

April 2021

US Market Structure Monthly



US Market Microstructure Observations

- The average daily volume in US equities was 9.9B shares in April 2021, down 26.1% month over month and down 19.5% year over year.
- Trade reporting facility (TRF) market share increased 1.9% month over month to 43.7% in April 2021.
- Excluding the first and last half hour of the day, median spreads shrank by 21.4% and 16.6% month over month for S&P 500 and RUS 2000 symbols, respectively, in April 2021.
- Consistent with the trends in spreads, intraday volatility dropped by 31.6% and 36.6% month over month for S&P 500 and RUS 2000 symbols, respectively, in April 2021.
- The proportion of volume traded in the close auction volume for S&P 500 symbols reached 13.2% in April 2021, versus 9.8% a year ago.

Market Structure News

SEC to Explore Rules For Apps That “Gamify” Trading

SEC Chairman Gary Gensler told lawmakers that the regulators are studying whether to impose new restrictions on brokerage apps that use appealing visual graphics to reward a user’s decision to trade. In addition, Mr. Gensler said the SEC was examining the system of payment for order flow as well as potential regulatory changes in response to Archegos Capital Management.

<https://www.wsj.com/articles/secs-new-chairman-set-to-field-questions-on-gamestop-archegos-11620306010>

New SEC Enforcement Director Alex Oh Resigns

Days after her appointment, the new enforcement chief for the SEC Alex Oh resigned following a judge’s order questioning her conduct in a lawsuit involving Exxon Mobil. The enforcement director is the SEC’s most high-profile staff job, managing a division of 1,300 people. Melissa Hodgman will step-into the role on an acting basis.

<https://www.wsj.com/articles/new-sec-enforcement-director-alex-oh-resigns-agency-says-11619644474>

SEC to Examine Fund Disclosure Rules After Archegos Blowup

SEC officials are exploring ways to increase transparency for derivatives and short positions, potentially through changing rules around Forms 13F and 13D. Investment firms that own shares worth more than US\$100 M must disclose their portfolios every quarter through 13F filing, while funds issue a 13D whenever their stake in a single company exceeds 5%. However, currently, swaps and other derivatives, as well as short sells, are exempt from 13F and 13D filing requirements, which allowed Archegos to amass huge positions using swaps without having to file a 13F or a 13D.

<https://www.bloomberg.com/news/articles/2021-04-21/sec-said-to-examine-fund-disclosure-rules-after-archegos-blowup?sref=GrQuSk5T>

SEC Seeks to Regulate Special Purpose Acquisition Companies

John Coates, an acting director at the SEC, released a statement warning special purpose acquisition company (SPACS) against issuing enticing but misleading statements about their growth. Furthermore, the SEC is setting forth new guidance on treating warrants, which are often included as a deal sweetener for early investors, as liabilities for accounting purposes.

<https://www.wsj.com/articles/sec-seeks-clearer-disclosures-to-investors-of-spac-deals-11617908245>

<https://www.bloomberg.com/news/articles/2021-04-12/spac-boom-faces-latest-threat-from-sec-in-accounting-discussions?sref=GrQuSk5T>



Market Structure News Continued

SEC Review of Socially Responsible Funds

The SEC said it has found potentially misleading claims and inadequate controls around environmental, social and governance (ESG) issues in a review of investment advisors and funds.

<https://www.reuters.com/article/us-usa-sec-esg/u-s-sec-review-of-socially-responsible-funds-finds-potentially-misleading-claims-idUSKBN2BW2SZ>

NYSE allowing More Vaccinated Staff to Return

NYSE is allowing companies to repopulate its trading floor if all of the employees at the site show proof of vaccination.

<https://www.bloomberg.com/news/articles/2021-05-03/nyse-says-more-staff-can-return-to-trading-floor-if-vaccinated?sref=GrQuSk5T>

