

## Changes to the FX market ASTS trading and clearing system related to the new mode of trading at the MOEX Fixing price

1. Implementation of the project affects the following software products and interfaces:
  - MICEX Trade Currency terminal: new version.
  - FIX and FAST UDP multicast market data services: no changes in structure, see below for details on trades display.
  - ASTS Bridge interfaces: a new 'FixingDate' field will be added to the ORDERS, TRADES, NEGDEALS, SETTLECODE, SEC\_SETTLECODE tables of the IFC\_Broker28 interface.
  - Trading and clearing XML reports: see <http://www.moex.com/n16766>
2. A new instrument type will be introduced to conclude trades at the price of the MOEX fixing that is calculated at 12:30 MSK of the current trading day.
3. Two new trading boards will be added to the FX market trading system: **FIXS** (order-driven fixing) and **FIXN** (negotiated deals fixing), as well as two new instruments **USDRUB\_FIX0** and **EURRUB\_FIX0** ("FIX instruments").

FIXS board (order-driven fixing) is used for orders with FIX instruments without counterparty specified. Data on these orders is available only to its submitter, but not to other market participants (similar to dark pool trading).

FIXN board (negdeals fixing) is used for orders with FIX instruments with counterparty indicated (negotiated deals). Data on these orders is available to its submitter and to a specified counterparty only.

4. New USDF and EURF assets (records in the ASSETS table of the bridge interface) will be added for USD and EUR currencies correspondingly.
5. Trades with FIX instruments are concluded as follows (see further below for more details):
  - 5.1. An order with a FIX instrument submitted by a participant is verified for compliance to the trading rules by the trading system and by the clearing centre according to the clearing rules.

If verification is successful the order will be accepted by the trading system.

5.2. After an order with FIX instrument is accepted, the trading engine checks if there are any matching counter-orders already available in the queue. If such orders exist a trade will be concluded with a new FIX0 settlement code.

5.3. After the MOEX fixing calculation (12:30 MSK) the trading system generates technical trades with TOM instruments (USDRUB\_TOM/EURRUB\_TOM) on FIXS/FIXN boards based on previously concluded trades with FIX instruments on these boards correspondingly.

If fixing price cannot be calculated following the regular procedure, it will be determined according to rules for such cases described in the Moscow Exchange FX fixings methodology (<http://fs.moex.com/files/4225>).

6. Trades with FIX instruments concluded on FIXS/FIXN boards and technical trades on TOM instruments are not included into weighted-average rates calculation for the corresponding instruments.
7. The following limitations are applied to orders with FIX instruments unlike to regular spot orders:
  - 7.1. No price specified – the PRICE field must be set to '0'.
  - 7.2. Iceberg orders are not accepted.
  - 7.3. Only limit orders are accepted.
  - 7.4. The following processing modes are available: good till cancel (put into queue), immediate or cancel (withdraw remainder), fill or kill.
8. Orders with FIX instruments are not displayed in the ORDERBOOK, general market data tables (e.g. SECURITIES) and MOEX web site. This data is available only to a participant who actually submitted the corresponding order (in the ORDERS table). The PRICE field of the ORDERS table is empty.
9. Order matching is performed for opposite buy/sell orders and trades are concluded with trade type 'T' (for FIXS board) or 'N' (for FIXN board) without price indicated.
10. Data on own trades with FIX instruments (except the price and the value in RUB) is available to participant in the TRADES table. Data on all trades with FIX instruments and parameters of the last trade (volume and time) is visible to all the market participants. Aggregated volume and number of trades for the current trading day is displayed in the SECURITIES and ALL\_TRADES tables. These data is also published at the MOEX web site and in the FAST UDP multicast marketdata feed on FIXS (order-driven fixing) and FIXN (negdeals fixing) boards right after trade conclusion.
11. Orders with FIX instruments that led to trade conclusion are removed from the queue by the trading engine (similar to main trading mode). Orders that remain active or ones that were partially matched may be withdrawn by participants until 12:15:00 MSK of the current trading day. After 12:15:00 MSK all orders with FIX instruments are withdrawn by the trading system.
12. After the MOEX FX fixing price calculation at 12:30 MSK the trading engine generates technical trades with the corresponding TOM instruments (USDRUB\_TOM/EURRUB\_TOM) on FIXS and FIXN boards (both with trade type set to 'N') for all trades concluded before 12:15:00 MSK. If multiple trades with FIX instrument have been concluded per single order then the same number of technical trades will be generated by the trading system at the fixing price with the corresponding volumes.
13. Commission is calculated for each technical trade with TOM instrument.
14. The TRADES.ORDERNO field of the ASTS Bridge interface points to the original FIX order in records with technical TOM trades. And the TRADES.PARENTTRADENO refers to the number of an initial trade with FIX instrument.
15. The following position TAGs are added:
  - EUFE: EUR/RUB\_FIX – EURF
  - EUFR: EUR/RUB\_FIX – RUB
  - USFR: USD/RUB\_FIX – RUB
  - USFU: USD/RUB\_FIX – USDF

16. FIX and FAST services operation details for trading at fixing price:

- a. While trading with USDRUB\_FIX0 and EURRUB\_FIX0 instruments (FIXing instruments below), FIX trading service does not send Execution Report (8) messages for technical trades with USDRUB\_TOM and EURRUB\_TOM instruments at FIXS trading board (336). To get data for fixing price and rouble volume of trades please use FIX Trade Capture service or other connection protocols. FIXN trading board is not available for this service.
- b. Information service FIX Drop Copy does not send Execution Report (8) messages for technical trades with USDRUB\_TOM and EURRUB\_TOM instruments at FIXS trading board (336). To get data for fixing price and rouble volume of trades please use FIX Trade Capture service or other connection protocols. FIXN trading board is not available for this service.
- c. Information service FIX Trade Capture generates Trade Capture Report (AE) messages for trades for FIXing instruments and for technical trades with USDRUB\_TOM and EURRUB\_TOM instruments at FIXS and FIXN trading boards (336) with indication of OrderID (37) and other order parameters for FIXing instruments. Trade Capture Report messages are generated on all trades within user permissions regardless of order origination protocol type.
- d. FAST udp multicast market data service does not publish technical trades for USDRUB\_TOM and EURRUB\_TOM instruments at FIXS and FIXN trading boards (336). Trades with FIXing instruments will have volumes in foreign currency lots and zero price. Please use fixing price data from MSR stream to determine trade price and calculate rouble volumes.