

Nov 2023

U.S. Market Structure Monthly

MICROSTRUCTURE OBSERVATIONS

- The average daily volume in US equities was 10.6B shares in November 2023, which was flat month over month (MoM) and down 5% year over year (YoY).
- Trade reporting facility (TRF) share volume as a percent of total consolidated share volume was 43.6% in November 2023, up slightly from 43.0% the prior month.
- Quoted spreads in S&P 500 stocks narrowed in November 2023 compared to the prior month, while spreads in Russell 2000 stocks remained at their highest level in 2023 in November. Excluding the first and last half hour of the trading day, the median S&P 500 stock's spread narrowed 7% to 5.0bps in November 2023 from 5.4bps in October 2023, while the median Russell 2000 stock's spread widened slightly to 20.5bps in November 2023 from 20.4bps the prior month.

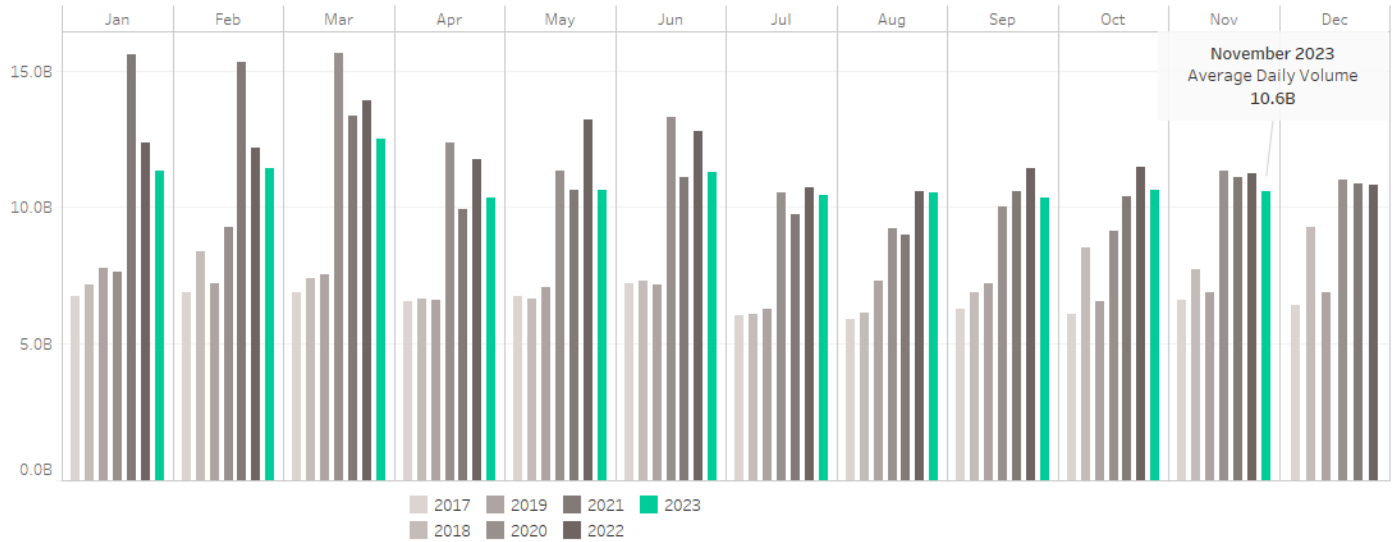
U.S. MARKET STRUCTURE NEWS

SEC Adopts New Rules on Clearing Agency Governance

In mid-November, the Securities and Exchange Commission (SEC) adopted new rules on the governance of all registered clearing agencies, including the management of conflicts of interest. The new rules establish governance requirements regarding board of director composition, independent directors, nominating committees, and risk management committees, as well as new policies and procedures regarding conflicts of interest. The new rules seek to improve the governance of registered clearing agencies by identifying certain responsibilities of the board of directors, increasing transparency into board governance, and improving the alignment of incentives among owners and participants of clearing agencies.