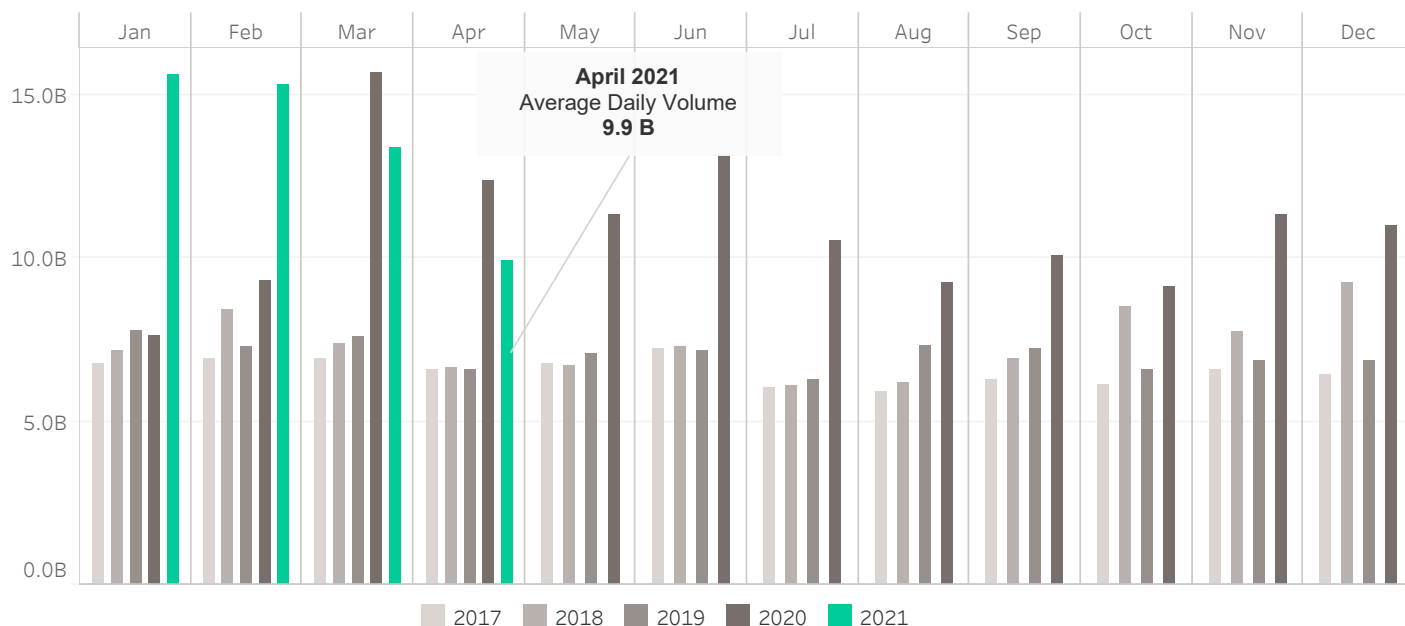
CME Group to Close Most of Its Chicago Trading Floors Permanently

CME announced that it would not reopen a number of trading pits that it closed temporarily in March 2020. The products that would have their trading floors shut down include agricultural commodities, as well as equity index futures and options.

<https://www.wsj.com/articles/cme-group-to-close-most-of-its-trading-pits-in-chicago-permanently-11620175341>

