

March 2021

US Market Structure Monthly



US Market Microstructure Observations

- The average daily volume in US equities was 13.4B shares in March 2021, down 12.4% month over month and down 15.6% year over year.
- Trade reporting facility (TRF) market share dropped 4.8% month over month to 41.8% in March 2021, potentially driven by a drop in retail volume.
- Excluding the first and last half hour of the day, median spreads increased by 5.7% and 8.6% month over month for S&P 500 and RUS 2000 symbols, respectively, in March 2021.
- Consistent with the trends in spreads, intraday volatility increased by 17.9% and 34.8% month over month for S&P 500 and RUS 2000 symbols, respectively, in March 2021.
- Proportion of volume traded in the close auction volume for S&P 500 and RUS 2000 symbols increased by 1.3% and 0.9%, respectively, month over month, in March 2021.

Market Structure News

Gary Gensler Confirmed as SEC Chairman by the Senate

The Senate confirmed Gary Gensler as chairman of the SEC. Previously, Mr. Gensler headed the Commodity Futures Trading Commission from 2009 to 2013 under the Obama administration. Observers note that he is likely to pursue additional enforcement efforts and new disclosures requirements for public companies.

<https://www.wsj.com/articles/gary-gensler-is-confirmed-as-sec-chairman-by-senate-11618418366?>

SEC to Potentially Conduct a Review on Payment for Order Flow

Following the GameStop saga, Securities and Exchange Commission (SEC) Acting Chairwoman Allison Herren Lee urged regulators to examine payment for order flow to ensure practices are disclosed and consistent with best execution obligations. These obligations would consider trade price versus quoted price in the market, speed of execution and order fill rate. The letter did not outline how or when the SEC might start a review.

<https://www.wsj.com/articles/gamestop-saga-prompts-sec-to-weigh-review-of-payment-for-order-flow-11615316739>

Financial Transaction Tax Bill Reintroduced

A new financial transaction tax was proposed in the Senate. Under the proposed bill, investors would face a 0.1% tax on each sale of stocks, bonds and derivatives.

<https://www.bloomberg.com/news/articles/2021-03-18/risky-trading-targeted-in-democrat-proposal-for-transaction-tax>

SEC Denies Exchanges' Challenge to SIP Overhaul

The SEC denied the US stock exchanges' request to stay, or temporarily halt, the effect of the market data infrastructure rules, which are aimed at improving data quality and data access—the market data infrastructure has not been meaningfully updated in 40 years—and lagged other technologies and data content offered by the exchanges. Separately, the exchanges have also sued to challenge the new rules in the US Court of Appeals for the District of Columbia Circuit, under which a ruling is pending.

<https://www.pionline.com/regulation/sec-denies-exchanges-stay-market-data-rule>



Market Structure News Continued

CFTC Creates Climate Risk Unit to Review Futures, Options

In a move to address climate change under the Biden administration, the Commodity Futures Trading Commission (CFTC) formed a new unit to help ensure that new products and markets fairly consider climate-change risks in their pricing and other activities.

<https://www.wsj.com/articles/cftc-creates-climate-risk-unit-to-review-futures-options-11616021725>

Cboe Gets SEC Approval to Launch US Equities Periodic Auctions

Cboe Global Markets received SEC approval to introduce periodic auctions into US equity markets via their Cboe BYX Equities Exchange. In use in Europe since 2015, the periodic auction system allows market participants to access frequent auctions throughout the trading day.

<https://www.thetradenews.com/cboe-gets-green-light-from-sec-to-launch-us-equities-periodic-auctions/>

