

October 2021

US Market Structure Monthly



US Market Microstructure Observations

- The average daily volume in US equities was 10.4B shares in October 2021, down 1.9% month over month (MoM) while up 14.3% year over year.
- Trade reporting facility (TRF) market share increased 2.3% MoM to 44.2%.
- Excluding the first and last half hour of the day, median spreads widened 4.9% and 2.7% MoM for S&P 500 and RUS 2000 symbols, respectively, in October 2021.
- Contrary to the trends in spreads, intraday volatility decreased 3.7% and 8.8% MoM for S&P 500 and RUS 2000 symbols, respectively.
- The proportion of volume traded in the closing auction for S&P 500 symbols increased slightly from 11.7% to 12.1%.

Market Structure News

SEC Releases Report on Meme Stock Trading

The US Securities and Exchange Commission (SEC) released a report detailing its assessment of the retail trading frenzy in meme stocks earlier this year. The report addressed the claim that retail traders set off a short squeeze, noting that purchases to cover short positions were a small fraction of overall buy volume, and the stock price remained high even after the short cover trades receded. Furthermore, the report highlighted clearing house demands and capacity limits of brokers as the factors behind trading restrictions, dismissing the claim that the hedge funds pushed Robinhood to restrict adding positions.

<https://www.bloomberg.com/news/articles/2021-10-18/sec-meme-stock-report-debunks-conspiracies-backs-gensler-agenda?sref=GrQuSk5T>

<https://www.sec.gov/files/staff-report-equity-options-market-struction-conditions-early-2021.pdf>

CFTC Seeks to Oversee Cryptocurrency Markets

Commodity Futures Trading Commission (CFTC) acting Chairman Behnam called on Congress to consider expanding his agency's authority to monitor the cash markets for cryptocurrency given its size, growth and risks to consumers and financial stability.

<https://www.wsj.com/articles/cftc-chief-says-recent-crypto-cases-are-tip-of-the-iceberg-11635370374?reflink=e2twmktks>

SEC Investigating Archegos for Potential Market Manipulation

In a preliminary step of its investigation, the SEC recently served Archegos Capital Management (ACM) with a subpoena to investigate whether ACM bought multiple stakes in the same companies across several banks in an effort to avoid triggering a public disclosure rule.

<https://www.bloomberg.com/news/articles/2021-10-08/sec-investigating-archegos-for-potential-market-manipulation>

IEX to Start Charging for its Market Data

IEX filed a request with the SEC to approve charging customers for access to its data. The flat fee structures will be \$500 a month for real-time access to its "Tops" feed, \$2,500 a month for its "Deep" feed, and \$500 a month for redistribution rights for both feeds.

<https://www.bloomberg.com/news/articles/2021-11-01/flash-boys-exchange-iex-to-start-charging-for-its-market-data>

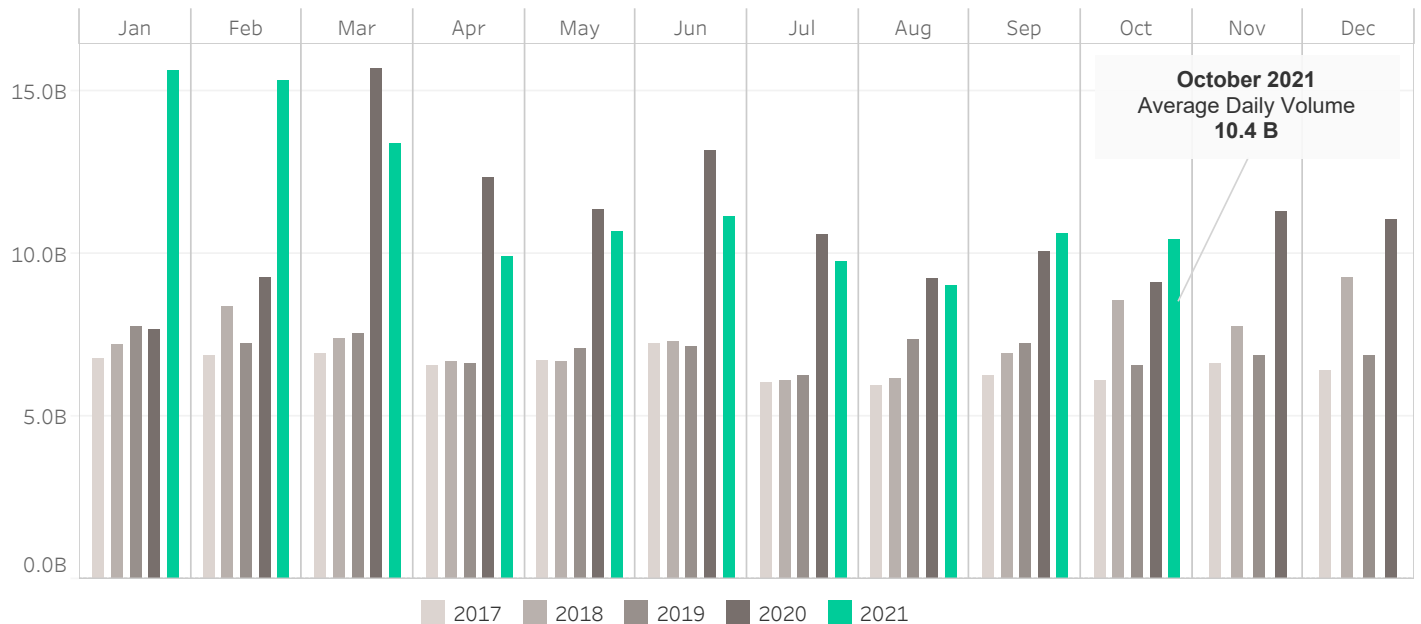
24 Exchange seeks SEC Approval to Offer Around the Clock, Weekends and Holidays Trading

