

# July 2024

## US Market Structure Monthly

### MICROSTRUCTURE OBSERVATIONS

- The average daily volume in US equities was 11.2B shares in July 2024, down 6% month over month (MoM) but up 8% year over year (YoY).
  - Volume in sub \$1 dollar stocks as a percent of total consolidated share volume was 13% in July 2024, down from 16% in June and unchanged from 13% in July 2023.
- Trade reporting facility (TRF) share volume as a percent of total consolidated share volume rose to 47.4% in July 2024, from 46.1% the prior month, its highest monthly level so far in 2024.
- Quoted spreads in both S&P 500 and Russell 2000 stocks widened in July to their highest levels in 2024. Excluding the first and last half hour of the trading day, the median S&P 500 stock's spread increased to 5.6bps in July, from 5.2bps the prior month, while the median Russell 2000 stock's spread increased to 21.9bps in July from 20.5bps the prior month.

### US MARKET STRUCTURE NEWS

#### SEC Approves Ether ETFs

The U.S. Securities and Exchange Commission (SEC) approved the trading of exchange traded funds (ETFs) that track to the spot price of the Ethereum (Ether) cryptocurrency. Nine Ether products began trading on July 23, 2024, including new launches from Blackrock and Fidelity, as well as an Ether investment trust conversion from Grayscale.

<https://www.ft.com/content/f36d7eeb-03d6-4dab-909a-d5d4524a4edb>

#### SEC Approves MIAX Options Exchange

MIAX received approval from the SEC for a new electronic options exchange and physical trading floor. The new options exchange, MIAX Sapphire, will operate using a taker-maker pricing structure (providing rebates to liquidity takers) and a price-time allocation structure. The electronic portion of MIAX Sapphire began trading on August 12, 2024, and its physical trading floor in Miami set to open in 2025.

<https://www.thetradenews.com/sec-greenlights-miaxes-august-launch-of-new-taker-maker-us-options-venue/>

### VIRTU COMMENTS LETTERS

#### Virtu Petitions for Rulemaking on Exchanges' Listing of Penny Stocks

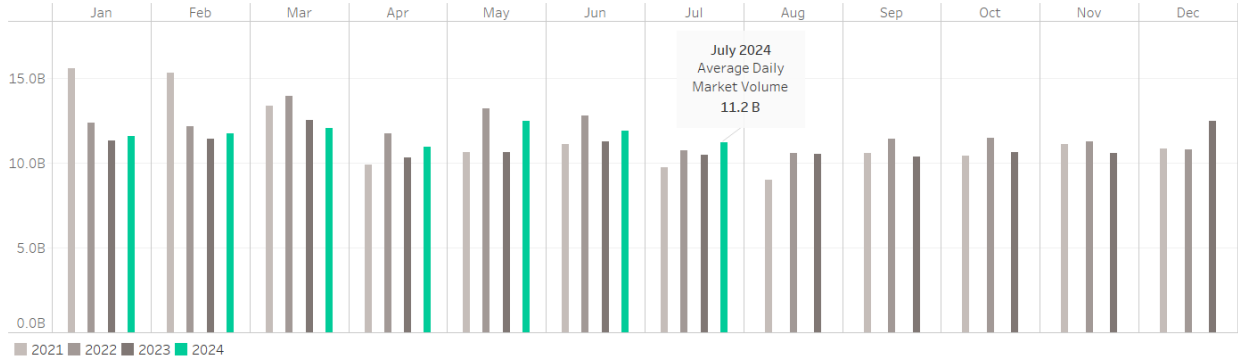
Virtu submitted a letter to the SEC on July 15, 2024 requesting the Commission initiate rulemaking proceedings that would prohibit National Securities Exchanges from listing high risk "penny stocks" and

mandate additional disclosures from issuers. In its letter, Virtu made the following recommendations to the SEC:

- Require exchanges to adopt more rigorous initial listing standards to prevent listing risky issuers
- Require exchanges to strengthen continuing listing standards applicable to stocks trading under \$1
- Require exchanges to adopt rules limiting excessive reverse stock splits
- Require exchanges to monitor for potentially misleading and manipulative promotional activity
- Mandate additional disclosures under Regulation S-K to facilitate assessment of the hazards of investing in high-risk penny stocks