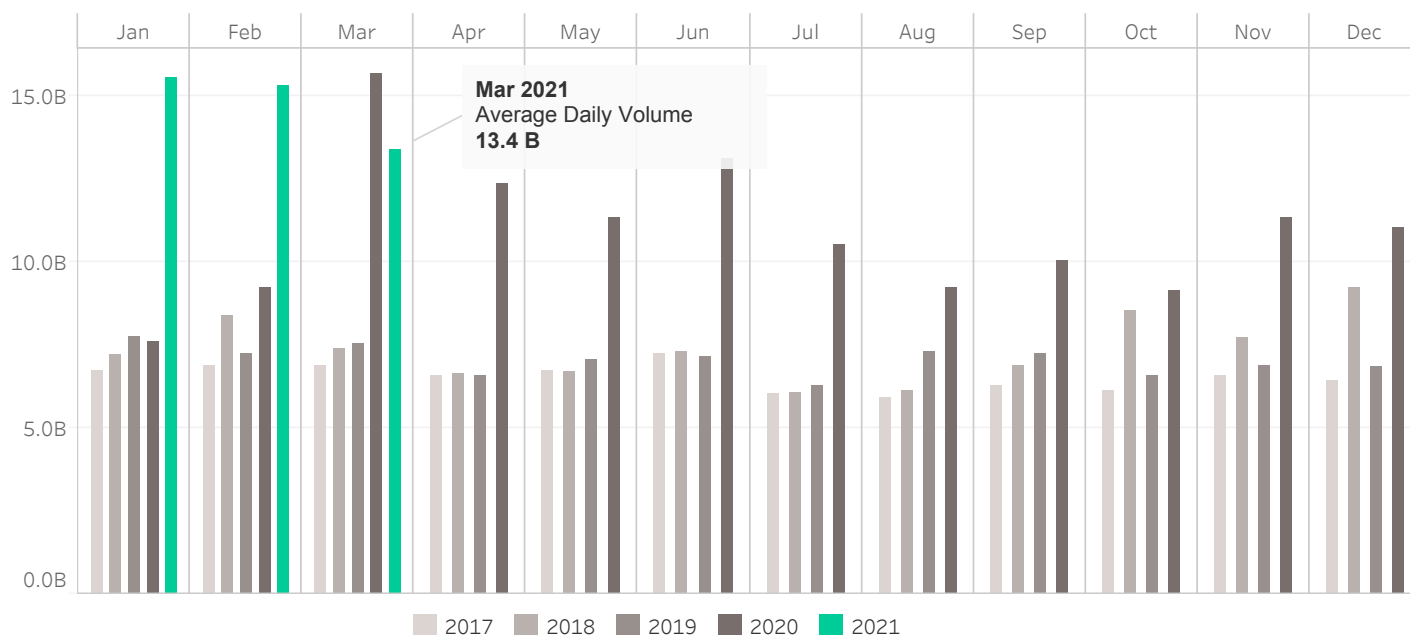
Fed Vice Chair Warns Banks to Face Intense Regulatory Scrutiny in Move Away from Libor

Federal Reserve Vice Chair, Randal Quarles, urged banks to accelerate efforts to transition away from Libor interest rate benchmarks, which the regulators warn will no longer exist after the end of June 2023.

<https://www.reuters.com/article/us-usa-fed-quarles/feds-quarles-warns-banks-face-intense-regulatory-scrutiny-in-move-away-from-libor-idUSKBN2BE2J1>

