

Oct 2023

US Market Structure Monthly

MICROSTRUCTURE OBSERVATIONS

- The average daily share volume in US equities was 10.6B shares in October 2023, which was up 3% month over month (MoM) and down 8% year over year (YoY).
- Trade reporting facility (TRF) share volume as a percent of total consolidated share volume was 43.0% in October 2023, compared to 44.1% the prior month.
- Quoted spreads in S&P 500 and Russell 2000 stocks widened to their largest values of the year in October 2023. Excluding the first and last half hour of the trading day, the median S&P 500 stock's spread increased 20% to 5.5bps in October 2023 from 4.6bps in September 2023, while the median Russell 2000 stock's spread widened 17% to 20.3bps in October 2023 from 17.4bps the prior month.

US MARKET STRUCTURE NEWS

SEC Approves New Short Sell and Securities Lending Disclosure Rules

The Securities and Exchange Commission (SEC) adopted new rules aimed at increasing the level of transparency on short selling activity. First proposed in late 2021, the new rules will require institutional investors to report their gross short positions in equity securities to the SEC monthly, and certain net short activity for individual dates on which trades settle. The SEC plans to publish aggregate stock level data short selling activity on a delayed basis. Additionally, the SEC will now require companies that lend out shares to report certain confidential information to the Financial Industry Regulatory Authority (FINRA). FINRA in turn will make certain information public, including aggregate transaction activity on each settlement date for reported securities.

<https://www.reuters.com/markets/us/us-sec-finalize-rules-increasing-transparency-short-selling-market-2023-10-13/>

<https://www.sec.gov/news/press-release/2023-221>

<https://www.sec.gov/news/press-release/2023-220>

Appeals Court Rules Against SEC on New Share Buyback Rules

In response to a lawsuit brought forth by the U.S. Chamber of Commerce, the Longview Chamber of Commerce, and the Texas Association of Business against the SEC on its new share repurchase rules, the Fifth Circuit Court of Appeals ruled that the SEC's rule is arbitrary and capricious and that it failed to conduct a proper cost-benefit analysis. The Court requested that the SEC "correct the defects in the rule" within 30 days. Passed in May 2023, the challenged buyback rules would require a companies to provide more information on its share buyback programs, including disclosure on shares purchased daily rather than monthly aggregates and company director transactions.

<https://www.wsj.com/finance/regulation/court-sends-stock-buyback-rule-back-to-sec-05d6a5c9>

<https://virtu-www.s3.amazonaws.com/uploads/documents/Virtu-Financial-Buyback-10b-1-comment-letter-20220329.pdf>

SEC Proposes Restrictions on Exchange Volume-Based Pricing Tiers

In a 3-2 vote, the SEC proposed a new rule that would prohibit exchanges from offering volume-based transaction pricing for the execution of agency and riskless principal orders. The proposal would also require exchanges to have certain anti-evasion rules in place and to disclose information on volume-based transaction pricing if offered to participants who trade proprietary order flow. Currently, exchanges offer participants pricing tiers that are based on the volume that the participant transacts on the exchange. Some participants worry that the rule would harm mid to small sized brokers and limit exchange competition. Comment letters are due in early January.

<https://www.reuters.com/markets/us/us-sec-set-propose-limits-brokerage-trading-rebates-2023-10-18/>

<https://www.sec.gov/news/press-release/2023-225>

SEC Sued Over Consolidated Audit Trail Funding

Citadel Securities and the American Securities Association (ASA) jointly petitioned the United States Court of Appeals for the Eleventh Circuit to review the SEC's recently adopted rules for the funding of the Consolidate Audit Trail (CAT). In a statement, the ASA said the litigation is "... in response to widespread investor concerns about transparency, governance, costs, and data privacy." Last month, the SEC approved a CAT funding model for CAT that assigns costs between exchanges and broker dealers, with commentators including the Securities Industry and Financial Market Associate (SIFMA) and ASA expressing concern that the new funding model allows for uncapped government spending and provides an inequitable allocation of costs between exchanges and broker dealers.

