



**MOSCOW
EXCHANGE**

**Unified Collateral Pool
of the Securities, FX and
Derivatives markets**

Content

- 1. Objectives of the project “Unified Collateral Pool”**
- 2. Advantages of the Unified Collateral Pool**
- 3. Migration to Settlement Account of the Unified Pool**
- 4. Collateral management within the Unified Pool**
- 5. Clearing execution regulations**
- 6. Supplements**

Abbreviation List

- 1. CSCR** Client section of clearing registers
- 2. DM** Derivatives market
- 3. FXM** FX market
- 4. SA** Settlement Account
- 5. SC** Sub-accounts Cluster
- 6. SM** Securities market
- 7. TA** Trade Account
- 8. TCS** Trading-Clearing System
- 9. UP** Unified Pool



Objectives of the project “Unified Collateral Pool”



MOSCOW
EXCHANGE

Objectives of the project “Unified Collateral Pool”

- 1 Reduce on costs** of Clearing members in respect of operations execution on the Moscow Exchange markets.
- 2 Cross-margining** implementation between markets of the Moscow Exchange.
- 3 Launching new products and services**, which will allow members attract new clients.
- 4** Provision members with the unique **clearing functional**, which covers operations on the FX, Securities and Derivatives markets:
 - unified account;
 - unified collateral;
 - cross-margining;
 - netting when settling trades executed on the FX, Securities and Derivatives markets.

Advantages of the Unified Collateral Pool



MOSCOW
EXCHANGE

Advantages of the Unified Collateral Pool

1 Collateral

- **Unification of the list of assets¹**, accepted as **Collective** clearing collateral on the Securities, FX и Derivatives markets (including acceptance of sovereign bonds и eurobonds on all markets).
- **Unification of the approach** of the acceptance of assets into **Individual** clearing collateral.

2 Settlements on net basis under obligations and claims arising from trades, executed on the Securities, FX and Derivatives markets, using assets, recorded under the Trade Account of the Unified Pool.

3 Implementation of **cross-margining** on the Securities, FX and Derivatives markets.

Unification of the list of assets, accepted as collateral (1/2)

Into the list of assets, accepted into the Unified Pool, will be included:

- Russian rubles
- Foreign currencies:
 - **USD** (US dollar)
 - **EUR** (euro)
 - **CNY** (yuan)
 - **GBP** (pound sterling)
 - **CHF** (Swiss franc)
 - **HKD** (Hong Kong dollar)
- Precious metals:
 - **GLD** (gold)
 - **SLV** (silver)
- Securities

Evaluation of assets, accepted as individual clearing collateral, will be executed in accordance with the Risk parameters of the Securities market Calculation Methodology.



Unification of the list of assets, accepted as collateral (2/2)

Criteria

Currency:

- ✓ Convertibility
- ✓ Liquidity

Shares:

- ✓ Liquidity
- ✓ Estimation of the financial state not lower than average

Bonds:

- ✓ Minimum credit risk

Commodities:

- ✓ Gold
- ✓ Silver

Type of collateral asset	FX market and Precious metals market		Securities and money market		Derivatives market	
	As is	To be	As is	To be	As is	To be
Cash funds						
RUB	✓	✓	✓	✓	✓	✓
USD, EUR	✓	✓	✓	✓	✓	✓
GBP, CNY	✓	✓	✓	✓	x	✓
CHF	✓	✓	x	✓	x	✓
HKD	x	✓	x	✓	x	✓
Securities						
Bonds	x	✓	✓	✓	x	✓
Equities	x	✓	✓	✓	✓	✓
Precious metals						
GLD	✓	✓	x	✓	x	✓
SLV	✓	✓	x	✓	x	✓

Settlements on a net basis

- 1** Obligations and claims, recorded under unified Settlement Account per asset, arising from trades, executed on different markets, are terminated by netting on a Settlement Date.
- 2** Settling all unfulfilled obligations under unified accounts (obligations to pay Variation margin inclusively) – roll-over trades (REPO, swap or terminating buy-sell trades) are executed using unified collateral.
- 3** Unification of the Time Schedule for the obligations fulfilment among all markets:
 - obligations in securities are fulfilled during clearing sessions at 17:00 and 19:00,
 - obligations in cash of Clearing Members towards CCP – not later than cut-off time for the relevant currency.
- 4** Termination of obligations with arrived Settlement Date in the Clearing System of the Securities market is executed in the standard order.