24 Exchange, a startup trading platform, is seeking approval from the SEC to launch the first exchange that would trade 24 hours, seven days a week. According to analysts, it will likely be well into 2022 before the SEC issues its final decision on the application.

<https://www.wsj.com/articles/is-the-stock-market-open-at-3-a-m-this-startup-says-it-should-be-11633431602>

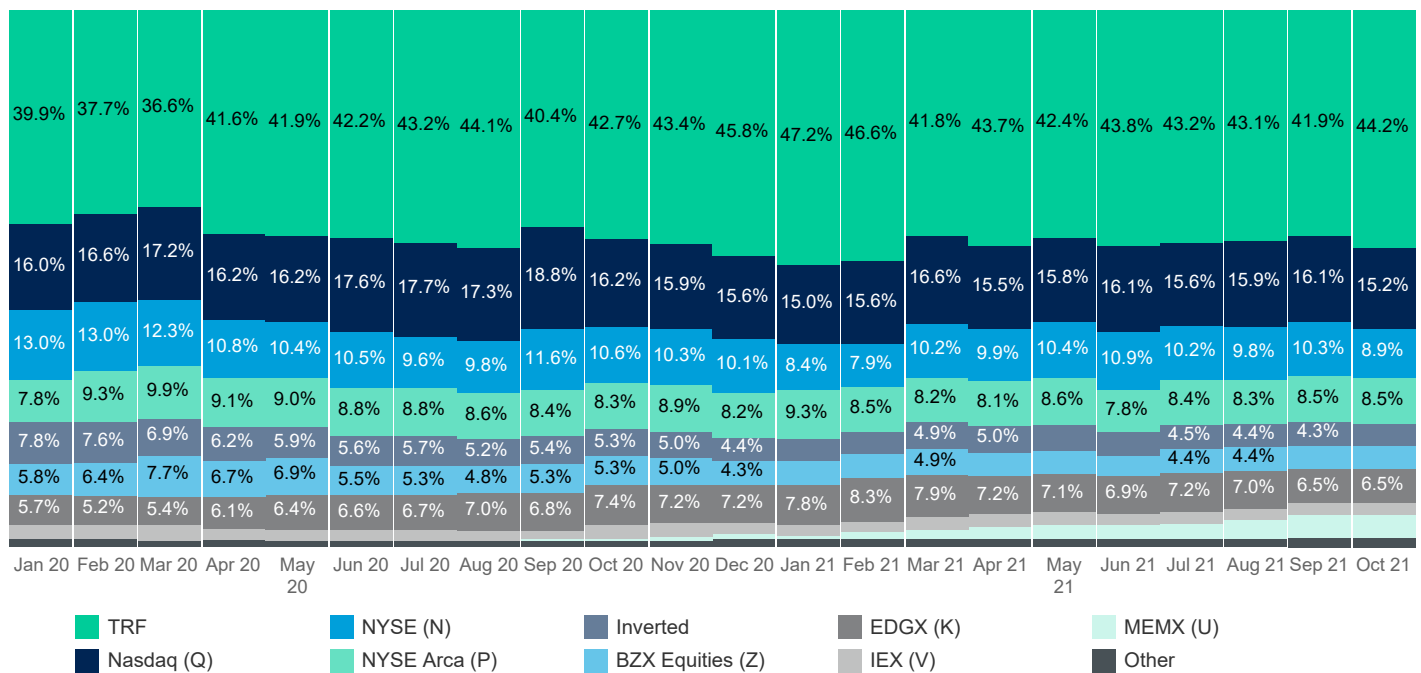


Average Daily Market Volume



Source data: Cboe Global Markets

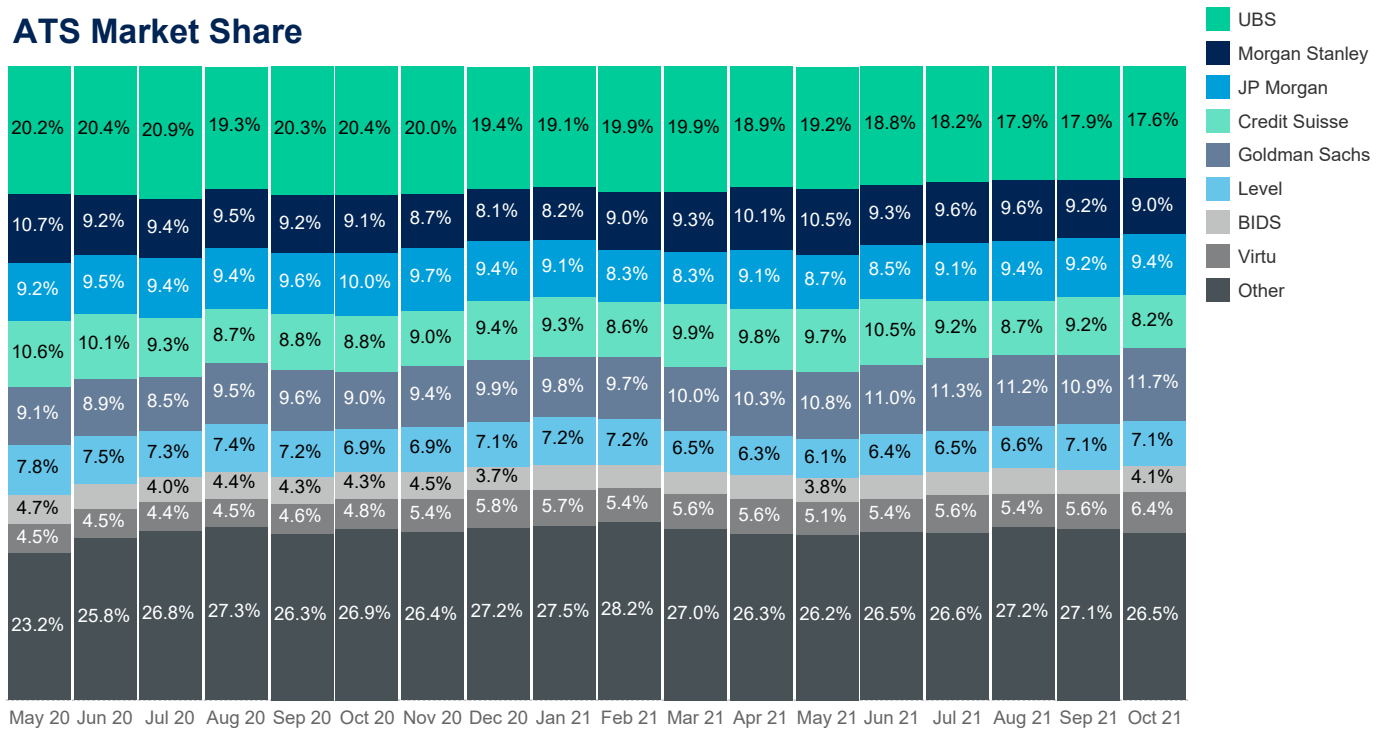
Venue Market Share



Source data: Cboe Global Markets

