

REPO with General Collateral Certificates

1. Terms and definitions

- GCC – General Collateral Certificate
- GCP – General Collateral Pool
- NCC – National Clearing Centre
- NSD – National Settlement Depository
- Trading Account – TRDACC in the Equities market Trading & Clearing system
- Position Code – Bank Account (BANKACC) of the Clearing Member

2. API changes

2.1. ASTS Bridge interface

Changes are implemented in the new IFCBroker_26 ASTS bridge interface. Several tables as well as new fields in existing tables are added; transactions format does not change. Please find interface specification and comparison to the previous version in corresponding files.

2.2. FIX/FAST

Not affected.

3. Collateral Pools Types

Three Collateral Pools will be established for different types of securities:

- «General collateral» pool (GCPOOL.GCPOOLID=GC): securities included in the Bank of Russia Lombard List and accepted as Collateral by NCC;
- «GC Bonds» pool (GCPOOL.GCPOOLID=GCBONDS): all bonds accepted by NCC as Collateral for REPO with CCP and T+ trades, including OFZs (Federal Loan Bonds);
- «GC Shares» pool (GCPOOL.GCPOOLID=GCSHARES): all shares accepted by NCC as Collateral for REPO with CCP and T+ trades.

On the first project phase only the GC Bonds pool will be available.

In addition to securities, Russian rubles and foreign currencies can also be deposited to each Collateral Pool.

Existing Mutual Clearing Collateral and Stress Collateral pools will also be moved to this technology. Thereby details on these pools will be added to the "GCPOOLS" table with the following identifiers:

- GFUND - Mutual Clearing Collateral
- SFUND – Stress Collateral

Data on assets deposited to Collateral Pools is presented in the GCPOOLASSET table. Table content remains constant during the day.

4. Position codes (BANKACC) and Trading Accounts (TRDACC)

Two types of Trading Accounts (and corresponding Bank Accounts) are used to perform operations with Collateral Pools:

1. "Pool Trading Account" used to perform operations with assets, i.e. transfer assets to/from Collateral Pool, and also Collateral positions calculation. Pool TRDACC contains the Bank Account ("Pool Bank Account") used for Russian rubles and foreign currencies in Collateral Pool, and optionally DEPO subaccount.
2. "T+ Trading Account" used for GCC issue and repayment, trades conclusion and positions calculation (ACCOUNT_BALANCE). T+ TRDACC contains the Bank Account which includes partition 36 of trading DEPO account.

Pool Bank Account may be identified by filled "BANKACC.GCPOOLID" field and can be associated with one Pool TRDACC only.

"TRDACC.GCPLINKTRDACCID" field of the Pool Trading account contains identifier of the related T+ Trading Account, GC Certificates will be issued for.

Pool Trading Account registration is performed by NCC after receiving the application from the Clearing Member with the following details:

1. code of the Collateral Pool (only 'B' (GC Bonds) will be available on the first phase of the project);
2. code of the T+ account the issued GCCs will be deposited to (such as S01+00000F00).

After receiving the application NCC performs the following operations:

1. Bank Account registration for Clearing Member.
 - Type of this Bank Account corresponds to type of the Bank Account that is associated with T+ TRDACC that contains partition 36 of DEPO account specified in the application.
 - Type of the Collateral Pool for this Bank Account corresponds to one specified in the application.
2. Pool Trading Account registration for the opened Bank Account.
3. Linking Pool Trading Account with T+ Trading Account that contains partition 36 of DEPO account specified in application.

5. Position identifiers (POSITIONS.TAG)

The new position identifier "GCPR" (GCC estimated value) is introduced for Bank Account associated to Pool TRDACC. This position displays Face Value of Clearing Positions Certificates issued for assets on this particular TRDACC.

Face Value of issued Clearing Participation Certificates is expressed in Russian rubles and for one Certificate equals to one Russian ruble.

