

LIQUIDITY MEASUREMENT AND MONITORING for 08.2017

\*\*The list and free-float coefficients of the MICEX Index stocks as of 16.06.2017, total stocks outstanding as of the corresponding business day of 08.2017. Free-float coefficients are estimated by the Moscow Exchange.\*\*

**1. Trading costs**

		Percentage spread, %	Absolute spread, rubles			Percentage spread, %	Absolute spread, rubles			Percentage spread, %	Absolute spread, rubles
1	SBER	<b>0,040</b>	0,0710	17	MVID	<b>0,089</b>	0,3619	33	TATN	<b>0,161</b>	0,6167
2	HYDR	<b>0,041</b>	0,000338	18	MFON	<b>0,090</b>	0,5095	34	MSNG	<b>0,188</b>	0,0054
3	ALRS	<b>0,044</b>	0,0357	19	GMKN	<b>0,096</b>	8,7143	35	TRNFP	<b>0,190</b>	335,7143
4	GAZP	<b>0,045</b>	0,0529	20	PLZL	<b>0,097</b>	4,0952	36	TRMK	<b>0,194</b>	0,1419
5	NVTK	<b>0,056</b>	0,3381	21	NLMK	<b>0,100</b>	0,1314	37	AKRN	<b>0,200</b>	6,8571
6	MOEX	<b>0,058</b>	0,0638	22	MTLR	<b>0,113</b>	0,1738	38	YNDX	<b>0,211</b>	3,7381
7	MGNT	<b>0,067</b>	6,5238	23	CHMF	<b>0,120</b>	1,0286	39	CBOM	<b>0,213</b>	0,0097
8	LKOH	<b>0,070</b>	2,0238	24	SNGS	<b>0,120</b>	0,0321	40	AGRO	<b>0,215</b>	1,5238
9	MAGN	<b>0,070</b>	0,0262	25	UPRO	<b>0,122</b>	0,0029	41	POLY	<b>0,224</b>	1,6048
10	ROSN	<b>0,074</b>	0,2286	26	AFKS	<b>0,124</b>	0,0143	42	NMTP	<b>0,231</b>	0,0167
11	MTSS	<b>0,075</b>	0,1857	27	URKA	<b>0,124</b>	0,1690	43	DIXY	<b>0,259</b>	0,6667
12	FEES	<b>0,076</b>	0,000131	28	UWGN	<b>0,130</b>	1,0238	44	PIKK	<b>0,263</b>	0,7714
13	RTKM	<b>0,080</b>	0,0524	29	LSRG	<b>0,138</b>	1,0952	45	RUAL	<b>0,304</b>	0,1210
14	VTBR	<b>0,081</b>	0,000049	30	PHOR	<b>0,145</b>	3,4762	<b>Total stocks</b>		<b>0,129</b>	-
15	AFLT	<b>0,082</b>	0,1690	31	BANEP	<b>0,146</b>	1,8333				
16	RSTI	<b>0,086</b>	0,000805	32	IRAO	<b>0,159</b>	0,0061				