Cross-margining

On the FX market:

- Recording inter-asset spreads under positions, formed under Trades EUR/USD, USD/RUB and EUR/RUB – *implemented in June 2016.*

On the Securities market:

- Recording inter-asset spreads for groups of securities: on the first stage will be applied to OFZ positions – *implemented in March 2017.*

On the Derivatives market:

- Implementation of the covered sales technology;
- Recording of calendar spreads optimization;
- Delivery modernization (elimination of the over-margining).

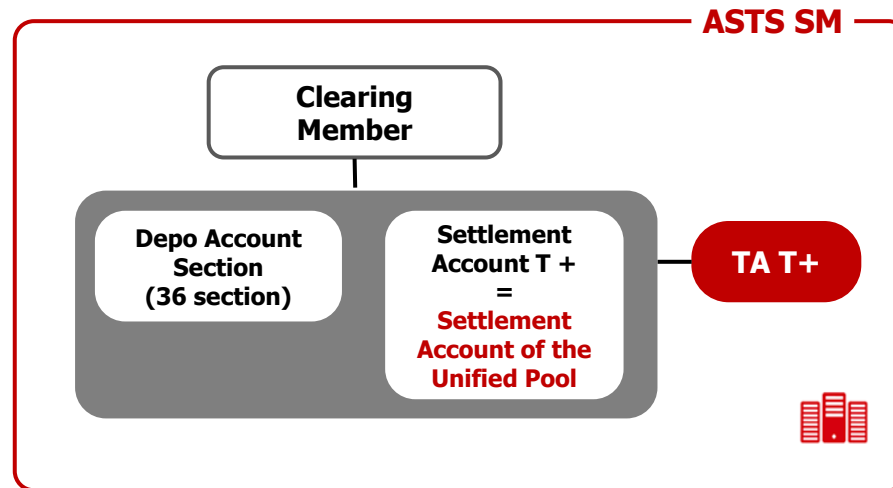


Migration to the Settlement Account of the Unified Pool



General provisions

- 1** Opportunity to use Unified Pool technologies is provided on the basis of the request submitted by a member to the NCC
- 2** **Settlement Accounts T+** (new or existing ones) are used as Settlement Accounts of the Unified Pool



Clearing Member actions (1/2)

In order to use Unified Pool technologies:

- 1** A Clearing Member must have registered Settlement Account on the Securities market or register new Settlement Account on the Securities Market
 - 2** Assign the feature “Unified Pool” to the chosen Settlement Account:
 - Forward the «Request for assignment the feature Unified Pool to the Settlement Account» via the Clearing Terminal or WEB-clearing
 - 3** Forward the «Request for changing the scope of the Settlement Account of the Unified Pool»:
 - a) Containing indication of the relevant Settlement Account, registered for the FX or Derivatives markets (in case of **integration** of the Settlement Account of the Unified Pool with **the Settlement Account of the other market**)
 - b) Containing indication of the FX market, herewith this Settlement Account, registered on the Securities market becomes available on the FX market (in case if to the Settlement Account of the Unified Pool **the market is added**)
- !** *Request for assignment the feature “Unified Pool” to the Settlement Account at the same time is the application for **changing status** of the Collateral in foreign currency, recorded under such Settlement Account, **to the 'other collateral'**.*

Clearing Member actions (2/2)

