

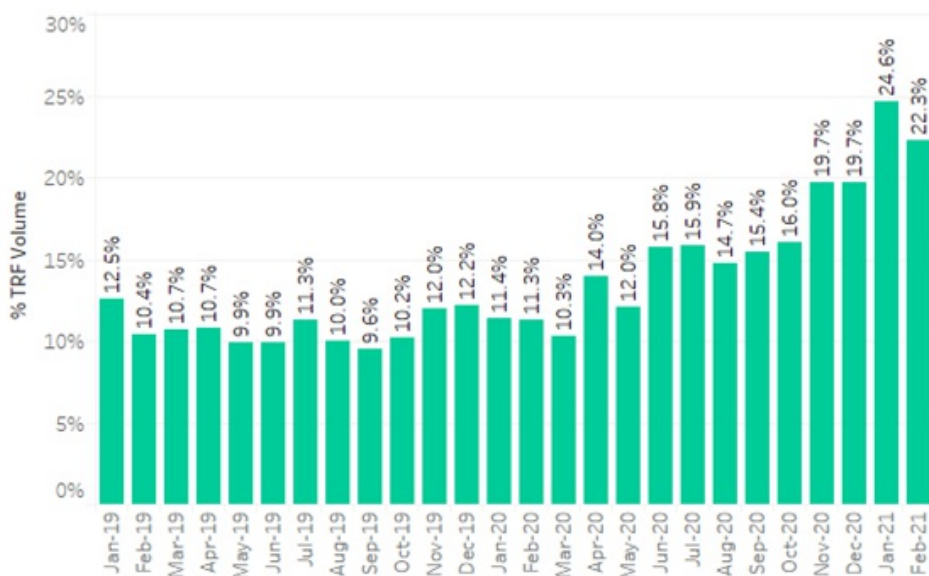
February 2021 US Market Structure Monthly



US Market Microstructure Observations

- The average daily volume in US equities was 15.3B shares in February 2021, down 1.3% month over month but up 64.5% year over year.
- In February, the Trade Reporting Facility (TRF) market share ended its consecutive four-month climb by decreasing 0.6% month over month to 46.6%. TRF volume continues to be concentrated in a few names with ten symbols accounting for 22.3% of the TRF volume.

TRF Volume accounted for by top 10 symbols



Note: TRFdata aggregates FINRA/Nasdaq TRF Carteret, FINRA/Nasdaq TRF Chicago, and FINRA/NYSE TRF

- Excluding the first and last half hour of the day, median spreads decreased by 7% and 4.9% month over month for S&P 500 and RUS 2000 symbols, respectively.
- Intraday volatility trends diverged slightly for S&P 500 and RUS 2000 symbols month over month, decreasing by 2.9% for S&P 500 symbols while increasing by 4.5% for RUS 2000 symbols.
- Median proportion of volume traded in the close auction volume for S&P 500 and RUS 2000 symbols decreased by 1.4% and 1.7%, respectively, month over month.



Market Structure News

Federal Prosecutors Investigating Potential Market Manipulation in Certain Stocks

The Justice Department's fraud section and the San Francisco US Attorney's Office have subpoenaed information from brokers such as Robinhood Markets Inc, according to recent news reports. In addition, the Commodity Futures Trading Commission and the SEC are also reviewing if misconduct occurred.

<https://www.wsj.com/articles/gamestop-mania-is-focus-of-federal-probes-into-possible-manipulation-11613066950>

Clearinghouse Urges Faster Trade Settlement Amid GameStop Scrutiny

The Depository Trust & Clearing Corporation (DTCC), released a report calling for a change from T+2 settlement to T+1 for US stock transactions. The report highlighted the need for support from the SEC and Wall Street firms, with a goal for the industry to be ready to move to T+1 settlement by the end of 2023. Benefits of the change, according to the report, include reduced margin required from brokerages for protection against default during settlement, resulting in potentially significant cost savings for brokerages due to lower margin requirements.

<https://www.wsj.com/articles/clearinghouse-urges-faster-trade-settlement-amid-gamestop-scrutiny-11614175201>

SEC to Weigh More Short Sale Transparency

The SEC is weighing whether to require more transparency of short selling following the volatility in Game Stop and other related securities during the past month. Regulators will reportedly look to the not implemented rules originally mandated as part of the 2010 Dodd-Frank Act which would require the SEC to collect and disseminate information on how much stock has been sold short for each US public company.