## 2. Trading activity

		Trading volume, %	Trading volume (adjusted for free-float), %	FF	Trading volume, units of securities			Trading volume, %	Trading volume (adjusted for free-float), %	FF	Trading volume, units of securities
1	MOEX	<b>0,318</b>	0,558	0,57	795 843 791	24	RTKM	<b>0,060</b>	0,188	0,32	101 818 752
2	AFLT	<b>0,308</b>	0,752	0,41	693 638 364	25	UPRO	<b>0,058</b>	0,321	0,18	84 963 337
3	MTLR	<b>0,250</b>	0,556	0,45	164 188 313	26	LKOH	<b>0,056</b>	0,122	0,46	1 377 467 197
4	ALRS	<b>0,222</b>	0,654	0,34	1 323 144 693	27	MVID	<b>0,053</b>	0,126	0,42	38 896 449
5	SBER	<b>0,211</b>	0,440	0,48	7 981 528 935	28	TRMK	<b>0,047</b>	0,158	0,30	35 398 675
6	CBOM	<b>0,188</b>	0,750	0,25	199 272 562	29	TATN	<b>0,045</b>	0,142	0,32	379 635 456
7	HYDR	<b>0,167</b>	0,727	0,23	530 967 087	30	MFON	<b>0,041</b>	0,274	0,15	143 597 574
8	FEES	<b>0,162</b>	0,772	0,21	354 947 423	31	POLY	<b>0,037</b>	0,100	0,37	113 186 924
9	GMKN	<b>0,156</b>	0,473	0,33	2 259 777 397	32	ROSN	<b>0,028</b>	0,258	0,11	922 738 526
10	AFKS	<b>0,141</b>	0,392	0,36	163 496 690	33	SNGS	<b>0,028</b>	0,113	0,25	268 691 299
11	BANEP	<b>0,127</b>	0,201	0,63	48 062 000	34	NVTK	<b>0,024</b>	0,090	0,27	447 813 141
12	MAGN	<b>0,124</b>	0,952	0,13	515 806 895	35	PLZL	<b>0,023</b>	0,454	0,05	123 773 133
13	MSNG	<b>0,120</b>	0,799	0,15	138 774 577	36	LSRG	<b>0,021</b>	0,063	0,33	16 831 563
14	RSTI	<b>0,119</b>	1,085	0,11	221 191 808	37	YNDX	<b>0,019</b>	0,020	0,95	97 828 664
15	DIXY	<b>0,117</b>	0,255	0,46	40 711 526	38	UWGN	<b>0,019</b>	0,094	0,20	17 165 515
16	MGNT	<b>0,107</b>	0,170	0,63	993 690 632	39	PHOR	<b>0,017</b>	0,067	0,25	52 005 743
17	GAZP	<b>0,089</b>	0,194	0,46	2 483 948 291	40	AGRO	<b>0,014</b>	0,068	0,21	13 955 836
18	TRNFP	<b>0,088</b>	0,275	0,32	242 194 452	41	NMTP	<b>0,014</b>	0,096	0,15	20 011 067
19	MTSS	<b>0,077</b>	0,161	0,48	383 320 015	42	PIKK	<b>0,012</b>	0,037	0,32	22 614 941
20	NLMK	<b>0,070</b>	0,437	0,16	548 080 331	43	AKRN	<b>0,010</b>	0,063	0,16	14 006 040
21	VTBR	<b>0,068</b>	0,174	0,39	544 463 572	44	RUAL	<b>0,010</b>	0,076	0,13	58 703 401
22	CHMF	<b>0,062</b>	0,343	0,18	445 859 922	45	URKA	<b>0,009</b>	0,143	0,06	35 195 648
23	IRAO	<b>0,061</b>	0,211	0,29	246 309 257	<b>Total stocks</b>		<b>0,089</b>	0,320	-	-

### 3. Elasticity\*

		HH			HH
1	MOEX	0,006	24	CBOM	0,039
2	SBER	0,008	25	MSNG	0,040
3	AFLT	0,009	26	DIXY	0,045
4	ALRS	0,011	27	UPRO	0,049
5	GAZP	0,013	28	TATN	0,050
6	GMKN	0,013	29	ROSN	0,059
7	FEES	0,013	30	UWGN	0,060
8	HYDR	0,016	31	SNGS	0,061
9	MTLR	0,020	32	MFON	0,065
10	BANEP	0,020	33	NVTK	0,068
11	TRNFP	0,022	34	PLZL	0,081
12	RTKM	0,023	35	TRMK	0,093
13	MTSS	0,024	36	PIKK	0,099
14	MGNT	0,024	37	POLY	0,106
15	MAGN	0,024	38	PHOR	0,140
16	IRAO	0,026	39	LSRG	0,148
17	RSTI	0,027	40	AGRO	0,162
18	LKOH	0,028	41	YNDX	0,169
19	AFKS	0,031	42	URKA	0,318
20	MVID	0,032	43	NMTP	0,336
21	CHMF	0,033	44	AKRN	0,344
22	NLMK	0,033	45	RUAL	0,693
23	VTBR	0,034	<b>Total stocks</b>		<b>0,083</b>

\* From 10.2015 performance in the elasticity dimension is assessed through the HUI-HEUBEL Liquidity Ratio (hereinafter HH).