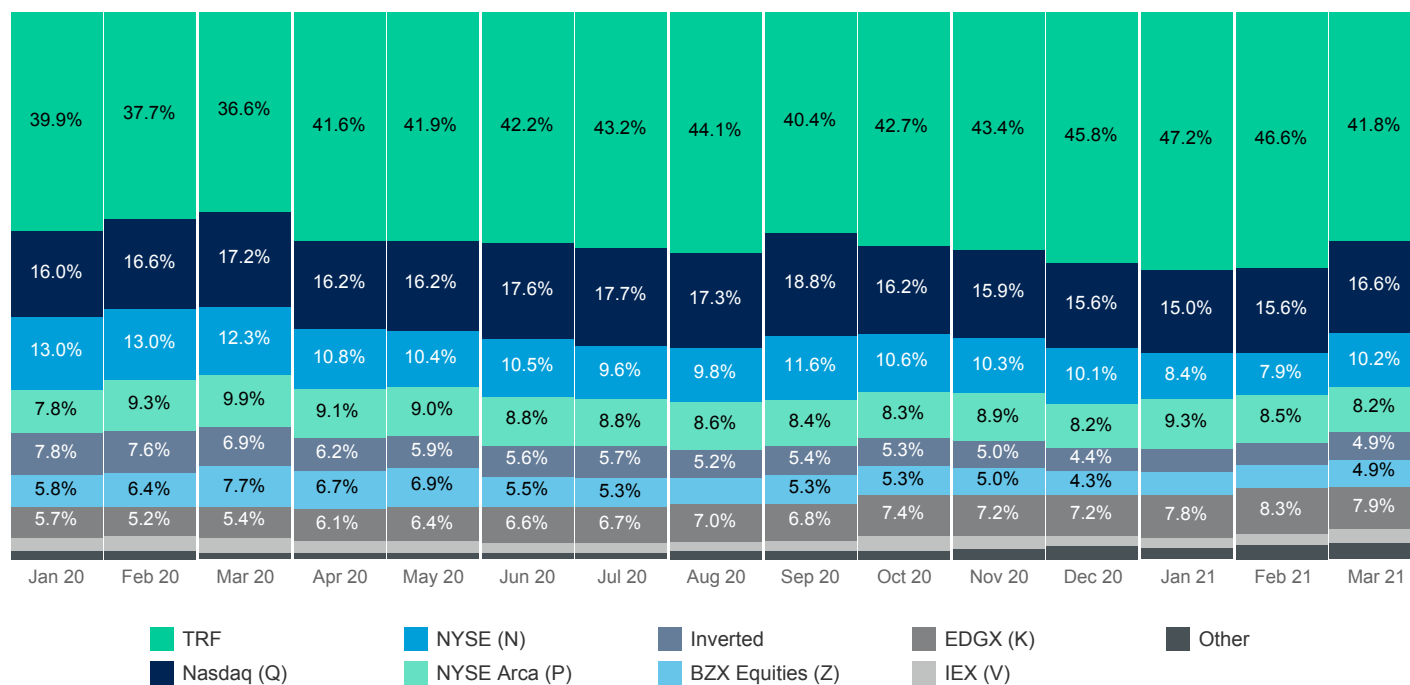


Average Daily Market Volume



Source data: Cboe Global Markets

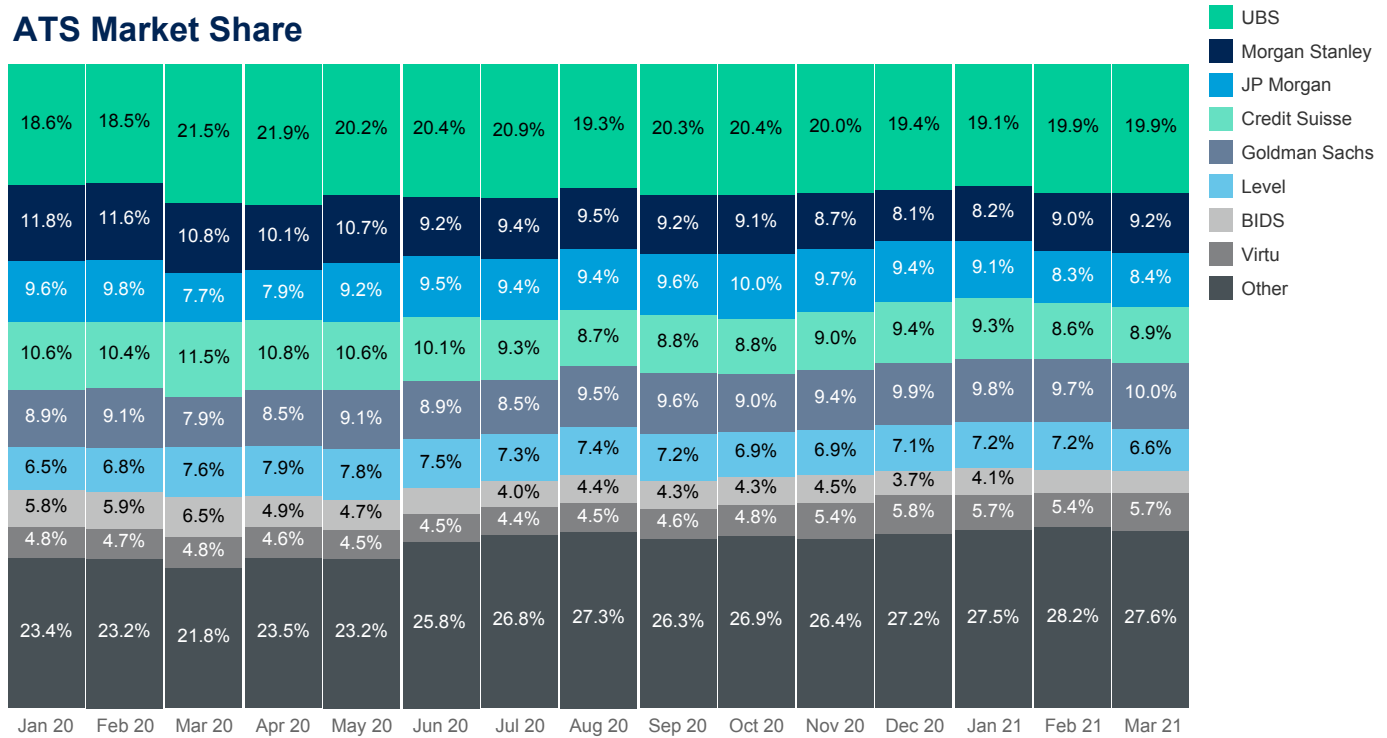
Venue Market Share



