

Mar 2024

U.S. Market Structure Monthly

MICROSTRUCTURE OBSERVATIONS

- The average daily volume in US equities was 12.0B shares in March 2024, which was up 2.5% month over month (MoM) but down 3.8% year over year (YoY).
- Trade reporting facility (TRF) share volume as a percent of total consolidated share volume was 43.8% in March 2024, similar to levels observed over the prior few months.
- Quoted spreads in both S&P 500 and Russell 2000 stocks narrowed slightly in March 2024 compared to the prior month. Excluding the first and last half hour of the trading day, the median S&P 500 stock's spread narrowed 2% to 4.3bps in March 2024 from 4.4bps in February 2024, while the median Russell 2000 stock's spread narrowed 5% to 17.8bps in March 2024 from 18.7bps the prior month.

U.S. MARKET STRUCTURE NEWS¹

SEC Delays Decision on Bitcoin ETF Options

The Securities and Exchange Commission (SEC) delayed its decision until late April 2024 on a rule change that would allow exchanges to list and trade options on spot bitcoin ETFs. A number of options exchanges applied to list options on bitcoin ETFs in January 2024, soon after the SEC's decision to allow the trading of spot bitcoin ETFs on U.S. exchanges.

<https://finance.yahoo.com/news/sec-delays-decision-allowing-spot-230917221.html>

Hedge Funds Sue SEC Over New Treasury Dealer Rule

The National Association of Private Fund Managers (NAPFM), Managed Funds Association (MFA), and the Alternative Investment Management Association (AIMA) filed a lawsuit against the SEC on the Commission's new rules requiring firms that deal frequently in U.S. Treasury securities to register as brokers-dealers. Adopted in February 2024, the SEC's new rules would require firms to register with the SEC as broker-dealers if they either routinely express interest in trading at the best bid or offer or derive revenue by trading on the bid or offer in U.S. Treasury securities. The industry groups said the new rules are too broad and would capture investors that regularly trade government securities but who are not dealers. The industry groups also said the new rules will create unnecessary regulatory burden on certain trading firms, which potentially will lead to less liquidity and harm investors.

<https://www.reuters.com/markets/us/hedge-fund-industry-groups-sue-us-sec-over-treasury-market-dealer-rule-2024-03-18/>

¹ The summaries set forth herein are qualified in their entirety by the underlying rules, filings and referenced materials.

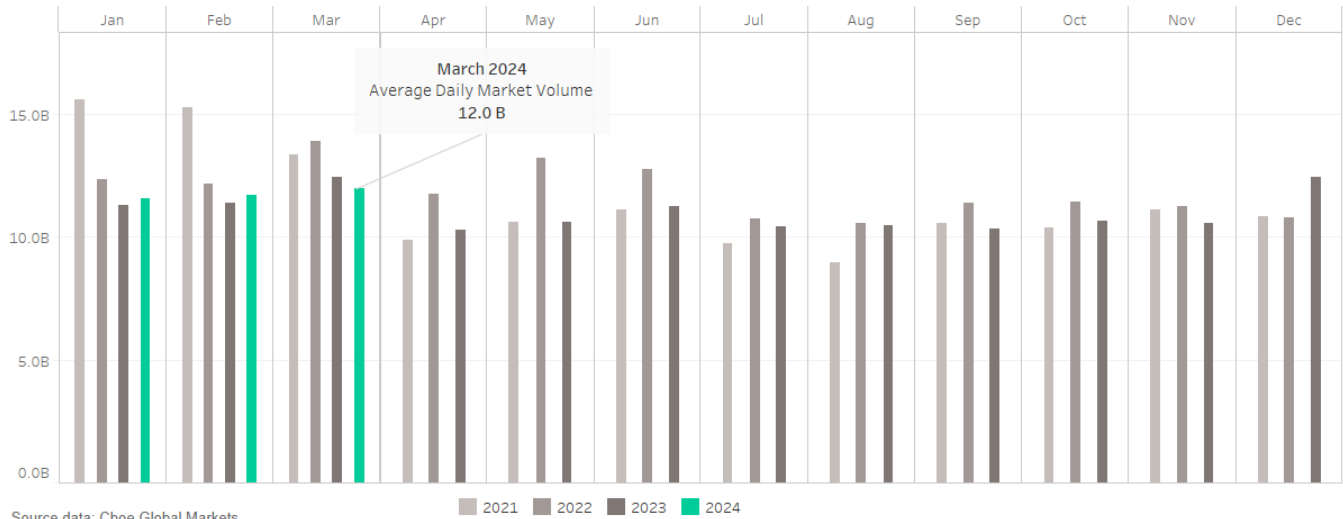
SEC Pauses Climate Disclosure Rule Implementation