	Most liquid	Spread, %	Volume, %	HH	Least liquid	Spread, %	Volume, %	HH
02.2017	1	<b>SBER</b>	MVID	<b>MOEX</b>	1	NMTP	CBOM	PIKK
02.2017	2	<b>GAZP</b>	FEES	<b>AFLT</b>	2	VSMO	PIKK	<b>RUAL</b>
02.2017	3	HYDR	MTLR	<b>SBER</b>	3	PIKK	BANE	BANE
02.2017	4	VTBR	<b>AFLT</b>	GAZP	4	BANE	VSMO	VSMO
02.2017	5	RSTI	<b>MOEX</b>	HYDR	5	MSNG	<b>PLZL</b>	<b>PLZL</b>
03.2017	1	<b>SBER</b>	FEES	<b>MOEX</b>	1	TRNFP	YNDX	PIKK
03.2017	2	<b>GAZP</b>	<b>MOEX</b>	<b>AFLT</b>	2	NMTP	<b>RUAL</b>	<b>RUAL</b>
03.2017	3	URKA	MTLR	<b>SBER</b>	3	<b>RUAL</b>	BANE	BANE
03.2017	4	<b>AFLT</b>	MVID	GAZP	4	VSMO	VSMO	VSMO
03.2017	5	<b>MOEX</b>	<b>AFLT</b>	HYDR	5	BANE	<b>PLZL</b>	<b>PLZL</b>
04.2017	1	<b>GAZP</b>	FEES	<b>MOEX</b>	1	UPRO	CBOM	URKA
04.2017	2	<b>SBER</b>	MTLR	<b>MVID</b>	2	POLY	AKRN	AKRN
04.2017	3	<b>MVID</b>	<b>MOEX</b>	FEES	3	<b>RUAL</b>	URKA	YNDX
04.2017	4	NLMK	<b>MVID</b>	<b>SBER</b>	4	DIXY	<b>RUAL</b>	<b>RUAL</b>
04.2017	5	MTLR	<b>AFLT</b>	<b>AFLT</b>	5	PIKK	<b>PLZL</b>	<b>PLZL</b>
05.2017	1	MVID	AFKS	MVID	1	NLMK	AGRO	POLY
05.2017	2	<b>SBER</b>	TRNFP	<b>MOEX</b>	2	UWGN	URKA	LSRG
05.2017	3	<b>GAZP</b>	<b>MOEX</b>	<b>AFLT</b>	3	TRNFP	LSRG	AKRN
05.2017	4	GMKN	FEES	<b>SBER</b>	4	<b>RUAL</b>	<b>RUAL</b>	<b>RUAL</b>
05.2017	5	<b>MOEX</b>	<b>AFLT</b>	FEES	5	UPRO	<b>PLZL</b>	<b>PLZL</b>
06.2017	1	MVID	<b>MOEX</b>	MVID	1	BANEP	YNDX	POLY
06.2017	2	VTBR	<b>AFLT</b>	<b>MOEX</b>	2	<b>RUAL</b>	URKA	YNDX
06.2017	3	RTKM	AFKS	TRNFP	3	CBOM	NMTP	NMTP
06.2017	4	<b>GAZP</b>	SBER	<b>SBER</b>	4	TRMK	<b>PLZL</b>	<b>RUAL</b>
06.2017	5	ROSN	TRNFP	<b>AFLT</b>	5	PIKK	<b>RUAL</b>	<b>PLZL</b>
08.2017	1	<b>SBER</b>	<b>MOEX</b>	<b>MOEX</b>	1	POLY	NMTP	YNDX
08.2017	2	HYDR	<b>AFLT</b>	<b>SBER</b>	2	NMTP	PIKK	URKA
08.2017	3	<b>ALRS</b>	MTLR	<b>AFLT</b>	3	DIXY	AKRN	NMTP
08.2017	4	<b>GAZP</b>	<b>ALRS</b>	<b>ALRS</b>	4	PIKK	<b>RUAL</b>	AKRN
08.2017	5	NVTK	<b>SBER</b>	GAZP	5	<b>RUAL</b>	URKA	<b>RUAL</b>

The table to the left provides statistics on liquidity at a level of an individual stock.

