

May 2022

US Market Structure Monthly



US Market Microstructure Observations

- The average daily volume in US equities was 13.2B shares in May 2022, up 33.3% month over month and up 24.5% year over year.
- Trade reporting facility (TRF) market share declined 2.0% MoM to 40.2%.
- Excluding the first and last half hour of the day, median spreads increased 18.2% and 11.1% MoM for S&P 500 and RUS 2000 symbols, respectively, in May 2022.
- Excluding the first and last half hour of the day, intraday volatility increased 20.7% and 32.4% MoM for S&P 500 and RUS 2000 symbols, respectively, in May 2022.

Market Structure News

US Court Rules in Favor of the SEC on Market Data Overhaul

The US Court of Appeals rejected Nasdaq, NYSE, and CBOE's challenge to the SEC's Market Data Infrastructure Rule, which the SEC approved originally in December 2020. The rule would increase the amount of market data available on the Security Information Processors (SIPs), as well as allow for competition in market data collection and dissemination.

<https://www.reuters.com/legal/government/us-court-sides-with-sec-market-data-overhaul-blow-big-exchanges-2022-05-24/>

FINRA Examining Complex ETFs for Retail Investors

FINRA released a Regulatory Notice seeking comment on the sales practices for "complex products" to retail investors, as well as increased monitoring and record retention obligations for platforms offering complex products. FINRA defined complex products as "a product with features that may make it difficult for a retail investor to understand the essential characteristics of the product and its risk". Examples provided in the notice of complex products included defined outcome ETFs, crypto-linked products, leveraged and inverse ETFs, and volatility-linked ETPs.

Please see Virtu's comment letter on FINRA's complex product proposal in the next section.

<https://www.finra.org/rules-guidance/notices/22-08> also see [FT's article on the proposal](#)

SEC Reopens the Comment Period on Reg ATS Proposals

The SEC has reopened the comment period for its Regulation ATS proposal, which was originally closed on 18 April after being released on 26 January. Comments will be reopened for 30 days following publication in the Federal Register. The SEC also reopened the comment period on a proposal that would require private fund managers to report performance and fees quarterly to investors.

<https://www.pionline.com/regulation/sec-extends-climate-disclosure-proposal-comment-period-reopens-2-more> also see [Virtu's Comment Letter on the SEC's Reg ATS Proposals](#)

SEC Proposals on Fund Names and ESG Disclosures

The SEC issued two proposals aimed at increasing the disclosure of investment products with an ESG focus. In one proposal, funds that consider ESG in their investment process would have to disclose more information on their ESG goals, including data on the greenhouse gas emissions produced by the companies held in the portfolio. In the second proposal, funds would be prohibited from using ESG or related terms in their name if the fund just considers ESG along with other traditional investment objectives, such as growth or value.

<https://www.wsj.com/articles/sec-to-propose-more-disclosure-requirements-for-esg-funds-11653498000>



Virtu Comment Letters

Virtu's Comment Letter on FINRA's Proposal on Complex Products

In a comment letter to the SEC, Virtu argues that FINRA's proposal exceeds its regulatory authority, as well as potentially restricting retail investors' access to certain products, which in turn limits their choice. According to Virtu, by increasing a broker dealer's record-keeping and monitoring obligations on complex products, broker dealers would be forced to offer fewer complex products, thereby limiting an investor's ability to decide on what they want to transact in.

[Virtu's Comment Letter on FINRA's Proposal on Complex Products](#)

Virtu's Comment Letter on the SEC's Proposal on Cybersecurity Disclosure

Virtu filed a comment letter opposing the SEC's proposal to increase disclosure requirements related to cybersecurity. Virtu points out that certain aspects of the proposal would overstep the SEC's authority by exercising unnecessary authority over the affairs of public companies. Additionally, Virtu highlights that the SEC's mandate does not encompass the expertise to advise companies on how to manage their cybersecurity programs.