Source data: Cboe Global Markets

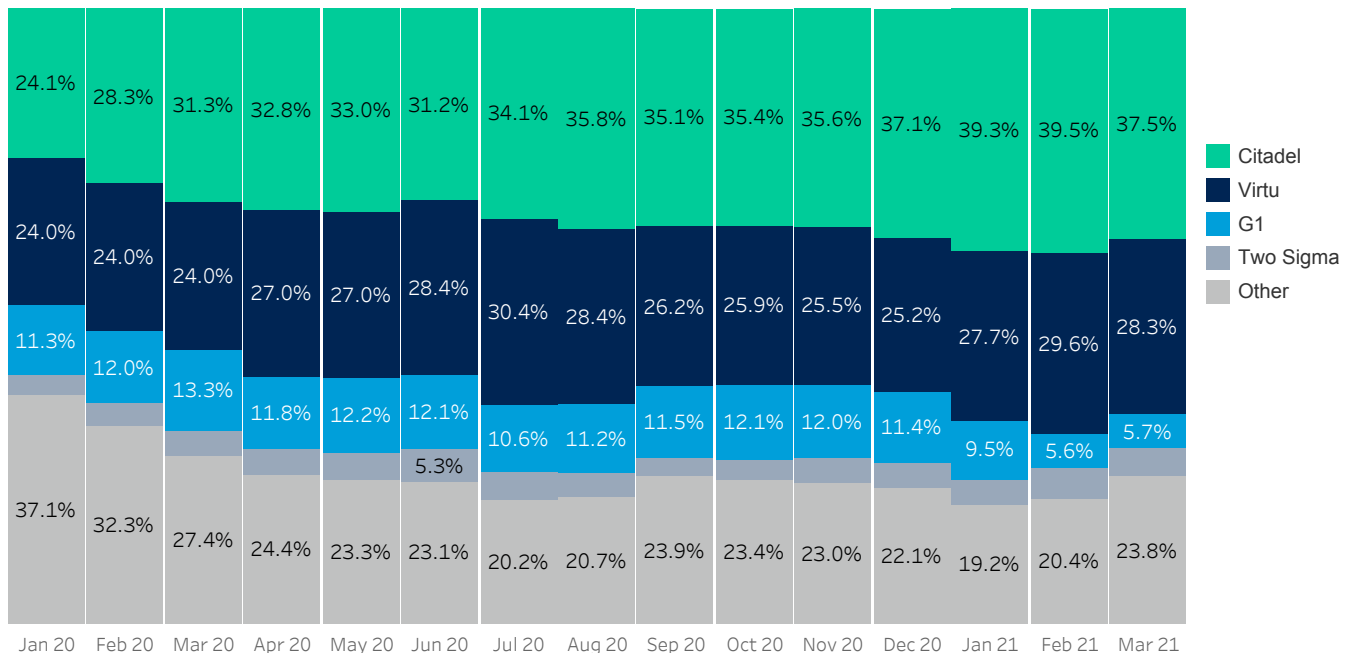


ATS Market Share



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

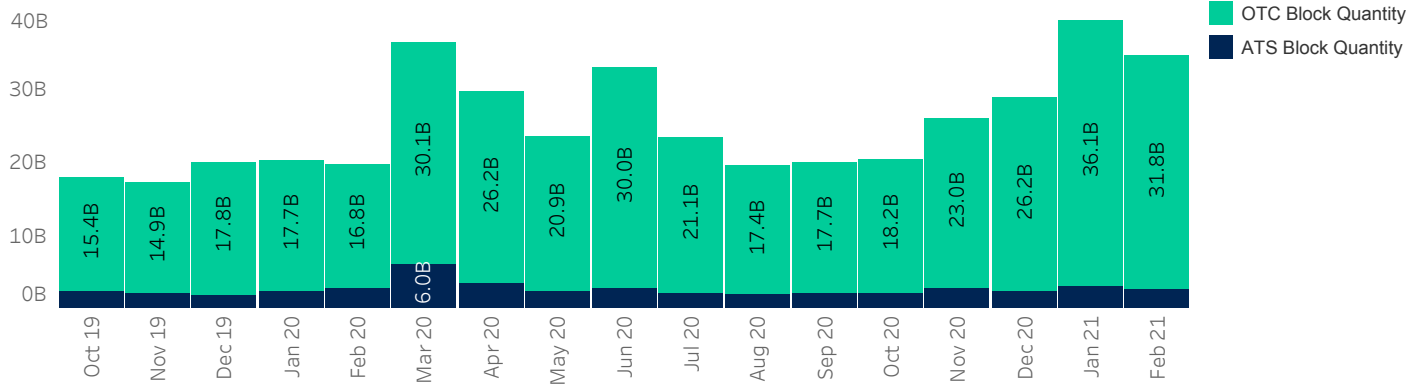