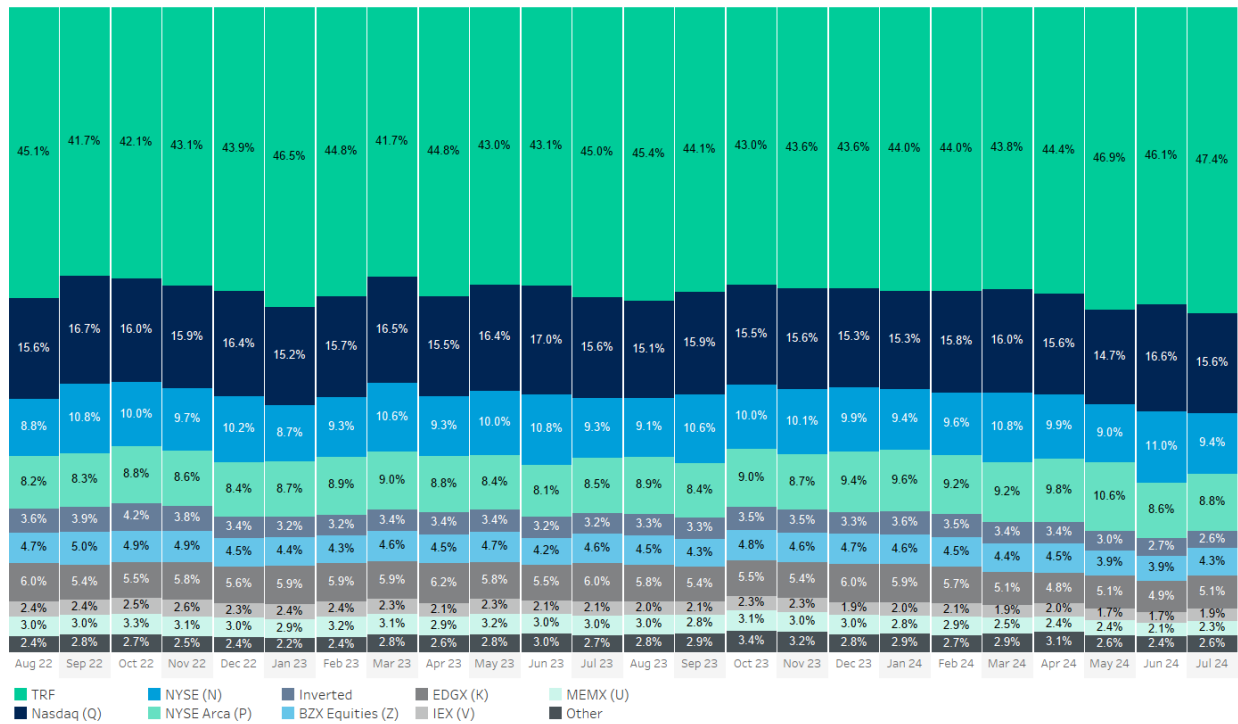
<https://www.virtu.com/thinking/comment-letters/>