<https://finance.yahoo.com/news/citadel-securities-trade-body-sue-220328189.html>

<https://www.americansecurities.org/post/asa-citadel-securities-file-lawsuit-against-sec-challenging-consolidated-audit-trail>

SEC Adopts Amendments to Rules on Beneficial Ownership Reporting

The SEC adopted amendments to current rules that would require additional disclosures on beneficial ownership changes. Under current rules, an investor who beneficially owns more than 5% of a covered class of equity securities is required to publicly file a Schedule 13D (if the investor has control intent) or 13G (if the investor does not have control intent). The new rules will shorten the deadline for initial Schedule 13D filings from 10 business days to 5 business days, as well as require Schedule 13D amendments to be filed within 2 business days.

<https://www.sec.gov/news/press-release/2023-219>

VIRTU FINANCIAL COMMENT LETTERS

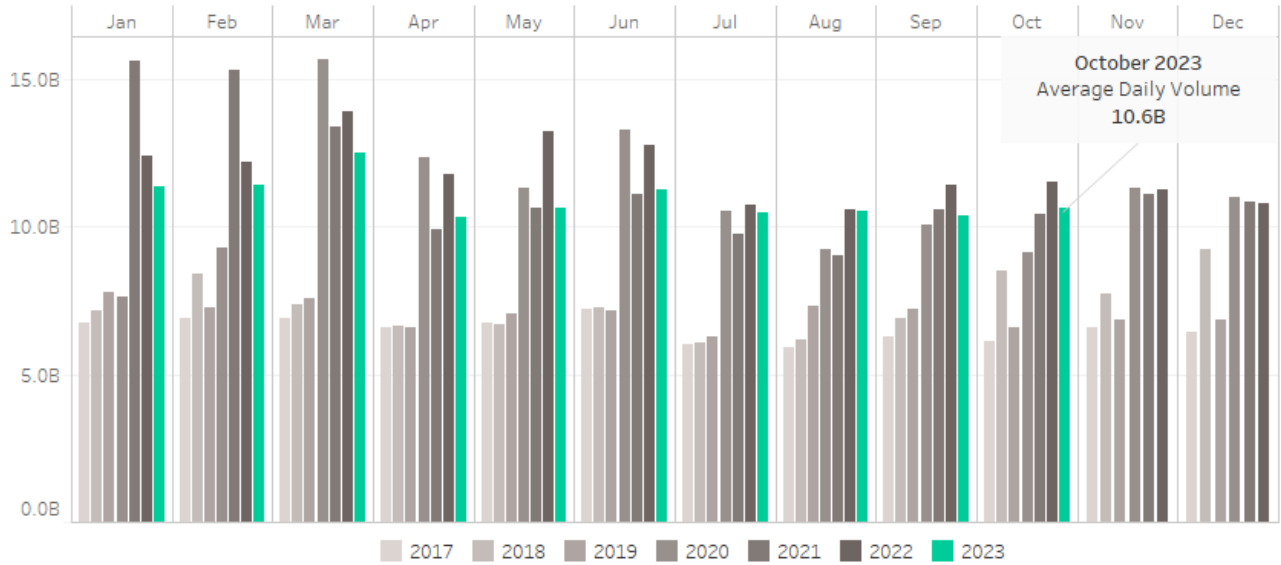
Virtu Submits Comment on the SEC's Predictive Data Analytics Proposal

Virtu Financial submitted a comment letter in response to the SEC's rule proposal on new requirements to address conflicts of interest associated with the use of predictive data analytics. The rule proposal would require broker dealers and investment advisors to evaluate whether their use of certain technologies in investor interactions involved a conflict of interest that results in the firm's interests being placed ahead of investors' interest. The proposal would also mandate that firms eliminate or neutralize the effect of such conflicts, but firms would be permitted to employ tools that they believe would address these risks and that are specific to the technology they use. Virtu opposes the proposal, stating among other points that the proposal would stifle the use of technology by market participants, putting the U.S. capital markets at a disadvantage relative to global peers.