OTC Non-ATS Market Share



Source: FINRA, NMS Tier 1 & 2 Securities

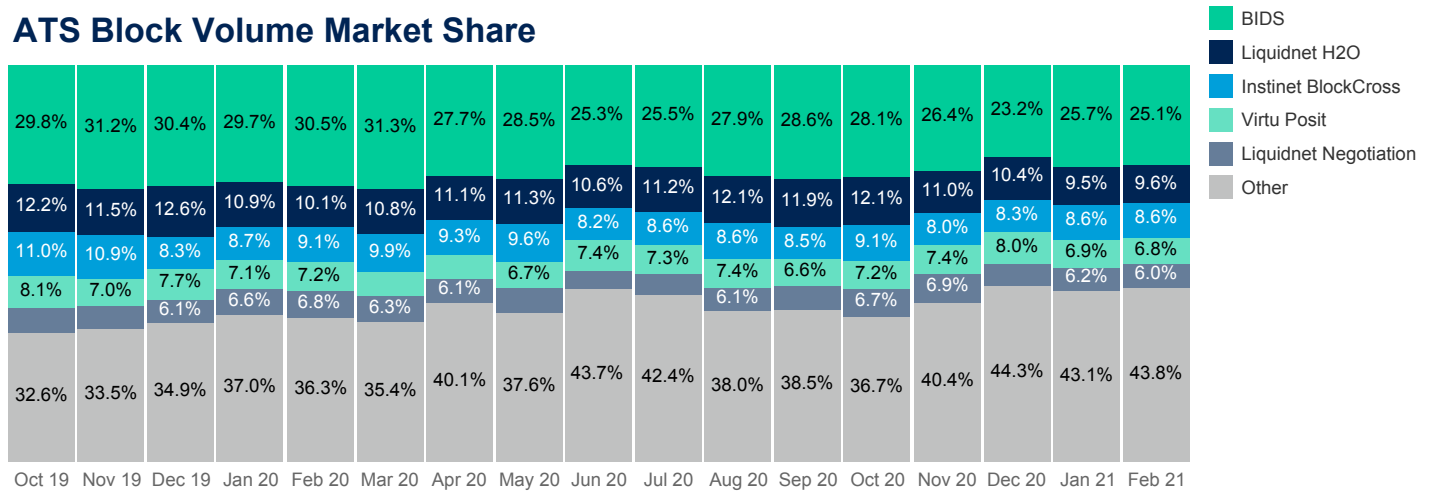


TRF Block Volume Breakdown (Shares)