### Average Daily Market Volume



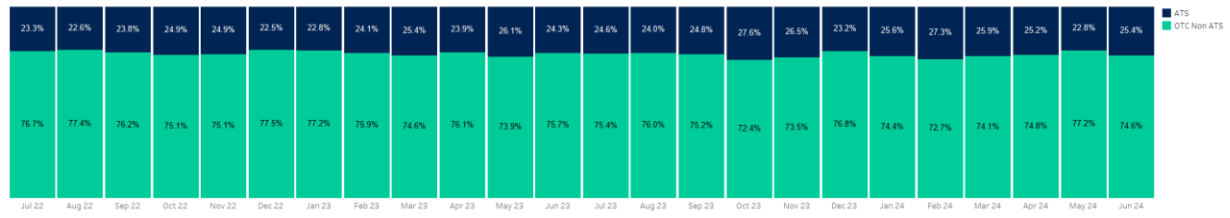
Source: Cboe Global Markets

### Venue Market Share



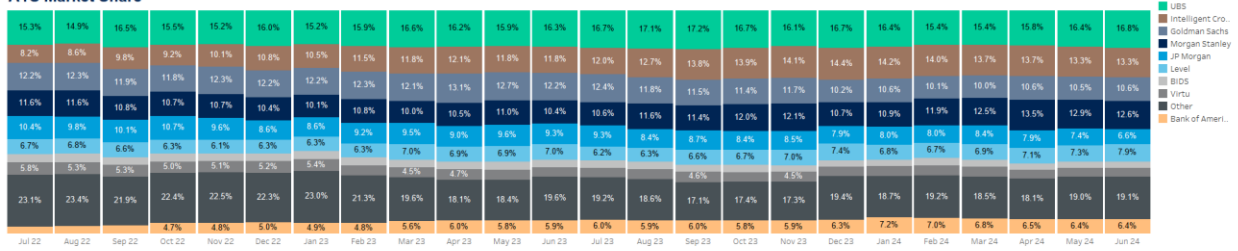
Source: Cboe Global Markets

### TRF Volume Breakdown



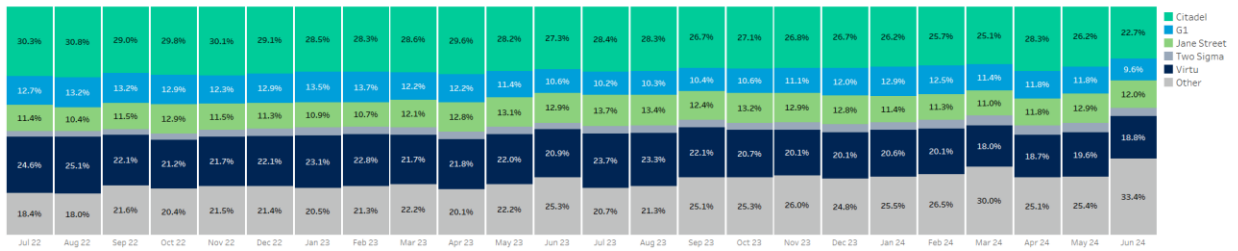
NMS Tier 1 & 2 Securities; Excludes Dealerweb.

### ATS Market Share



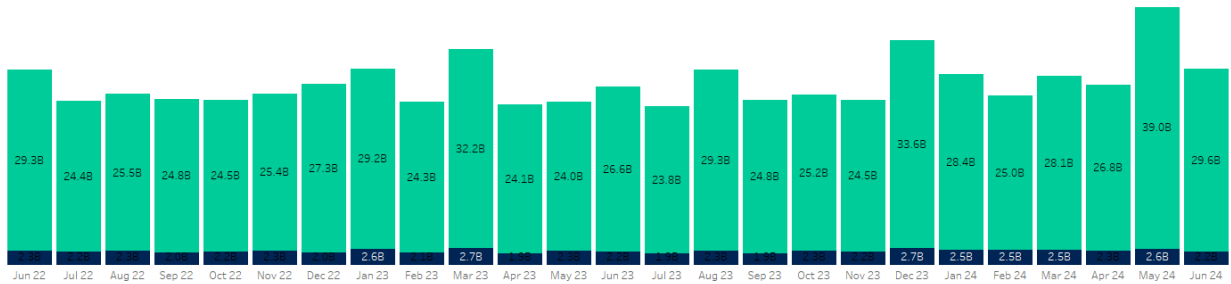
Excludes Dealerweb and OTC; Venues rolled up to firm level.

### OTC Non-ATS Market Share



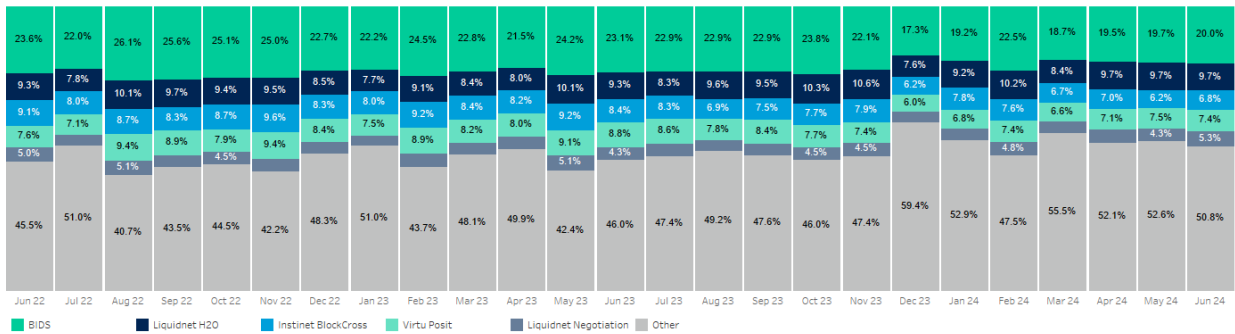
NMS Tier 1 & 2 Securities.