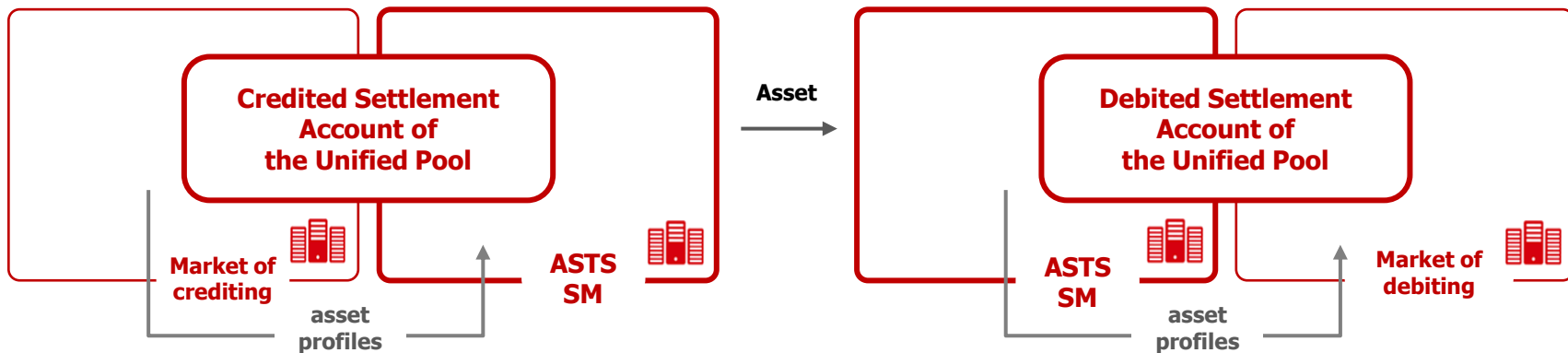
- 1** **Only for the Derivatives market:** Depo accounts will be closed, all assets are required to be transferred to the TA of the Securities market.
- 2** In case of integration Settlement accounts of the FX and Derivatives markets, defined in the application, will be closed.
- 3** Service on balancing risks between Derivatives and FX markets remains available.

Collateral management within the Unified Pool



MOSCOW
EXCHANGE

Procedure for transferring funds between SA of the Unified Pool

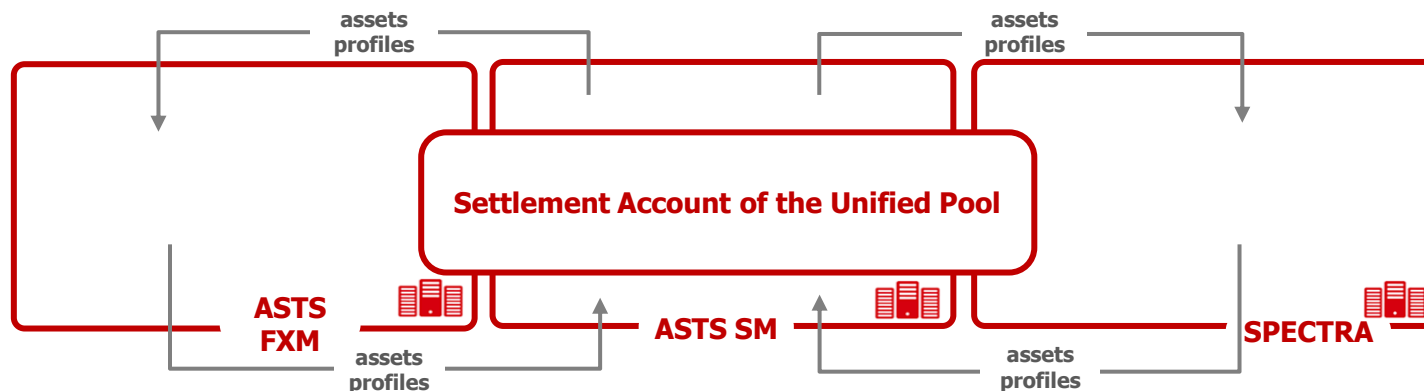


Basis: the Request for Collateral transfer, forwarded via trading terminals Spectra, ASTS or the Clearing Terminal

Required to be indicated in the Request:

- ✓ Credited Settlement Account
- ✓ Debited Settlement Account
- ✓ Currency code / precious metals code
- ✓ Amount of cash funds/amount of precious metal to be transferred
- ✓ Market of crediting
- ✓ Market of debiting
- ✓ List of changes under clearing registers on the market of crediting and on the market of debiting (optionally):
 - code of the clearing registers section (for the Derivatives market) obligatory
 - Settlement Account of the 2nd level (for the Securities market / FX market) as an option
 - change (with «plus») of the sum of cash funds on the market of crediting and on the market of debiting