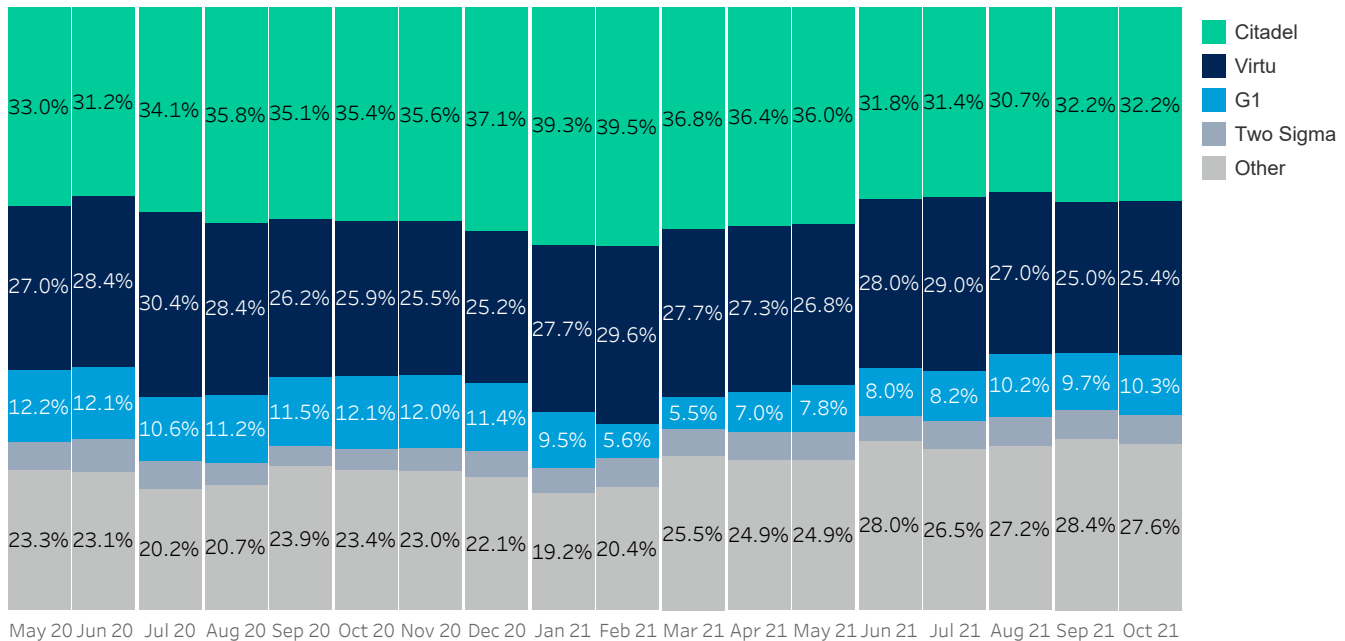


ATS Market Share



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

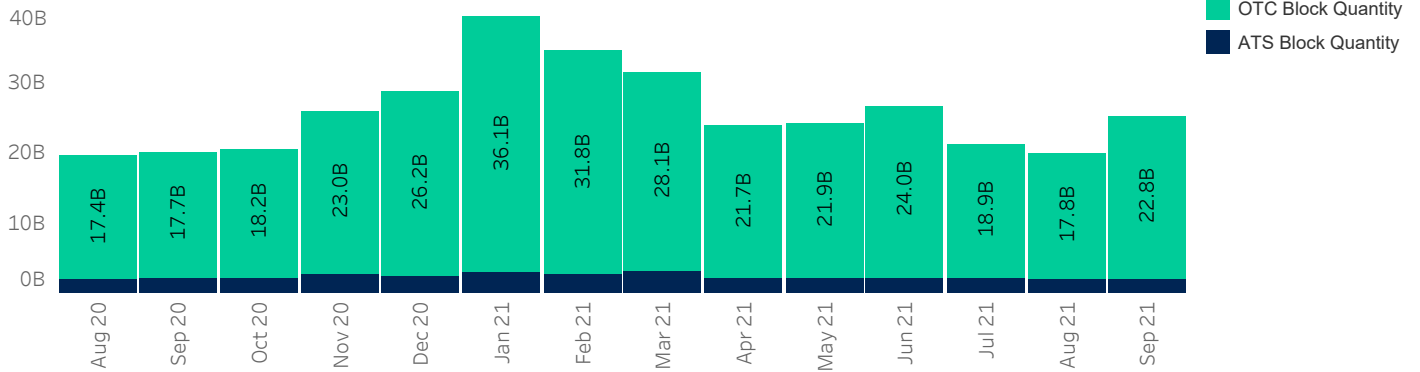
OTC Non-ATS Market Share



Source: FINRA, NMS Tier 1 & 2 Securities

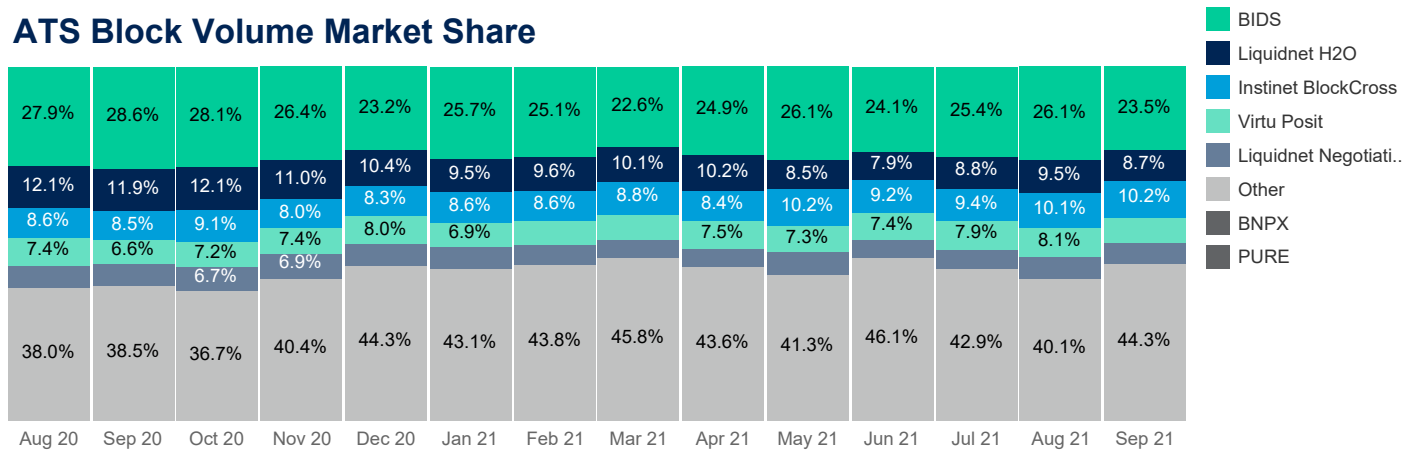


TRF Block Volume Breakdown (Shares)