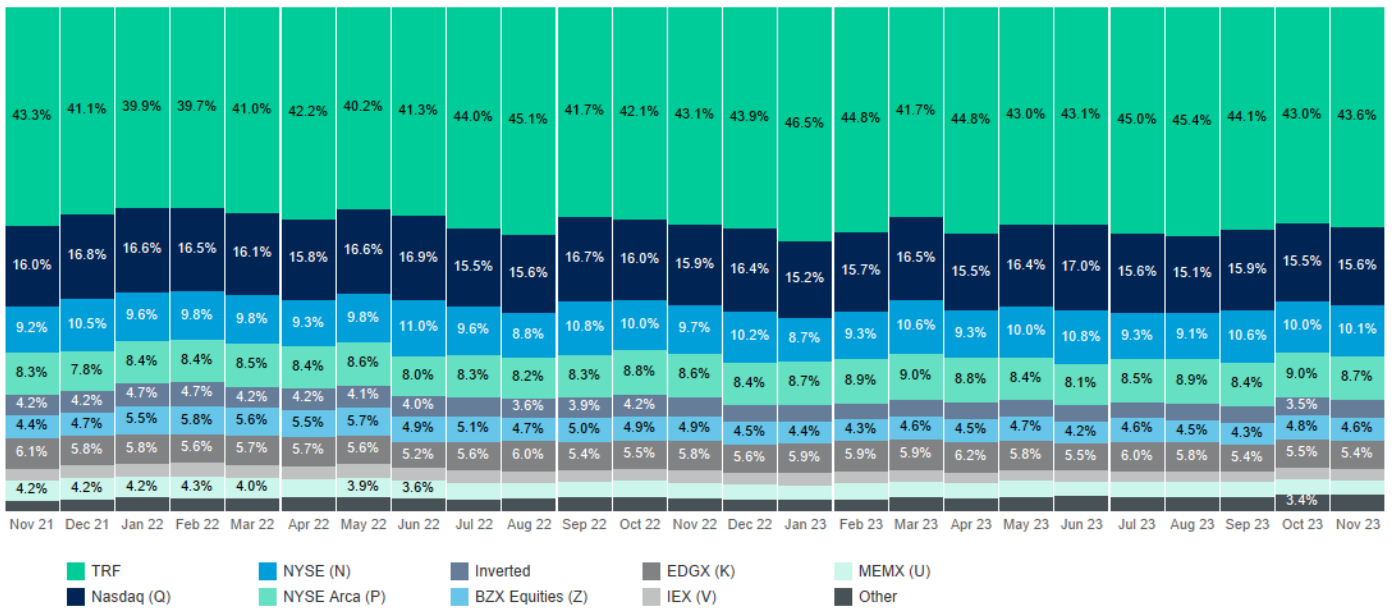
<https://www.sec.gov/news/press-release/2023-236>