[Virtu's Comment Letter on the SEC's Proposal on Cybersecurity Disclosure](#)

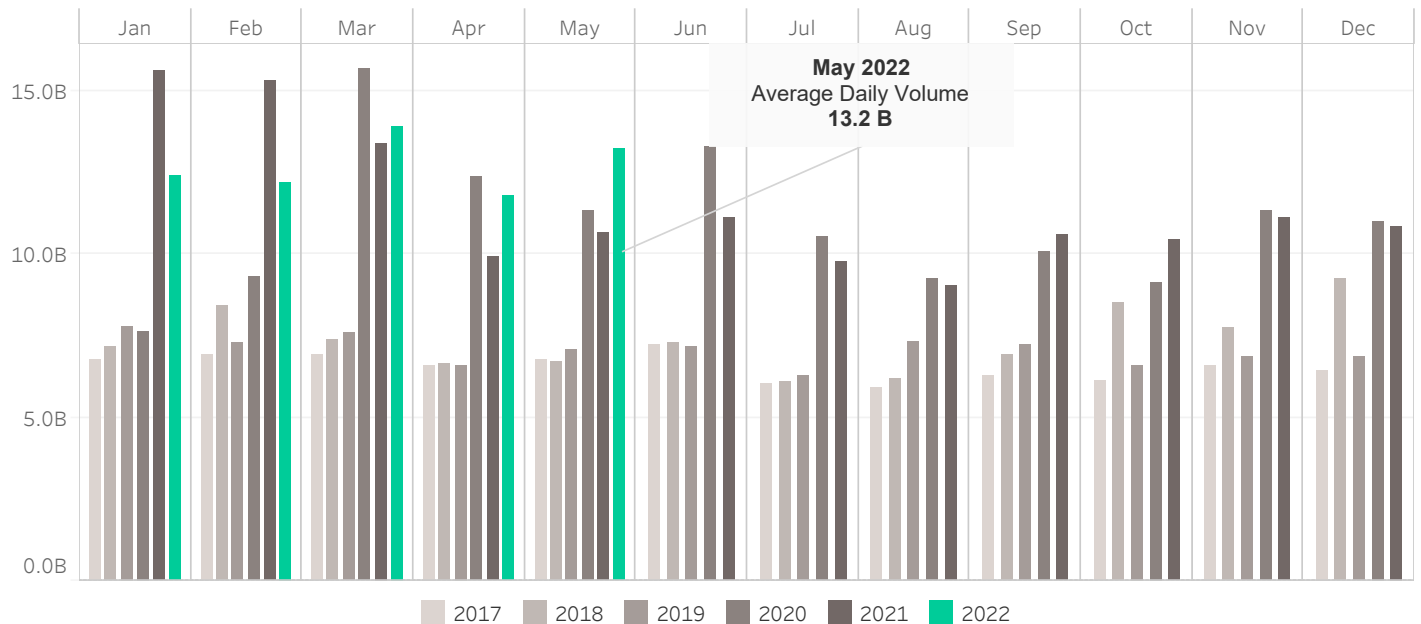
Virtu's Comment Letter on the SEC's Proposal Expanding the Definitions of 'Dealer' and 'Government Securities Dealer'

Virtu explains in its comment letter that the proposal would increase the number of market participants considered a 'dealer', increasing their regulatory burden, which could result in fewer participants providing liquidity in their respective marketplaces. The proposal, Virtu argues, does not identify a specific market failure or how the new rules would benefit investors or the marketplace.

[Virtu's Comment Letter on the SEC's Proposal Expanding the Definitions of 'Dealer' and 'Government Securities Dealer'](#)