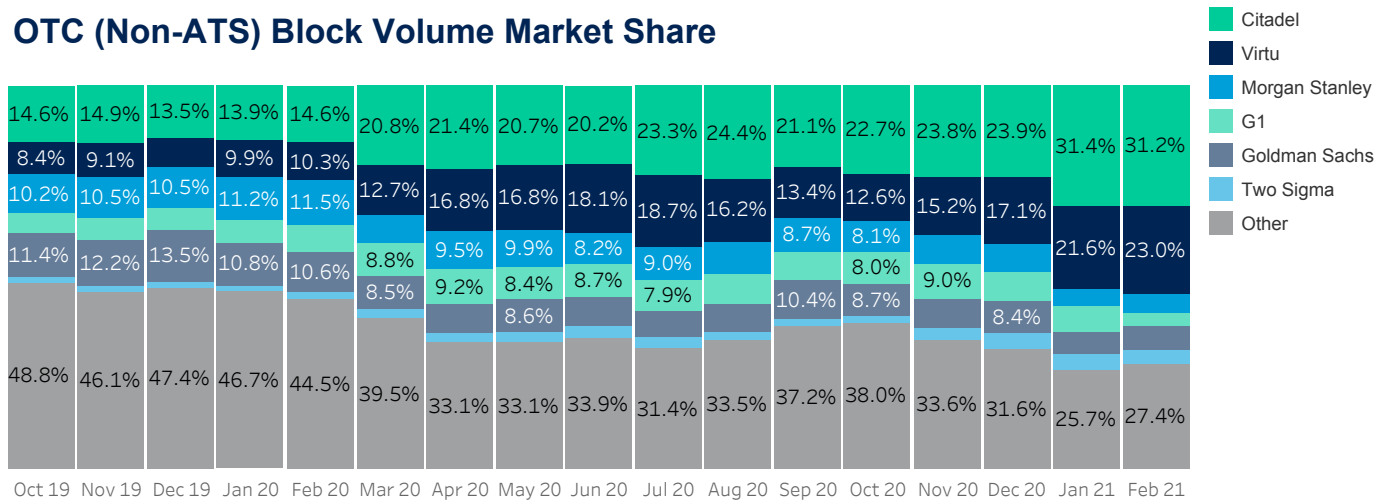
Source: FINRA

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



Quote size in Shares

		1Q 20				2Q 20			3Q 20			4Q 20			1Q 21		
		Mar 20	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21			
First 30 Min	SP500	185	184	196	200	207	205	204	206	201	197	192	193	191			
	RUS2000	200	194	200	206	209	207	207	225	226	228	216	217	222			
Mid Day	SP500	174	177	197	204	212	220	215	206	206	206	201	204	195			
	RUS2000	200	198	209	218	227	235	233	236	236	232	223	220	207			
Last 30 Min	SP500	193	200	229	229	242	264	239	236	231	233	231	238	217			
	RUS2000	233	228	239	243	264	283	272	274	263	260	250	255	225			

Spread Bps

First 30 Min	SP500	28.1	19.4	11.8	11.0	10.4	9.6	11.0	13.0	14.7	12.4	13.2	13.6	13.2
	RUS2000	108.1	87.0	65.2	56.7	50.6	41.8	44.7	57.1	67.2	60.3	63.2	61.8	67.0
Mid Day	SP500	13.1	8.4	5.7	5.3	4.8	4.2	5.3	6.4	6.5	5.4	5.7	5.3	5.6
	RUS2000	42.5	34.8	25.0	23.3	20.2	17.1	18.9	24.9	26.9	24.6	26.8	25.5	27.7
Last 30 Min	SP500	9.7	5.8	4.2	3.8	3.3	3.0	3.6	4.2	4.5	3.8	3.7	3.6	3.8
	RUS2000	33.2	25.1	19.3	18.2	15.4	13.5	15.0	18.9	21.2	19.1	19.7	19.3	20.8

One Minute Volatility Bps

First 30 Min	SP500	53.4	32.8	24.5	23.3	19.5	16.0	20.1	16.0	20.2	15.3	17.5	18.7	18.8
	RUS2000	45.1	40.8	33.2	31.3	25.3	23.7	26.0	16.9	20.9	16.5	20.7	22.1	25.8
Mid Day	SP500	27.7	14.4	9.6	9.7	7.6	5.9	8.4	7.1	7.7	5.8	6.9	6.7	7.9
	RUS2000	21.8	16.4	11.9	11.5	9.1	7.0	8.3	5.7	6.3	5.3	6.6	6.9	9.3
Last 30 Min	SP500	36.1	17.0	11.5	11.5	8.9	6.9	9.9	7.8	8.9	6.8	7.6	7.3	8.8
	RUS2000	28.0	20.1	15.0	14.8	10.2	7.7	9.9	7.3	8.8	7.4	8.7	8.7	11.8