Average Daily Market Volume



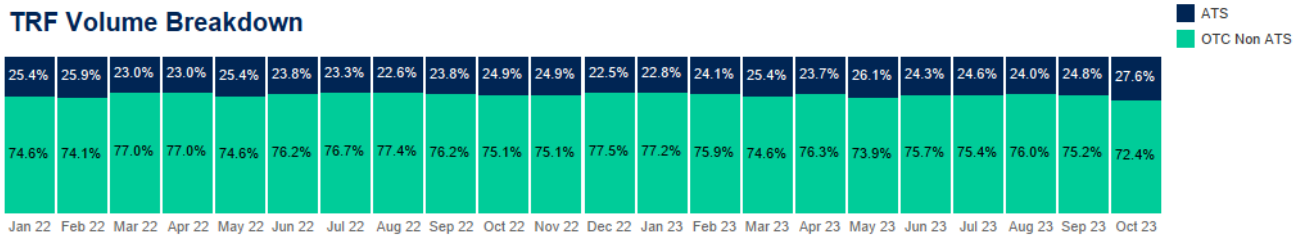
Source data: Cboe Global Markets

Venue Market Share



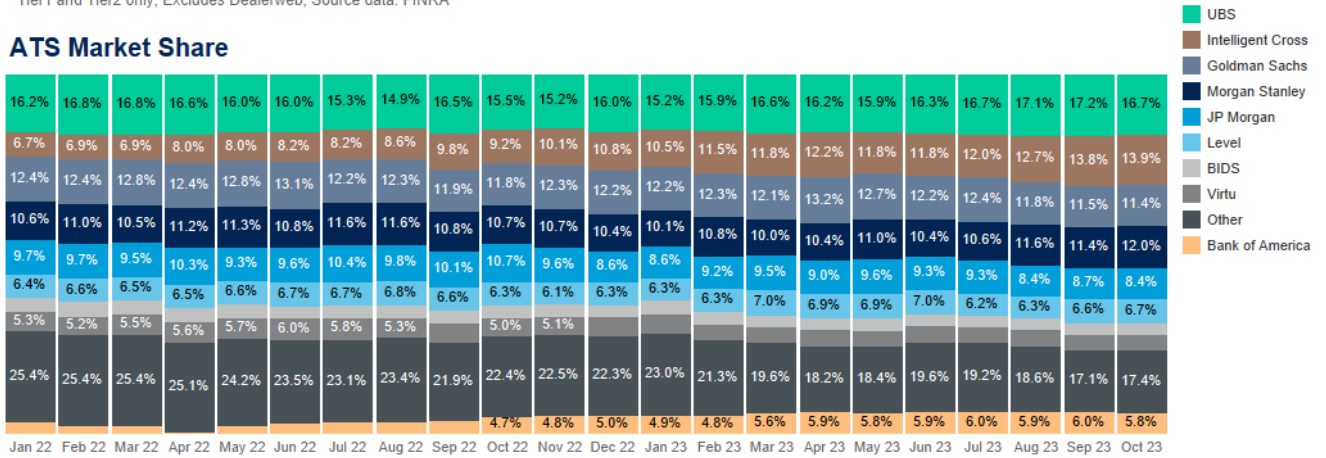
Source data: Cboe Global Markets

TRF Volume Breakdown



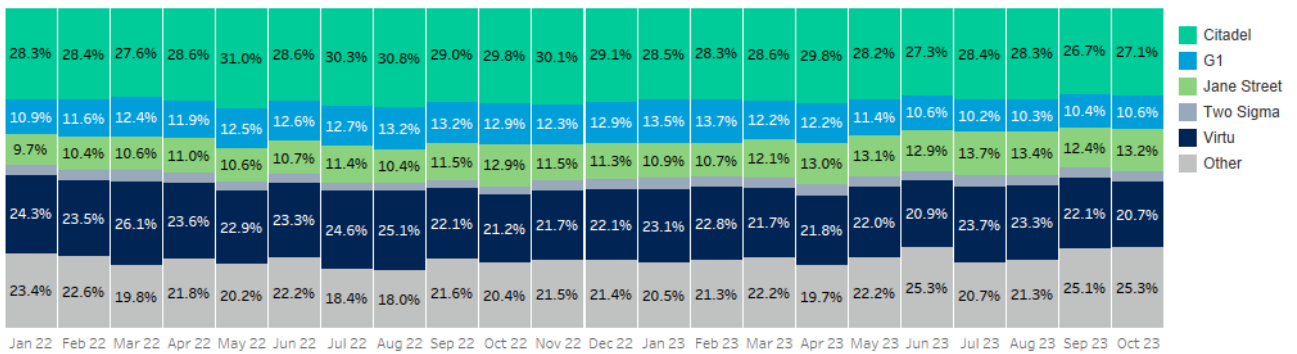
Tier1 and Tier2 only; Excludes Dealerweb, Source data: FINRA

ATS Market Share



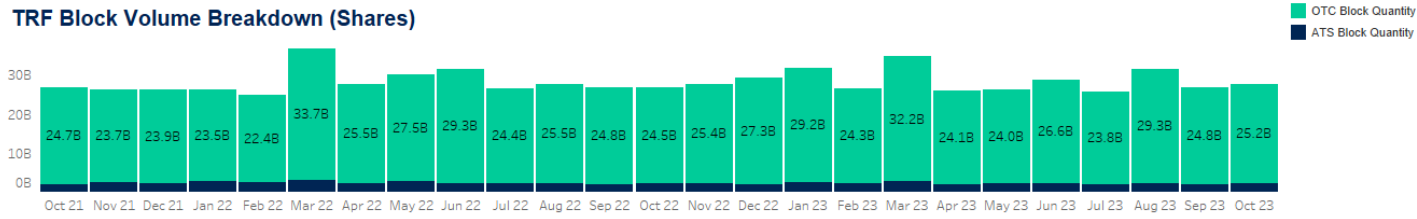
Excludes Dealerweb, OTC; Venues rolled up to firm level; Source data: FINRA