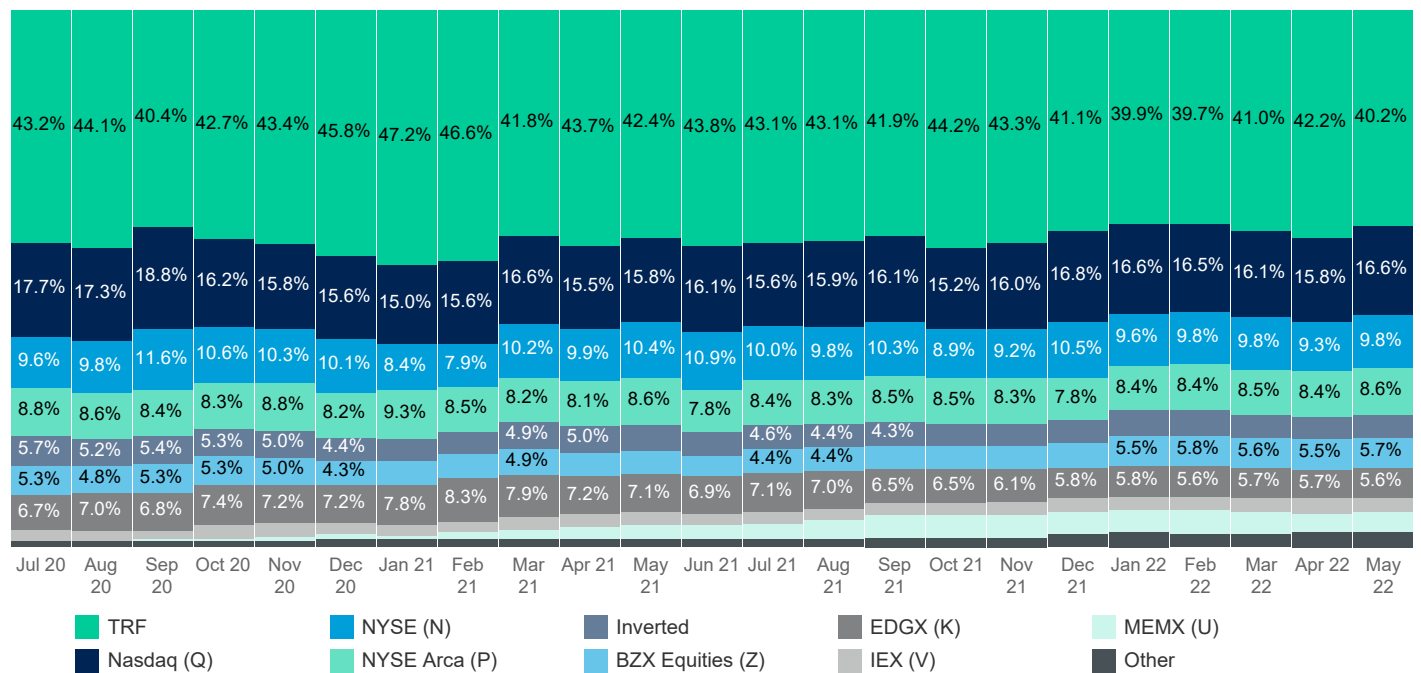


Average Daily Market Volume



Source data: Cboe Global Markets

Venue Market Share

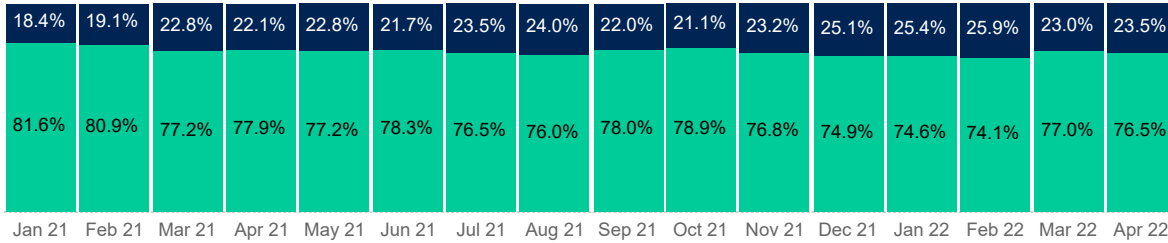


Source data: Cboe Global Markets



TRF Volume Breakdown

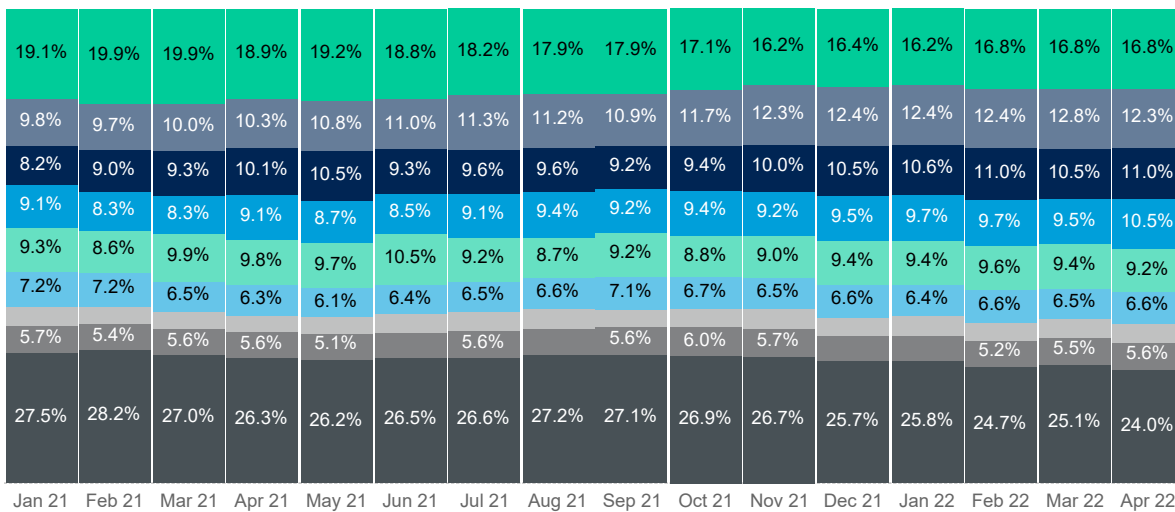
