

LIQUIDITY MEASUREMENT AND MONITORING for 02.2018

\*\*The list and free-float coefficients of the MICEX Index stocks as of 22.12.2017, total stocks outstanding as of the corresponding business day of 02.2018. 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>0,031</b>	0,0811	17	NLMK	<b>0,094</b>	0,1389	33	TATNP	<b>0,184</b>	0,7474
2	GAZP	<b>0,039</b>	0,0553	18	RUAL	<b>0,099</b>	0,0405	34	YNDX	<b>0,211</b>	4,7632
3	LKOH	<b>0,053</b>	2,0000	19	FEES	<b>0,101</b>	0,000176	35	TRMK	<b>0,222</b>	0,1816
4	MOEX	<b>0,054</b>	0,0616	20	UPRO	<b>0,102</b>	0,0027	36	MVID	<b>0,223</b>	0,9737
5	SNGSP	<b>0,055</b>	0,0166	21	CHMF	<b>0,103</b>	0,9579	37	PLZL	<b>0,228</b>	10,2105
6	GMKN	<b>0,056</b>	6,3158	22	TRNFP	<b>0,114</b>	205,2632	38	PHOR	<b>0,232</b>	5,6316
7	SBERP	<b>0,056</b>	0,1200	23	MFON	<b>0,116</b>	0,6263	39	CBOM	<b>0,234</b>	0,0109
8	VTBR	<b>0,064</b>	0,000032	24	RSTI	<b>0,116</b>	0,001016	40	PIKK	<b>0,251</b>	0,7842
9	RTKM	<b>0,070</b>	0,0463	25	POLY	<b>0,116</b>	0,7211	41	UWGN	<b>0,254</b>	2,0000
10	MGNT	<b>0,072</b>	3,5263	26	MTSS	<b>0,118</b>	0,3632	42	AGRO	<b>0,264</b>	1,5263
11	HYDR	<b>0,076</b>	0,000579	27	SNGS	<b>0,122</b>	0,0353	43	NMTP	<b>0,462</b>	0,0382
12	NVTK	<b>0,078</b>	0,5684	28	MAGN	<b>0,122</b>	0,0561	44	RNFT	<b>0,567</b>	3,4211
13	AFKS	<b>0,079</b>	0,0095	29	TATN	<b>0,124</b>	0,7105	45	SFIN	<b>1,765</b>	13,1316
14	ALRS	<b>0,079</b>	0,0668	30	MTLR	<b>0,148</b>	0,2105	<b>Total stocks</b>		<b>0,179</b>	-
15	AFLT	<b>0,080</b>	0,1105	31	IRAO	<b>0,151</b>	0,0056				
16	ROSN	<b>0,085</b>	0,2816	32	DSKY	<b>0,179</b>	0,1632				