[https://virtu-www.s3.us-east-](https://virtu-www.s3.us-east-1.amazonaws.com/uploads/documents/Virtu%20Comment%20Letter%20on%20SEC%27s%20Predictive%20Data%20Analytics%20Proposal_20231010.pdf)

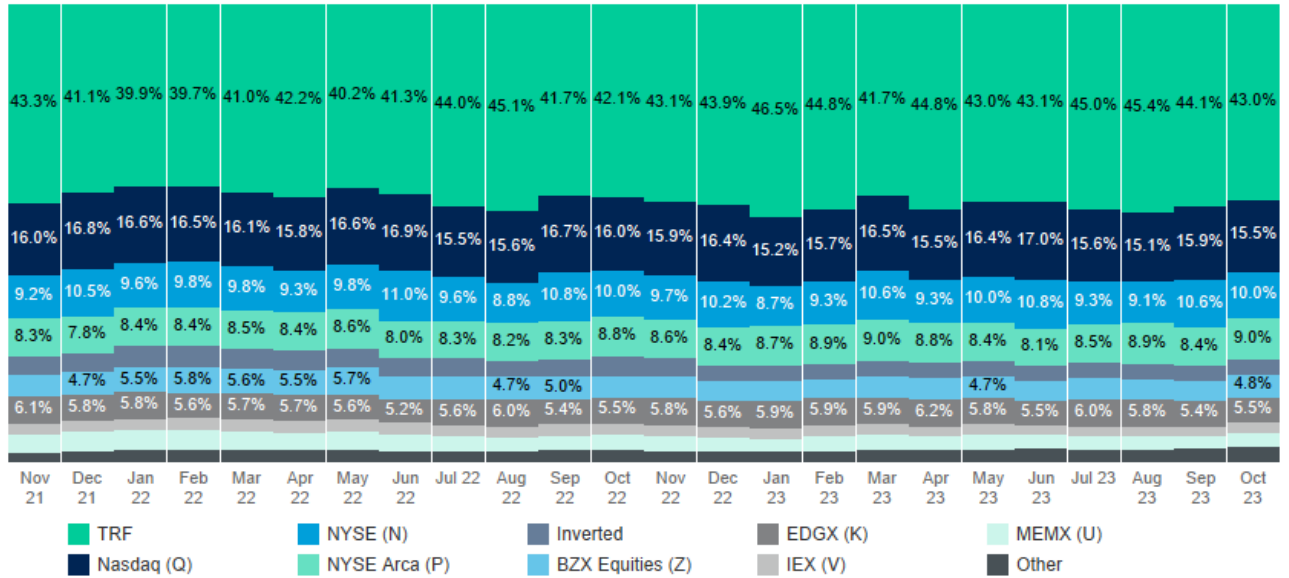
[1.amazonaws.com/uploads/documents/Virtu%20Comment%20Letter%20on%20SEC%27s%20Predictive%20Data%20Analytics%20Proposal_20231010.pdf](https://virtu-www.s3.us-east-1.amazonaws.com/uploads/documents/Virtu%20Comment%20Letter%20on%20SEC%27s%20Predictive%20Data%20Analytics%20Proposal_20231010.pdf)