■ ATS
■ OTC Non ATS



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

ATS Market Share

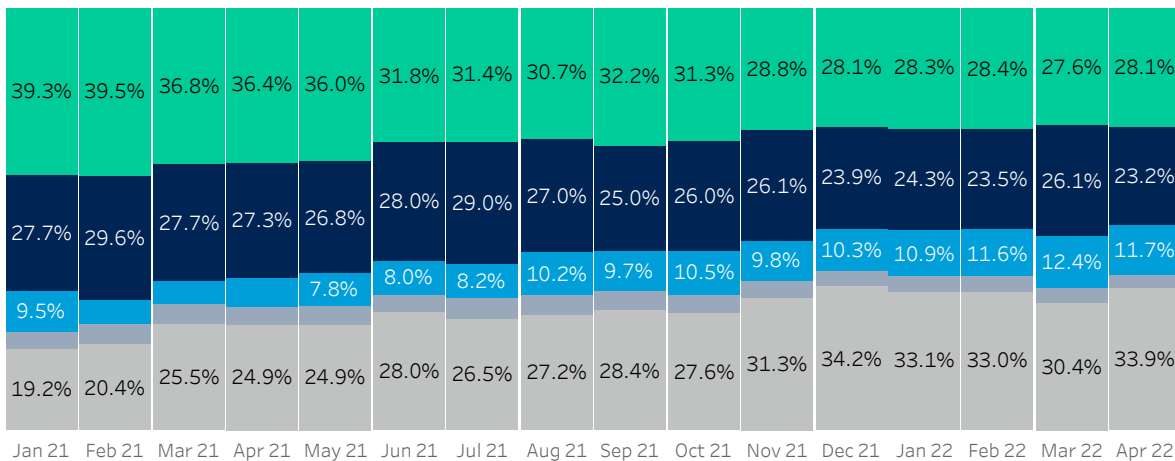
■ UBS
■ Goldman Sachs
■ Morgan Stanley
■ JP Morgan
■ Credit Suisse
■ Level
■ BIDS
■ Virtu
■ Other