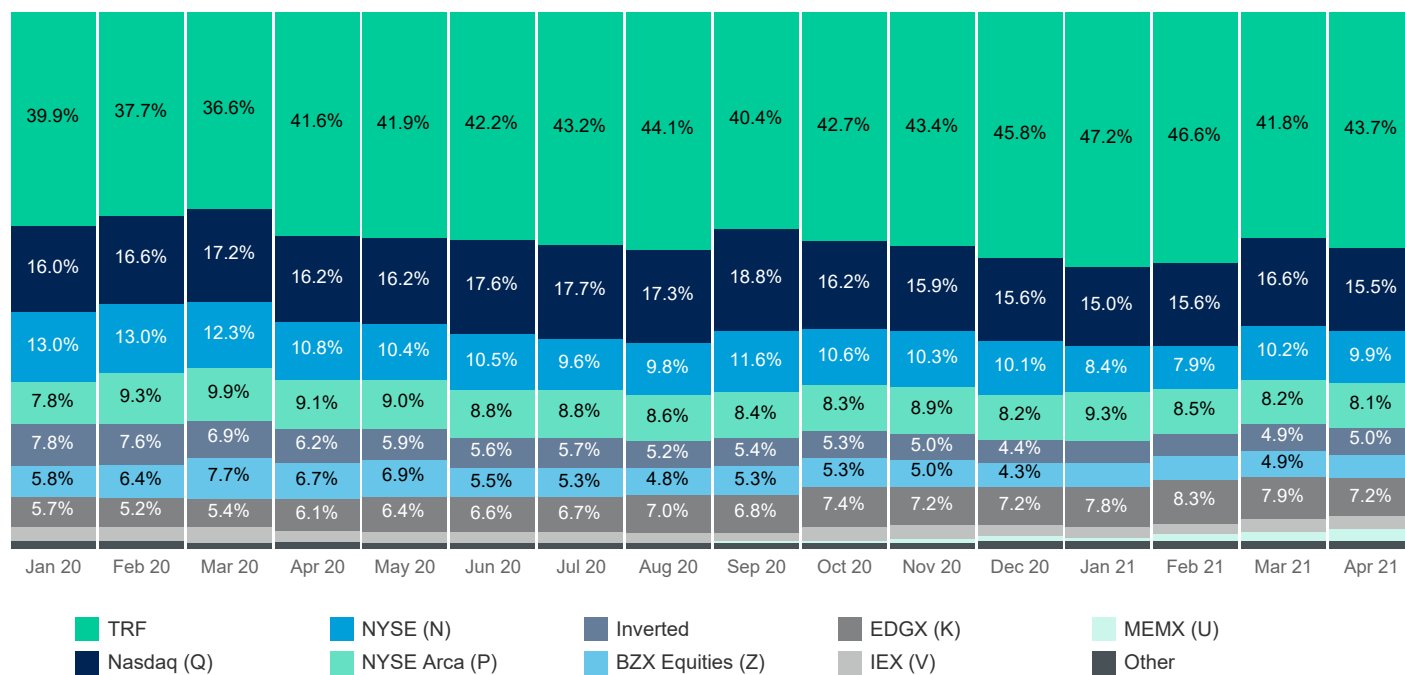


Average Daily Market Volume



Source data: Cboe Global Markets

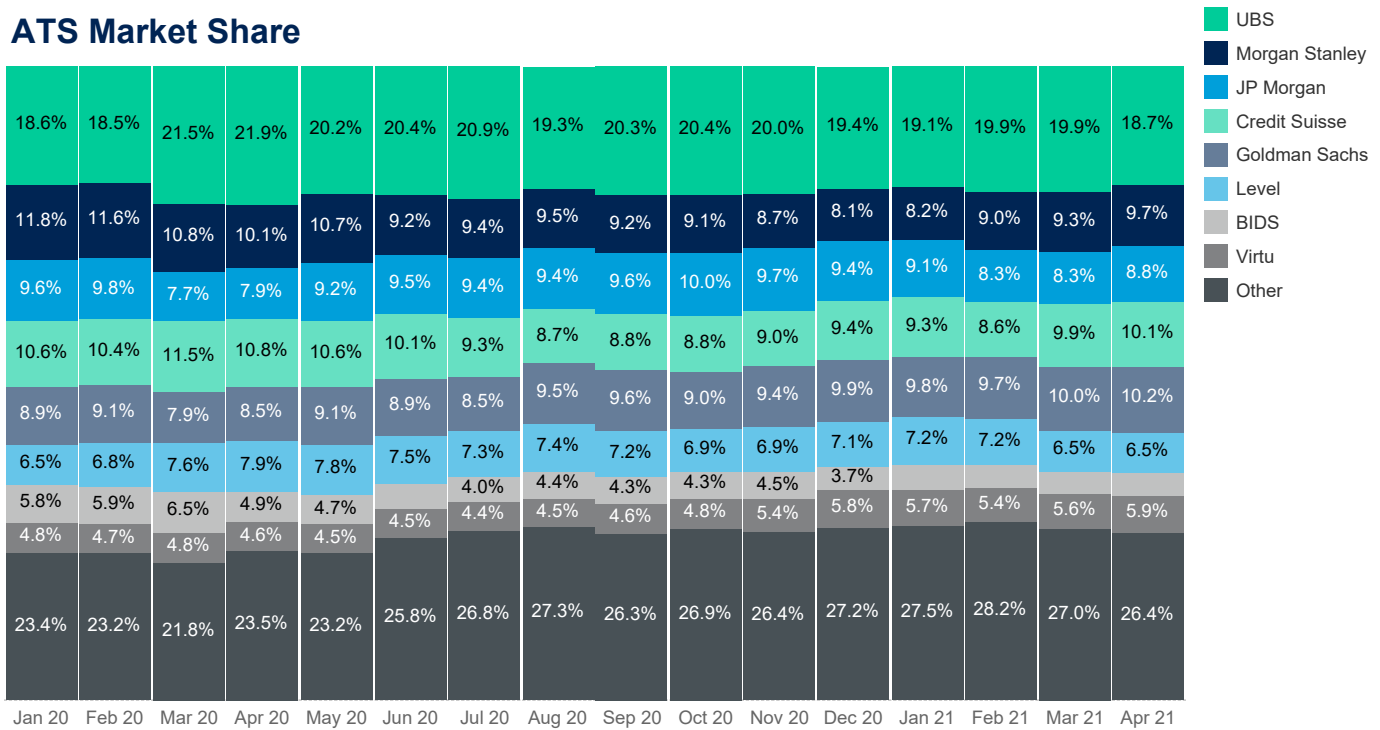
Venue Market Share