<https://www.wsj.com/articles/gamestop-frenzy-prompts-sec-to-weigh-more-short-sale-transparency-11613593827>

Exchanges Urge New York State Lawmakers against a Stock Transfer Tax

In a letter to Governor Andrew Cuomo of New York, the New York Stock Exchange, NASDAQ, SIFMA, and other securities industry groups argued that changes to New York's stock transfer tax could prompt the relocation of securities industry firms and jobs out of New York. Originally enacted in 1905, collection of the New York stock transfer tax was eliminated in 1981 and some estimate that re-imposition of the tax could cost as high as five cents on a share priced at US\$20 or more.

<https://www.wsj.com/articles/new-york-financial-groups-urge-state-leaders-to-oppose-stock-transfer-tax-proposal-11612379501>

SEC Expands Enforcement Staff's Power to Start New Investigations

The SEC will allow more enforcement supervisors to authorize investigations, permitting about 36 senior officials to subpoena companies and individuals. Previously, under the Trump administration, only two officials were allowed to approve new probes. This change is expected to increase the number of new investigations the SEC will initiate.

<https://www.wsj.com/articles/sec-expands-enforcement-staffs-power-to-start-new-investigations-11612894490>

Exchange Operators Sue SEC to Block Market Data Overhaul

The NYSE and Nasdaq have sued the SEC to block the plan to enhance the public market data feeds, also known as Securities Information Processors (SIPs). The plan, which was approved by the SEC in December 2020, would require the exchanges, the current SIPs operators, to increase the amount of data included in the SIP feeds, as well as allow for competing SIP providers. The exchanges argue that this SIP plan is an overreach on the regulator's part.

<https://www.wsj.com/articles/nasdaq-sues-sec-to-block-market-data-overhaul-11612909321>

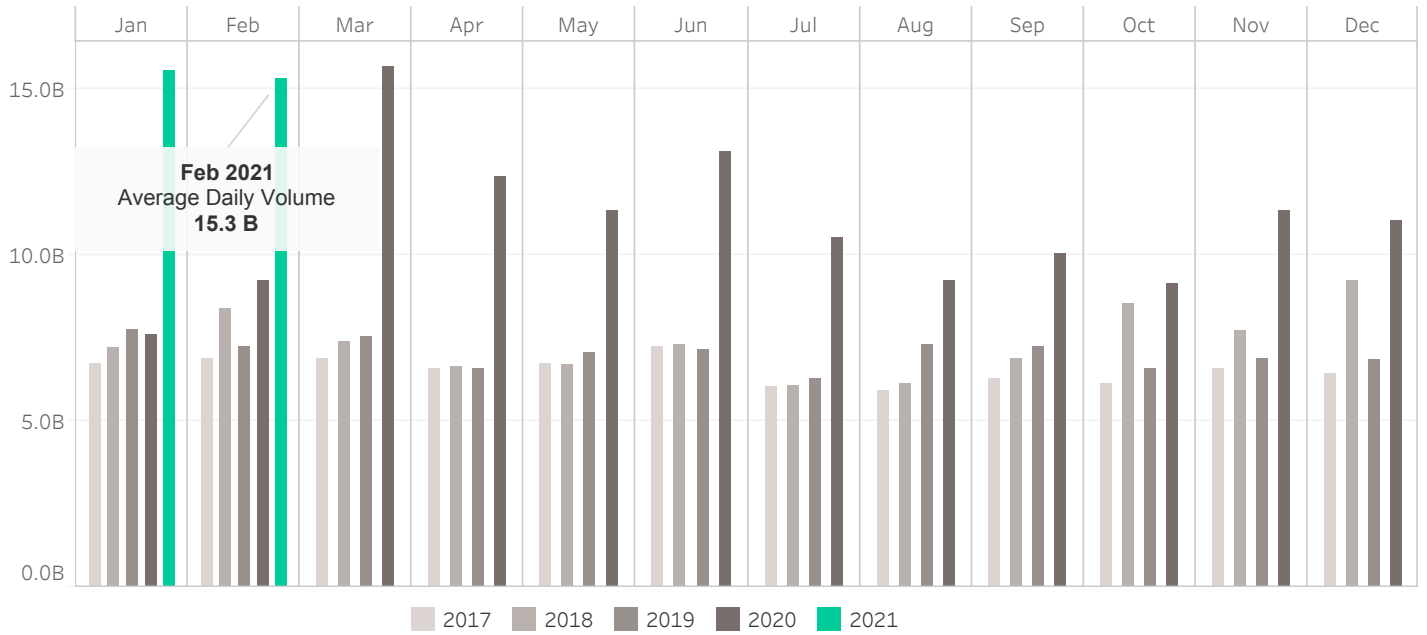
SEC Opens Review of Corporate Climate Change Disclosures

The SEC announced that it would evaluate and speak with companies about compliance with the current climate disclosure guidance, which was first issued in 2010.