The SEC announced that it will stay its new climate disclosure rules, pausing implementation to avoid regulatory uncertainty due to the rule currently being contested in court. Last month, the SEC adopted new rules requiring public companies to make certain disclosures related to their greenhouse gas emissions and climate related risks to the company. Soon after adoption, the U.S. Chamber of Congress and 19 states filed a lawsuit against the SEC seeking to overturn the agency's new rules, citing the climate disclosure rule erodes investors standard of materiality and micromanages how companies make determinations about materiality.

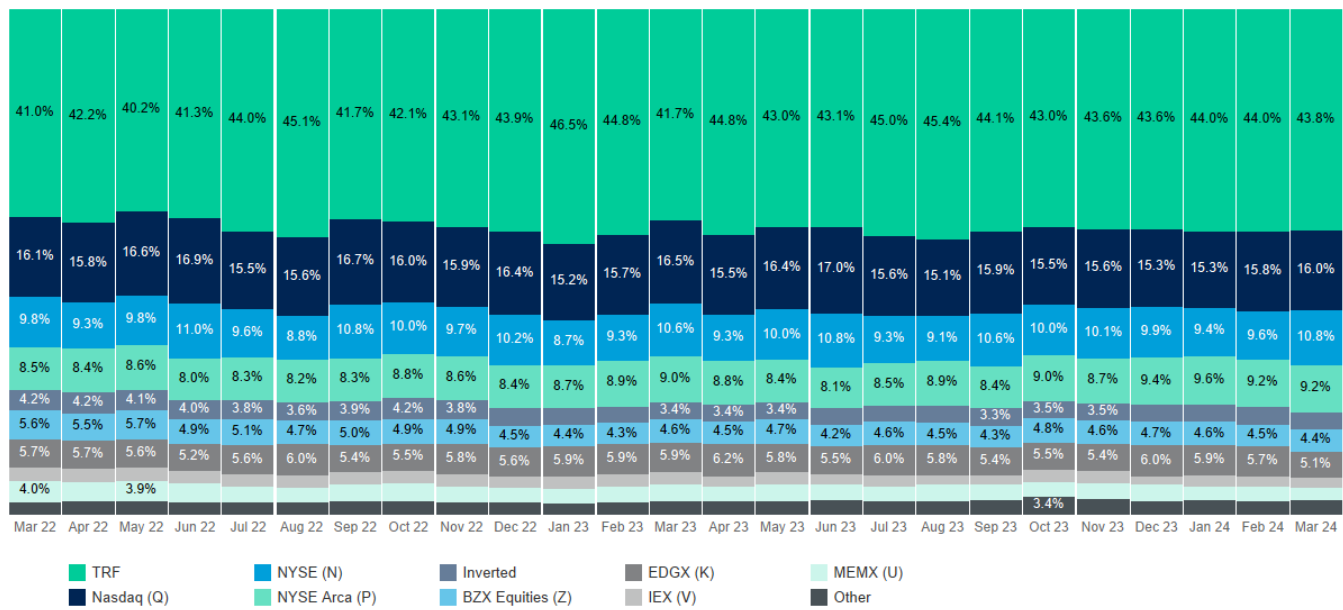
<https://www.wsj.com/articles/sec-accepts-pause-on-its-climate-rule-b2afe8d9>

<https://www.pionline.com/regulation/chamber-commerce-challenges-sec-climate-disclosure-rule#>