Source data: Cboe Global Markets

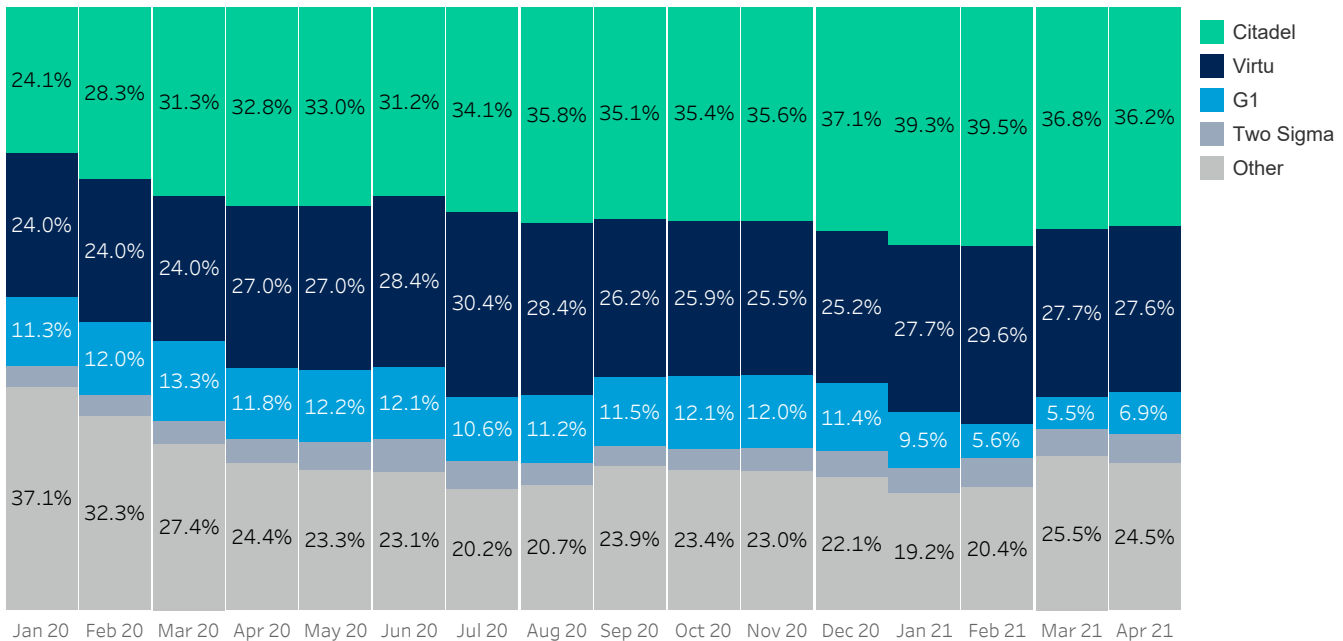


ATS Market Share



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

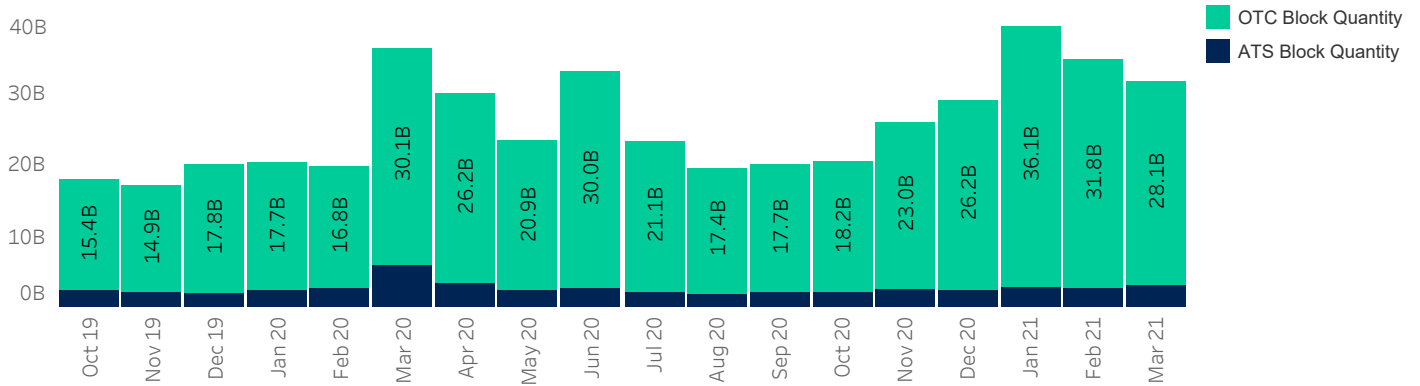