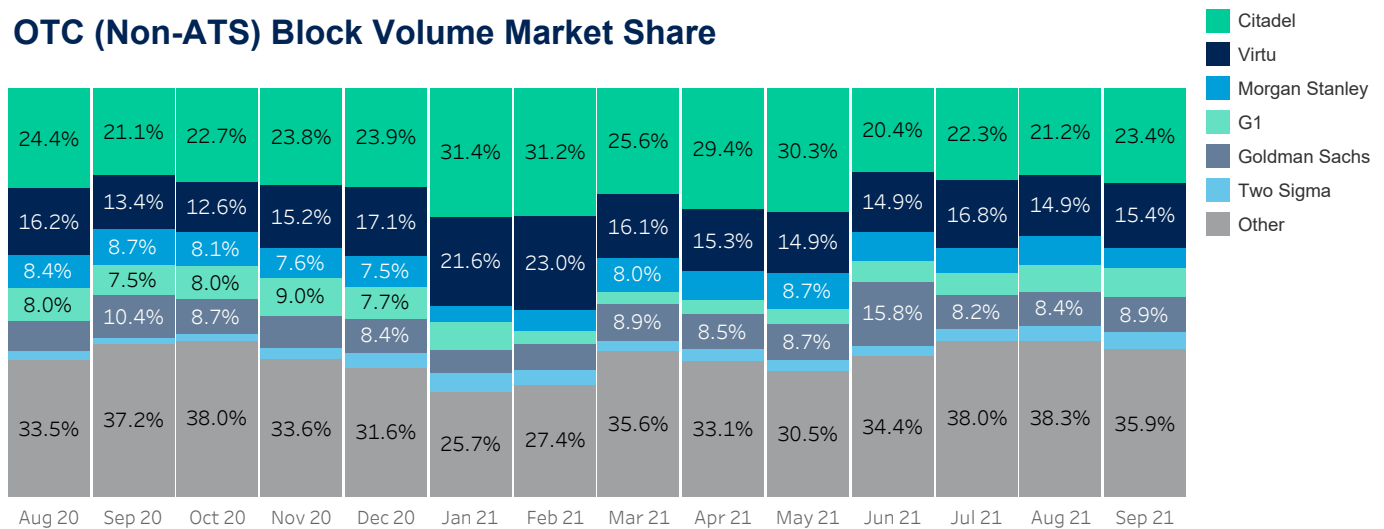
Source: FINRA

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

		4Q 20			1Q 21			2Q 21			3Q 21			4Q 21
		Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Aug 21	Sep 21	Oct 21
First 30 Min	SP500	206	201	197	192	193	191	188	184	178	177	176	171	170
	RUS2000	225	226	228	216	217	222	231	225	217	222	221	214	207
Mid Day	SP500	206	206	206	201	204	195	198	193	197	190	193	184	181
	RUS2000	236	236	232	223	220	207	216	211	213	210	215	208	205
Last 30 Min	SP500	236	231	233	231	238	217	225	224	239	232	238	219	210
	RUS2000	274	263	260	250	255	225	238	235	243	240	249	236	232

Spread Bps

First 30 Min	SP500	13.0	14.7	12.4	13.2	13.6	13.2	10.3	10.2	8.1	9.7	9.9	9.3	11.1
	RUS2000	57.1	67.2	60.3	63.2	61.8	67.0	57.7	56.8	45.0	52.7	51.5	45.7	47.3
Mid Day	SP500	6.4	6.5	5.4	5.7	5.3	5.6	4.4	4.3	3.5	4.1	4.0	4.1	4.3
	RUS2000	24.9	26.9	24.6	26.8	25.5	27.7	23.1	22.6	18.0	19.9	18.8	18.2	18.7
Last 30 Min	SP500	4.2	4.5	3.8	3.7	3.6	3.8	3.1	3.1	2.6	2.9	2.7	2.8	3.0
	RUS2000	18.9	21.2	19.1	19.7	19.3	20.8	17.5	16.9	14.1	14.4	14.2	14.3	14.8

One Minute Volatility Bps