Average Daily Market Volume



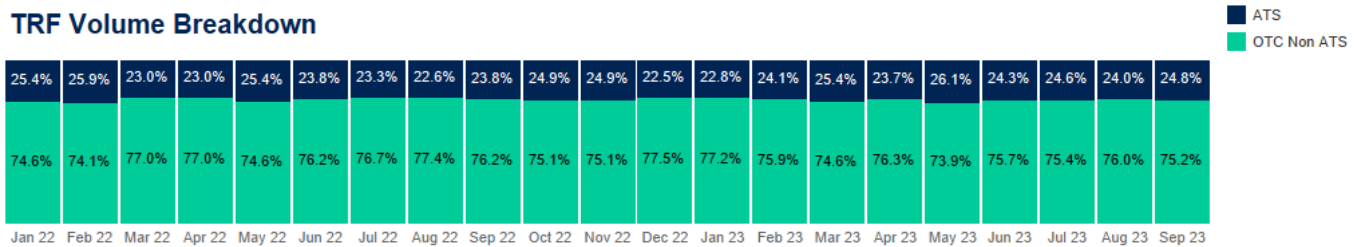
Source data: Cboe Global Markets

Venue Market Share



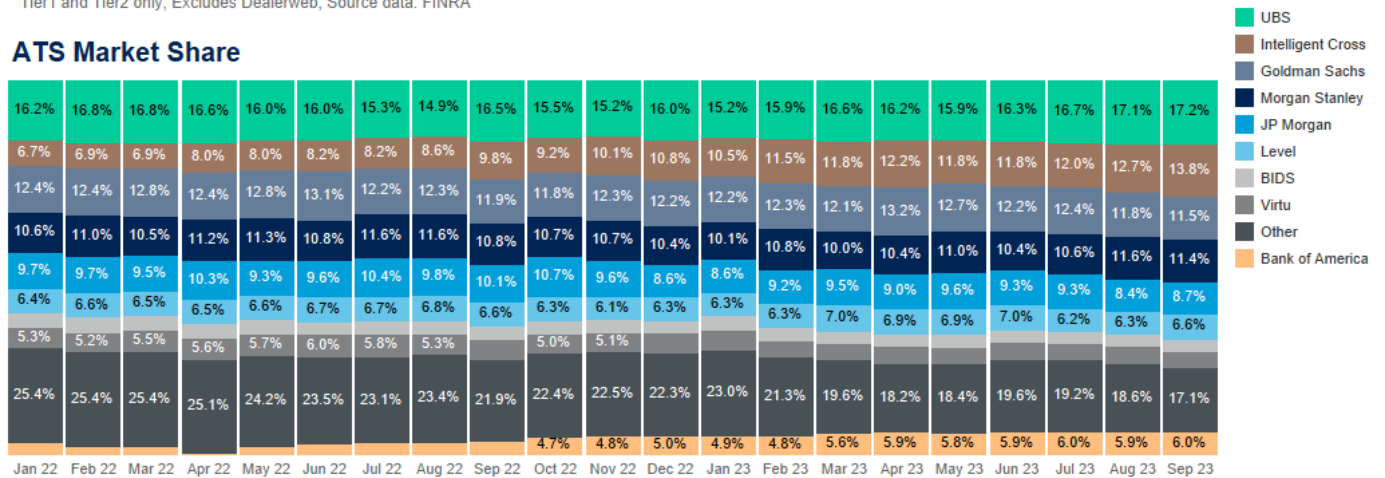
Source data: Cboe Global Markets

TRF Volume Breakdown



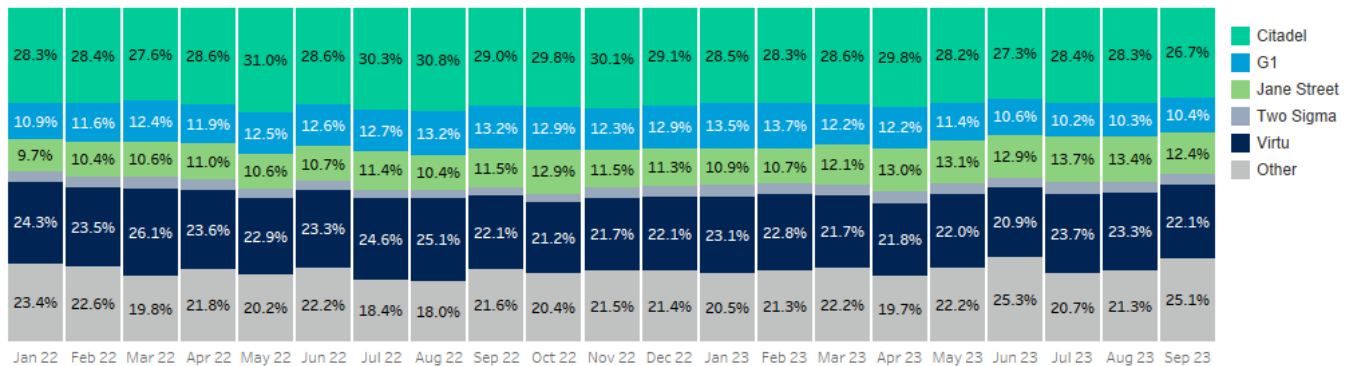
Tier1 and Tier2 only; Excludes Dealerweb, Source data: FINRA