OTC Non-ATS Market Share



Source: FINRA, NMS Tier 1 & 2 Securities

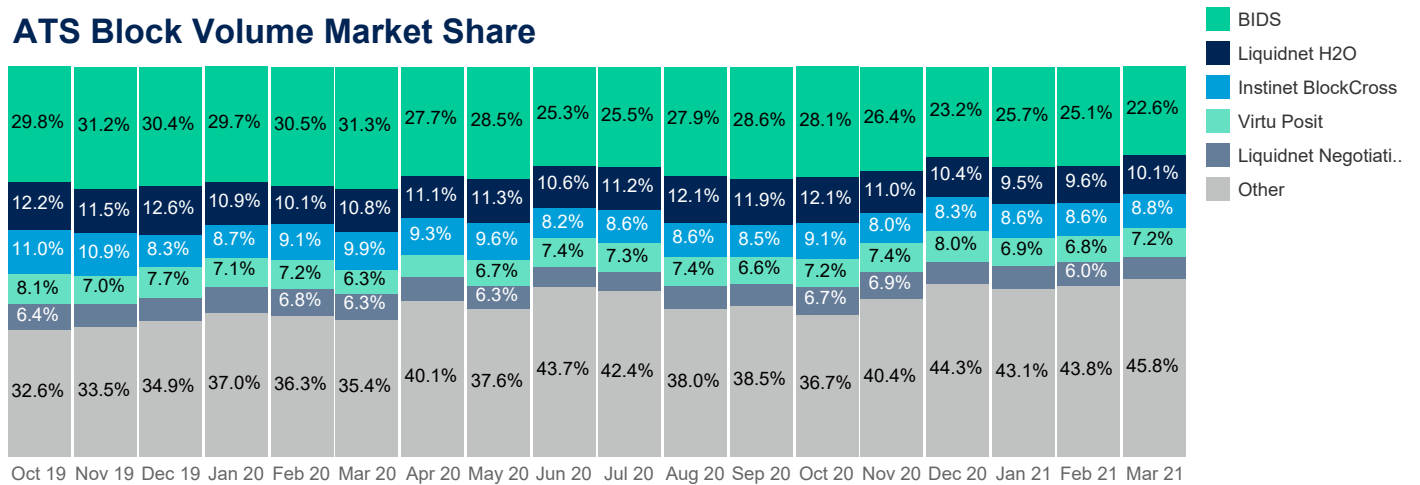


TRF Block Volume Breakdown (Shares)