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

OTC Non-ATS Market Share

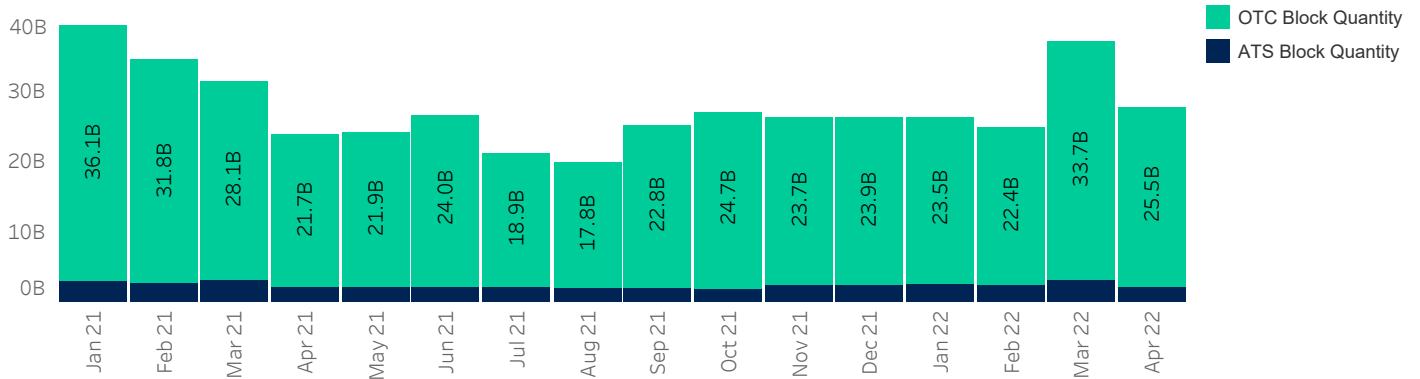
■ Citadel
■ Virtu
■ G1
■ Two Sigma
■ Other



Source: FINRA, NMS Tier 1 & 2 Securities

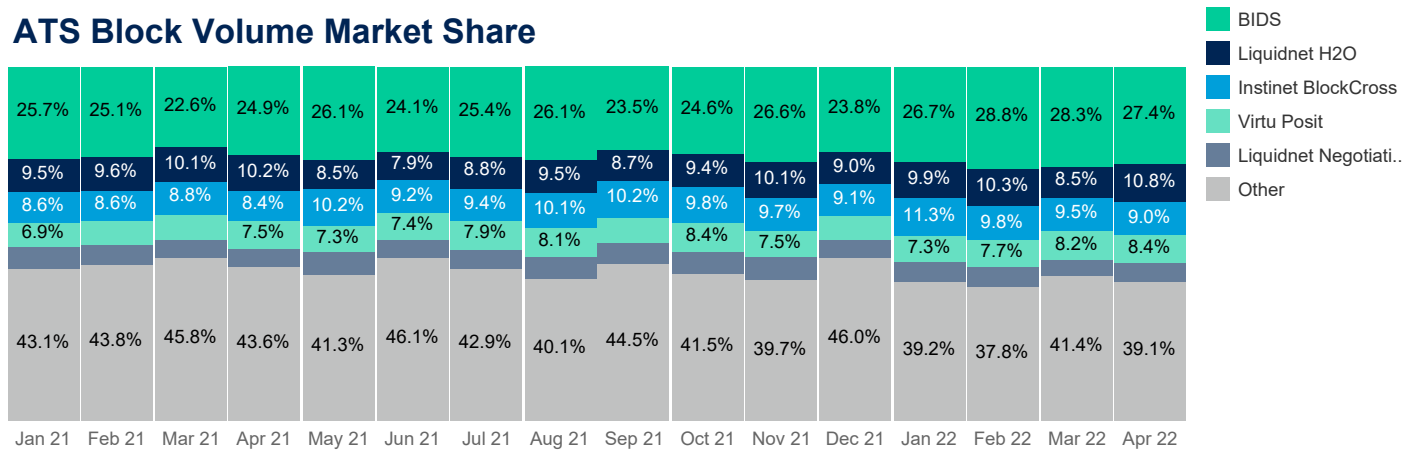


TRF Block Volume Breakdown (Shares)