### TRF Block Volume Breakdown (Shares)



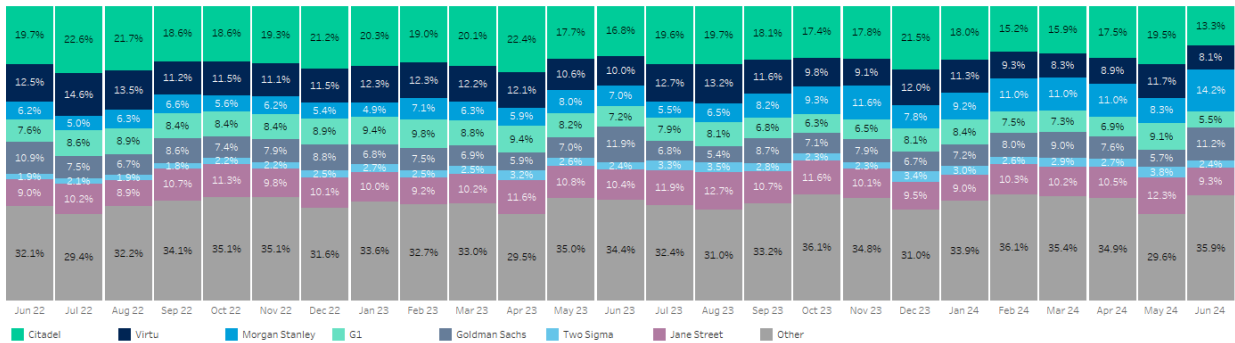
■ OTC Block Quantity ■ ATS Block Quantity

### ATS Block Volume Market Share



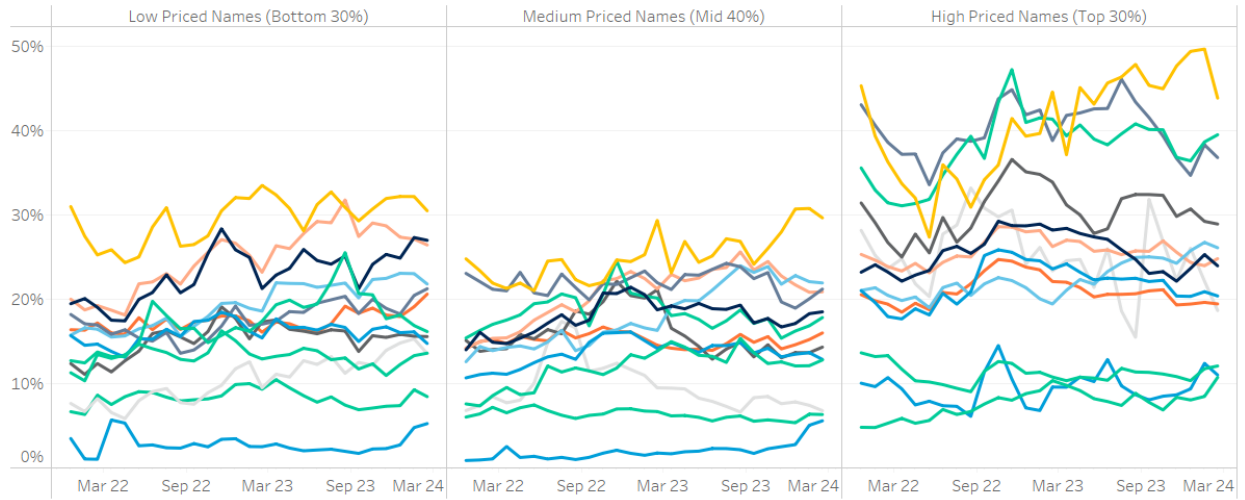
Excludes Dealerweb; Blocks defined as >10K shares  
Source: FINRA

