

LIQUIDITY MEASUREMENT AND MONITORING for 10.2020

\*\*The list and free-float coefficients of the MICEX Index stocks as of 18.09.2020, total stocks outstanding as of the corresponding business day of 10.2020. 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>0,021</b>	0,0432	17	SNGS	<b>0,048</b>	0,0164	33	FIVE	<b>0,096</b>	2,8182
2	SBERP	<b>0,023</b>	0,0459	18	MGNT	<b>0,051</b>	2,4773	34	DSKY	<b>0,097</b>	0,1127
3	GAZP	<b>0,026</b>	0,0432	19	TATNP	<b>0,053</b>	0,2227	35	PIKK	<b>0,104</b>	0,6045
4	LKOH	<b>0,026</b>	1,1364	20	GMKN	<b>0,054</b>	10,5455	36	RSTI	<b>0,109</b>	0,0016
5	VTBR	<b>0,033</b>	0,000011	21	PLZL	<b>0,056</b>	9,3636	37	LSRG	<b>0,116</b>	1,0273
6	ROSN	<b>0,034</b>	0,1273	22	AFLT	<b>0,059</b>	0,0355	38	TCSG	<b>0,117</b>	2,2091
7	ALRS	<b>0,037</b>	0,0273	23	POLY	<b>0,059</b>	1,0227	39	TRNFP	<b>0,128</b>	179,5455
8	YNDX	<b>0,037</b>	1,7091	24	CBOM	<b>0,063</b>	0,0035				
9	SNGSP	<b>0,038</b>	0,0145	25	AFKS	<b>0,066</b>	0,0161				
10	MOEX	<b>0,038</b>	0,0559	26	HYDR	<b>0,067</b>	0,0005				
11	CHMF	<b>0,041</b>	0,4182	27	IRAO	<b>0,068</b>	0,0036				
12	MTSS	<b>0,042</b>	0,1386	28	FEES	<b>0,070</b>	0,000134				
13	NVTK	<b>0,044</b>	0,4636	29	RTKM	<b>0,072</b>	0,0677				
14	TATN	<b>0,045</b>	0,1955	30	PHOR	<b>0,079</b>	2,2273	<b>Total stocks</b>		<b>0,061</b>	-
15	NLMK	<b>0,047</b>	0,0827	31	UPRO	<b>0,081</b>	0,0022				
16	MAGN	<b>0,047</b>	0,0173	32	RUAL	<b>0,083</b>	0,0264				

## 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	AFLT	<b>3,068</b>	7,483	0,41	2 057 020 296	24	TRNFP	<b>0,147</b>	0,398	0,37	321 762 398
2	TATNP	<b>0,958</b>	0,958	1,00	591 252 075	25	HYDR	<b>0,146</b>	0,768	0,19	456 391 710
3	SBERP	<b>0,899</b>	0,899	1,00	1 799 423 941	26	FEES	<b>0,126</b>	0,701	0,18	306 219 307
4	AFKS	<b>0,607</b>	1,840	0,33	1 429 895 025	27	CHMF	<b>0,097</b>	0,485	0,20	834 655 779
5	MOEX	<b>0,530</b>	0,841	0,63	1 765 016 132	28	PLZL	<b>0,096</b>	0,455	0,21	2 138 685 081
6	MGNT	<b>0,342</b>	0,481	0,71	1 674 862 497	29	RSTI	<b>0,096</b>	0,868	0,11	272 668 228
7	DSKY	<b>0,322</b>	0,435	0,74	277 535 370	30	SNGS	<b>0,095</b>	0,378	0,25	1 170 228 133
8	SNGSP	<b>0,318</b>	0,435	0,73	929 650 921	31	NLMK	<b>0,086</b>	0,451	0,19	900 655 181
9	YNDX	<b>0,300</b>	0,309	0,97	4 430 362 211	32	UPRO	<b>0,077</b>	0,479	0,16	129 333 927
10	SBER	<b>0,294</b>	0,612	0,48	13 232 938 195	33	FIVE	<b>0,070</b>	0,171	0,41	554 267 432
11	TCSG	<b>0,277</b>	0,311	0,89	623 868 537	34	RTKM	<b>0,067</b>	0,231	0,29	207 765 959
12	VTBR	<b>0,219</b>	0,812	0,27	950 911 804	35	ROSN	<b>0,037</b>	0,341	0,11	1 494 400 660
13	TATN	<b>0,208</b>	0,651	0,32	1 973 632 120	36	RUAL	<b>0,037</b>	0,234	0,16	182 668 533
14	MAGN	<b>0,196</b>	1,227	0,16	798 424 521	37	PHOR	<b>0,035</b>	0,138	0,25	126 426 455
15	ALRS	<b>0,193</b>	0,569	0,34	1 068 283 870	38	NVTK	<b>0,031</b>	0,149	0,21	994 918 107
16	POLY	<b>0,193</b>	0,429	0,45	1 578 646 940	39	PIKK	<b>0,025</b>	0,141	0,18	97 441 257
17	CBOM	<b>0,187</b>	0,936	0,20	314 059 634						
18	GAZP	<b>0,184</b>	0,367	0,50	7 163 093 095						
19	IRAO	<b>0,176</b>	0,533	0,33	967 598 843						
20	MTSS	<b>0,171</b>	0,381	0,45	1 116 256 682						
21	GMKN	<b>0,161</b>	0,423	0,38	4 921 230 170						
22	LKOH	<b>0,150</b>	0,273	0,55	4 450 988 130						
23	LSRG	<b>0,149</b>	0,355	0,42	138 533 563	<b>Total stocks</b>		<b>0,292</b>	0,717		