<https://www.wsj.com/articles/sec-opens-review-of-corporate-climate-change-disclosures-11614215912>

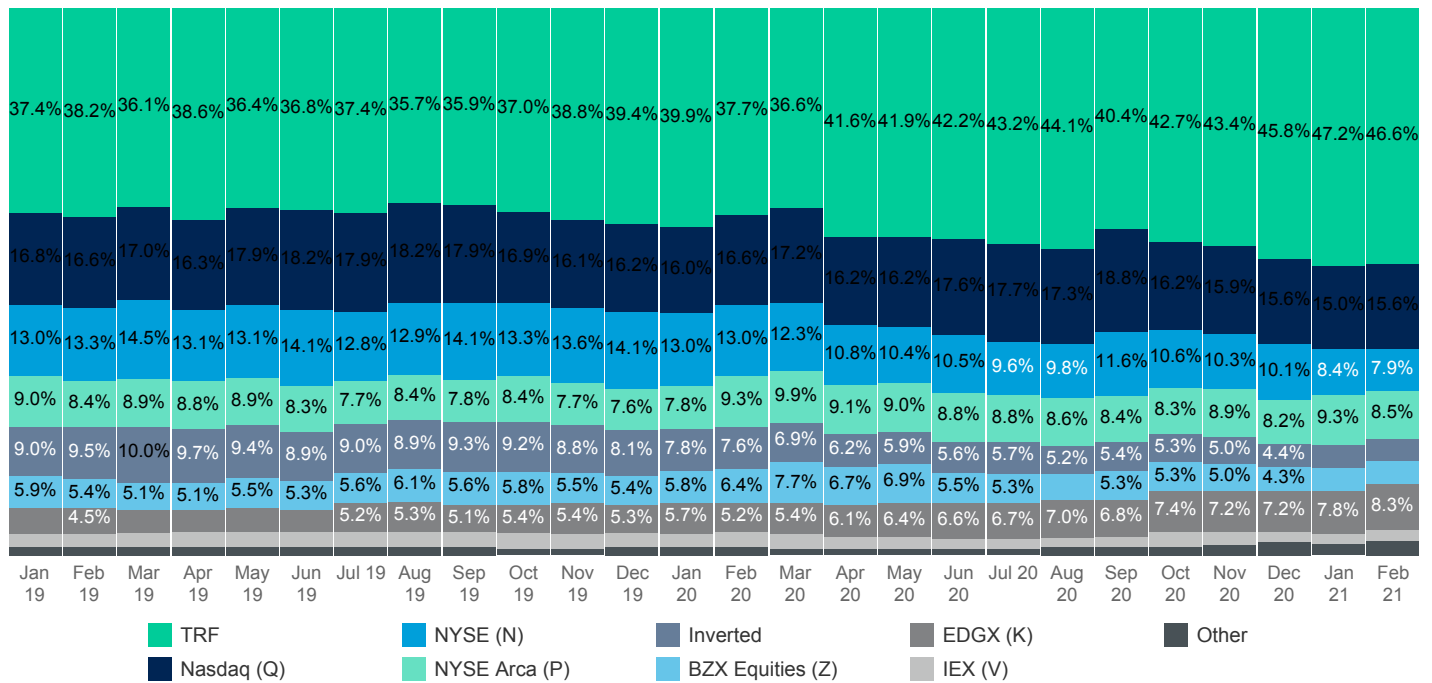


Average Daily Market Volume



Source data: Cboe Global Markets

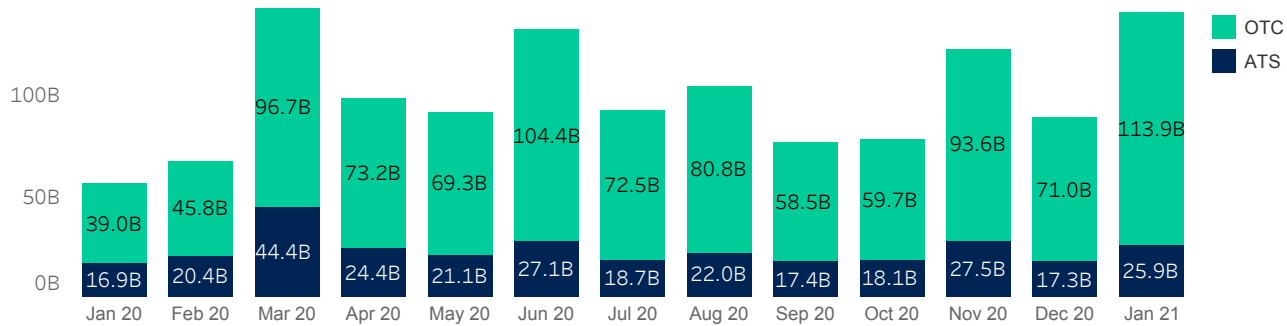
