

# Aug 2023

## US Market Structure Monthly

### MICROSTRUCTURE OBSERVATIONS

- The average daily share volume in US equities was 10.5B shares in August 2023, which was nearly flat both month over month (MoM) and year over year (YoY).
- Trade reporting facility (TRF) share volume as a percent of total consolidated share volume was 45.4% in August 2023, compared to 45.0% the prior month.
- Quoted spreads in S&P 500 and Russell 2000 stocks widened in August 2023 after being at their narrowest levels of the year during July 2023. Excluding the first and last half hour of the trading day, the median S&P 500 stock's spread widened 17% to 4.9bps in August 2023 from 4.2bps in July 2023, while the median Russell 2000 stock's spread widened 7% to 17.5bps in August 2023 from 16.3bps the prior month.

### US MARKET STRUCTURE NEWS

#### **SEC Establishes New Rules for Hedge Fund and Private Equity Fees**

The Securities and Exchange Commission (SEC) voted in August to adopt new rules placing restrictions on the terms hedge funds and private equity funds can provide to investors, as well as increasing disclosure requirements on fees. The new rules prohibit providing certain investors with better terms relative to other investors, known as side letters, including providing certain investors with special redemption rights or more detail on a fund's holdings. Additionally, private equity and hedge funds will be required to provide their investors with quarterly financial statements detailing their performance and expenses, and to undergo annual audits. The final rule did not include certain rules from the original proposal, including requiring funds to disclose all side letters to all investors and prohibiting funds from charging fees for unperformed services.

<https://www.sec.gov/news/press-release/2023-155>

<https://www.wsj.com/finance/investing/sec-takes-on-private-equity-hedge-funds-c8323685>

#### **SEC Requests Exchanges to Improve Market Data Plan Governance**

The SEC on September 1<sup>st</sup> directed the equity exchanges and Finra to file a new national market system (NMS) plan to replace the current three NMS plans the govern the dissemination of real time equity market data. The order cites the conflicts of interest between the exchanges' regulatory responsibilities in their oversight of the current NMS plans and their commercial interests in the proprietary market data products that they sell. The directive from the SEC seeks to mitigate these conflicts and to address the concerns of market participants that are not self-regulatory organizations. The new NMS plan proposal must be submitted 45 days after publication to the Federal Register and will be made available for public comment.

<https://www.sec.gov/news/press-release/2023-166>

### **Grayscale Investments Wins Court Ruling Against SEC on Bitcoin ETF**

The U.S. Court of Appeals for the D.C. Circuit ruled that the SEC must reconsider Grayscale Investments' application to launch the first bitcoin ETF. The SEC had denied Grayscale's application to convert its bitcoin trust into an ETF on the basis that the bitcoin spot market is unregulated and subject to market manipulation. The appeals court cited the SEC's denial of Grayscale's application was 'arbitrary and capricious because the Commission failed to explain its different treatment of similar products', noting the SEC's prior approval of bitcoin futures ETFs.

<https://www.wsj.com/finance/regulation/grayscale-wins-lawsuit-against-sec-over-bitcoin-etf-1b305cfa?>

### **Virtu Financial Comment Letters**

#### **Virtu Comment Letter on Nasdaq Reverse Split Notification**

Virtu Financial submitted a comment letter in response to Nasdaq's proposal to improve the timeframes issuers must provide notice to Nasdaq and the public on reverse stock splits. Specifically, the proposal would shorten the required notice period for issuers to report planned reverse stock splits to Nasdaq from 15 calendar days to 5 calendar days, which would provide issuers with additional time to supply more complete data to Nasdaq. The proposal would also increase the timeframe issuers would be required to inform the public on a reverse stock split from 1 business day to 2 business days. Virtu commends Nasdaq for this proposal, as enhancing these notice requirements should improve transparency on reverse stock splits, and further enable market participants to make appropriate system adjustments in response to reverse stock splits.

