                                                                          AS OF DATE: 23-10-00
03|                                                                                                                    RUN DATE: 23-10-00
04|
05|CLEARING MEMBER: ABCFR ABC BANK CORPORATION          ACCOUNT: PP                                                   CURRENCY: EUR
06|EXCHANGE MEMBER: ABCFR ABC BANK CORPORATION
07|
08|
09|                    PREMIUM / DELIVERY /          FUTURES                                                 UNADJUSTED
10|MARG      MARG           CURR. LIQ.              SPREAD                    ADDITIONAL                     MARGIN
11|GROUP     CLASS          MARGIN                  MARGIN                      MARGIN                     REQUIREMENT
12|------    ------    --------------------    --------------------    --------------------        ------------------------
13|
14|          AUA               30,000.00-                 0.00             199,881.30                      169,881.30
15|BND1      BD01                                                          10,234.00                       10,234.00
16|                    --------------------    --------------------    --------------------        ------------------------
17|
18|ACCOUNT TOTAL:              30,000.00-                 0.00             210,115.30                      180,115.30
19|                    ====================    ====================    ====================        ========================
20|
21|
22|
```

4.2.9 RPTCC060 Daily Margin Summary

Report RPTCC060 gives the daily margin requirements for all Exchange and Clearing Members. All figures are displayed in the margin currency.

Layout:

```
          1         2         3         4         5         6         7         8         9         10        11        12        13
 0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                              DAILY MARGIN SUMMARY                                                  PAGE:        1
02|RPTCC060                                                                                                          AS OF DATE: 23-10-00
03|                                                                                                                    RUN DATE: 23-10-00
04|
05|CLEARING MEMBER: ABCFR ABC BANK CORPORATION                                                                          CURRENCY: EUR
06|
07|                      PREMIUM/ DELIVERY /       FUTURES                            UNADJUSTED            TOTAL
08|EXCHANGE                    CURR.LIQ.           SPREAD             ADDITIONAL          MARGIN              MARGIN
09|MEMBER        ACCT          MARGIN              MARGIN              MARGIN           REQUIREMENT         REQUIREMENT
10|--------      ----    -----------------    -----------------    -----------------    -----------------    -----------------
11|ALLHH           A1               00.0              0.00              12,350.00         750,000.000          762,350.00
12|                                                                                                        -----------------
13|
14|EXCHANGE MEMBER TOTAL:                                                                                      762,350.00
15|
16|ALLHH           PP               0.00              0.00              42,000.00       9,950,000.000        9,992,000.00
17|                                                                                                        -----------------
18|
19|EXCHANGE MEMBER TOTAL:                                                                                    9,992,000.00
20|
21|                                                                                                        -----------------
22|
23|CLEARING MEMBER TOTAL:                                                                                   10,754,350.00
24|                                                                                                        =================
25|
26|
```

4.2.10 RPTCD190 Repo Coupon Compensation

This report reflects all future coupon payments on repo transactions during the repo period. Members are able to see at any time all future coupon transfers for all concerned repos. The total amount per member and per clearing member is shown.

Layout:

```
          1         2         3         4         5         6         7         8         9        10        11        12        13
 0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                          REPO COUPON COMPENSATION                                                 PAGE:        1
02|RPTCD190                                                                                                 AS OF DATE DATE: 23-10-00
03|                                                                                                               RUN DATE: 23-10-00
04|DENOMINATION CURRENCY: EUR
05|COUPON PAYMENT DATE  : 04-01-2001
06|CLEARING MEMBER      : ABCFR
07|MEMBER               : ABCFR
08|ACCOUNT TYPE         : PP
09|
10|             COUPON  CLOSE LEG   OPEN LEG     CLOSE LEG   B  QUANTITY              COUPON AMOUNT
11|   ISIN      RATE    SETTL.DATE  TRADE NO     TRADE NO    S                        RECEIVE/(PAY)     CSD
12|------------ ------- ---------- ------------ ------------ - -------------------- ------------------- ---
13|DE0001135135   5.375 19-01-2001 123456789012 987654321012 B      50,000,000.000        2,687,500.00- EOC
14|DE0001135135   5.375 20-04-2001 123456789013 987654321013 B     120,000,000.000        6,450,000.00- EOC
15|                                                                                    -------------------
16|TOTAL COUPON AMOUNT PER MEMBER AND DATE:                                                 9,137,500.00-
17|
18|                                                                                    -------------------
19|TOTAL COUPON AMOUNT PER CLEARING MEMBER AND DATE:                                        9,137,500.00-
20|                                                                                    ===================
21|
22|
23|
24|
25|
```

4.2.11 RPTCE200 Pending Delivery

This report lists all pending deliveries per member.