ATS Market Share



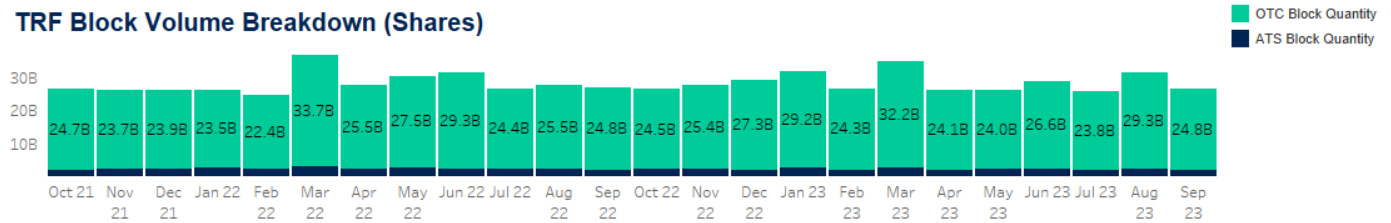
Excludes Dealerweb, OTC; Venues rolled up to firm level; Source data: FINRA

OTC Non-ATS Market Share

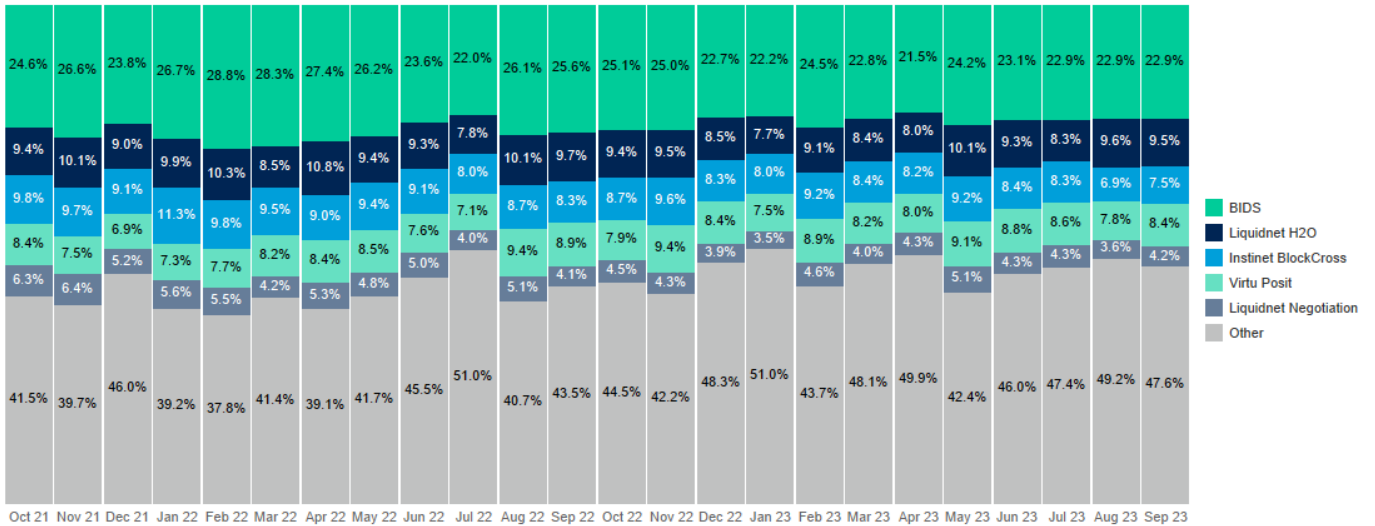


Source: FINRA, NMS Tier 1 & 2 Securities

TRF Block Volume Breakdown (Shares)