Venue Market Share



Source data: Cboe Global Markets

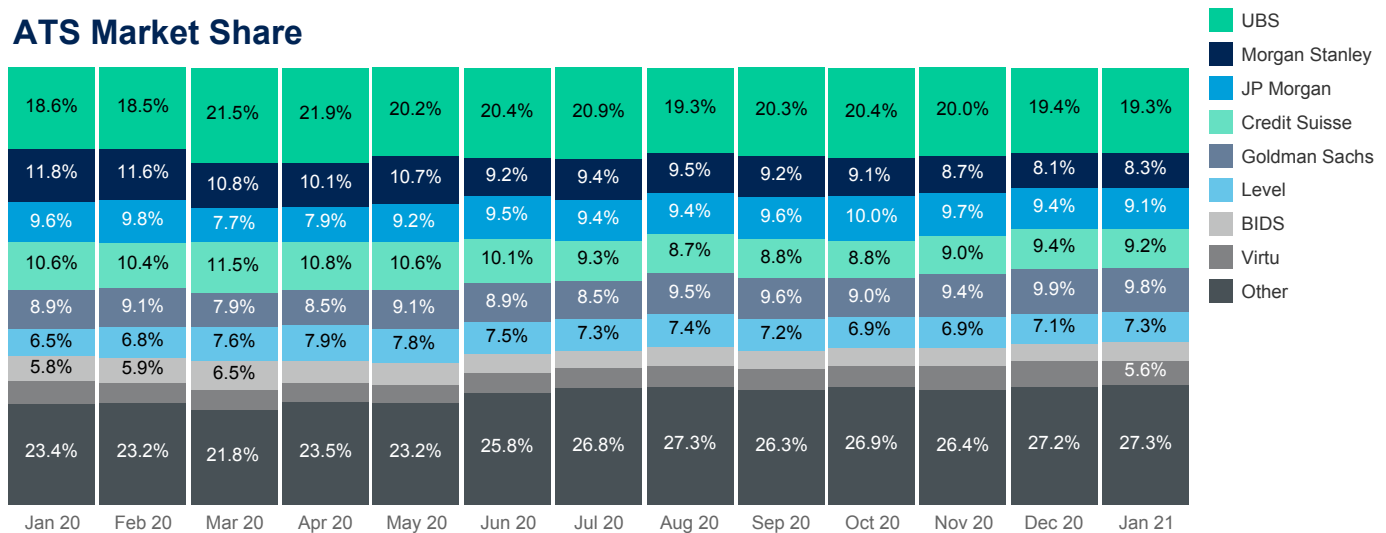


TRF Volume Breakdown (Shares)



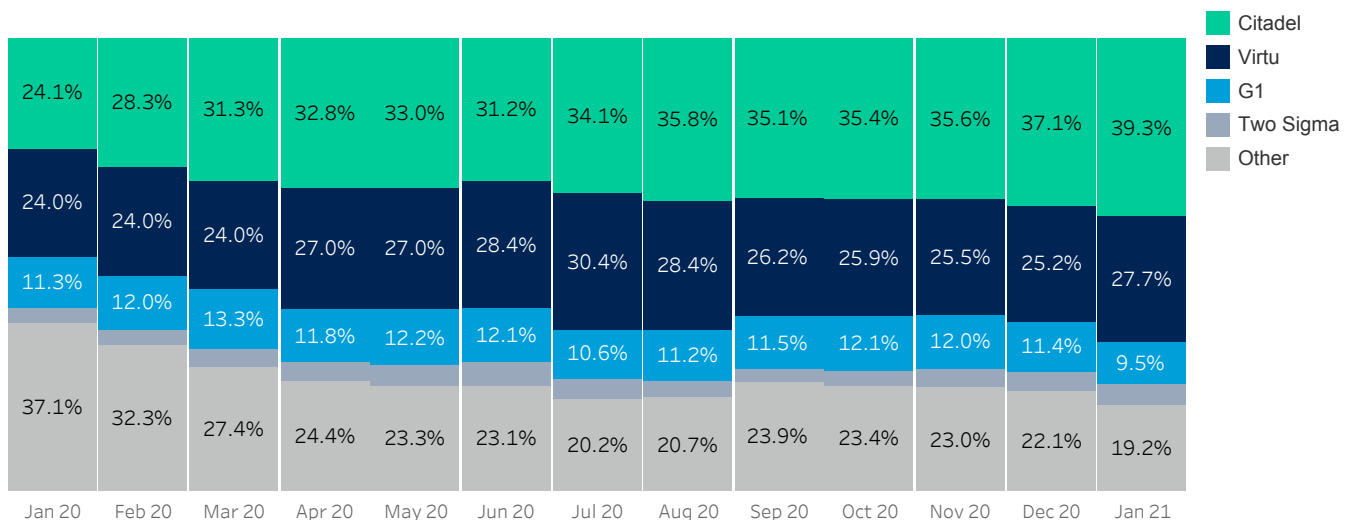
Source: FINRA, NMS Tier 1 & 2 Securities