Procedure for asset profile transfer



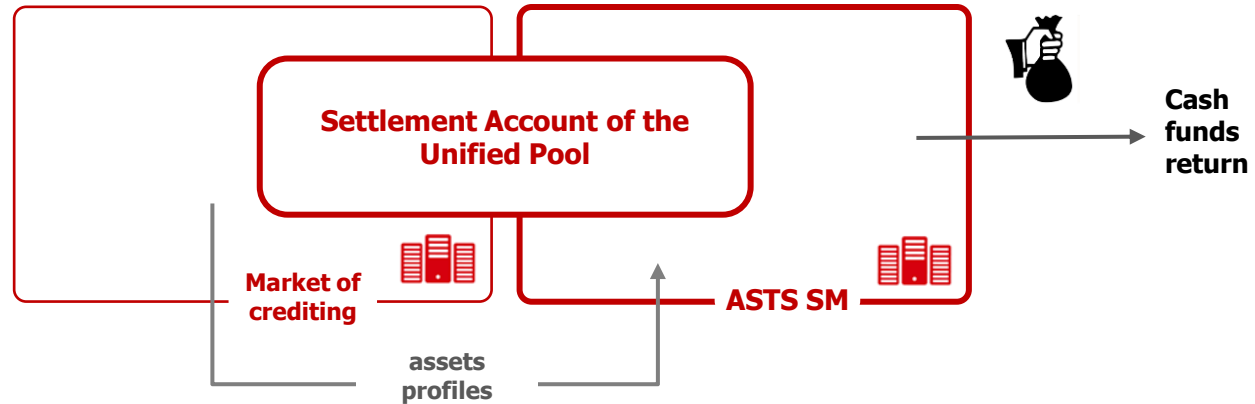
Basis: the Request for asset profile transfer, forwarded via trading terminals Spectra, ASTS or the Clearing Terminal

Required to be indicated in the Request:

- ✓ TA of the Unified Pool, into the structure of which SA of the Unified Pool
- ✓ Clearing System of the market, from/to which assets profiles are transferred
- ✓ Changes under clearing registers (optionally)
 - SA of the 2nd level (for the FX market and Securities market)/ CSCR (for the Derivatives market)
 - Asset code
 - Change (with "plus" or "minus") of the assets profiles in the clearing system of the market, to/from which assets profiles are transferred

The Request is executed under the condition that its execution will not lead to the fact that a Clearing Member will obtain negative Single Limit or will not have sufficient collateral under the Settlement Account of the Unified Pool on the relevant market

Procedure for collateral return



Basis: the Request for collateral return, forwarded via the Clearing Terminal

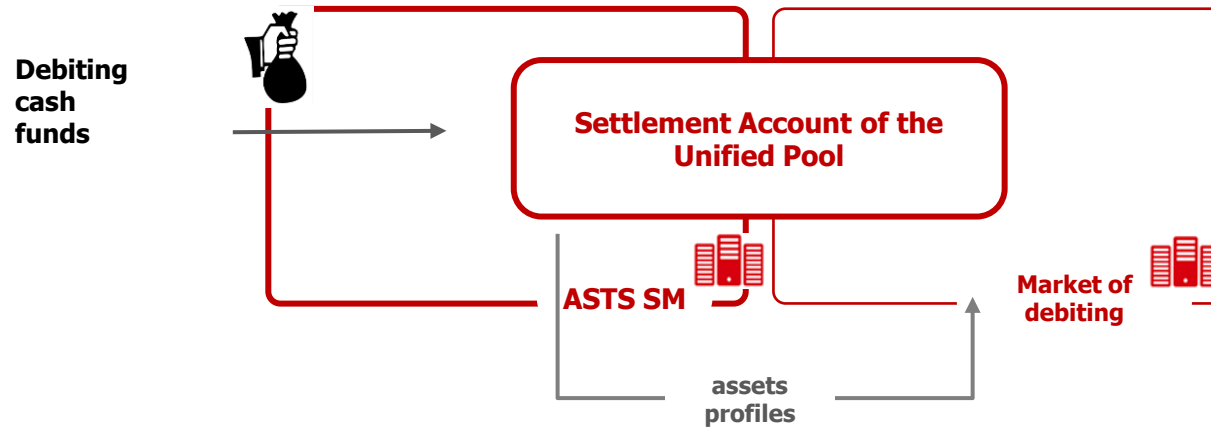
Required to be indicated in the Request:

- ✓ Settlement Account of the Unified Pool
- ✓ SA of the 2nd level (for the FX market and Securities market as an option) / CSCR (for the Derivatives market at least one obligatory)
- ✓ Amount of cash funds/amount of precious metal
- ✓ Relevant feature (in case if it is required to return the whole available amount of cash funds / amount of precious metal)
- ✓ Market in case if together with the Collateral return it is required to transfer asset profile ¹

Return to a Clearing Member of Collateral in cash funds/precious metals, recorded under the Settlement Account of the Unified Pool is executed under the condition that the value of the Single Limit in the Clearing Systems of markets, included into this collateral pool, is non-negative

¹ – only for the Request for collateral return, which contains the amount of cash funds

Procedure for posting collateral



Basis: Payment order

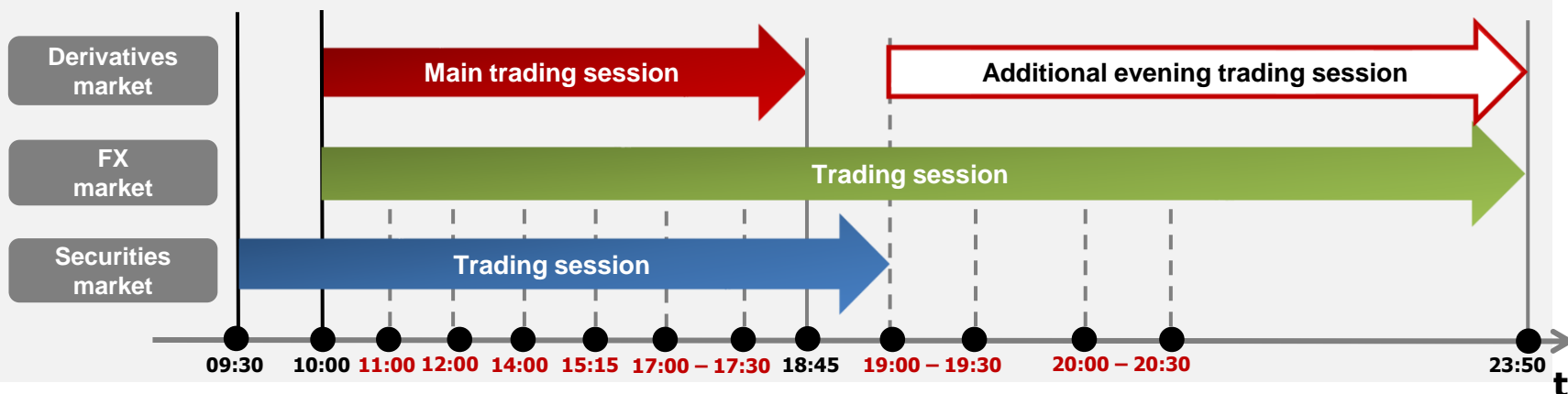
Required to be indicated in the purpose of payment:

- ✓ Settlement Account of the Unified Pool
- ✓ Code word for debiting on the FX/Securities market
Code word: "SMCSC/UVR"
- ✓ Number and date of the Clearing Membership Agreement, Client section of the clearing register for debiting on the Derivatives market

Target changes in the clearing execution regulations



Clearing Time Schedule for Settlement Accounts of the Unified Pool ¹



- 11:00 -** Fulfillment of obligations in **tenge**, calculated in the Unified Clearing Pool
- 12:00 -** Fulfillment of obligations in **yuan, Belorussian rubles, Hong Kong dollars, Swiss francs**, calculated in the Unified Clearing Pool
- 14:00 -** Fulfillment of obligations in **Turkish lira**, calculated in the Unified Clearing Pool
- 15:15 -** Fulfillment of obligations in **hryvnia**, calculated in the Unified Clearing Pool
- 17:00 -**
 - Fulfillment of obligations in **euro and pounds sterling**, calculated in the Unified Clearing Pool
 - Fulfillment of obligations in securities, calculated on the 1st stage of the Unified Clearing Pool establishment
- 17:00-17:30-** Conclusion of REPO trades with a CM in case if there is insufficient amount of securities, calculated on the 1st stage of the Unified Clearing Pool establishment
- 19:00 -** Fulfillment of obligations in securities, calculated on the 2nd stage of the Unified Clearing Pool establishment
- 19:00-19:30-** Conclusion of REPO trades with a CM in case if there is insufficient amount of securities, calculated on the 2nd stage of the Unified Clearing Pool establishment
- 20:00 -** Fulfillment of obligations in **dollar US, Russian rubles and precious metals**, calculated in the Unified Clearing Pool, including obligations to pay fees, forfeits, accrued on the previous Settlement Date
- 20:00-20:30-** Conclusion of swap / REPO trades in case if there are obligations in cash funds / precious metals, to fulfill which there is no sufficient amount of cash funds