Average Daily Market Volume

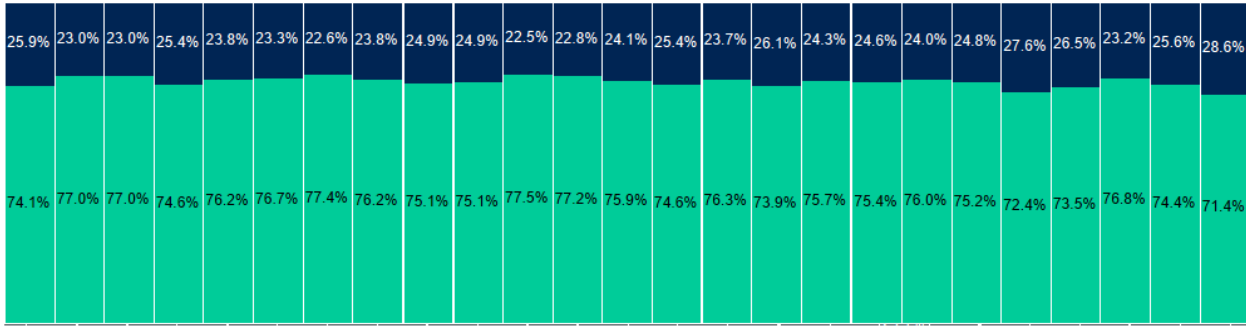


Venue Market Share



TRF Volume Breakdown

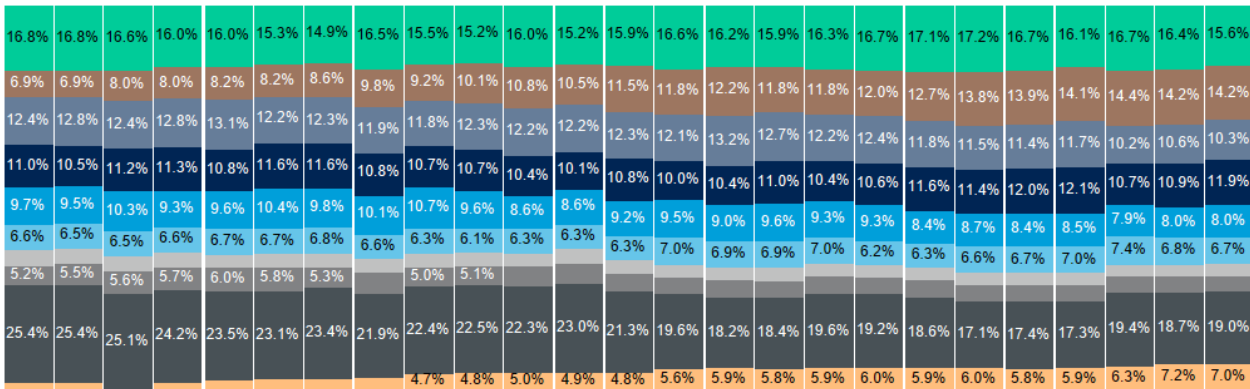
■ ATS
■ OTC Non ATS



Tier1 and Tier2 only; Excludes Dealerweb, Source data: FINRA

ATS Market Share

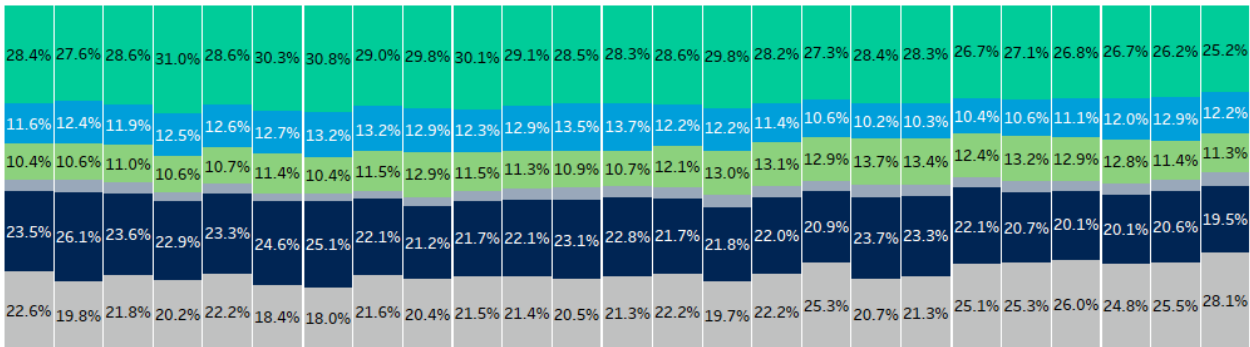
■ UBS
■ Intelligent Cross
■ Goldman Sachs
■ Morgan Stanley
■ JP Morgan
■ Level
■ BIDS
■ Virtu
■ Other
■ Bank of America