Following position values are calculated for GCCs:

- «opening» - Face Value of Certificates issued by NSD;

- «credit» - Face Value of Certificates to be issued as a part of the next interaction with NSD;
- «debit» - Face Value of Certificates to be repaid as a part of the next interaction with NSD;
- «current» - current Face Value of issued (or to be issued) Certificates;

«Current»= «Opening» + «credit» - «debit»

When Single Limit for Bank Accounts associated with Pool Trading Account is calculated, its value is decreased by the Face Value of issued Certificates accordingly.

6. Performing Operations With Clearing Pool

6.1. Transfers

Assets transfer to/from Collateral Pool (as well as Certificates issue and repayment) is performed through Equities market Trading & Clearing system by submitting the "COMPLEX_TRANSFER" transaction on the existing "TRAN" board.

By default assets deposit (securities, rubles, foreign currencies) may be performed from any Trading Account that contains partition 31 or 36 of DEPO account to Pool Trading Account. Transfers between Pool TRDACCs are forbidden.

When withdrawing assets by the COMPLEX_TRANSFER transaction with the "TRANSFERTYPE=F" flag the transfer will be performed for maximum amount available that does not exceed the value specified in transaction.

Clearing Member may submit an application to NCC to limit all TRDACCs or only Clients' and Trust Management TRDACCs to perform transfers only to/from T+ Trading Accounts associated with Pool Trading Account.

Withdrawal of Russian rubles or foreign currencies from the Bank Account associated with Pool Trading Account may also be performed through the NCC Electronic Document Interchange system.

Securities substitution in Collateral Pool is performed through NSD web-service independently of the ASTS Trading & Clearing System.

Application for assets deposition to Collateral Pool is executed by the Clearing Centre in case of sufficient value of Planned Position for such asset on partitions 31 or 36 / Bank Account associated with Trading Account specified in the application.

If application for assets deposition to Collateral Pool is submitted from a T+ account, then an additional verification is performed: prospective Single Limit value (after assets deposition) for Bank Account associated with T+ TRDACC specified in the application cannot be a negative value. If T+ TRDACC specified in the application is linked to Pool Trading Account, the described verification is performed considering that assets deposition will lead to Certificates deposition to this T+ account and Single Limit value will increase accordingly.

When withdrawing assets from T+ TRDACC the regular verification for full prefunding is performed in case full prefunding condition is obligatory for this T+ account.

When Single Limit for Bank Accounts associated with Pool Trading Account is calculated, its value is decreased by current Face Value of issued Certificates accordingly.

If asset is deposited to the Collateral Pool, its withdrawal from Pool TRDACC may be performed only in case of repayment of corresponding number of Clearing Participation Certificates.

6.2. General Collateral Certificate issue and repayment

GCC issue and repayment may be performed as "technical" trades on a new trading board "GCTR". Trades are concluded with the central counterparty (NCC).

GCCs are accounted on DEPO position related to partition 36 (that is associated with T+ TRDACC linked with Pool TRDACC) as security «Clearing Participation Certificate <Pool Code>», where <Pool Code> - Collateral Pool identifier

Regular position values such as opening, planned, debit, credit, current etc. are calculated for GCC DEPO position.

6.2.1. Issue

GCC issue in the Clearing System leads to increase of Face Value of Certificates to be issued as a part of the next interaction with NSD («deposited» value increase) on Bank Account associated to Pool TRDACC for a Face Value of Certificates to be issued, and simultaneously increase of planned security position (partition 36 of T+ TRDACC) for amount corresponding to quantity of Certificates to be issued.

Certificate issue is performed right after increase of Single Limit value for Bank Account associated with Pool TRDACC in case the resulting Single Limit value is positive. Events that lead to Single Limit value increase are:

- securities or money deposition to Pool TRDACC;
- rubles or foreign currency deposition to Bank Account associated with Pool TRDACC;
- reevaluation of assets on Pool TRDACC.

Certificates issue size corresponds to Single Limit positive value rounded down to the nearest whole ruble (no decimals).

- If Single Limit value is negative and remains negative after one of the above described events - Certificates issue is not performed.
- If Single Limit value is negative and becomes positive – Certificates issue size corresponds to Single Limit positive value (calculated after one of the above described events) rounded down to the nearest whole ruble.
- If Single Limit value is non-negative and increases after one of the above described events - Certificates issue size corresponds to new Single Limit positive value rounded down to the nearest whole ruble.