ATS Market Share



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

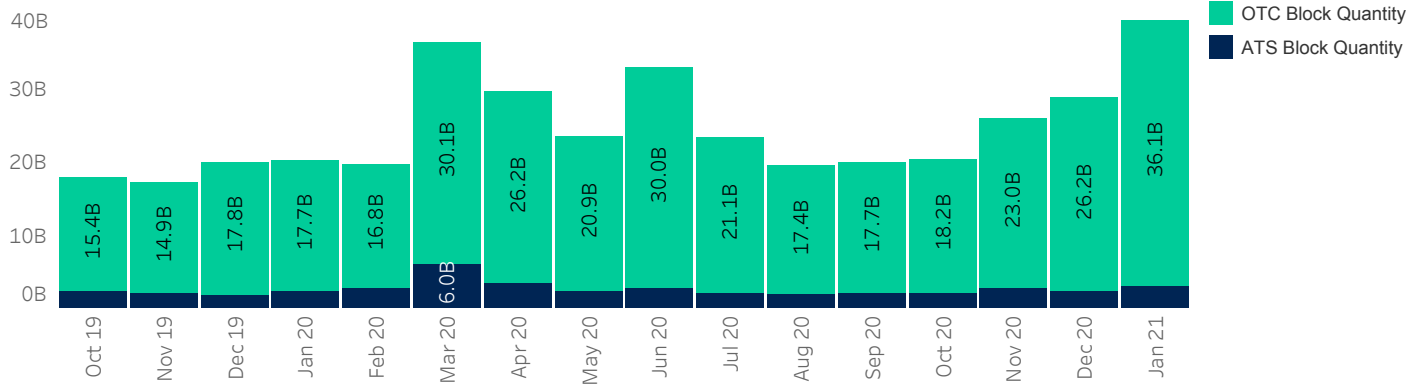
OTC Non-ATS Market Share



Source: FINRA, NMS Tier 1 & 2 Securities

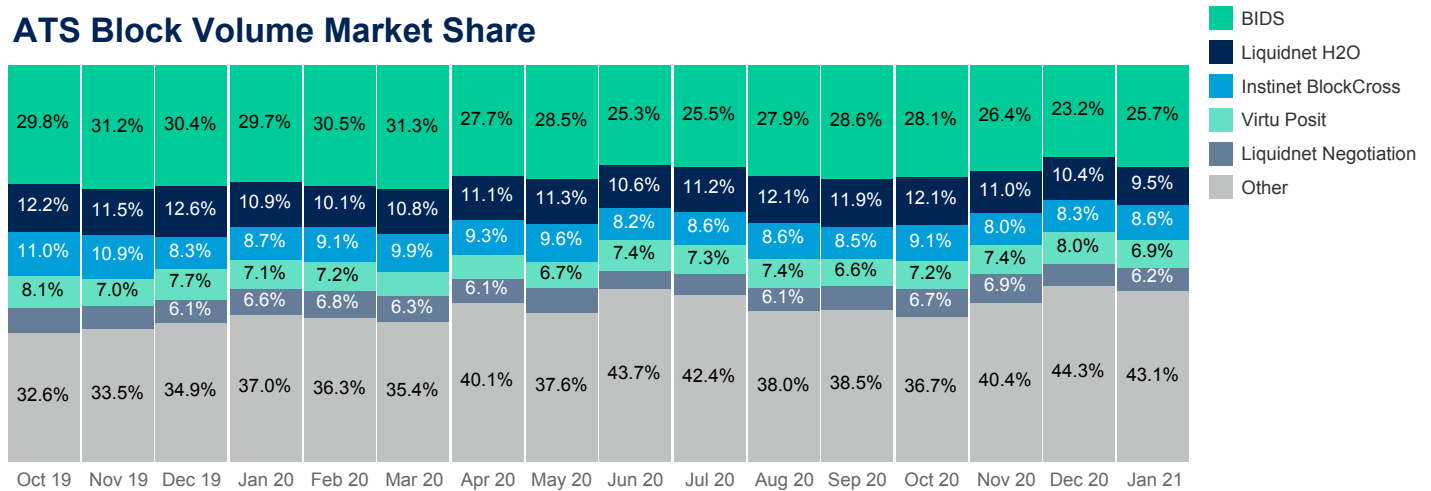


TRF Block Volume Breakdown (Shares)