Excludes Dealerweb, OTC; Venues rolled up to firm level; Source data: FINRA

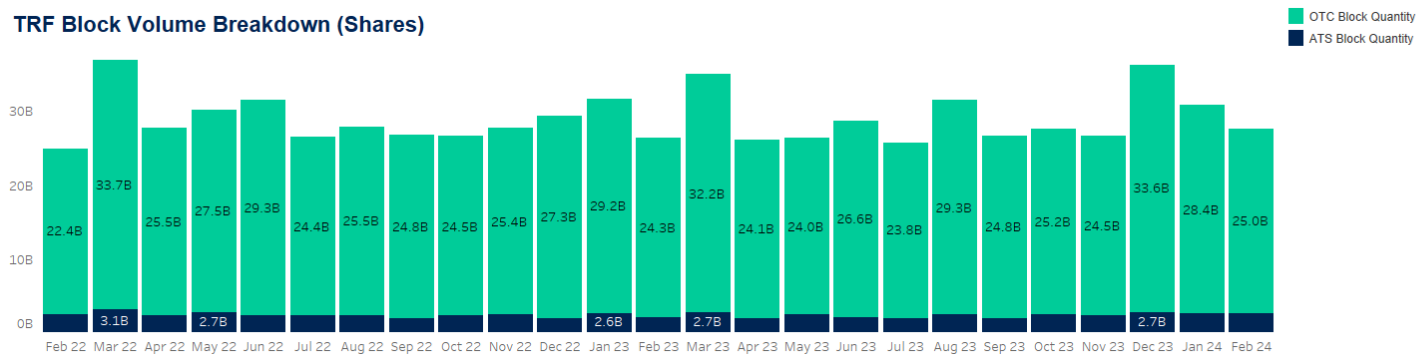
OTC Non-ATS Market Share

■ Citadel
■ G1
■ Jane Street
■ Two Sigma
■ Virtu
■ Other

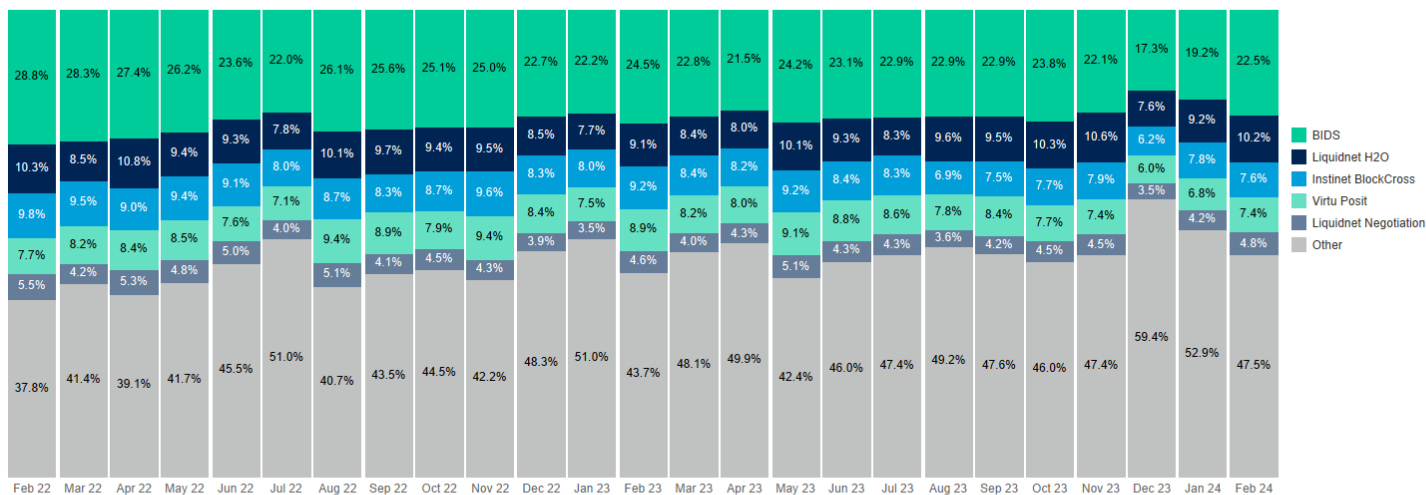


Source: FINRA, NMS Tier 1 & 2 Securities

TRF Block Volume Breakdown (Shares)