Layout:

```
          1         2         3         4         5         6         7         8         9        10        11        12        13
 0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                              PENDING DELIVERY                                                        PAGE:        1
02|RPTCE200                                                                                                          AS OF DATE: 23-10-00
03|                                                                                                                    RUN DATE: 23-10-00
04|
05|CLEARING MEMBER: ABCFR                                                                                 SETTLEMENT CURRENCY: EUR
06|CSD: CBF
07|MEMBER ACCOUNT: 7199
08|
09|             ISIN   TRAN   SETTLMNT B                                                      - COUNTERPART --
10|    ISIN     CURR   DATE     DATE   S   NOMINAL/QUANTITY     SETTLEMENT AMOUNT   TRADE REFER  CSD   ACCOUNT    REMARK
11|------------ ---- -------- -------- - ---------------------- -------------------- ------------ --- ------------ ------
12|DE1234567890 EUR  18-10-00 23-10-00 S         250,000.000-          255,000.00   612345123645 CBF 7525         MANUAL
13|DE1234567890 EUR  18-10-00 23-10-00 S         500,000.000-          540,000.00   612345234567 CBF 7525         MANUAL
14|DE1234567890 EUR  19-10-00 23-10-00 B        (500,000.000 )        (540,000.00-)              CBF 7525         CANCEL
15|                                    ---------------------- --------------------
16|TOTAL SETTLEMENT DATE:                                             795,000.00
17|                                                           --------------------
18|
19|DE1234567890 EUR  18-10-00 24-10-00 S         250,000.000-          255,000.00               CBF 7525
20|DE1234567890 EUR  19-10-00 24-10-00 S         500,000.000-          540,000.00               CBF 7525
21|                                    ---------------------- --------------------
22|TOTAL SETTLEMENT DATE:                                             795,000.00
23|                                                           --------------------
24|TOTAL ISIN:                                                      1,590,000.00
25|                                                           ====================
26|
27|DE0987654321 EUR  20-10-00 23-10-00 S         500,000.000-          540,000.00               CBF 7525
28|DE0987654321 EUR  20-10-00 23-10-00 B         500,000.000           540,000.00-              CBF 7525
29|                                    ---------------------- --------------------
30|TOTAL SETTLEMENT DATE:                                                   0.00
31|                                                           --------------------
32|TOTAL ISIN:                                                            0.00
33|                                                           ====================
34|TOTAL CSD:                                                       1,590,000.00
35|                                                           ====================
36|
37|TOTAL CLEARING MEMBER:                                           1,590,000.00
38|                                                           ====================
39|
40|
```

4.2.12 RPTCE210 Settled / Cancelled Deliveries

This report reflects all deliveries which are settled and “cancelled confirmed” during the day.