¹ – Any reference to time contained in this document shall, unless otherwise stated, be to Moscow time.

Procedure for settling unfulfilled obligations under TA of the Unified Pool

When a Clearing Member does not fulfill obligations under trades, concluded on the Securities, FX and Derivatives markets (including variation margin etc.), the Clearing House concludes with a Clearing Member rollover trades will be concluded.

Specifics:



- Obligations of a Clearing Member are fulfilled using assets, recorded under the TA of the Unified Pool.
- Unfulfilled obligations in securities, cash funds and precious metals will be settled through standard default management procedure (REPO or SWAP trades).
- Rollover trades (REPO or SWAP) are concluded through claims and collateral, recorded under accounts, related to the Unified Collateral Pool.
- If the further roll over of the fulfillment of obligations of a Clearing Member is impossible in accordance with the Clearing Rules, the Clearing House closes out position of such Clearing Member.
- Obligations to pay Russian rubles (variation margin, fee, penalties) on the Derivatives market shall be fulfilled till 20:00, otherwise penalty rate for the debt is applied (for settlement accounts, which have not been switched to the unified pool, the penalty for the debt in Russian rubles is also implemented).

Supplements





Funds transfer, assets profiles transfer, trades conclusion



1 Transfer of Collateral to the ASTS SM by a Clearing Member (40 rubles)

Day T. Trading	SM 			Collateral debited to the ASTS SM	DM 		
		Rubles	GAZP			Rubles	GAZP
+40	Funds	40	0		Funds	0	0
	Obligations	0	0		Obligations	0	0
	Assets profiles	0	0		Assets Profiles	0	0
	Single Limit = 40				Collateral = 0		

2 Transfer of assets profiles to the SPECTRA by a Clearing Member (20 rubles)

	SM 			Transfer of an asset profile (rubles) to conclude futures contract in the SPECTRA	DM 		
	Rubles	GAZP			Rubles	GAZP	
	Funds	40	0		Funds	0	0
	Obligations	0	0		Obligations	0	0
	Assets profiles	-20	0		Assets profiles	20	0
	Single Limit = 40-20 = 20				Collateral = 20		

3 Purchase by a Clearing Member of Gazprom shares (20 rubles of Collateral required) and sale of the futures on Gazprom share with the closest execution (20 rubles of Collateral required)

	SM 			Sale of the futures contract on GAZP in the SPECTRA Conclusion of the Trade T+2 Purchase of 1 GAZP share in the ASTS SM	DM 		
	Rubles	GAZP			Rubles	GAZP	
	Funds	40	0		Funds	0	0
	Obligations T+2	-100	1		Obligations	100	-1
	Assets profiles	-20	0		Assets profiles	20	0
	Single Limit = 40-100-20+1*80 = 0				Collateral = 100+20-1*120 = 0		

Settlement in the ASTS SM

4 Transfer of assets profiles (of rubles and Gazprom shares) between the ASTS SM and the SPECTRA by a Clearing Member for cross-margining

SM	Rubles	GAZP	Transfer of an asset profile (rubles and GAZP) between the ASTS SM and the SPECTRA for cross-margining	DM	Rubles	GAZP
Funds	40	0		Funds	0	0
Obligations T+2	-100	1		Obligations	100	-1
Assets profiles	100	-1		Assets profiles	-100	1

Single Limit = 40 Collateral = 0

5 Day T+2: transfer of Collateral (60 rubles) to the ASTS SM by a Clearing Member in order to fulfill obligations under Trade T+ to buy Gazprom shares