<https://virtu-www.s3.us-east-1.amazonaws.com/uploads/documents/Virtu%20--%20Nasdaq%20Reverse%20Stock%20Splits%20Comment%20Letter%20%2808232023%29.pdf>

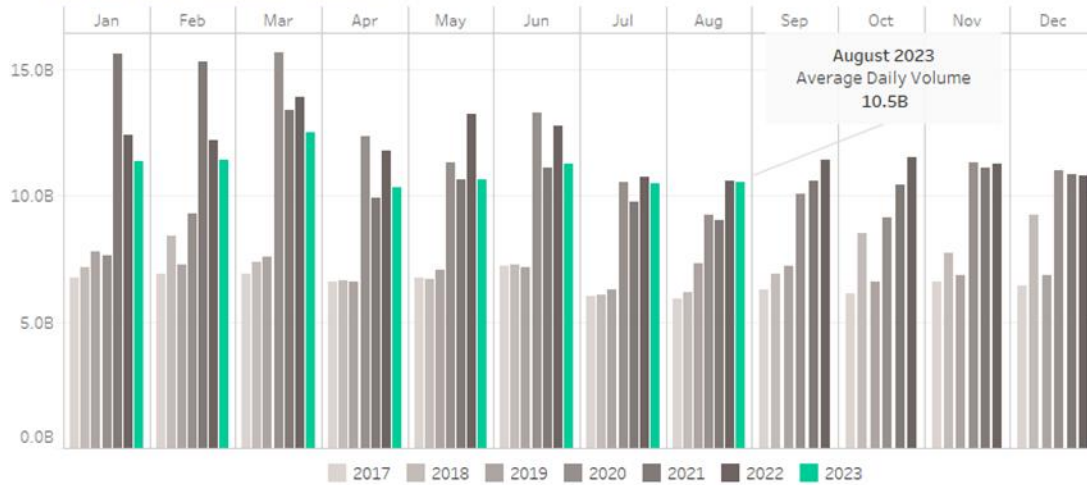
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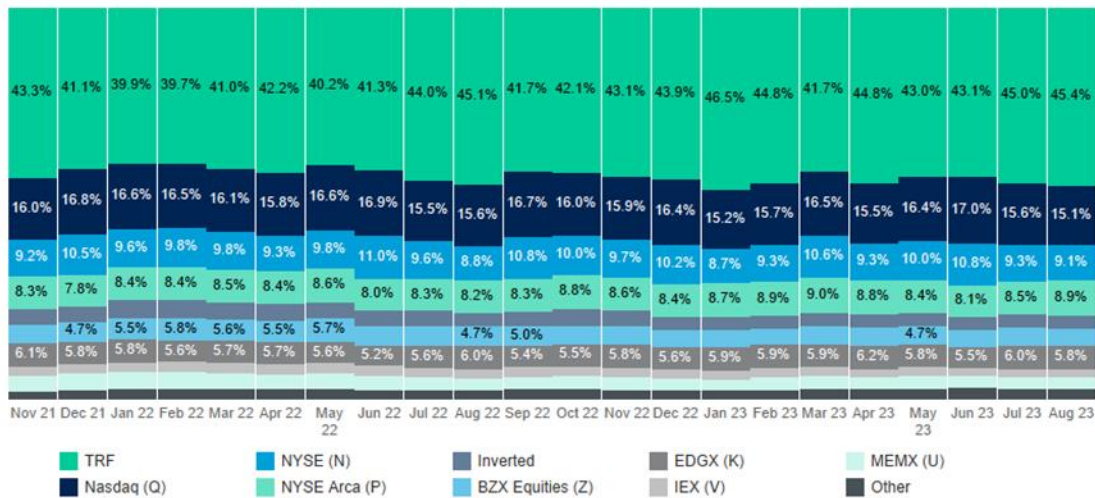
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### Average Daily Market Volume