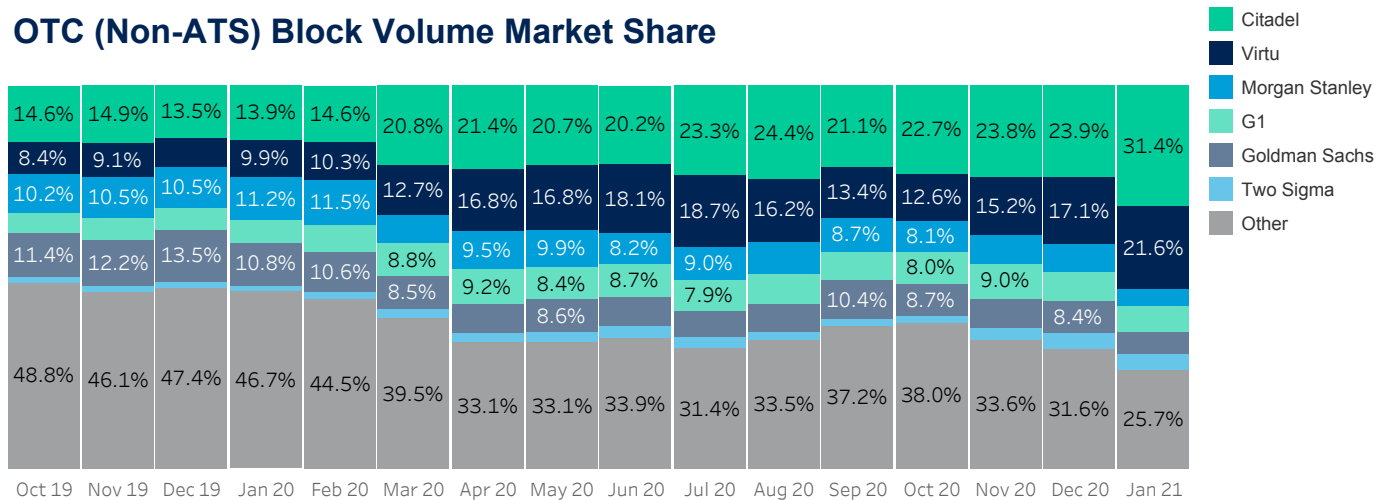
Source: FINRA

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

	1Q 20		2Q 20			3Q 20			4Q 20			1Q 21		
	Feb 20	Mar 20	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	
First 30 Min	SP500	185	185	184	196	200	207	205	204	206	201	197	192	193
	RUS2000	204	200	194	200	206	209	207	207	225	226	228	216	217
Mid Day	SP500	194	174	177	197	204	212	220	215	206	206	206	201	204
	RUS2000	216	200	198	209	218	227	235	233	236	236	232	223	220
Last 30 Min	SP500	240	193	200	229	229	242	264	239	236	231	233	231	238
	RUS2000	264	233	228	239	243	264	283	272	274	263	260	250	255

Spread Bps

First 30 Min	SP500	9.8	28.1	19.4	11.8	11.0	10.4	9.6	11.0	13.0	14.7	12.4	13.2	13.6
	RUS2000	43.7	108.1	87.0	65.2	56.7	50.6	41.8	44.7	57.1	67.2	60.3	63.2	61.8
Mid Day	SP500	4.1	13.1	8.4	5.7	5.3	4.8	4.2	5.3	6.4	6.5	5.4	5.7	5.3
	RUS2000	16.4	42.5	34.8	25.0	23.3	20.2	17.1	18.9	24.9	26.9	24.6	26.8	25.5
Last 30 Min	SP500	2.5	9.7	5.8	4.2	3.8	3.3	3.0	3.6	4.2	4.5	3.8	3.7	3.6
	RUS2000	11.2	33.2	25.1	19.3	18.2	15.4	13.5	15.0	18.9	21.2	19.1	19.7	19.3