OTC Non-ATS Market Share

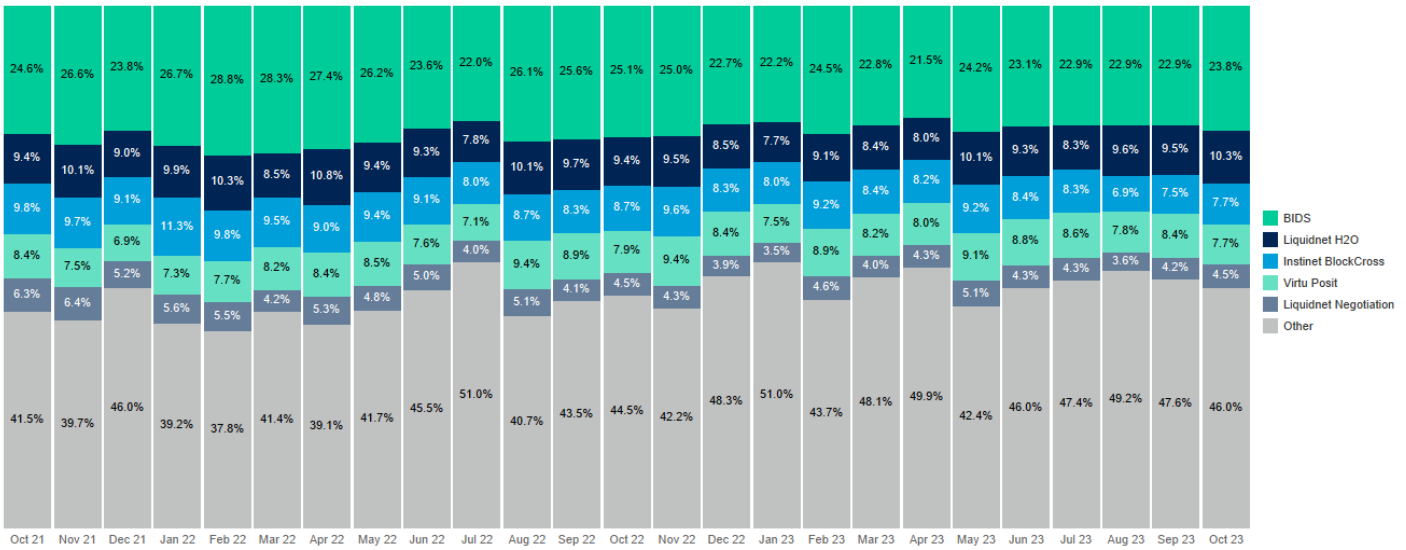


Source: FINRA, NMS Tier 1 & 2 Securities

TRF Block Volume Breakdown (Shares)