SM	Rubles	GAZP	Debiting cash funds to the ASTS SM for settlements	DM	Rubles	GAZP
Funds	40+60	0		Funds	0	0
Obligations T+0	-100	1		Obligations	100	-1
Assets profiles	100	-1		Assets profiles	-100	1

Single Limit = 100 Collateral = 0


6 Day T+2: clearing, receipt of Gazprom shares by a Clearing Member

SM	Rubles	GAZP	Clearing	DM	Rubles	GAZP
Funds	0	1		Funds	0	0
Obligations T+0	0	0		Obligations	100	-1
Assets profiles	100	-1		Assets profiles	-100	1


Single Limit = 100 Collateral = 0

Settlement in SPECTRA

7 Day T+n: Before the futures contract settlement (state equivalent to the point 6)


SM 	Rubles	GAZP
Funds	0	1
Obligations T+2	0	0
Assets profiles	100	-1

Single Limit = 100

DM 	Rubles	GAZP
Funds	0	0
Obligations	100	-1
Asset profiles	-100	1


Collateral = 0

8 Day T+n: Settlement of the futures contract on Gazprom shares sale by conclusion of the Trade T+ in the ASTS SM, automatic transfer of reverse assets profiles (rubles and Gazprom shares) between the SPECTRA and the ASTS SM

SM 	Rubles	GAZP
Funds	0	1
Obligations T+2	100	-1
Assets profiles	0	0


Single Limit = 100

Conclusion of the Trade T+ transfer of reverse assets profiles (rubles and GAZP) between the SPECTRA and the ASTS SM

DM 	Rubles	GAZP
Funds	0	0
Obligations	0	0
Assets profiles	0	0


Collateral = 0

9 Day T+n+2: Fulfillment by a Clearing Member of obligations under Trade T+, concluded to settle futures contract. Clearing

SM 	Rubles	GAZP
Funds	100	0
Obligations T+0	0	0
Assets profiles	0	0

Single Limit = 100

Clearing

DM 	Rubles	GAZP
Funds	0	0
Obligations	0	0
Assets profiles	0	0

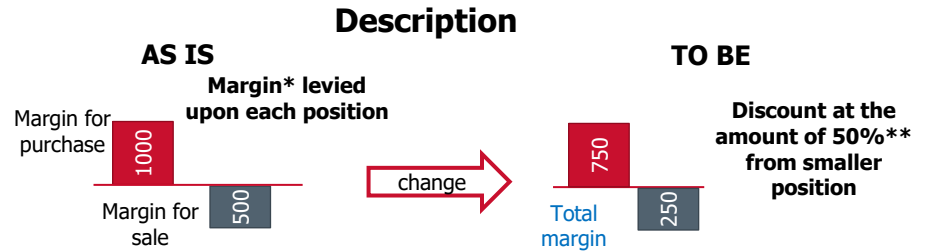
Collateral = 0

New service implementation effect

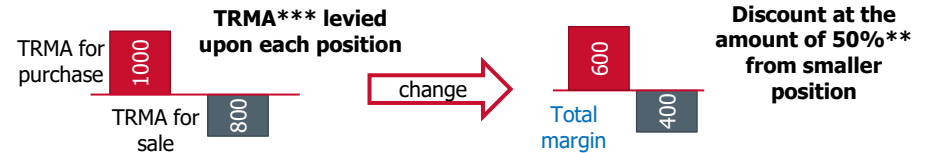
In the RMS of separate markets

Change

Interasset spread on the FX market (pairs EUR/USD and USD/RUB; pairs EUR/USD and EUR/RUB):
 Example: purchase of 100 EUR/USD and sale of 50 USD/RUB. Now collateral is blocked for each position and its required amount is approximately 1500 rubles.
 After the change claims will be reduced to 1000 rubles.



Interasset spread on the Securities market (OFZ with close periods):
 Example: purchase of 10 OFZ 25081 and sale of 5 OFZ 26204****. Now collateral, required from a Clearing Member, is approximately 1500 rubles.
 After the change claims will be reduced to approximately 500 rubles.