One Minute Volatility Bps

First 30 Min	SP500	14.6	53.4	32.8	24.5	23.3	19.5	16.0	20.1	16.0	20.2	15.3	17.5	18.7
	RUS2000	16.9	45.1	40.8	33.2	31.3	25.3	23.7	26.0	16.9	20.9	16.5	20.7	22.1
Mid Day	SP500	5.6	27.7	14.4	9.6	9.7	7.6	5.9	8.4	7.1	7.7	5.8	6.9	6.7
	RUS2000	5.7	21.8	16.4	11.9	11.5	9.1	7.0	8.3	5.7	6.3	5.3	6.6	6.9
Last 30 Min	SP500	6.1	36.1	17.0	11.5	11.5	8.9	6.9	9.9	7.8	8.9	6.8	7.6	7.3
	RUS2000	5.8	28.0	20.1	15.0	14.8	10.2	7.7	9.9	7.3	8.8	7.4	8.7	8.7

Percent ADV by Time of Day

Open	SP500	1.1%	1.0%	1.1%	1.0%	1.1%	1.0%	1.1%	1.0%	1.1%	1.1%	1.1%	1.3%	1.2%
	RUS2000	0.9%	0.8%	0.8%	0.9%	0.9%	0.8%	0.9%	0.8%	0.9%	0.9%	0.8%	0.9%	1.0%
First 30 Min	SP500	8.6%	8.2%	8.7%	9.4%	9.1%	9.6%	9.9%	9.5%	9.2%	10.3%	9.5%	9.6%	10.1%
	RUS2000	7.2%	6.3%	7.0%	7.9%	7.3%	7.6%	8.2%	8.0%	7.6%	8.4%	7.8%	8.1%	8.7%
Last 30 Min	SP500	17.9%	18.3%	17.7%	17.7%	17.9%	18.3%	18.7%	17.9%	18.1%	17.4%	17.4%	16.9%	17.2%
	RUS2000	18.6%	19.9%	18.9%	18.7%	18.5%	20.0%	19.8%	18.7%	19.8%	18.8%	19.0%	18.5%	18.6%
Close	SP500	12.0%	9.9%	9.8%	9.0%	10.3%	9.9%	10.5%	12.0%	11.0%	10.7%	13.7%	12.0%	10.6%
	RUS2000	8.1%	9.0%	8.9%	8.3%	8.9%	9.4%	7.9%	9.6%	9.3%	9.9%	10.6%	10.0%	8.3%