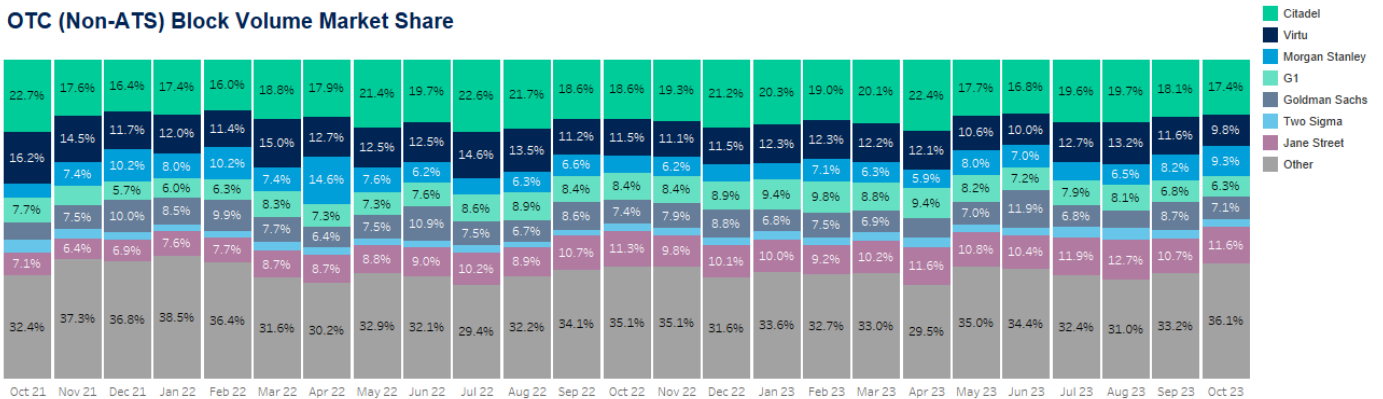


ATS Block Volume Market Share



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

Quote size in Shares

		2Q 22			3Q 22			4Q 22			1Q 23			2Q 23			3Q 23			4Q 23	
		Apr 22	May 22	Jun 22	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
First 30 Min	SP500	180	196	195	188	185	183	187	186	189	194	218	235	229	227	226	222	224	222	230	234
	RUS2000	236	250	243	232	228	225	232	226	231	250	271	300	300	298	290	278	288	288	300	300
Mid Day	SP500	176	186	190	181	179	184	189	192	194	199	214	228	224	217	216	213	212	211	211	215
	RUS2000	232	234	246	237	234	235	245	248	250	257	262	279	283	280	275	270	275	283	286	298
Last 30 Min	SP500	190	190	198	197	201	201	212	210	210	216	222	230	231	222	226	222	212	217	212	224
	RUS2000	255	259	276	267	265	263	274	279	291	289	283	300	309	300	304	289	288	303	316	325

Spread Bps

First 30 Min	SP500	13.4	15.1	13.5	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	13.0
	RUS2000	51.3	57.0	50.4	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	50.4
Mid Day	SP500	5.5	6.5	5.7	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	5.3
	RUS2000	22.5	25.0	21.6	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	21.0
Last 30 Min	SP500	3.6	3.9	3.5	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	3.2
	RUS2000	16.6	18.1	16.2	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	15.1

One Minute Volatility Bps

First 30 Min	SP500	20.2	24.0	21.4	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	15.9
	RUS2000	21.7	26.9	24.1	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	21.0
Mid Day	SP500	8.2	9.9	8.3	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	5.2
	RUS2000	6.8	9.0	6.8	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	2.7
Last 30 Min	SP500	9.1	10.8	9.0	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	5.8
	RUS2000	8.8	9.8	8.1	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	5.2

Percent ADV by Time of Day

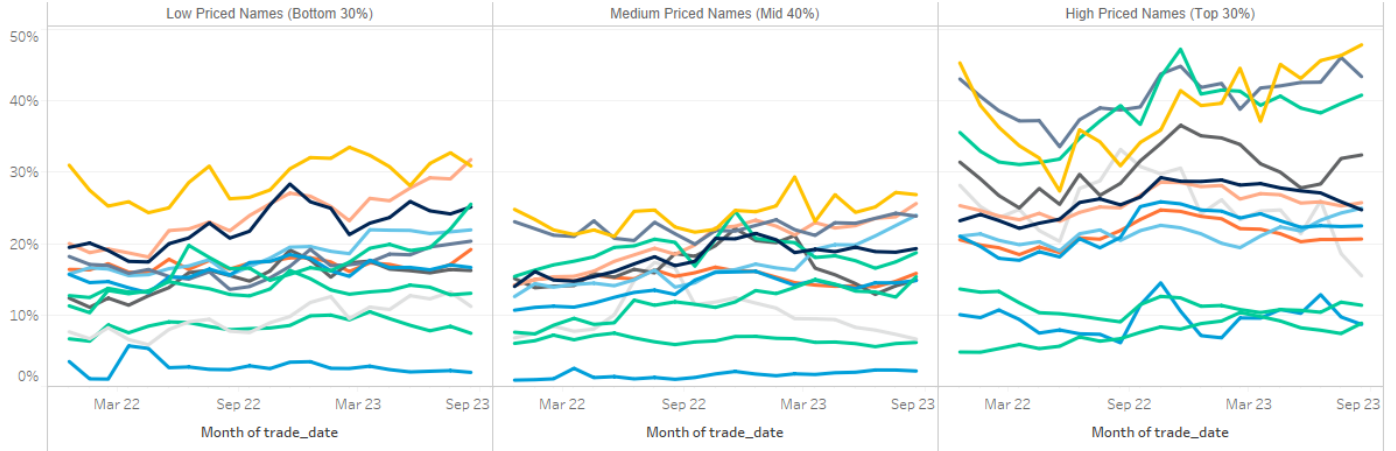
Open	SP500	1.1%	1.0%	1.0%	1.1%	1.0%	0.9%	0.9%	0.9%	1.1%	0.9%	1.0%	0.9%	1.1%	1.0%	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%
	RUS2000	0.7%	0.7%	0.7%	0.7%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.7%	0.6%	0.7%	0.7%	0.6%	0.6%	0.7%
First 30 Min	SP500	9.3%	9.3%	9.4%	9.8%	9.6%	9.0%	9.0%	9.2%	8.6%	8.7%	8.6%	8.5%	8.7%	8.8%	8.7%	9.1%	8.4%	8.1%	8.1%	9.1%
	RUS2000	7.6%	8.2%	7.6%	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%	7.5%
Last 30 Min	SP500	19.0%	18.6%	19.2%	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%	19.2%
	RUS2000	19.6%	19.7%	19.8%	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%	20.9%
Close	SP500	11.8%	10.9%	13.1%	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%	14.4%
	RUS2000	10.6%	9.1%	10.8%	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%	13.2%