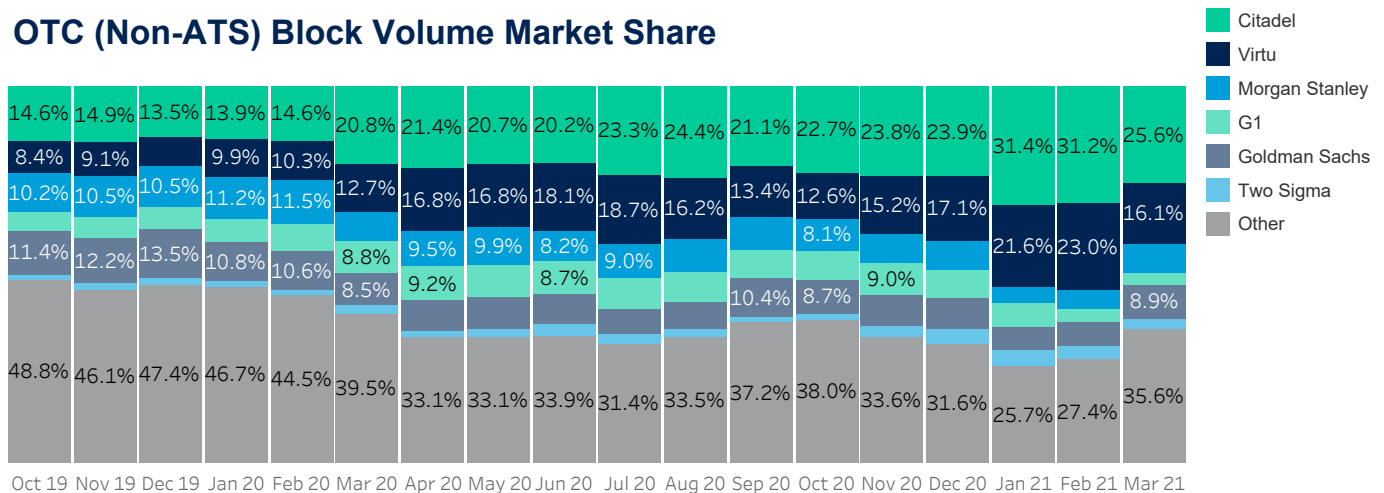
Source: FINRA

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



Quotesize in Shares

	2Q 20			3Q 20			4Q 20			1Q 21			2Q 21	
	Apr 20	May 20	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	
First 30 Min	SP500	184	196	200	207	205	204	206	201	197	192	193	191	188
	RUS2000	194	200	206	209	207	207	225	226	228	216	217	222	231
Mid Day	SP500	177	197	204	212	220	215	206	206	206	201	204	195	198
	RUS2000	198	209	218	227	235	233	236	236	232	223	220	207	216
Last 30 Min	SP500	200	229	229	242	264	239	236	231	233	231	238	217	225
	RUS2000	228	239	243	264	283	272	274	263	260	250	255	225	238

Spread Bps

First 30 Min	SP500	19.4	11.8	11.0	10.4	9.6	11.0	13.0	14.7	12.4	13.2	13.6	13.2	10.3
	RUS2000	87.0	65.2	56.7	50.6	41.8	44.7	57.1	67.2	60.3	63.2	61.8	67.0	57.7
Mid Day	SP500	8.4	5.7	5.3	4.8	4.2	5.3	6.4	6.5	5.4	5.7	5.3	5.6	4.4
	RUS2000	34.8	25.0	23.3	20.2	17.1	18.9	24.9	26.9	24.6	26.8	25.5	27.7	23.1
Last 30 Min	SP500	5.8	4.2	3.8	3.3	3.0	3.6	4.2	4.5	3.8	3.7	3.6	3.8	3.1
	RUS2000	25.1	19.3	18.2	15.4	13.5	15.0	18.9	21.2	19.1	19.7	19.3	20.8	17.5

One Minute Volatility Bps

First 30 Min	SP500	32.8	24.5	23.3	19.5	16.0	20.1	16.0	20.2	15.3	17.5	18.7	18.8	14.5
	RUS2000	40.8	33.2	31.3	25.3	23.7	26.0	16.9	20.9	16.5	20.7	22.1	25.8	18.4
Mid Day	SP500	14.4	9.6	9.7	7.6	5.9	8.4	7.1	7.7	5.8	6.9	6.7	7.9	5.4
	RUS2000	16.4	11.9	11.5	9.1	7.0	8.3	5.7	6.3	5.3	6.6	6.9	9.3	5.9
Last 30 Min	SP500	17.0	11.5	11.5	8.9	6.9	9.9	7.8	8.9	6.8	7.6	7.3	8.8	6.2
	RUS2000	20.1	15.0	14.8	10.2	7.7	9.9	7.3	8.8	7.4	8.7	8.7	11.8	7.5