### OTC (Non-ATS) Block Volume Market Share

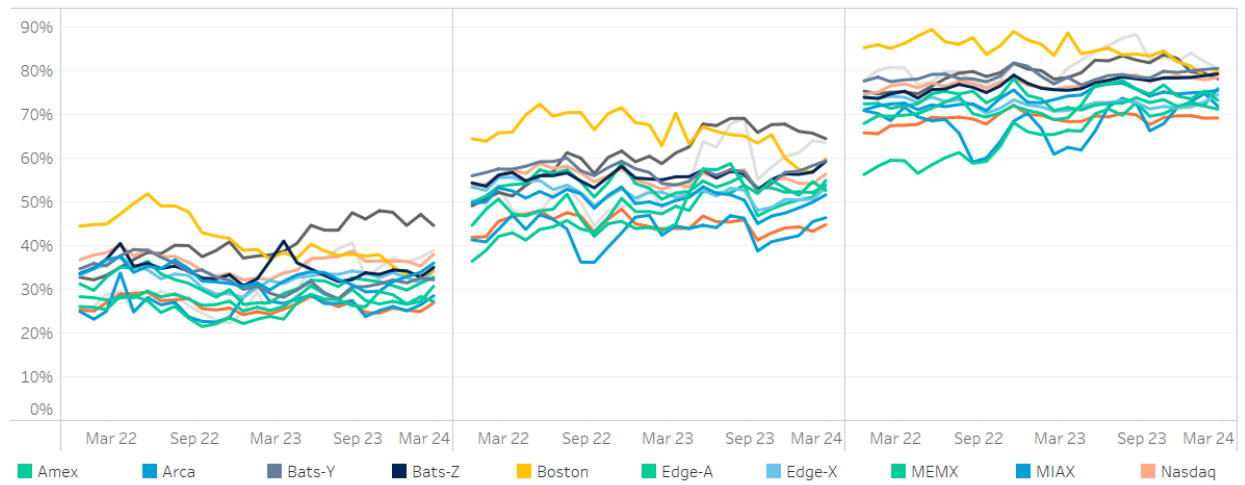


Blocks defined as >10K shares  
Source: FINRA

### Hidden Trades Proportion by Price and Venue



### Oddlot Trades Proportion by Price and Venue



Source: SEC

### Quotesize in Shares

		3Q 22			4Q 22			1Q 23			2Q 23			3Q 23			4Q 23			1Q 24			2Q 24			3Q 24
		Aug 22	Sep 22	Oct 22	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24	Jul 24	
First 30 Min	SP500	185	183	187	186	189	194	218	235	229	227	226	222	224	222	230	236	243	247	240	241	239	236	240	244	
	RUS20..	228	225	232	226	231	250	271	300	300	298	290	278	288	288	300	301	307	306	300	298	293	285	293	289	
Mid Day	SP500	179	184	189	192	194	199	214	228	224	217	216	213	212	211	211	220	224	221	218	219	219	221	223	222	
	RUS20..	234	235	245	248	250	257	262	279	283	280	275	270	275	283	286	300	300	294	283	291	288	292	300	288	
Last 30 Min	SP500	201	201	212	210	210	216	222	230	231	222	226	222	212	217	212	226	227	222	221	220	217	221	222	221	
	RUS20..	265	263	274	279	291	289	283	300	309	300	304	289	288	303	316	331	318	314	304	307	308	314	317	304	

### Spread Bps

First 30 Min	SP500	11.8	10.7	12.5	12.9	12.3	11.7	11.4	10.7	9.6	10.7	10.9	10.1	10.8	10.3	12.4	11.7	10.8	11.6	11.6	11.3	11.8	11.7	13.1	14.7
	RUS20..	45.3	43.2	49.2	51.1	49.8	47.8	47.1	48.9	44.7	47.7	45.4	40.3	40.8	39.4	45.6	48.1	44.8	43.6	43.9	43.3	43.2	44.0	50.7	51.8
Mid Day	SP500	4.7	4.9	5.4	5.5	5.1	4.9	5.0	5.1	4.4	5.0	4.6	4.2	4.8	4.6	5.4	5.0	4.4	4.2	4.4	4.3	5.0	4.7	5.2	5.6
	RUS20..	19.1	18.7	19.9	21.2	18.6	18.1	18.3	19.6	18.0	19.6	17.8	16.3	17.2	17.4	20.4	20.6	19.2	18.1	18.7	18.4	19.0	19.2	20.5	21.9
Last 30 Min	SP500	2.9	3.2	3.4	3.2	3.2	3.1	3.2	3.2	3.0	3.3	3.0	2.8	3.1	3.1	3.3	3.1	2.9	2.8	2.9	3.0	3.2	3.1	3.4	3.5
	RUS20..	14.1	14.1	14.7	15.5	14.2	13.6	14.1	14.7	14.2	15.2	13.8	13.0	13.3	13.2	14.4	14.7	13.9	13.0	13.5	13.9	14.6	14.4	15.5	16.1