Percent ADV by Time of Day

Open	SP500	1.0%	1.1%	1.0%	1.1%	1.0%	1.1%	1.0%	1.1%	1.1%	1.1%	1.3%	1.2%	1.1%
	RUS2000	0.8%	0.8%	0.9%	0.9%	0.8%	0.9%	0.8%	0.9%	0.9%	0.8%	0.9%	1.0%	0.9%
First 30 Min	SP500	8.2%	8.7%	9.4%	9.1%	9.6%	9.9%	9.5%	9.2%	10.3%	9.5%	9.6%	10.1%	9.2%
	RUS2000	6.3%	7.0%	7.9%	7.3%	7.6%	8.2%	8.0%	7.6%	8.4%	7.8%	8.1%	8.7%	8.4%
Last 30 Min	SP500	18.3%	17.7%	17.7%	17.9%	18.3%	18.7%	17.9%	18.1%	17.4%	17.4%	16.9%	17.2%	17.6%
	RUS2000	19.9%	18.9%	18.7%	18.5%	20.0%	19.8%	18.7%	19.8%	18.8%	19.0%	18.5%	18.6%	18.6%
Close	SP500	9.9%	9.8%	9.0%	10.3%	9.9%	10.5%	12.0%	11.0%	10.7%	13.7%	12.0%	10.6%	11.9%
	RUS2000	9.0%	8.9%	8.3%	8.9%	9.4%	7.9%	9.6%	9.3%	9.9%	10.6%	10.0%	8.3%	9.2%