Percent ADV by Time of Day

Open	SP500	1.1%	1.0%	1.1%	1.0%	1.1%	1.0%	1.1%	1.1%	1.1%	1.3%	1.2%	1.1%	1.3%
	RUS2000	0.8%	0.9%	0.9%	0.8%	0.9%	0.8%	0.9%	0.9%	0.8%	0.9%	1.0%	0.9%	0.9%
First 30 Min	SP500	8.7%	9.4%	9.1%	9.6%	9.9%	9.5%	9.2%	10.3%	9.5%	9.6%	10.1%	9.2%	9.6%
	RUS2000	7.0%	7.9%	7.3%	7.6%	8.2%	8.0%	7.6%	8.4%	7.8%	8.1%	8.7%	8.4%	8.1%
Last 30 Min	SP500	17.7%	17.7%	17.9%	18.3%	18.7%	17.9%	18.1%	17.4%	17.4%	16.9%	17.2%	17.6%	17.8%
	RUS2000	18.9%	18.7%	18.5%	20.0%	19.8%	18.7%	19.8%	18.8%	19.0%	18.5%	18.6%	18.6%	19.3%
Close	SP500	9.8%	9.0%	10.3%	9.9%	10.5%	12.0%	11.0%	10.7%	13.7%	12.0%	10.6%	11.9%	13.2%
	RUS2000	8.9%	8.3%	8.9%	9.4%	7.9%	9.6%	9.3%	9.9%	10.6%	10.0%	8.3%	9.2%	9.5%