- If Single Limit value is non-negative and remains same or decreases (even to negative value) after one of the above described events - Certificates issue is not performed (in case of negative Single Limit value Certificates repayment is performed).

After Certificates issue the value of Single Limit for Bank Account associated with Pool TRDACC becomes zero (with two decimals) due to considering current face value of issued Certificates in calculation.

6.2.2. Repayment

GCC repayment in the Clearing System leads to increase of Face Value of Certificates to be repaid as a part of the next interaction with NSD («withdrawn» value increase) on Bank Account associated to Pool TRDACC for a Face Value of Certificates to be repaid, and simultaneously decrease of planned security position (section 36 of T+ TRDACC) for amount corresponding to quantity of Certificates to be repaid.

Certificates repayment is performed right after decrease of Single Limit value for Bank Account associated to Pool TRDACC in case the resulting Single Limit value is negative.

Certificates repayment at the assets withdrawal from Collateral Pool is performed if the following conditions are met:

1. Certificates repayment does not lead to negative value of planned position for "Clearing Participation Certificate <Pool Code>" security (partition 36 of T+ TRDACC);
2. Certificates repayment does not lead to negative value of Single Limit for Bank Account associated with T+ Trading Account;
3. Certificates repayment does not lead to decrease of negative value of Single Limit for Bank Account associated with T+ Trading Account.

If assets are transferred from Pool TRDACC to associated T+ TRDACC, verifications for conditions 1 and 2 are performed considering that assets will be deposited to T+ TRDACC and Single Limit value will increase accordingly.

Certificates repayment in case of reevaluation may be performed if it does not lead to planned security position (partition 36 of T+ TRDACC) negative value.

Quantity of repaid certificates corresponds to Single Limit negative value rounded down to the nearest whole ruble (no decimals).

7. New trading boards

Order-driven market:

- 'GCRP' - REPO with CCP with GCP 1 day
- 'GCOW' - REPO with CCP with GCP 7 day
- 'GCSW' - REPO with CCP with GCP 14 day
- 'GCOM' - REPO with CCP with GCP 1 m.
- 'GCSM' - REPO with CCP with GCP 2 m.
- 'GCTM' - REPO with CCP with GCP 3 m.

Quote-driven market (negdeals):

- 'PSGC' - REPO with CCP with GCP Negdeal

"Technical" trades:

- 'GCTR' - Transfer GCP

All the above-mentioned boards are related to the new market (marketid=GCDP - REPO with CCP: GCP and Deposit)

8. Trade conclusion

8.1. REPO with CCP

Orders for trades with GCCs should be submitted using the transactions "CCP_REPO_ORDER" (order-driven market) and CCP_REPO_NEGDEAL (quote-driven market negdeals) of the ASTS Bridge interface, and the "New Order - Single (D)" tag of the FIX Transactional interface (for anonymous trades).

REPO trades with GCCs are concluded with the central counterparty (NCC).

Settlement codes available for REPO trades with GCC are T0/Yn and Ym/Yn, where $0 \leq m \leq 2$. Date of obligations settlement for 1st part of REPO trade is actual T0 date or date described as "T+m", where T – date of trade conclusion, m – number of settlement days corresponding to the first digit of settlement code. Date of obligations settlement for 2nd part of REPO trade is "T+n", where T - date of trade conclusion, n – number of settlement days corresponding to the last digit of settlement code in case n is a numeric value. Alphabetical values 1W, 2W, 1M, 2M, 3M correspond to 7, 14 calendar days, and 1, 2, 3 months since the date of trade conclusion. Date of obligations settlement for 2nd part of REPO trade is calculated in accordance with the following business-day conventions: less than 1M – «Following» convention, 1M and more – «Modified Following» convention.

Note:

- «Following» convention – if trade settlement date is a non-settlement day, it will be postponed to the first following settlement day.
- «Modified Following» convention - if trade settlement date is a non-settlement day, it will be postponed to the first following settlement day unless that day falls in the next calendar month in which case that date will be the first preceding day that is a settlement day.