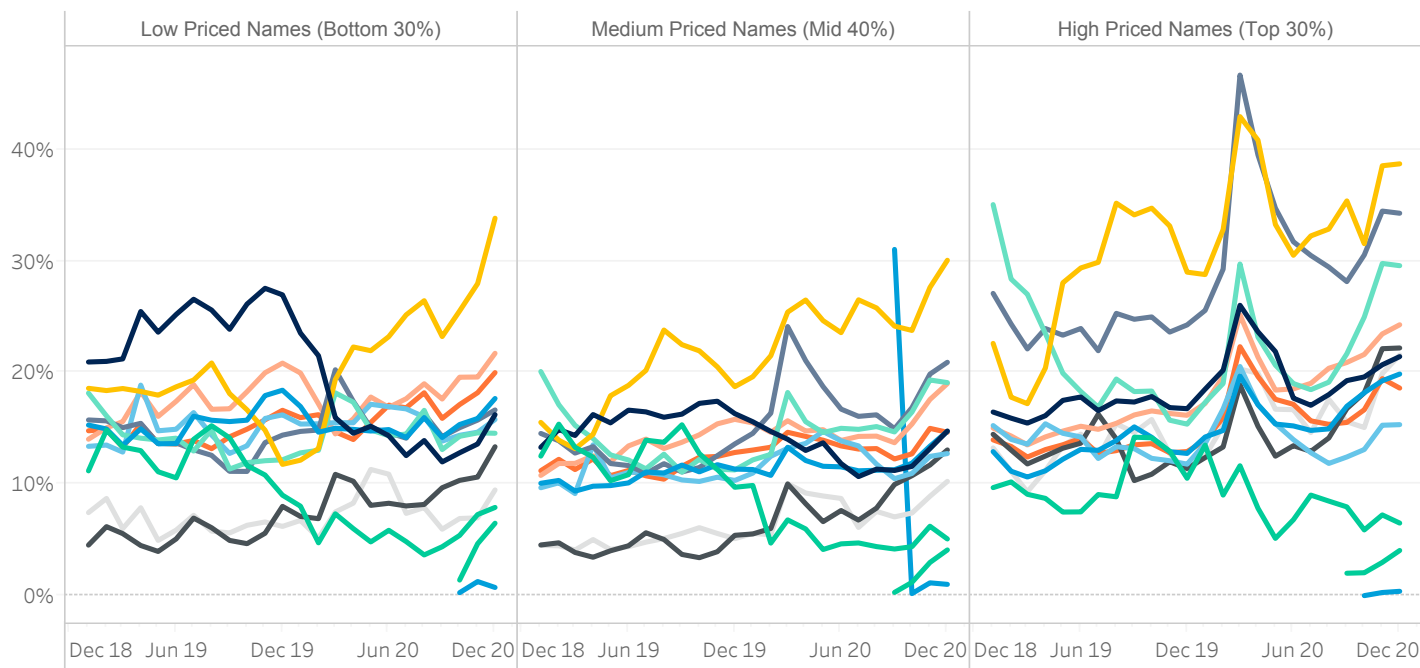
Median used for all metrics

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

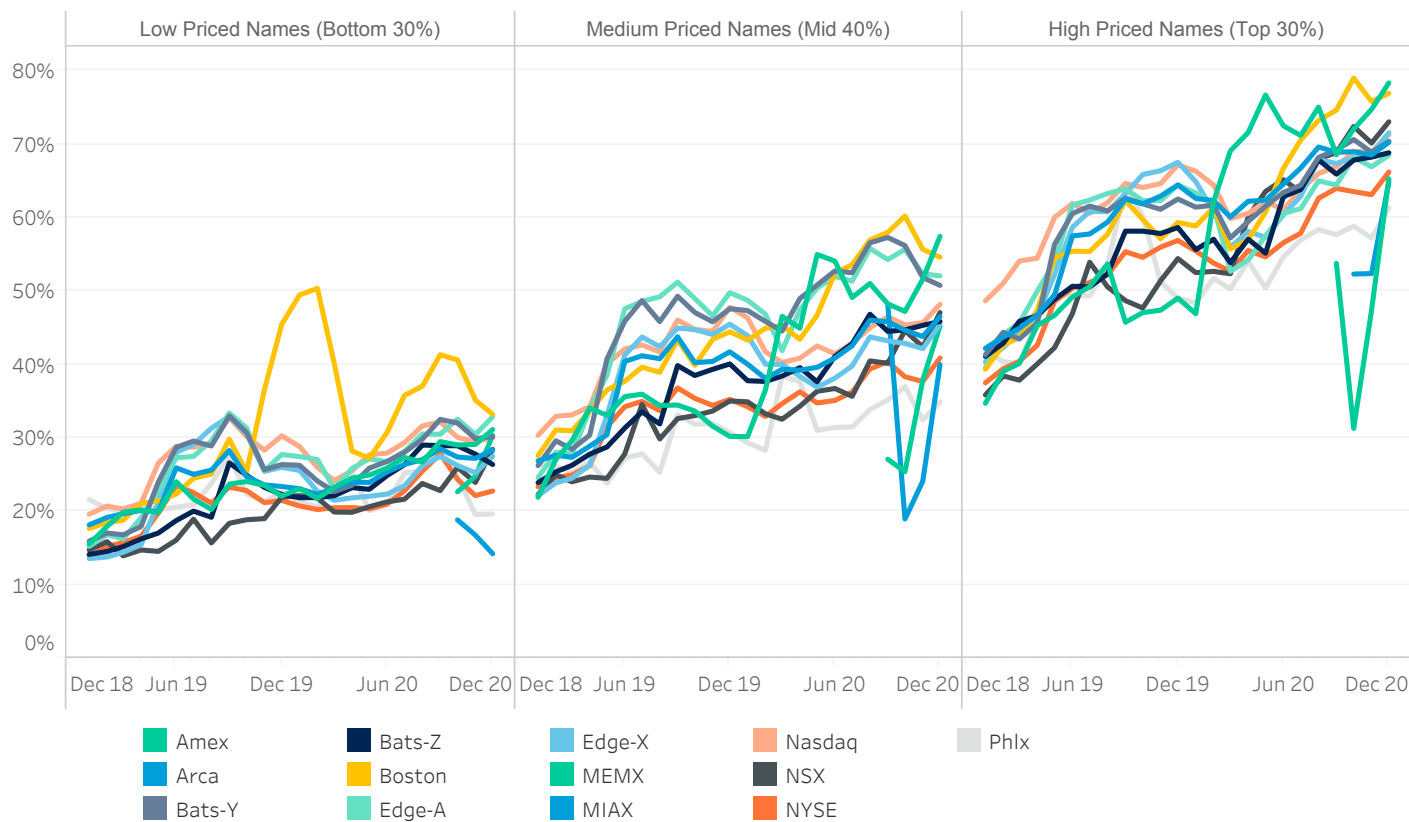
Source data: Virtu Financial



Hidden Trades Proportion by Price and Venue



Oddlot Trades Proportion by Price and Venue



Source data: SEC



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