### One Minute Volatility Bps

First 30 Min	SP500	15.6	17.5	20.4	17.7	14.4	14.5	13.9	14.9	12.9	13.8	14.8	14.6	12.7	12.3	16.4	13.7	12.0	13.5	13.7	12.1	12.6	11.0	11.8	13.3
	RUS20..	21.0	20.8	23.1	21.4	16.2	16.2	17.0	17.2	14.6	15.9	16.5	16.2	15.1	14.0	17.6	17.6	16.3	16.1	15.4	14.3	12.0	11.1	10.2	13.5
Mid Day	SP500	6.2	8.6	8.1	6.8	5.8	5.7	5.9	6.7	4.9	5.4	4.8	4.6	4.9	4.1	6.2	4.9	4.3	4.6	4.8	4.2	4.9	3.5	3.5	4.0
	RUS20..	5.5	7.4	6.7	5.4	4.1	3.8	4.5	5.5	2.9	3.6	3.3	3.0	2.8	1.5	3.2	2.4	2.8	2.9	3.6	2.3	2.4	1.5	1.0	2.4
Last 30 Min	SP500	6.2	9.3	8.8	7.1	6.5	6.3	6.9	7.4	5.9	6.0	5.5	5.4	5.7	5.1	6.3	5.3	5.0	5.3	5.7	5.6	6.3	5.0	5.1	5.5
	RUS20..	6.2	8.9	7.2	6.8	5.7	5.4	6.9	7.9	5.4	5.9	5.2	4.9	5.0	3.8	4.5	4.5	5.6	5.0	5.8	5.9	5.8	5.0	4.3	6.5

### Percent ADV by Time of Day

Open	SP500	1.0%	0.9%	0.9%	0.9%	1.1%	0.9%	1.0%	0.9%	1.1%	1.0%	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%	1.0%	1.0%	0.9%	1.0%	1.0%	1.0%	1.0%	
	RUS20..	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.7%	0.6%	0.7%	0.7%	0.6%	0.6%	0.7%	0.7%	0.9%	0.8%	0.8%	0.7%	0.8%	0.8%	0.8%
First 30 Min	SP500	9.6%	9.0%	9.0%	9.2%	8.6%	8.7%	8.6%	8.5%	8.7%	8.8%	8.7%	9.1%	8.4%	8.1%	8.1%	8.5%	8.0%	8.3%	8.6%	7.9%	7.9%	8.1%	7.7%	7.8%
	RUS20..	8.2%	7.4%	7.6%	7.5%	7.2%	7.5%	7.5%	7.2%	7.3%	7.5%	7.3%	7.5%	7.3%	6.9%	6.4%	7.0%	6.9%	7.7%	7.5%	7.4%	6.6%	6.7%	6.4%	7.0%
Last 30 Min	SP500	18.8%	18.7%	18.8%	18.7%	19.0%	19.3%	19.3%	18.7%	19.4%	18.9%	18.8%	19.2%	20.3%	20.1%	19.5%	19.1%	19.2%	19.1%	19.0%	19.2%	19.8%	20.2%	19.7%	19.7%
	RUS20..	20.4%	20.1%	20.0%	21.0%	20.0%	20.3%	20.6%	19.9%	20.4%	19.9%	20.1%	20.3%	20.8%	21.3%	20.9%	20.6%	20.1%	19.6%	20.3%	20.0%	20.7%	21.0%	21.3%	20.9%
Close	SP500	11.9%	12.3%	11.9%	11.6%	14.7%	12.9%	12.2%	13.4%	13.6%	12.9%	14.1%	13.4%	13.8%	16.3%	13.7%	14.7%	16.2%	15.3%	14.2%	16.3%	15.1%	15.7%	17.0%	15.5%
	RUS20..	10.4%	11.4%	11.6%	10.4%	11.9%	10.7%	11.0%	11.4%	11.8%	11.0%	11.7%	11.6%	11.7%	14.5%	14.5%	13.3%	14.2%	13.8%	13.8%	12.7%	14.9%	14.0%	13.8%	14.3%

Median used for all metrics; One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP  
Source: Virtu Financial

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