Layout:

```
          1         2         3         4         5         6         7         8         9        10        11        12        13
 0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                          SETTLED / CANCELLED DELIVERIES                                          PAGE:        1
02|RPTCE210                                                                                                          AS OF DATE: 20-10-00
03|                                                                                                                    RUN DATE: 20-10-00
04|
05|CLEARING MEMBER: ABCZH ABC BANK CORPORATION                                                          SETTLEMENT CURRENCY: EUR
06|                                                                                                         EFFECTIVE DATE: 23-10-00
07|CSD: CBF
08|MEMBER ACCOUNT: 7199
09|
10|SETTLED DELIVERIES
11|
12|             ISIN   TRAN   SETTLMNT B                                                  - COUNTERPART --
13|    ISIN     CURR   DATE     DATE   S   NOMINAL/QUANTITY     SETTLEMENT AMOUNT   TRADE REFER  CSD   ACCOUNT    REMARK
14|------------ ---- -------- -------- - ---------------------- ------------------- ------------ --- ------------ ------
15|DE1234567890 EUR  18-10-00 22-10-00 S          250,000.000-          255,000.00  612345123456 CBF 7525          MANUAL
16|DE1234567890 EUR  18-10-00 22-10-00 S          500,000.000-          540,000.00  612345123456 CBF 7525          MANUAL
17|                                    ---------------------- -------------------
18|TOTAL SETTLEMENT DATE: (18)                                          795,000.00
19|                                                                   -------------------
20|
21|DE1234567890 EUR  19-10-00 23-10-00 S          500,000.000-          540,000.00  343434343434 CBF 7525
22|DE1234567890 EUR  19-10-00 23-10-00 B          500,000.000           540,000.00- 454545454545 CBF 7525
23|                                    ---------------------- -------------------
24|TOTAL SETTLEMENT DATE:                                                  0.00
25|                                                                   -------------------
26|TOTAL ISIN:                                                           795,000.00
27|                                                                   -------------------
28|TOTAL CSD:                                                            795,000.00
29|                                                                   ===================
30|
31|TOTAL CLEARING MEMBER:                                                795,000.00
32|                                                                   ===================
33|
34|
```

4.2.13 RPTCD010 Daily Cash Account Statement

This report contains the details of balances and transactions amounts on the cash account.

Layout:

```
          1         2         3         4         5         6         7         8         9        10        11        12        13
 0123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
01|EUREX                                          DAILY CASH ACCOUNT STATEMENT                                          PAGE:        1
02|RPTCD010                                                                                                    AS OF DATE: 30-10-00
03|                                                                                                              RUN DATE: 30-10-00
04|
05|CLEARING MEMBER: AARFR ABN AMRO BANK (DEUTSCHLAND) AG                                                        CURRENCY: EUR
06|
07|  TXN         VALUE
08|  DATE        DATE        REF    TYPE             DESCRIPTION                DEBIT            CREDIT            BALANCE
09|--------    --------    ------   -----   --------------------------------  -----------------  -----------------  -----------------
10|
11|30-10-00                                    OPENING BALANCE                                                            0.00
12|30-10-00    31-10-00    063576    226     PREMIUM RECEIVED                          0.00         259,567.40
13|30-10-00    31-10-00    063577    235     VAR MARGIN RCV                            0.00       3,954,867.50
14|30-10-00    31-10-00    063603    190     IC CSH FLOW RECEIVED              4,214,427.50               0.00
15|30-10-00    31-10-00    063603    206     CASH WITHDRAWAL                           7.40               0.00
16|30-10-00                                    ENDING BALANCE                                                             0.00
```

4.2.14 RPTCB200 Bond / Repo Fees Summary

Report Name: Bond / Repo Fees Summary

Report Code: RPTCB200

Restrictions: Non-Clearing Members do not receive this report

Purpose: Daily Report

Notes on format:

None

Fields:

REF	FIELD NAME	DESCRIPTION
1	PRODUCT TYPE	Product Type: Bonds or Repos
2	CLEARING MEMBER	Member ID of Clearing Member
3	MEMBER	Code of the Member
4	CURRENCY	Currency of the fees
5	TRADE NUMBER	Unique trade identification
6	TRADE DATE	Date the trade occurred
7	ACT TYPE	Code of the Account Type
8	ISIN	Security identification
9	B / S	Buy / Sell indicator
10	QUANTITY	Nominal amount of the trade to be received (positive) or to be delivered (negative)
11	PAYABLE AMOUNT	Payable (negative)/ Receivable (positive) Amount (including accrued interest; including repo interest, if applicable)
12	FEE FACTOR	Percentage rate
13	FEE CURRENT DAY AMOUNT	Current day’s fees per trade
14	TOTAL PER ACCOUNT	Current day’s fees per account type

REF	FIELD NAME	DESCRIPTION
	TOTAL FEE CHARGED	
15	- CURRENT DAY PER MEMBER	Current day's fees per member