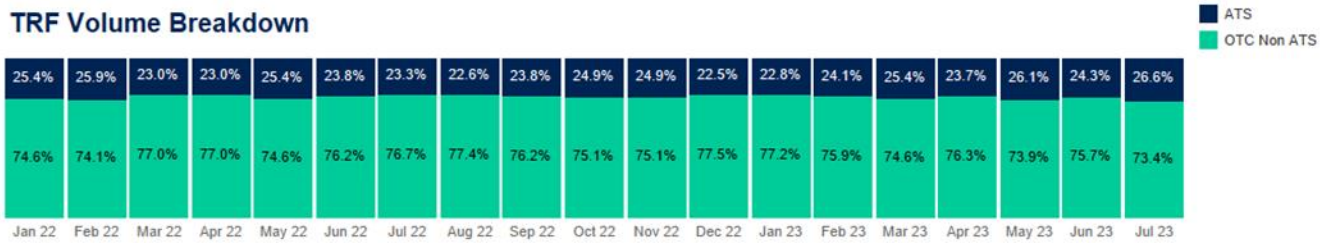
Source data: Cboe Global Markets

### Venue Market Share



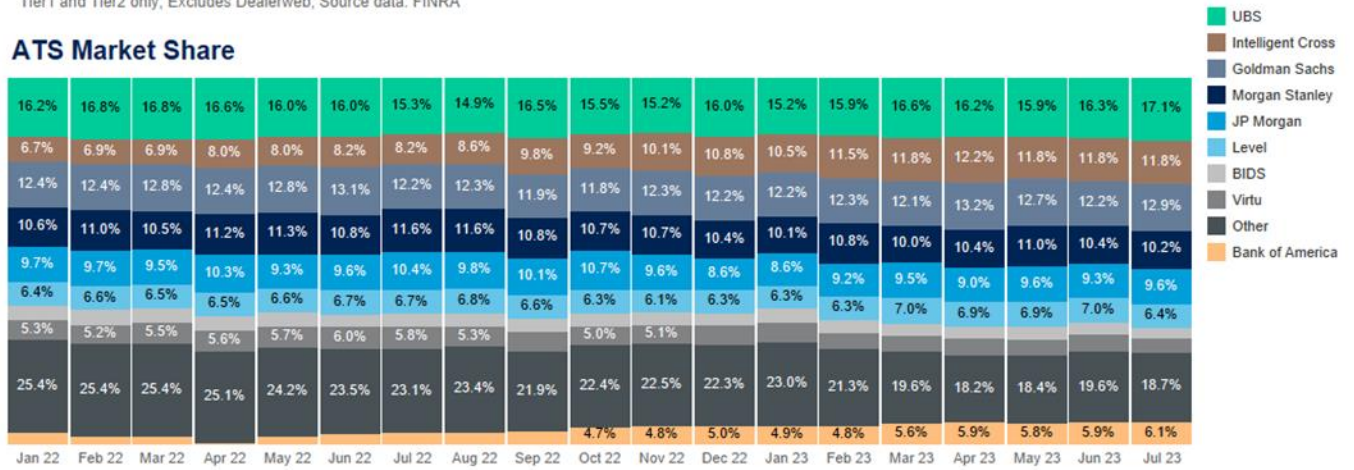
Source data: Cboe Global Markets

### TRF Volume Breakdown



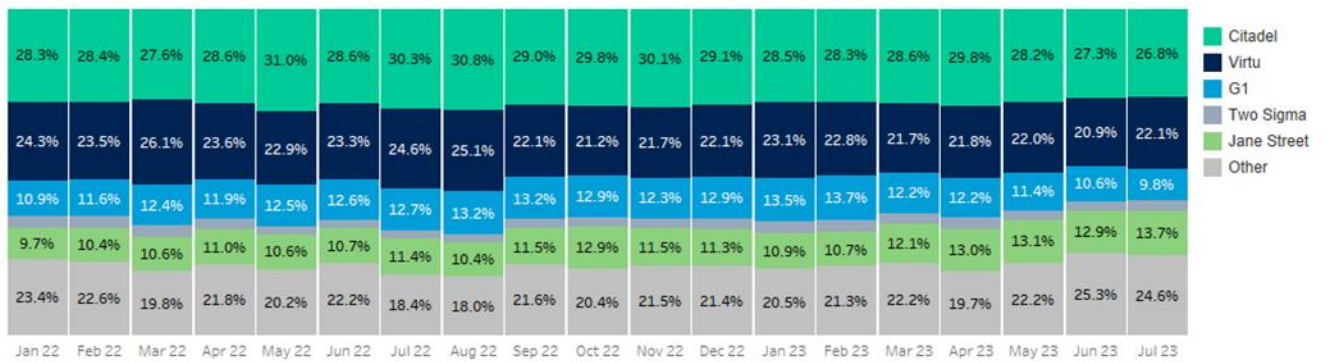
Tier1 and Tier2 only; Excludes Dealerweb, Source data: FINRA