## 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	MGNT	<b>1,000</b>	1,449	0,69	4 512 134 530	24	MTSS	<b>0,087</b>	0,180	0,48	526 921 892
2	AFLT	<b>0,513</b>	1,140	0,45	784 495 578	25	CHMF	<b>0,083</b>	0,459	0,18	644 387 924
3	SBERP	<b>0,427</b>	0,427	1,00	919 561 155	26	NLMK	<b>0,077</b>	0,484	0,16	680 929 729
4	SNGSP	<b>0,289</b>	0,396	0,73	668 808 255	27	IRAO	<b>0,074</b>	0,256	0,29	290 153 763
5	MOEX	<b>0,283</b>	0,488	0,58	727 180 817	28	MFON	<b>0,059</b>	0,280	0,21	196 700 891
6	SBER	<b>0,252</b>	0,524	0,48	14 349 663 057	29	POLY	<b>0,058</b>	0,156	0,37	153 281 414
7	VTBR	<b>0,235</b>	0,603	0,39	1 541 934 244	30	SFIN	<b>0,055</b>	0,191	0,29	46 586 652
8	AFKS	<b>0,214</b>	0,593	0,36	250 935 160	31	SNGS	<b>0,047</b>	0,188	0,25	483 211 601
9	GMKN	<b>0,207</b>	0,544	0,38	3 693 521 592	32	ROSN	<b>0,042</b>	0,384	0,11	1 488 588 576
10	ALRS	<b>0,190</b>	0,560	0,34	1 196 554 780	33	UPRO	<b>0,041</b>	0,256	0,16	67 021 278
11	MTLR	<b>0,162</b>	0,324	0,50	96 642 570	34	NVTK	<b>0,037</b>	0,136	0,27	815 400 071
12	MVID	<b>0,162</b>	0,600	0,27	123 474 891	35	TRMK	<b>0,034</b>	0,114	0,30	28 451 642
13	GAZP	<b>0,151</b>	0,327	0,46	5 041 160 328	36	PLZL	<b>0,030</b>	0,190	0,16	181 695 829
14	FEES	<b>0,146</b>	0,808	0,18	323 271 253	37	YNDX	<b>0,030</b>	0,032	0,95	196 618 908
15	UWGN	<b>0,129</b>	0,495	0,26	117 712 958	38	DSKY	<b>0,029</b>	0,085	0,34	19 348 324
16	HYDR	<b>0,122</b>	0,486	0,25	388 559 993	39	PHOR	<b>0,023</b>	0,094	0,25	73 330 722
17	TATNP	<b>0,119</b>	0,119	1,00	71 090 015	40	CBOM	<b>0,021</b>	0,092	0,23	26 688 068
18	RTKM	<b>0,107</b>	0,335	0,32	182 552 462	41	RUAL	<b>0,016</b>	0,099	0,16	97 228 027
19	RSTI	<b>0,104</b>	0,947	0,11	180 985 682	42	RNFT	<b>0,011</b>	0,057	0,20	20 196 757
20	TRNFP	<b>0,095</b>	0,297	0,32	266 314 879	43	PIKK	<b>0,011</b>	0,059	0,18	21 677 397
21	TATN	<b>0,094</b>	0,292	0,32	1 162 956 020	44	AGRO	<b>0,008</b>	0,036	0,21	5 969 327
22	LKOH	<b>0,093</b>	0,202	0,46	2 957 681 600	45	NMTP	<b>0,005</b>	0,035	0,15	8 403 038
23	MAGN	<b>0,091</b>	0,569	0,16	464 788 546	<b>Total stocks</b>		<b>0,135</b>	0,364	-	-