16	- CURR MONTH PER MEMBER	Current month's fees per member, including current day's fees
17	- YEAR-TO-DATE PER MEMBER	Current year's calculated fees at previous months value, resp. excl. current month
18	- CURRENT DAY PER CM	Current day's fees per clearing member
19	- CURR MONTH PER CM	Current month's fees per clearing member
20	- YEAR-TO-DATE PER CM	Current year's calculated fees at previous months value per clearing member

Layout:

```
          1         2         3         4         5         6         7         8         9        10        11        12        13
01234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
|EUREX                                          BOND / REPO  FEES OVERALL SUMMARY                                                PAGE:         1
|RPTxx000                                                                                                                AS OF DATE: 30-04-01
|                                                                                                                          RUN DATE: 30-04-01
|PRODUCT TYPE: BONDS (1)
|                                                                                                                          CURRENCY: EUR (4)
|CLEARING MEMBER:ABCFR MUSTER BANK FRANKFURT (2)
|MEMBER:         ABCFR (3)
|
|              TRADE   ACT              B                                                          FEE CURRENT
|TRADE NUMBER   DATE   TYP    ISIN      S       QUANTITY         PAYABLE AMOUNT   FEE FACTOR    DAY AMOUNT
|------------ -------- --- ------------ - ------------------ ------------------ ---------- ---------------
|     (5)       (6)    (7)     (8)     (9)        (10)               (11)           (12)         (13)
|       72579 30-04-01 A1  DE0001090025 S      10,000,000.00       11,050,377.05     0.0005%          52.22
|       72581 30-04-01 A1  DE0001090041 B      50,000,000.00       53,948,869.90     0.0005%         261.40
|                                                                                                ---------------
|TOTAL PER ACCOUNT: (14)                                                                                 313.62
|                                                                                                ===============
|
|       72871 30-04-01 A1  DE0001090025 S      10,000,000.00       11,050,377.05     0.0005%         104.44
|                                                                                                ---------------
|TOTAL PER ACCOUNT:                                                                                      104.44
|                                                                                                ===============
|
|TOTAL FEE CHARGED CURRENT DAY PER MEMBER:                                                               418,06 (15)
|
|TOTAL FEE CHARGED CURRENT MONTH PER MEMBER:                                                          56,235.25 (16)
|
|TOTAL FEE CHARGED YEAR-TO-DATE PER MEMBER:                                                          195,385.48 (17)
|
|
|TOTAL FEE CHARGED CURRENT DAY PER CLEARING MEMBER:                                                      418,06 (18)
|
|TOTAL FEE CHARGED CURRENT MONTH PER CLEARING MEMBER:                                                 56,235.25 (19)
|
|TOTAL FEE CHARGED YEAR-TO-DATE PER CLEARING MEMBER:                                                 195,385.48 (20)
|
|
|
|PRODUCT TYPE: REPOS
|                                                                                                          CURRENCY: EUR
|CLEARING MEMBER:ABCFR MUSTER BANK FRANKFURT
|MEMBER:         ABCFR
|
|              TRADE   ACT              B                                                          FEE CURRENT
|TRADE NUMBER   DATE   TYP    ISIN      S       QUANTITY         PAYABLE AMOUNT   FEE FACTOR    DAY AMOUNT
|------------ -------- --- ------------ - ------------------ ------------------ ---------- ---------------
|       72579 30-04-01 A1  DE0001090025 S      10,000,000.00       11,050,377.05     0.0003%          52.22
|       72581 30-04-01 A1  DE0001090041 B      50,000,000.00       53,948,869.90     0.0003%         261.40
|                                                                                                ---------------
|TOTAL PER ACCOUNT:                                                                                      313.62
|                                                                                                ===============
|
|       72871 30-04-01 PP  DE0001090025 S      10,000,000.00       11,050,377.05     0.0005%         104.44
|                                                                                                ---------------
|TOTAL PER ACCOUNT:                                                                                      104.44
|                                                                                                ===============
|
|TOTAL FEE CHARGED CURRENT DAY PER MEMBER:                                                               418,06
|
|TOTAL FEE CHARGED CURRENT MONTH PER MEMBER:                                                          56,235.25
|
|TOTAL FEE CHARGED YEAR-TO-DATE PER MEMBER:                                                          195,385.48
|
|
|TOTAL FEE CHARGED CURRENT DAY PER CLEARING MEMBER:                                                      418,06
|
|TOTAL FEE CHARGED CURRENT MONTH PER CLEARING MEMBER:                                                 56,235.25
|
|TOTAL FEE CHARGED YEAR-TO-DATE PER CLEARING MEMBER:                                                 195,385.48
```