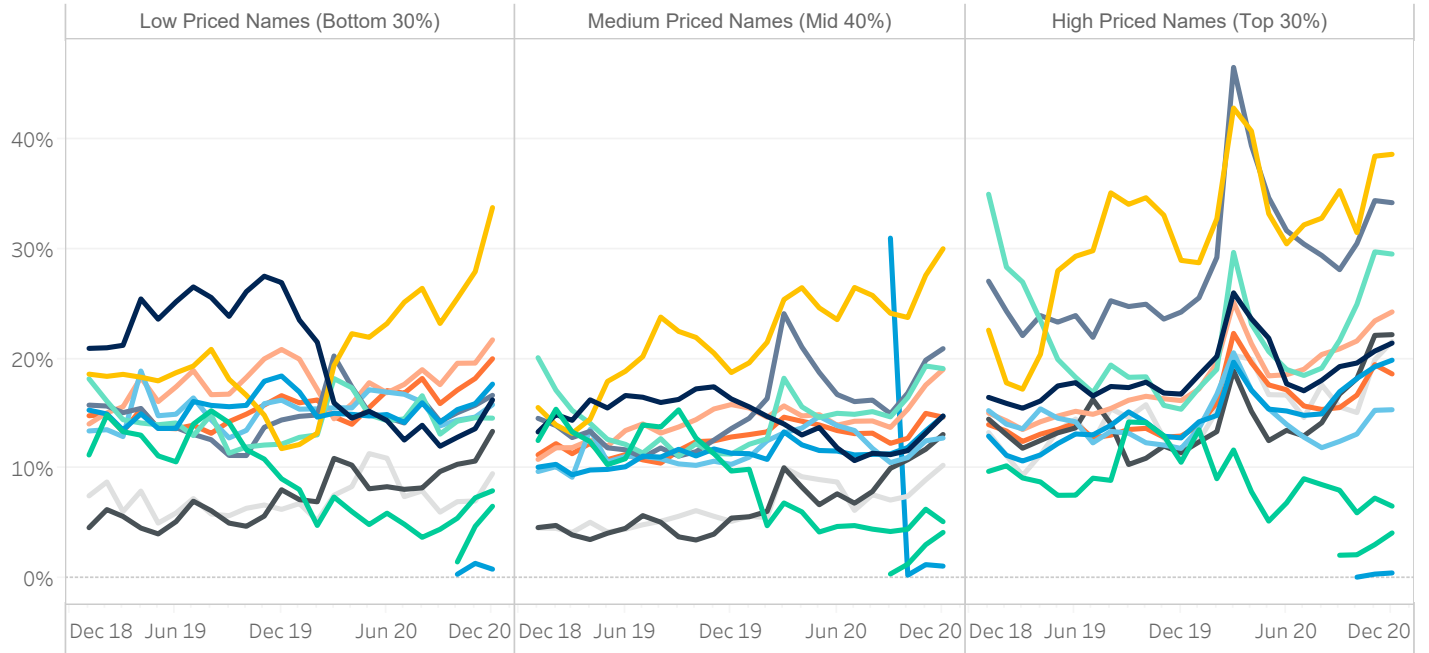
Median used for all metrics

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

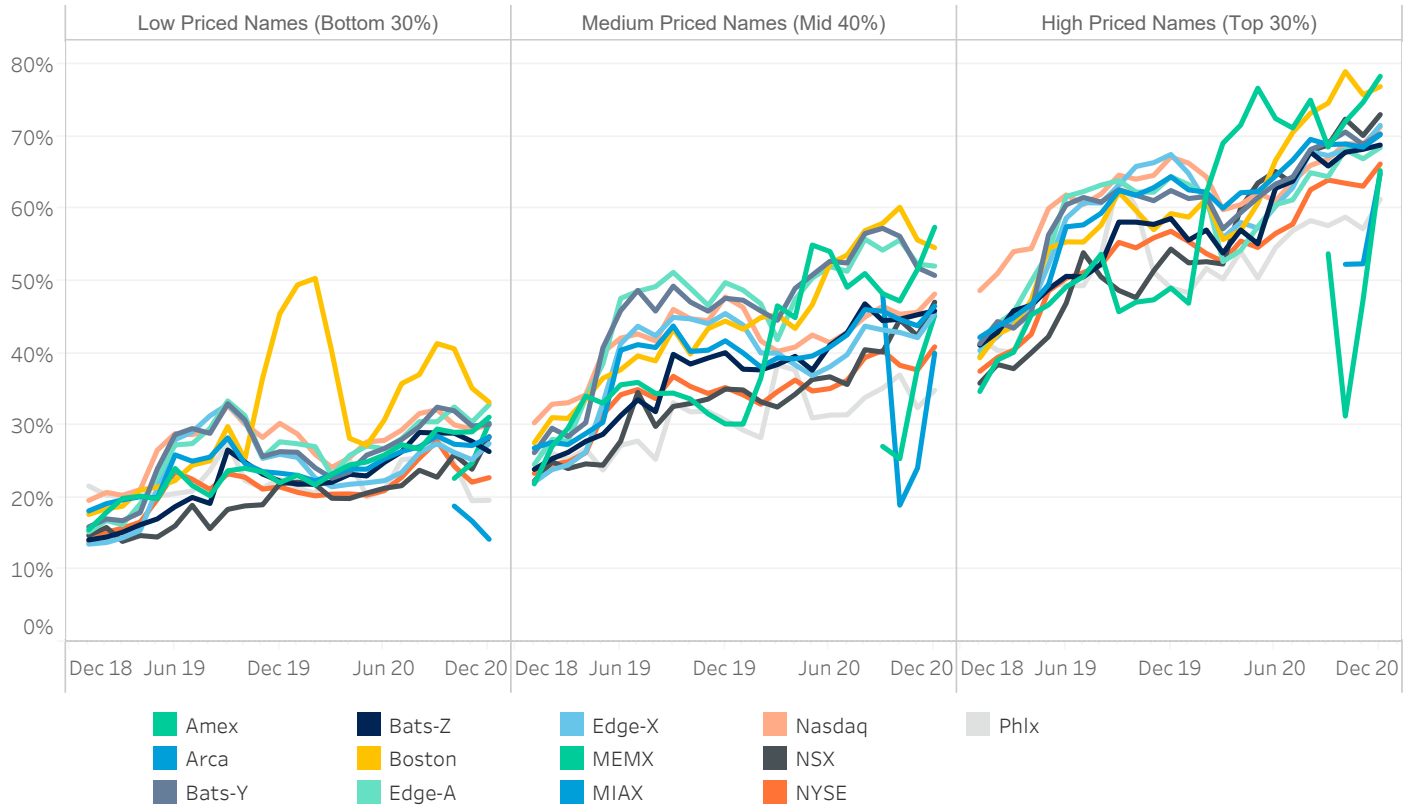
Source data: Virtu Financial



Hidden Trades Proportion by Price and Venue



Oddlot Trades Proportion by Price and Venue



Source data: SEC



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