### ATS Market Share



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

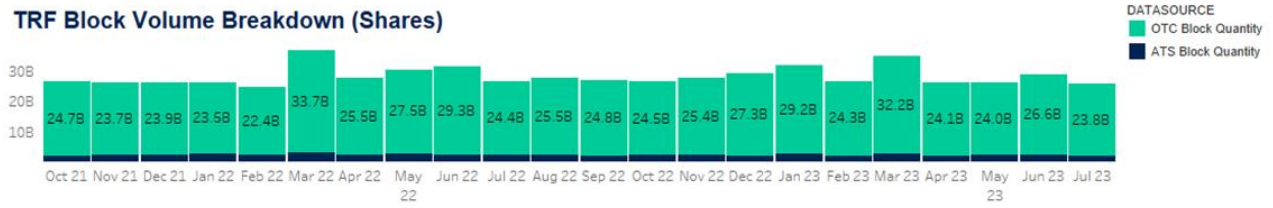
### OTC Non-ATS Market Share



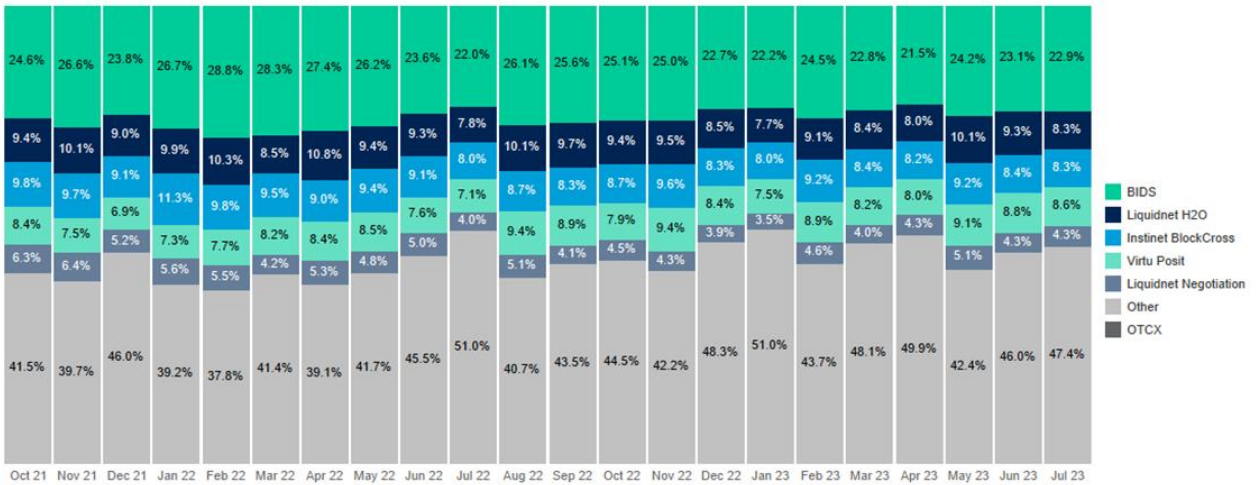
Source: FINRA, NMS Tier 1 & 2 Securities



### TRF Block Volume Breakdown (Shares)

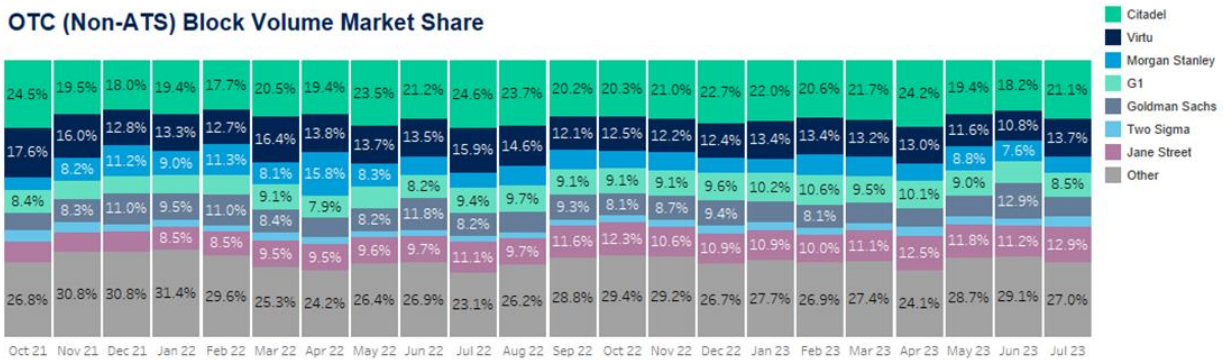


### ATS Block Volume Market Share



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

### Quotesize in Shares

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

### 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	11.3
	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	42.5
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	4.9
	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	17.5
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
	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	13.4

### 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	14.2
	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	17.7
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	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	3.8
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	5.9
	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	5.8