Change of RMS and of the clearing among markets

Settlements on a net basis (netting of settlements) among markets
 Example: receipt of the variation margin on the Derivatives market in the amount of 300 rubles, receipt from the CCP on the SM of 500 rubles from securities delivery, termination of a swap trade and delivery of 1000 rubles on the FXM by the CCP.
 Now 1000 rubles shall be **balanced** on the account.
 After the change 200 rubles will be enough.



Unified Pool (unified collateral on accounts of the Securities market)
 Example: on SM accounts shall be OFZ at the amount of 1 billion rubles (SL – 900 million rubles), on the DM – 100 million rubles (SL – 1 million rubles), on FXM accounts – 10 million dollars (~650 million rubles) (SL – 2 million rubles)
 After the change rubles and dollars can be withdrawn.



* Margin – total required margin amount

** Particular value of the discount may vary depending on the assets

*** When the spread on OFZ is actually recorded, correction coefficients, which give premium to the net position, are taken into account

**** redemption on 31.01.2018 and 15.03.2018 correspondingly



MOSCOW EXCHANGE

F.A.Q. (1/2)

1. How start to use this service?

In order to connect the service it is required:

A) to open or choose SA T+ on the SM

B) to submit the application to the NCC on assignment of the feature Unified Pool to the chosen SA

C) to submit the application to the NCC with the indication of the Settlement Account of the Securities, FX and Derivatives market in order to link them in the SA of the Unified Pool.

2. How many Settlement Accounts can be united into the Unified Pool Settlement Account?

There is no restriction on the number of Settlement Accounts. However the SA of the Securities market must be the part of the Unified Pool SA. Only SA of one type can be combined into the Unified Pool (client, proprietary or trust).

3. Is it possible to combine into the Unified Pool Settlement Accounts of different legal entities of one group?

No, such combination is impossible due to the legislation requirements.

4. Which difficulties may arise on the transmission day?

Impossibility to post/withdraw assets on the Derivatives market on the transmission day, necessity to withdraw all securities from depo accounts of the Derivatives market.

5. What will happen to depository sections on the Derivatives market?

Within the Unified Pool SA the collateral will be kept on the SA of the Securities market, there will be no need in depository sections on the Derivatives market, they will be closed.

6. Which terminal is required for managing collateral within the Unified Pool?

Collateral transfer transactions in the Unified Pool will be available via the trading terminals of markets, and also via the Web-clearing.

7. In what way the collateral shall be posted into the Unified Pool?

Collateral in cash funds / precious metals / securities is posted upon the Settlement Account / Unified Pool TA on the Securities market. When posting cash funds, in the payment purpose the code word of the relevant market can be indicated, but for the derivatives market CSCR, for the concurrent asset profile transfer to this market.



F.A.Q. (2/2)

8. Is it possible to return funds concurrently with the asset profile transfer from FXM and DM?

Yes, it is. When returning funds from the UP SA, for the simultaneous asset profile transfer from the FXM or the DM to the SM the relevant market shall be indicated. If desired for the FXM the SA of the 2nd level may be indicated, for the DM CSCR must be indicated.

9. How is netting of settlement executed?

All settlement (including obligations from the FX and Derivatives market) for the SA of the Unified Pool are executed in the ASTS of the Securities market. Clearing session time in respect of the SA of the UP is not changed and corresponds to the schedule of the relevant market.

10. How do the covered sales function?

Covered sales function via the profile transfer of the relevant asset on the Derivatives market, through netting with the similar futures position.

11. How will the trading schedule be changed?

Trading schedule will not be changed.

12. Will the system of default funds and collateral for stress be subject to change?

The system of default funds and collateral for stress will not be changed.

13. In which way the delivery procedure from the Derivatives market to the Securities market will be changed?

On the first stage delivery procedure will not be changed, except that delivery from Unified Pool SA is possible only through the same UP SA. On the 2nd stage delivery overmargining (double margin requirement) will not emerge.

14. Which assets will be accepted as collateral for the Unified Pool SA?

Assets, accepted as collateral on the SM, FXM and DM, will be accepted as collateral for the Unified Pool SA.

15. How the procedure for Margin call making will be changed?

Making Margin call on each market within the SA of the Unified Pool will be independent.

Making Margin call on one market within the SA of the Unified Pool will not influence other markets activity.