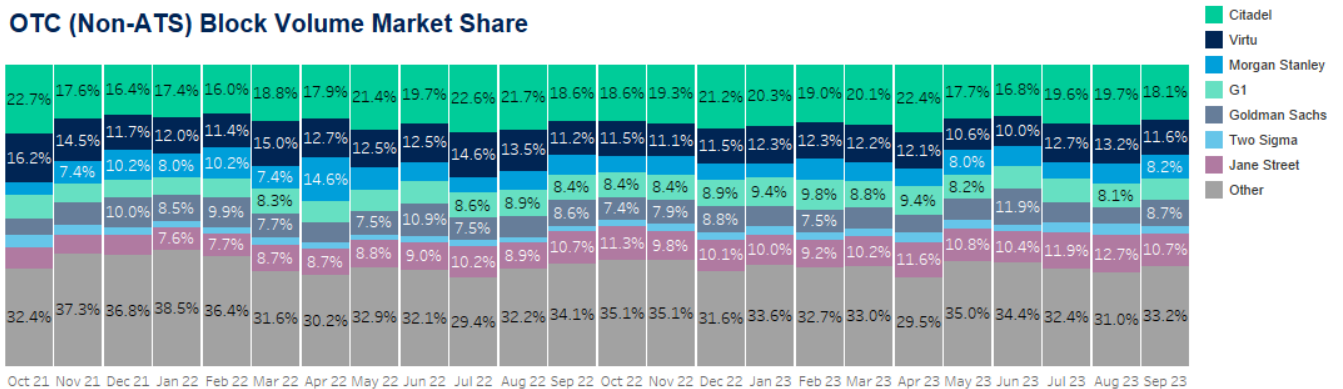


ATS Block Volume Market Share



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

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
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	40.9	39.7	45.6
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
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
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
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

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
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	15.0	14.0	17.6
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
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	1.6	3.2
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
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

Percent ADV by Time of Day

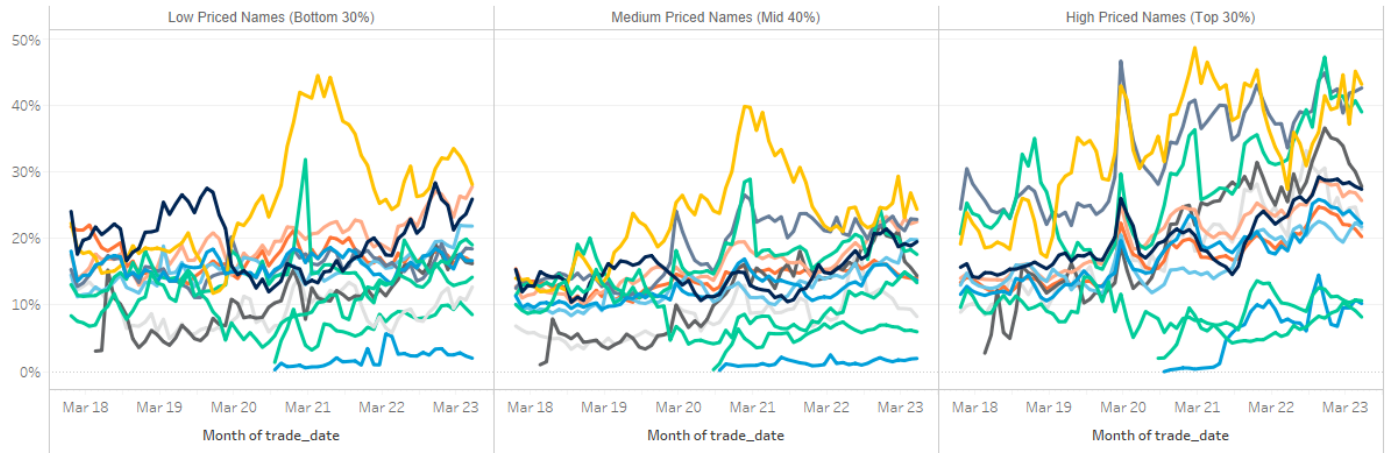
Open SP500	1.1%	1.0%	1.0%	1.1%	1.0%	0.9%	0.9%	0.9%	1.1%	0.9%	1.0%	0.9%	1.1%	1.0%	1.0%	1.0%	0.9%	0.9%	0.9%
RUS2000	0.7%	0.7%	0.7%	0.7%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.7%	0.6%	0.7%	0.7%	0.6%	0.6%
First 30 Min SP500	9.3%	9.3%	9.4%	9.8%	9.6%	9.0%	9.0%	9.2%	8.6%	8.7%	8.6%	8.5%	8.7%	8.8%	8.7%	9.1%	8.3%	8.1%	8.1%
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%	7.1%	6.9%	6.4%
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%
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%	20.9%	21.3%	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%	16.1%	13.7%
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%