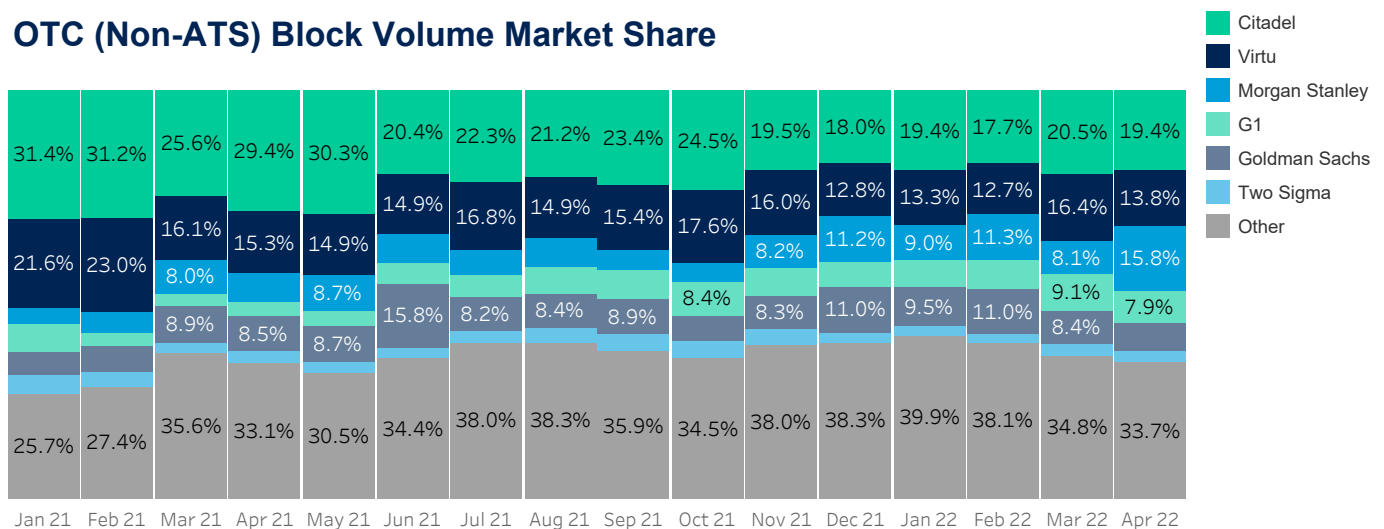
Source: FINRA

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 21		3Q 21			4Q 21			1Q 22			2Q 22	
		May 21	Jun 21	Jul 21	Aug 21	Sep 21	Oct 21	Nov 21	Dec 21	Jan 22	Feb 22	Mar 22	Apr 22	May 22
First 30 Min	SP500	184	178	177	176	171	170	172	187	184	187	186	180	196
	RUS2000	225	217	222	221	214	207	201	220	224	225	230	236	250
Mid Day	SP500	193	197	190	193	184	181	183	192	188	193	185	176	186
	RUS2000	211	213	210	215	208	205	209	219	225	230	234	232	234
Last 30 Min	SP500	224	239	232	238	219	210	213	208	200	199	195	190	190
	RUS2000	235	243	240	249	236	232	238	242	244	246	254	255	259

Spread Bps

First 30 Min	SP500	10.2	8.1	9.7	9.9	9.3	11.1	12.3	13.9	14.2	13.6	13.9	13.4	15.1
	RUS2000	56.8	45.0	52.7	51.5	45.7	47.3	50.2	58.4	57.4	56.9	53.8	51.3	57.0
Mid Day	SP500	4.3	3.5	4.1	4.0	4.1	4.3	4.7	5.6	5.7	5.9	6.1	5.5	6.5
	RUS2000	22.6	18.0	19.9	18.8	18.2	18.7	21.0	24.2	24.9	25.0	23.2	22.5	25.0
Last 30 Min	SP500	3.1	2.6	2.9	2.7	2.8	3.0	3.1	3.7	3.8	4.1	3.9	3.6	3.9
	RUS2000	16.9	14.1	14.4	14.2	14.3	14.8	15.6	18.0	18.6	19.1	17.1	16.6	18.1

One Minute Volatility Bps

First 30 Min	SP500	16.4	12.8	14.5	14.2	14.8	15.3	15.9	17.3	20.0	19.6	20.0	20.2	24.0
	RUS2000	21.6	15.9	19.3	18.8	18.6	17.7	18.9	22.2	23.2	23.6	22.6	21.7	26.9
Mid Day	SP500	6.1	4.5	5.3	4.8	5.4	5.2	5.0	6.1	7.6	8.1	8.4	8.2	9.9
	RUS2000	6.5	4.9	6.2	5.3	5.7	5.2	5.2	5.9	7.1	7.7	7.1	6.8	9.0
Last 30 Min	SP500	7.1	5.2	5.7	5.3	6.2	6.1	5.5	7.2	9.0	10.1	9.0	9.1	10.8
	RUS2000	8.6	6.5	7.2	6.6	7.7	7.2	7.3	9.1	10.0	10.8	8.6	8.8	9.8