Among the most liquid stocks within a half-year period of 02.2017 – 08.2017:

1. Stocks, appearing at least once in the top-5 list of the most liquid stocks in the three dimensions simultaneously (highlighted in red in the table):

**AFLT, ALRS, MVID, MOEX, SBER.**

Stocks, appearing no less than 5-6 months in the top-5 list of the most liquid stocks in any of the dimensions (displayed in red bold font in the table):

**GAZP, SBER (trading costs) AFLT, MOEX (trading activity), AFLT, MOEX, SBER (elasticity).**

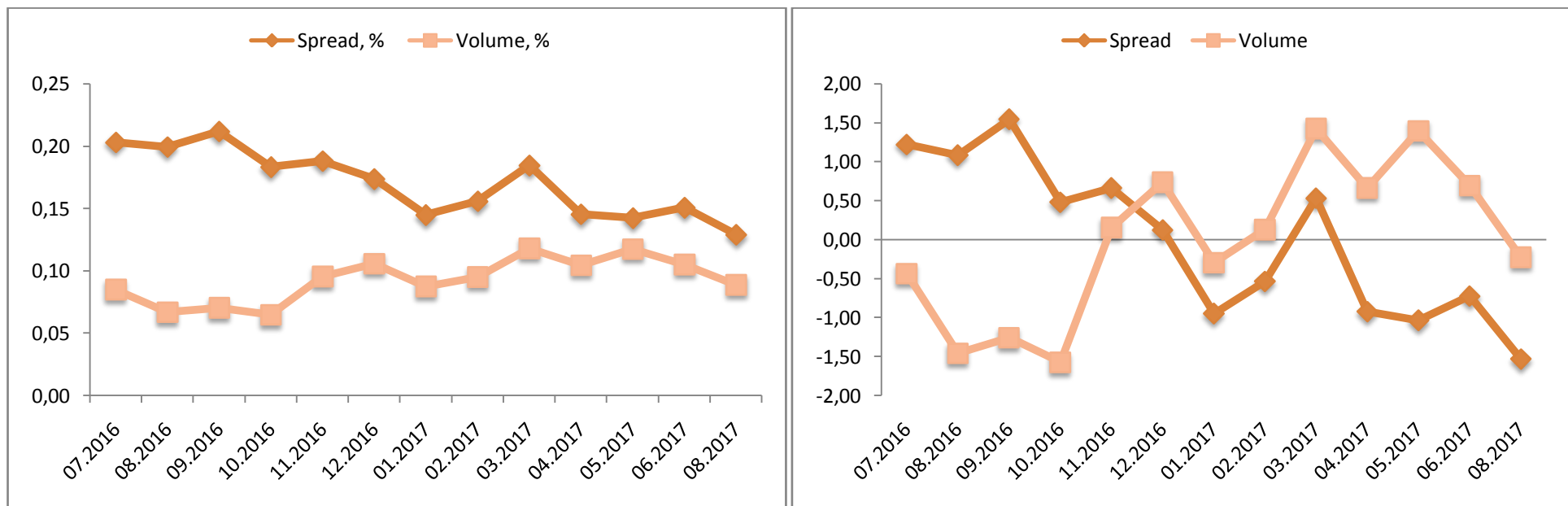
Among the least liquid stocks within a half-year period of 02.2017 – 08.2017:

1. Stocks, appearing at least once in the list of the 5 least liquid stocks in the three dimensions simultaneously (highlighted in blue in the table):

**BANE, NMTP, PIKK, RUAL, VSMO.**

2. Stocks, appearing no less than 5-6 months in the list of the 5 least liquid stocks in any of the dimensions (displayed in blue bold font in the table):

**RUAL (trading costs), PLZL, RUAL (trading activity), PLZL, RUAL (elasticity).**



The figures above provide liquidity dynamics **at an aggregate level**. The left figure displays dynamics of the two liquidity dimensions *in original numerical values*. In August 2017 compared to previous months the average percentage daily spread decreased. That points out to liquidity improvement in the trading costs dimension. At the same time the average percentage daily trading volume similarly decreased. That points out to liquidity deterioration in the trading volume dimension. Compared to August last year, liquidity improved: trading volume indicators increased while trading costs indicators decreased.

The right figure displays dynamics of the two liquidity dimensions *in standardized numerical values*. In August 2017 trading activity stayed close to the yearly average while trading costs stayed close to the yearly minimum.