Median used for all metrics

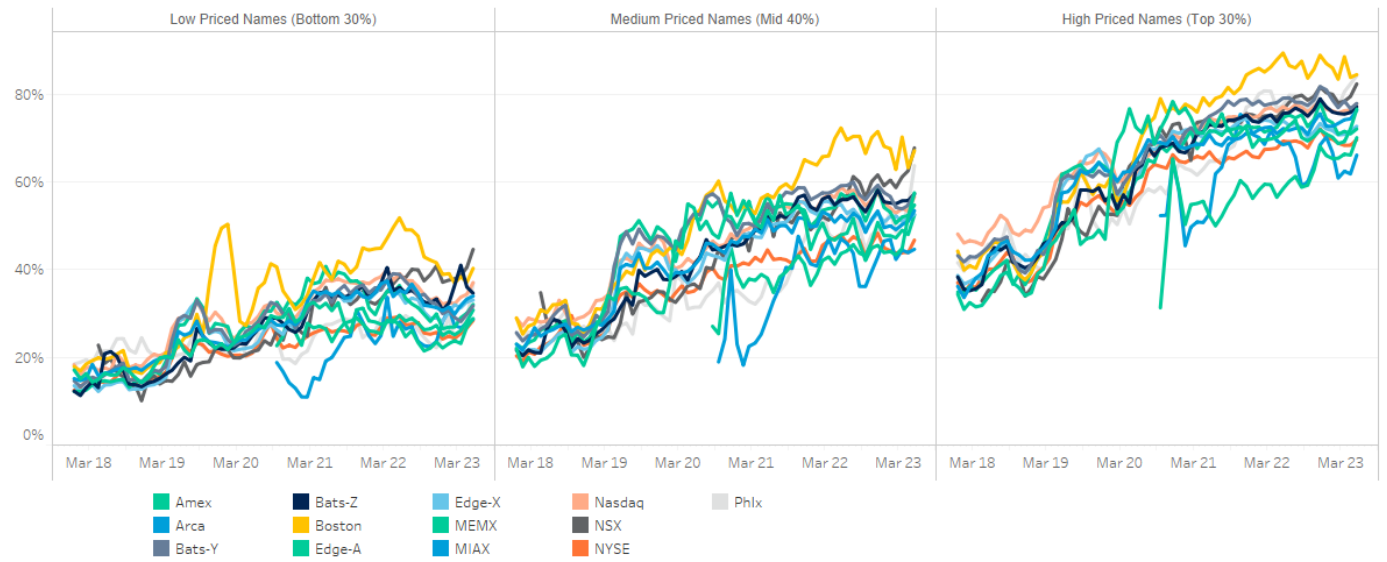
One minute volatility is calculated using the difference between the high and low price within a one minute time bin, divided by that bin's VWAP

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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