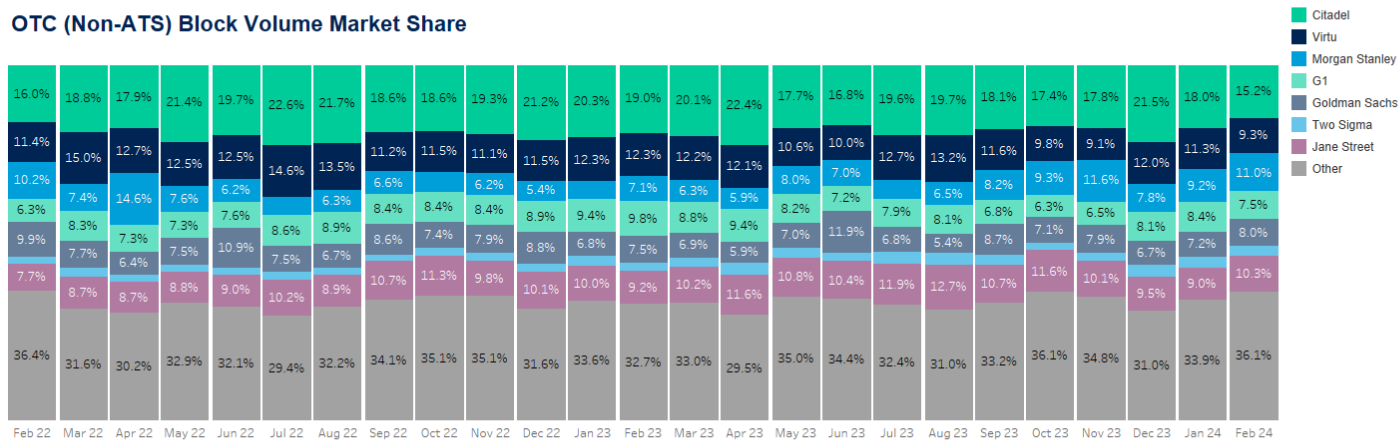


ATS Block Volume Market Share



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

OTC (Non-ATS) Block Volume Market Share



Blocks defined as >10K shares; Source data: FINRA

Quotesize in Shares

	3Q 22			4Q 22			1Q 23			2Q 23			3Q 23			4Q 23			1Q 24			
	Jul 22	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	
First 30 Min	SP500	188	185	183	187	186	189	194	218	235	229	227	226	222	224	222	230	236	243	247	240	240
	RUS2000	232	228	225	232	226	231	250	271	300	300	298	290	278	288	288	300	301	307	306	300	294
Mid Day	SP500	181	179	184	189	192	194	199	214	228	224	217	216	213	212	211	211	220	224	221	218	220
	RUS2000	237	234	235	245	248	250	257	262	279	283	280	275	270	275	283	286	300	300	294	283	286
Last 30 Min	SP500	197	201	201	212	210	210	216	222	230	231	222	226	222	212	217	212	226	227	222	221	222
	RUS2000	267	265	263	274	279	291	289	283	300	309	300	304	289	288	303	316	331	318	314	304	301

Spread Bps

First 30 Min	SP500	13.2	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	11.6
	RUS2000	48.1	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	43.5
Mid Day	SP500	5.2	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
	RUS2000	20.4	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	17.8
Last 30 Min	SP500	3.2	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	2.9
	RUS2000	15.4	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	13.2

One Minute Volatility Bps

First 30 Min	SP500	20.7	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	13.4
	RUS2000	26.6	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	15.5
Mid Day	SP500	7.5	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	4.7
	RUS2000	6.1	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	2.9
Last 30 Min	SP500	7.9	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	5.7
	RUS2000	6.9	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