### 3. Elasticity\*

		HH			HH
1	AFLT	0,002	24	FEES	0,018
2	SBERP	0,002	25	TCSG	0,021
3	TATNP	0,003	26	UPRO	0,021
4	MOEX	0,005	27	LSRG	0,022
5	SNGSP	0,006	28	CHMF	0,022
6	CBOM	0,007	29	SNGS	0,029
7	SBER	0,007	30	PLZL	0,030
8	AFKS	0,007	31	NLMK	0,031
9	MGNT	0,008	32	RTKM	0,034
10	DSKY	0,008	33	RSTI	0,039
11	YNDX	0,009	34	ROSN	0,052
12	MTSS	0,010	35	FIVE	0,054
13	GAZP	0,010	36	PHOR	0,064
14	VTBR	0,012	37	PIKK	0,078
15	TRNFP	0,013	38	NVTK	0,086
16	MAGN	0,013			
17	HYDR	0,014			
18	GMKN	0,015			
19	IRAO	0,015			
20	POLY	0,015			
21	ALRS	0,015			
22	TATN	0,016			
23	LKOH	0,016	<b>Total stocks</b>		<b>0,024</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
05.2020	1	<b>GAZP</b>	<b>AFLT</b>	<b>SBERP</b>	1	UPRO	RTKM	<b>FIVE</b>
05.2020	2	<b>SBER</b>	<b>SBERP</b>	<b>AFLT</b>	2	<b>PIKK</b>	<b>NVTK</b>	<b>RUAL</b>
05.2020	3	<b>SBERP</b>	MOEX	<b>MOEX</b>	3	<b>TRNFP</b>	<b>RUAL</b>	PHOR
05.2020	4	CHMF	TATNP	TATNP	4	CBOM	<b>PHOR</b>	<b>NVTK</b>
05.2020	5	VTBR	MGNT	MGNT	5	<b>TCSG</b>	<b>PIKK</b>	<b>PIKK</b>
06.2020	1	<b>GAZP</b>	<b>AFLT</b>	<b>AFLT</b>	1	<b>TRNFP</b>	<b>ROSN</b>	<b>FIVE</b>
06.2020	2	<b>SBER</b>	DSKY	<b>SBERP</b>	2	<b>FIVE</b>	<b>RUAL</b>	<b>PHOR</b>
06.2020	3	<b>SBERP</b>	<b>SBERP</b>	SNGSP	3	<b>PHOR</b>	<b>PHOR</b>	<b>RUAL</b>
06.2020	4	ROSN	TATNP	<b>MOEX</b>	4	<b>PIKK</b>	<b>NVTK</b>	<b>NVTK</b>
06.2020	5	MOEX	MGNT	TATNP	5	CBOM	<b>PIKK</b>	<b>PIKK</b>
07.2020	1	<b>GAZP</b>	<b>AFLT</b>	<b>AFLT</b>	1	<b>FIVE</b>	<b>RUAL</b>	<b>ROSN</b>
07.2020	2	LKOH	<b>SBERP</b>	<b>SBERP</b>	2	<b>TRNFP</b>	<b>PHOR</b>	<b>RUAL</b>
07.2020	3	ROSN	MGNT	SNGSP	3	CBOM	<b>ROSN</b>	<b>FIVE</b>
07.2020	4	<b>SBER</b>	<b>MOEX</b>	<b>MOEX</b>	4	<b>PIKK</b>	<b>NVTK</b>	<b>NVTK</b>
07.2020	5	<b>MOEX</b>	DSKY	MGNT	5	<b>TCSG</b>	<b>PIKK</b>	<b>PIKK</b>
08.2020	1	<b>GAZP</b>	<b>AFLT</b>	<b>SBERP</b>	1	IRAO	<b>PHOR</b>	<b>RUAL</b>
08.2020	2	<b>SBER</b>	YNDX	<b>AFLT</b>	2	PHOR	<b>FIVE</b>	<b>ROSN</b>
08.2020	3	LKOH	<b>SBERP</b>	SNGSP	3	<b>TCSG</b>	<b>ROSN</b>	<b>FIVE</b>
08.2020	4	<b>SBERP</b>	AFKS	<b>MOEX</b>	4	AFKS	<b>NVTK</b>	<b>NVTK</b>
08.2020	5	<b>MOEX</b>	<b>MOEX</b>	MGNT	5	<b>TRNFP</b>	<b>PIKK</b>	<b>PIKK</b>
09.2020	1	<b>GAZP</b>	DSKY	<b>SBERP</b>	1	PLZL	<b>RUAL</b>	<b>FIVE</b>
09.2020	2	<b>SBER</b>	<b>SBERP</b>	DSKY	2	IRAO	<b>PHOR</b>	<b>ROSN</b>
09.2020	3	<b>SBERP</b>	TATNP	<b>AFLT</b>	3	RUAL	<b>ROSN</b>	<b>RUAL</b>
09.2020	4	LKOH	YNDX	TATNP	4	<b>TCSG</b>	<b>NVTK</b>	<b>NVTK</b>
09.2020	5	MTSS	<b>AFLT</b>	SNGSP	5	<b>TRNFP</b>	<b>PIKK</b>	<b>PIKK</b>
10.2020	1	<b>SBER</b>	<b>AFLT</b>	<b>AFLT</b>	1	<b>PIKK</b>	<b>ROSN</b>	<b>FIVE</b>
10.2020	2	<b>SBERP</b>	TATNP	<b>SBERP</b>	2	RSTI	<b>RUAL</b>	<b>PHOR</b>
10.2020	3	<b>GAZP</b>	<b>SBERP</b>	TATNP	3	LSRG	<b>PHOR</b>	<b>PIKK</b>
10.2020	4	LKOH	AFKS	<b>MOEX</b>	4	<b>TCSG</b>	<b>NVTK</b>	<b>NVTK</b>
10.2020	5	VTBR	MOEX	SNGSP	5	<b>TRNFP</b>	<b>PIKK</b>	<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 05.2020 – 10.2020:

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, SBERP.**

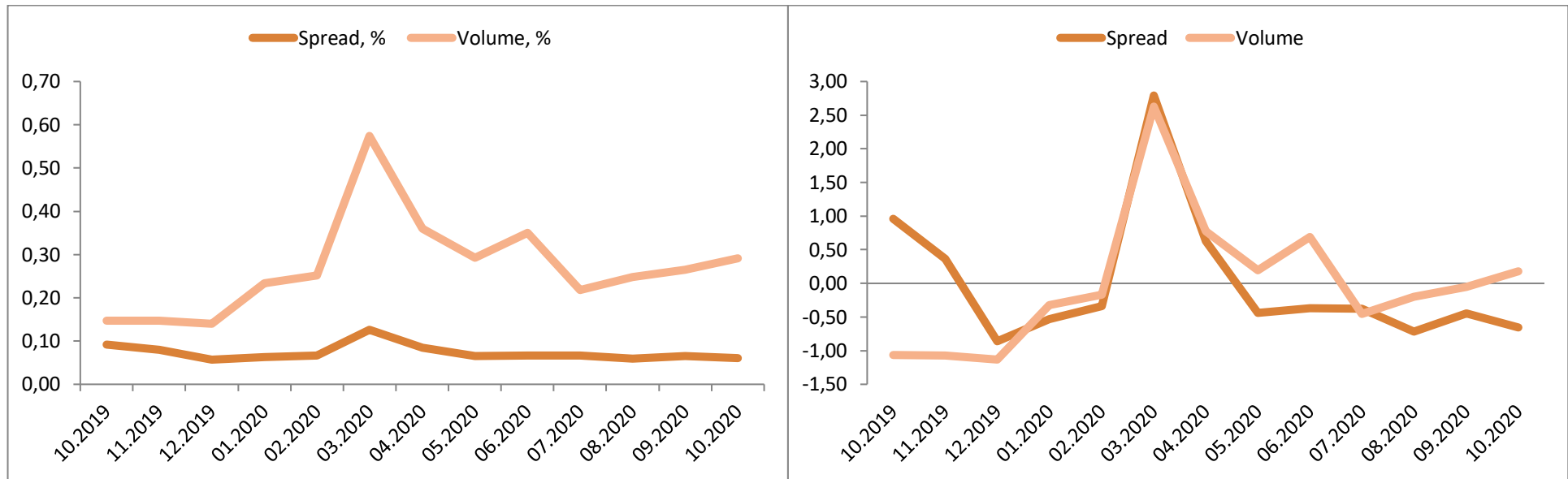
Stocks, appearing no less than 5-6 months in the top-5 list of the most liquid stocks in any of the dimensions (displayed in red bold font in the table):

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

Among the least liquid stocks within a half-year period of 05.2020 – 10.2020:

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): **PHOR, PIKK.**

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): **TRNFP, TCSG (trading costs), NVTK, PHOR, PIKK, ROSN, RUAL (trading activity), FIVE, NVTK, PIKK, 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 October 2020 decreased and amounted to 0.061%. Trading activity measured by average percentage daily trading volume in October 2020 increased and amounted to 0.292%. In October 2020 liquidity was in an equilibrium state: the trading activity metric and the trading costs metric moved in the opposite directions.

The right figure displays dynamics of the two liquidity dimensions *in standardized numerical values*. In October 2020 trading costs were below the average over a 1-year period while trading activity stayed slightly above the yearly average.