REPO trades with GCC are non-discounted trades.

Order verification for Collateral sufficiency and Collateral calculation for concluded trades are performed based on Single Limit value for Bank Account associated with T+TRDACC specified in the order/trade according to REPO with CCP market rules. Please note:

- Settlement price, lower and upper market risk bounds for a GCC security are determined as 1 ruble;

- Concentration Limits are not used for market risk bounds calculation and determined as 1 security;
- Orders for REPO trades with CCP with GCCs are verified for Collateral sufficiency using determined percent risk parameters (risk range bounds are rounded similarly to orders with shares, i.e. considering "LotSize").

Orders for REPO trades with GCCs may be submitted only for T+ TRDACC linked to Pool TRDACC used for assets deposition to particular Collateral Pool, the Certificate is issued for.

Urgent settlement reports are forbidden for REPO Negotiated deals with CCP with GCC.

8.2. Trades with assets deposited to Collateral Pools

Clearing Member which also has a status of a Trading Member may conclude sell trades with assets, deposited by Clearing Member to the Collateral Pool. Such orders are concluded with Pool TRDACC specified.

Pool TRDACCs may be used only for sell trades in T+ main trading modes («TQ**») and Negdeals modes with CCP («PT**») with «Yn» settlement codes settled in Russian rubles.

As a part of regular Liability Prolongation procedure Clearing Centre may conclude similar trades for foreign currencies on behalf of Clearing Member on "SADM" board with TOD settlement code settled in rubles.

Settlement reports (whether urgent or regular) are forbidden for trades concluded on Negdeals modes with CCP («PT**») using Pool TRDACCs.

Short-selling is forbidden for all Pool Trading Accounts. This restriction cannot be removed by Clearing Member.

Liabilities and Claims on sell trades for assets deposited to Collateral Pool are considered in calculation of Single Limit value for Bank Account associated with Pool Trading Account according to the rules of Single Limit calculation.

All the money received as result of liabilities settlement for T+ sell trades with assets are deposited to the corresponding Collateral Pool (on the settlement date) and may be withdrawn from the Pool with regular operations.

9. Reports

REPO with CCP trades with GCC and orders for such trades conclusion will be added to the existing trading and/or clearing reports as trades/orders with "GCC <Pool Code>" securities.

Changes in clearing XML reports are as follows:

1. New reports and changes in reports structure

1.1. New report EQM45: Assets in Collateral Pools.

Report is generated individually and delivered to Pool Members after the morning clearing session.

1.2. New report EQM46: Report on GCC Normative Value.

Common report is generated and delivered to all Pool Members after the morning clearing session.

1.3. Changes in structure of Report on Trading/clearing accounts (EQM20):

- BANKACC node is extended with the new optional BankAccPoolType field - Money position corresponds to Collateral Pool Bank Account ("Y" - yes, "N" - no);
- RECORDS node is extended with the new optional TrdAccPoolMatch field - Code of T+ trading account, Pool TRDACC corresponds to;
- DisableREPO and DataChanged fields of the RECORDS node are no longer mandatory fields.

2. Changes in reports content

2.1. Data on REPO with GCC trades and sell-trades with assets, deposited to the Collateral Pool concluded using Pool TRDACCs, is included into EQM06, 6B, 6C, 6D reports.

2.2. EQM99: Report on Collateral.

- new possible value for OperationCode field: "22" GCC issue/repayment;
- obligations on trades with GCC are included into obligations on T+ trades;
- Coupon, Principle and Dividend payment for securities in Collateral Pool correspond to operation codes 6, 7, 8;
- money deposition to the Collateral Pool by external payment corresponds to operation code 1;
- Section 36 displays number of GCCs obtained/debited as a result of issue/repayment; information is shown per transaction with transaction time and number.

2.3. EQM13, EQM23: Obligations on REPO with GCC trades are included into net obligations on T+ trades.

Styles, schemas and examples for XML reports are available at the Moscow Exchange FTP server: <ftp://ftp.moex.com/pub/Reports/Equities/>