Median used for all metrics

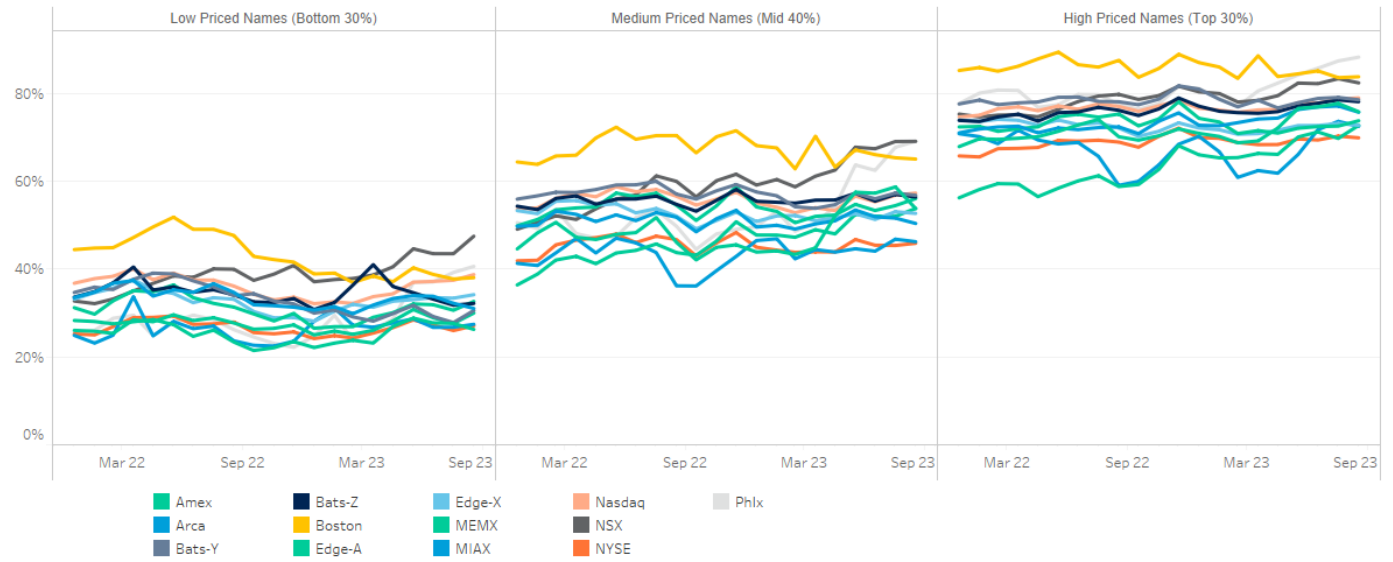
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP

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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APAC +852.2846.3592 | **CAN** +1.416.874.0800 | **EMEA** +44.20.7670.4066 | **US** +1.646.682.6199

info@virtu.com | www.virtu.com

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