### 3. Elasticity\*

		HH			HH
1	AFLT	0,005	24	MVID	0,034
2	MGNT	0,006	25	IRAO	0,035
3	MOEX	0,006	26	SFIN	0,036
4	SBERP	0,007	27	UWGN	0,037
5	SNGSP	0,008	28	NLMK	0,040
6	SBER	0,010	29	MFON	0,044
7	ALRS	0,011	30	SNGS	0,047
8	VTBR	0,013	31	CBOM	0,055
9	AFKS	0,015	32	POLY	0,056
10	FEES	0,015	33	ROSN	0,059
11	RTKM	0,015	34	NVTK	0,065
12	GAZP	0,016	35	DSKY	0,074
13	TRNFP	0,017	36	UPRO	0,076
14	HYDR	0,018	37	PLZL	0,114
15	GMKN	0,019	38	PHOR	0,130
16	LKOH	0,022	39	YNDX	0,132
17	MTLR	0,023	40	TRMK	0,141
18	TATNP	0,026	41	RUAL	0,203
19	CHMF	0,027	42	PIKK	0,251
20	TATN	0,027	43	RNFT	0,286
21	RSTI	0,029	44	AGRO	0,327
22	MTSS	0,030	45	NMTP	1,214
23	MAGN	0,032	<b>Total stocks</b>		<b>0,086</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
09.2017	1	<b>GAZP</b>	<b>AFLT</b>	<b>AFLT</b>	1	<b>LNTA</b>	PLZL	PIKK
09.2017	2	ROSN	<b>MOEX</b>	<b>MOEX</b>	2	CBOM	RUAL	<b>NMTP</b>
09.2017	3	<b>SBER</b>	DIXY	<b>SBER</b>	3	PIKK	PHOR	LSRG
09.2017	4	FEES	RNFT	HYDR	4	<b>UWGN</b>	<b>LNTA</b>	<b>RUAL</b>
09.2017	5	MAGN	<b>SBER</b>	ALRS	5	<b>RNFT</b>	LSRG	<b>LNTA</b>
10.2017	1	<b>GAZP</b>	<b>MOEX</b>	<b>AFLT</b>	1	TRMK	LNTA	<b>RUAL</b>
10.2017	2	MAGN	<b>AFLT</b>	<b>MOEX</b>	2	<b>UWGN</b>	LSRG	LSRG
10.2017	3	MFON	<b>MGNT</b>	SBER	3	DIXY	NMTP	AGRO
10.2017	4	<b>SBER</b>	MFON	HYDR	4	NMTP	AGRO	AKRN
10.2017	5	GMKN	MTLR	ALRS	5	<b>RNFT</b>	AKRN	<b>NMTP</b>
11.2017	1	<b>GAZP</b>	<b>AFLT</b>	<b>AFLT</b>	1	<b>LNTA</b>	AGRO	RNFT
11.2017	2	<b>SBER</b>	MVID	<b>MOEX</b>	2	PHOR	LSRG	LSRG
11.2017	3	GMKN	<b>MGNT</b>	MGNT	3	MVID	NMTP	<b>LNTA</b>
11.2017	4	ROSN	<b>MOEX</b>	RTKM	4	DIXY	AKRN	<b>NMTP</b>
11.2017	5	ALRS	RTKM	SBER	5	<b>RNFT</b>	<b>LNTA</b>	AKRN
12.2017	1	<b>GAZP</b>	AFKS	<b>AFLT</b>	1	NMTP	YNDX	TRMK
12.2017	2	<b>SBER</b>	<b>AFLT</b>	<b>MOEX</b>	2	<b>UWGN</b>	RNFT	<b>RUAL</b>
12.2017	3	ROSN	<b>MOEX</b>	MGNT	3	MVID	RUAL	RNFT
12.2017	4	ALRS	MTLR	SBER	4	<b>LNTA</b>	<b>LNTA</b>	<b>LNTA</b>
12.2017	5	GMKN	<b>MGNT</b>	AFKS	5	<b>RNFT</b>	AKRN	<b>NMTP</b>
01.2018	1	<b>GAZP</b>	<b>AFLT</b>	<b>AFLT</b>	1	<b>NMTP</b>	PHOR	AGRO
01.2018	2	<b>MOEX</b>	<b>MOEX</b>	<b>MOEX</b>	2	MVID	YNDX	YNDX
01.2018	3	<b>SBER</b>	<b>MGNT</b>	SNGSP	3	<b>UWGN</b>	<b>RNFT</b>	<b>RUAL</b>
01.2018	4	GMKN	SBERP	SBERP	4	<b>RNFT</b>	RUAL	<b>RNFT</b>
01.2018	5	LKOH	SNGSP	MGNT	5	SFIN	<b>NMTP</b>	<b>NMTP</b>
02.2018	1	<b>SBER</b>	<b>MGNT</b>	<b>AFLT</b>	1	<b>UWGN</b>	RUAL	<b>RUAL</b>
02.2018	2	<b>GAZP</b>	<b>AFLT</b>	MGNT	2	<b>AGRO</b>	<b>RNFT</b>	PIKK
02.2018	3	LKOH	SBERP	<b>MOEX</b>	3	<b>NMTP</b>	PIKK	<b>RNFT</b>
02.2018	4	<b>MOEX</b>	SNGSP	SBERP	4	<b>RNFT</b>	<b>AGRO</b>	<b>AGRO</b>
02.2018	5	<b>SNGSP</b>	<b>MOEX</b>	<b>SNGSP</b>	5	SFIN	<b>NMTP</b>	<b>NMTP</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 08.2017 - 02.2018:

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):

**MOEX, SBER, SNGSP.**

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, MGNT, MOEX (trading activity), AFLT, MOEX (elasticity).**

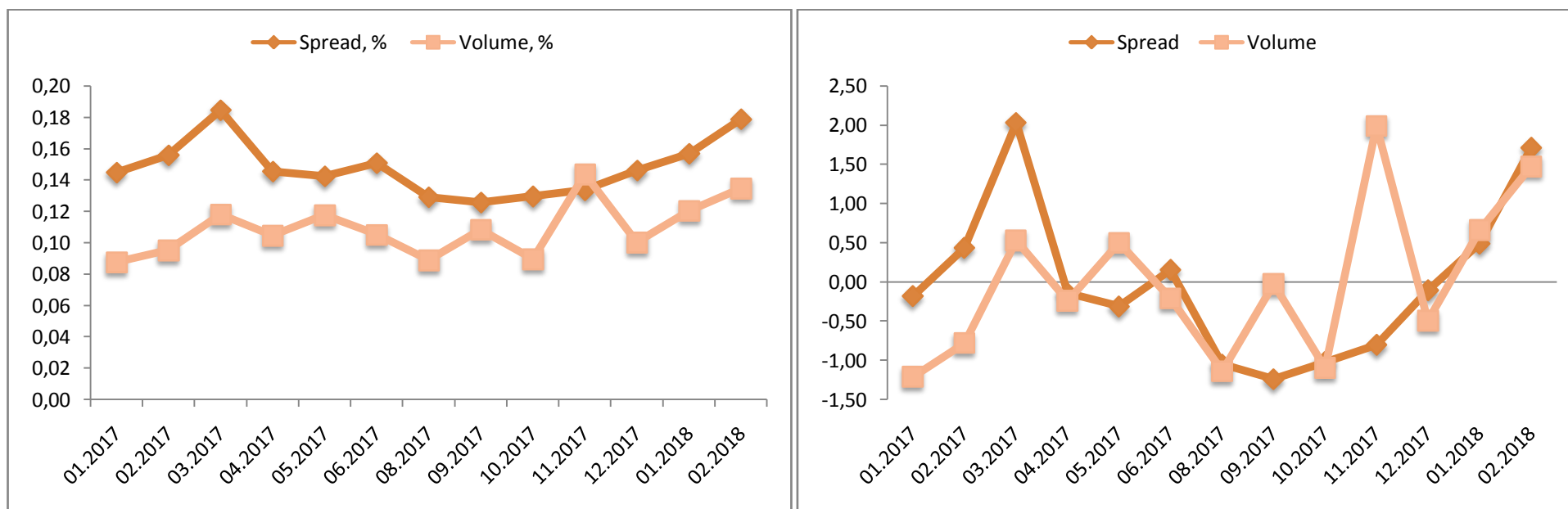
Among the least liquid stocks within a half-year period of 08.2017 - 02.2018:

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):

**AGRO, LNTA, NMTP, RNFT.**

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):

**RNFT, UWGN (trading costs), - (trading activity), NMTP, 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*. Trading costs measured by average percentage daily spread in February 2018 followed the upward trend of the preceding four months reaching 0.179%. Trading activity measured by average percentage daily trading volume in February 2018 also increased against the previous month to 0.135%. In February 2018 liquidity was in a disequilibrium state: the trading activity metric and the trading costs metric moved in the same direction. The right figure displays dynamics of the two liquidity dimensions *in standardized numerical values*. In February 2018 trading costs and trading activity were above the average yearly level. In both of the dimensions the second highest level over the yearly period was reached.