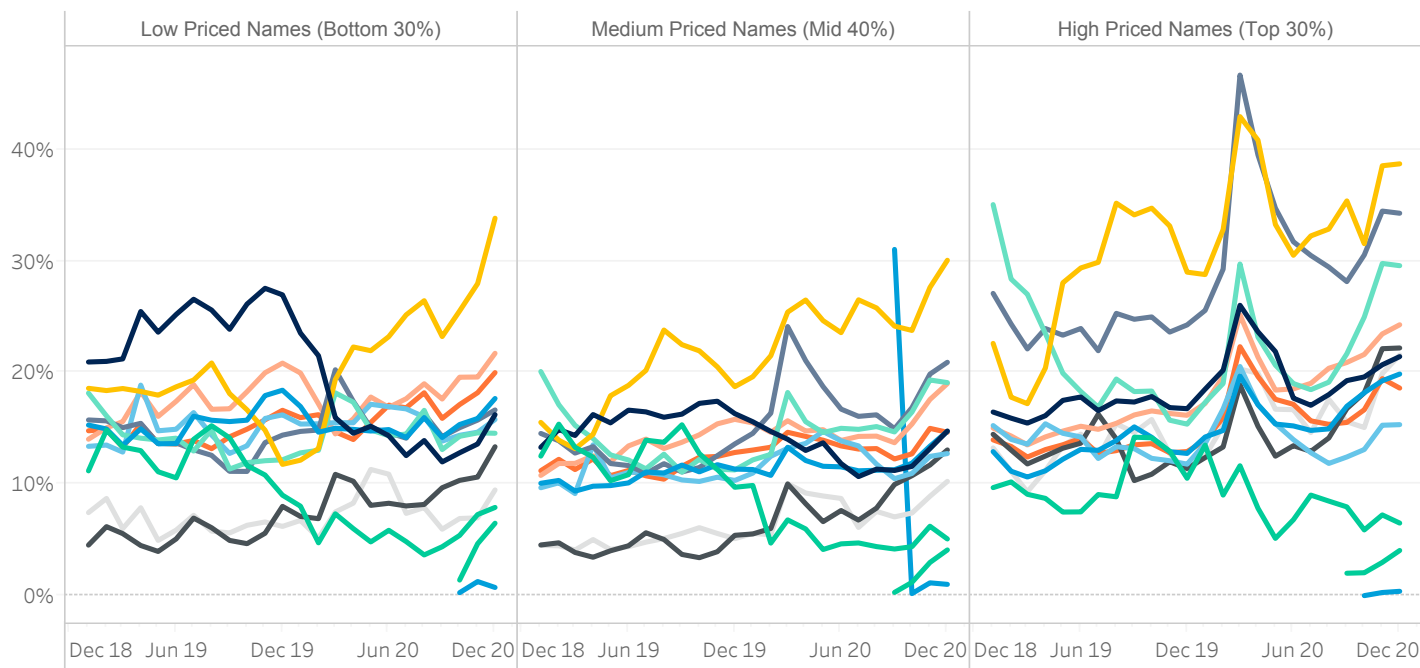
Median used for all metrics

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

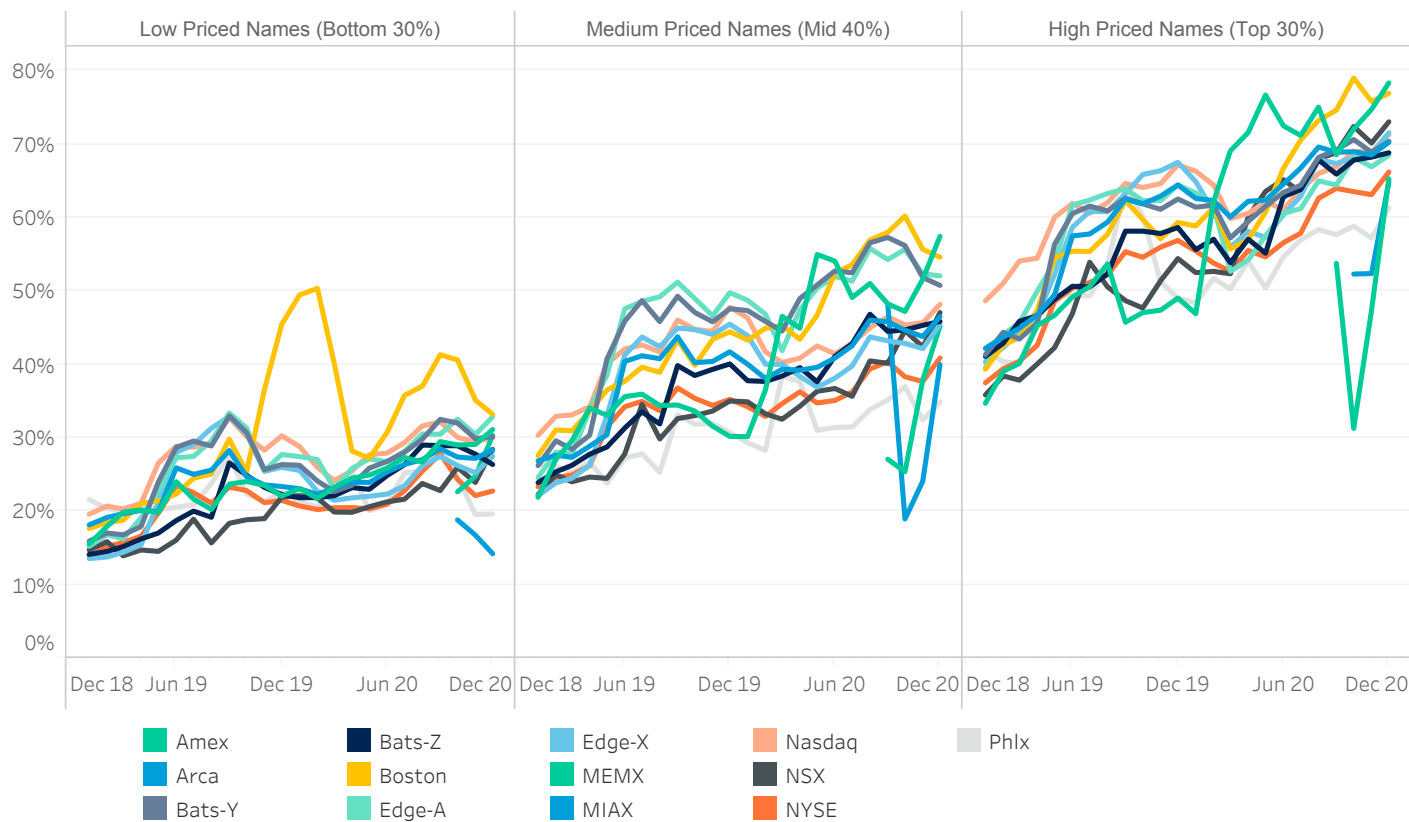
Source data: Virtu Financial



Hidden Trades Proportion by Price and Venue



Oddlot Trades Proportion by Price and Venue



Source data: SEC



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