Percent ADV by Time of Day

Open	SP500	1.2%	1.1%	1.2%	1.1%	1.0%	1.1%	1.1%	1.0%	1.0%	1.0%	0.9%	1.1%	1.0%
	RUS2000	0.9%	0.8%	1.0%	0.9%	0.9%	0.9%	0.9%	0.8%	0.7%	0.8%	0.8%	0.7%	0.7%
First 30 Min	SP500	9.7%	9.5%	10.0%	9.7%	9.7%	9.5%	9.7%	9.2%	9.2%	9.3%	9.1%	9.3%	9.3%
	RUS2000	8.4%	7.9%	8.9%	8.8%	8.5%	8.3%	8.5%	8.2%	7.5%	8.1%	8.0%	7.6%	8.2%
Last 30 Min	SP500	18.4%	18.5%	18.3%	18.3%	18.2%	18.8%	18.3%	18.4%	18.7%	19.1%	19.0%	19.0%	18.6%
	RUS2000	19.3%	19.4%	19.8%	19.5%	19.6%	19.1%	19.4%	19.8%	20.3%	21.0%	20.1%	19.6%	19.7%
Close	SP500	11.1%	12.3%	12.5%	10.7%	11.7%	12.1%	11.5%	13.9%	11.5%	11.1%	12.6%	11.8%	10.9%
	RUS2000	8.7%	10.0%	9.9%	8.9%	9.7%	10.1%	8.8%	10.7%	8.9%	9.7%	10.2%	10.6%	9.1%