Percent ADV by Time of Day

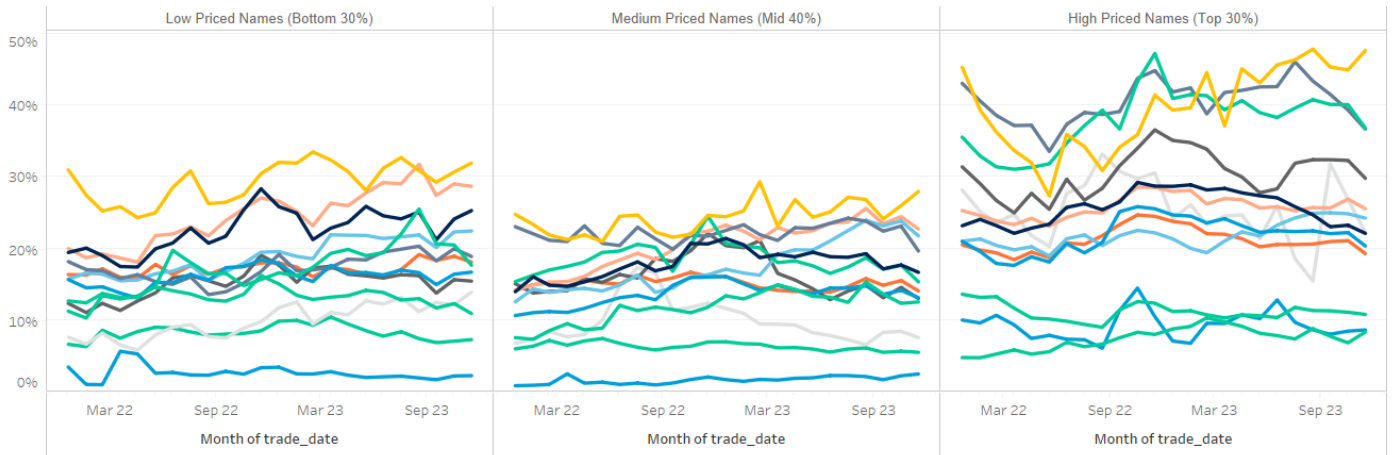
Open	SP500	1.1%	1.0%	0.9%	0.9%	0.9%	1.1%	0.9%	1.0%	0.9%	1.1%	1.0%	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%	0.9%	1.0%	1.0%	1.0%
	RUS2000	0.7%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.7%	0.6%	0.7%	0.7%	0.6%	0.6%	0.7%	0.7%	0.9%	0.8%	0.8%
First 30 Min	SP500	9.8%	9.6%	9.0%	9.0%	9.2%	8.6%	8.7%	8.6%	8.5%	8.7%	8.8%	8.7%	9.1%	8.4%	8.1%	8.1%	8.5%	8.0%	8.3%	8.6%	9.0%
	RUS2000	8.1%	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%	7.8%
Last 30 Min	SP500	18.6%	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%	19.0%
	RUS2000	20.3%	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%	19.1%
Close	SP500	12.5%	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%	14.0%
	RUS2000	11.9%	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%	12.0%

Median used for all metrics

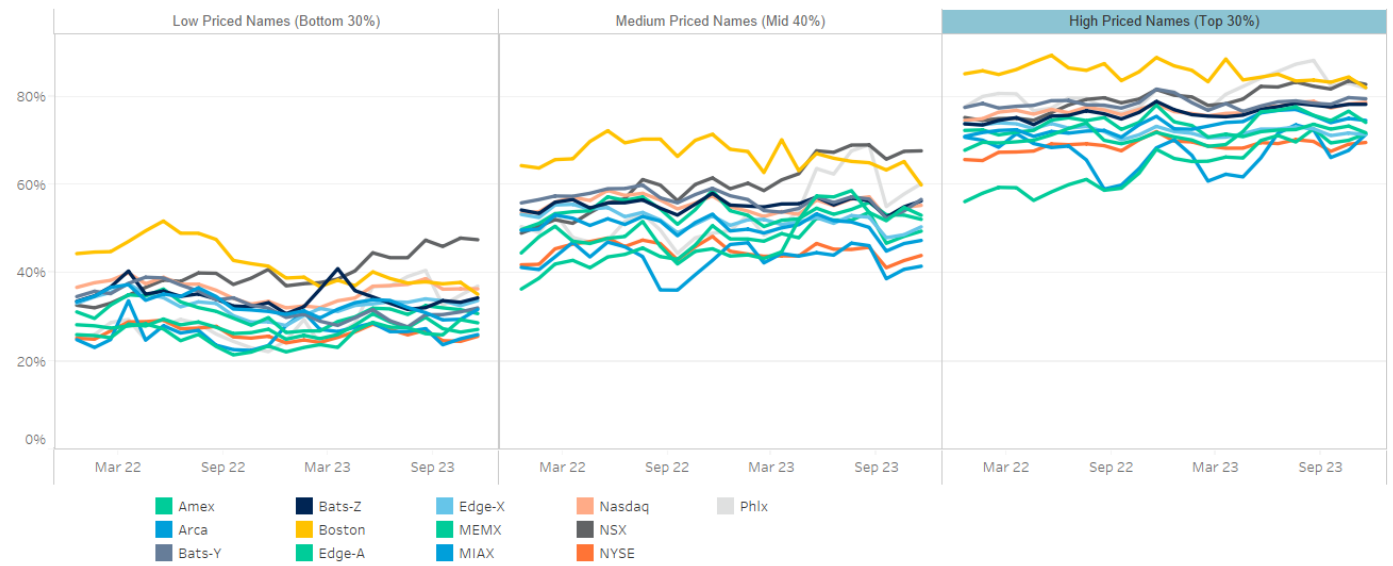
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP

Source data: Virtu Financial

Hidden Trades Proportion by Price and Venue



Oddlot Trades Proportion by Price and Venue



Source data: SEC

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info@virtu.com | www.virtu.com

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