### Percent ADV by Time of Day

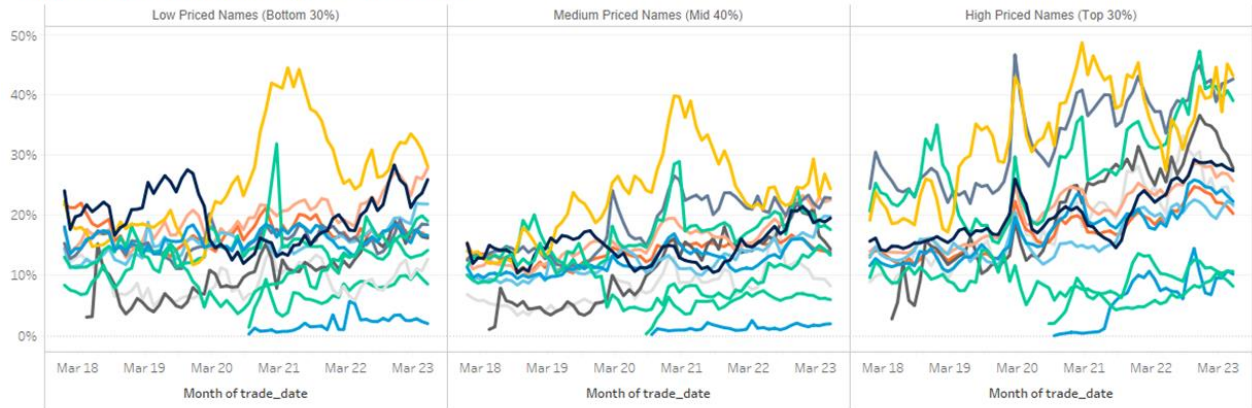
Open	SP500	1.1%	1.0%	1.0%	1.1%	1.0%	0.9%	0.9%	0.9%	1.1%	0.9%	1.0%	0.9%	1.1%	1.0%	1.0%	1.0%	0.9%
	RUS2000	0.7%	0.7%	0.7%	0.7%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.7%	0.6%	0.7%	0.7%
First 30 Min	SP500	9.3%	9.3%	9.4%	9.8%	9.6%	9.0%	9.0%	9.2%	8.6%	8.7%	8.6%	8.5%	8.7%	8.8%	8.7%	9.1%	8.6%
	RUS2000	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%	7.9%
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%	19.5%
	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%	20.2%
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%	13.3%
	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%	10.4%

Median used for all metrics

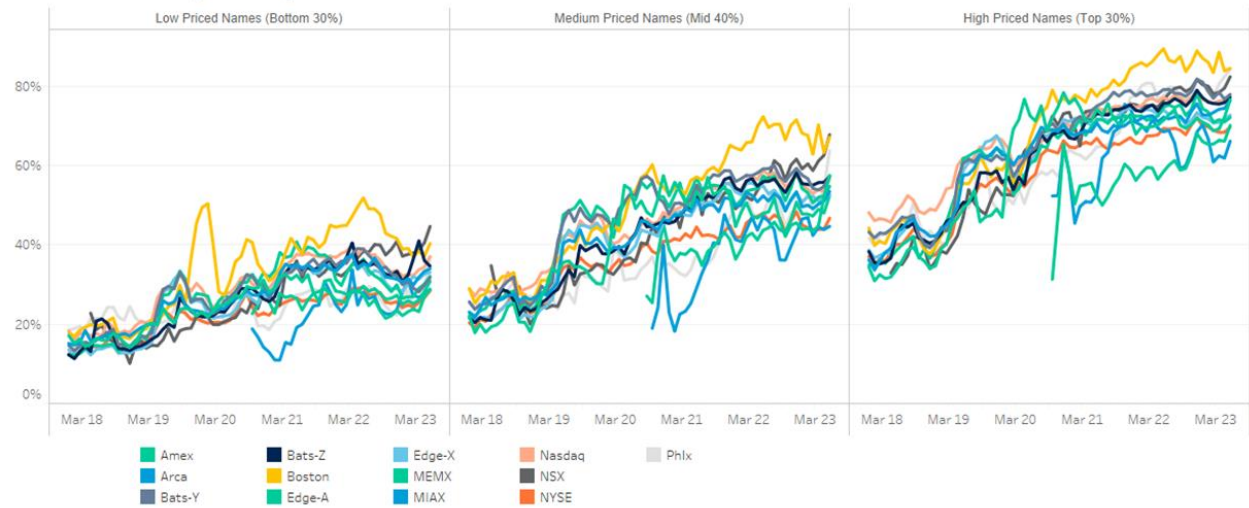
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP

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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