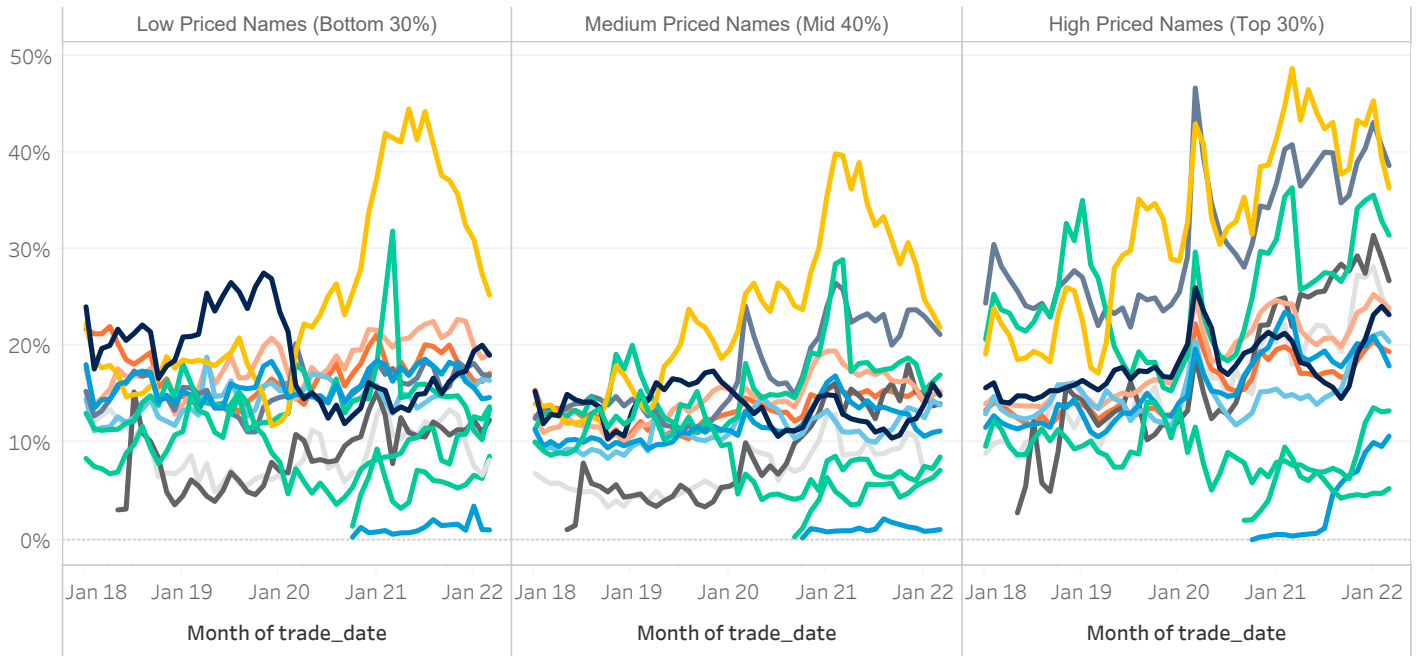
Median used for all metrics

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

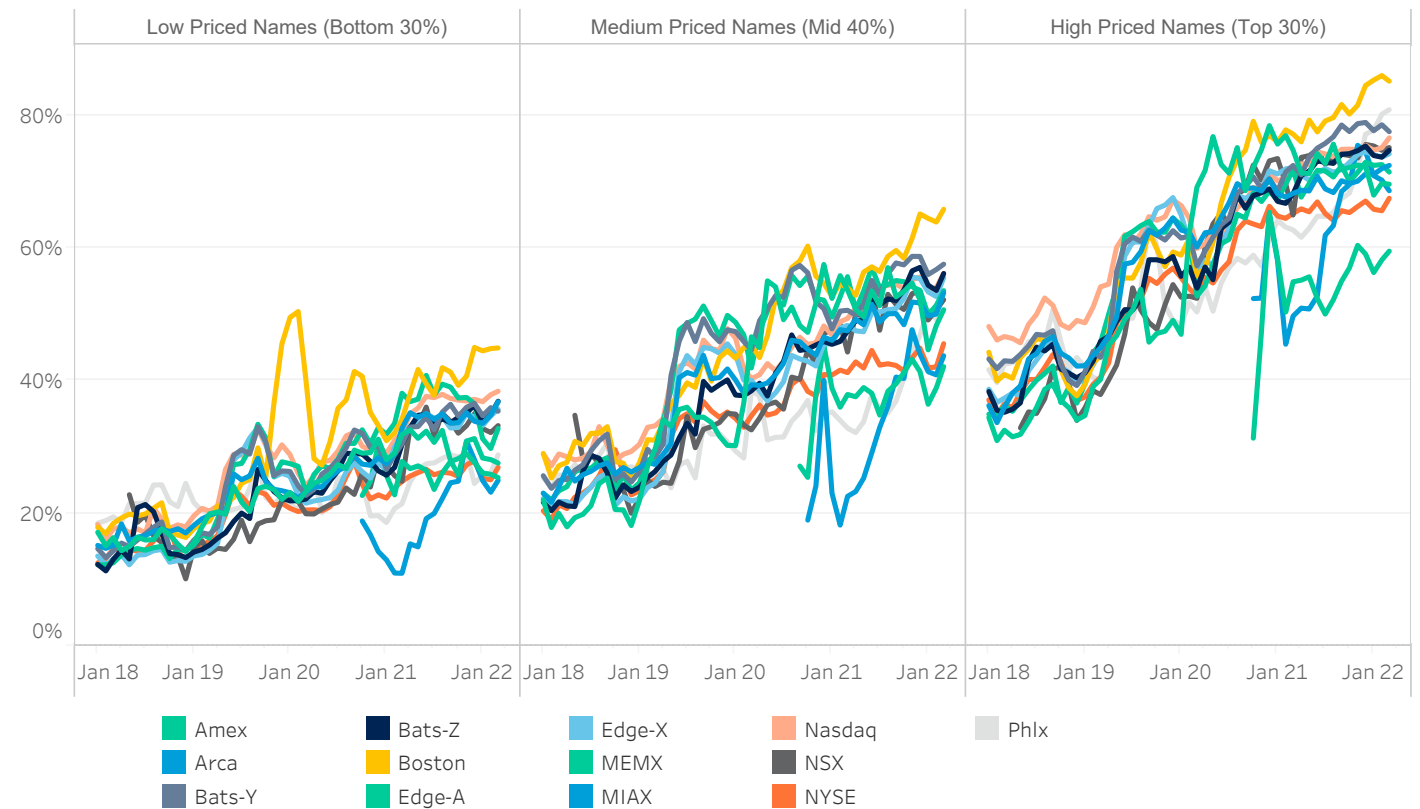
Source data: Virtu Financial



Hidden Trades Proportion by Price and Venue



Oddlot Trades Proportion by Price and Venue



Source data: SEC



ABOUT VIRTU

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