First 30 Min	SP500	16.0	20.2	15.3	17.5	18.7	18.8	14.5	16.4	12.8	14.5	14.2	14.8	15.3
	RUS2000	16.9	20.9	16.5	20.7	22.1	25.8	18.4	21.6	15.9	19.3	18.8	18.6	17.7
Mid Day	SP500	7.1	7.7	5.8	6.9	6.7	7.9	5.4	6.1	4.5	5.3	4.8	5.4	5.2
	RUS2000	5.7	6.3	5.3	6.6	6.9	9.3	5.9	6.5	4.9	6.2	5.3	5.7	5.2
Last 30 Min	SP500	7.8	8.9	6.8	7.6	7.3	8.8	6.2	7.1	5.2	5.7	5.3	6.2	6.1
	RUS2000	7.3	8.8	7.4	8.7	8.7	11.8	7.5	8.6	6.5	7.2	6.6	7.7	7.2

Percent ADV by Time of Day

Open	SP500	1.1%	1.1%	1.1%	1.3%	1.2%	1.1%	1.3%	1.2%	1.1%	1.2%	1.1%	1.0%	1.1%
	RUS2000	0.9%	0.9%	0.8%	0.9%	1.0%	0.9%	0.9%	0.9%	0.8%	1.0%	0.9%	0.9%	0.9%
First 30 Min	SP500	9.2%	10.3%	9.5%	9.6%	10.1%	9.2%	9.6%	9.7%	9.5%	10.0%	9.7%	9.7%	9.5%
	RUS2000	7.6%	8.4%	7.8%	8.1%	8.7%	8.4%	8.1%	8.4%	7.9%	8.9%	8.8%	8.5%	8.3%
Last 30 Min	SP500	18.1%	17.4%	17.4%	16.9%	17.2%	17.6%	17.8%	18.4%	18.5%	18.3%	18.3%	18.2%	18.8%
	RUS2000	19.8%	18.8%	19.0%	18.5%	18.6%	18.6%	19.3%	19.3%	19.4%	19.8%	19.5%	19.6%	19.1%
Close	SP500	11.0%	10.7%	13.7%	12.0%	10.6%	11.9%	13.2%	11.1%	12.3%	12.5%	10.7%	11.7%	12.1%
	RUS2000	9.3%	9.9%	10.6%	10.0%	8.3%	9.2%	9.5%	8.7%	10.0%	9.9%	8.9%	9.7%	10.1%

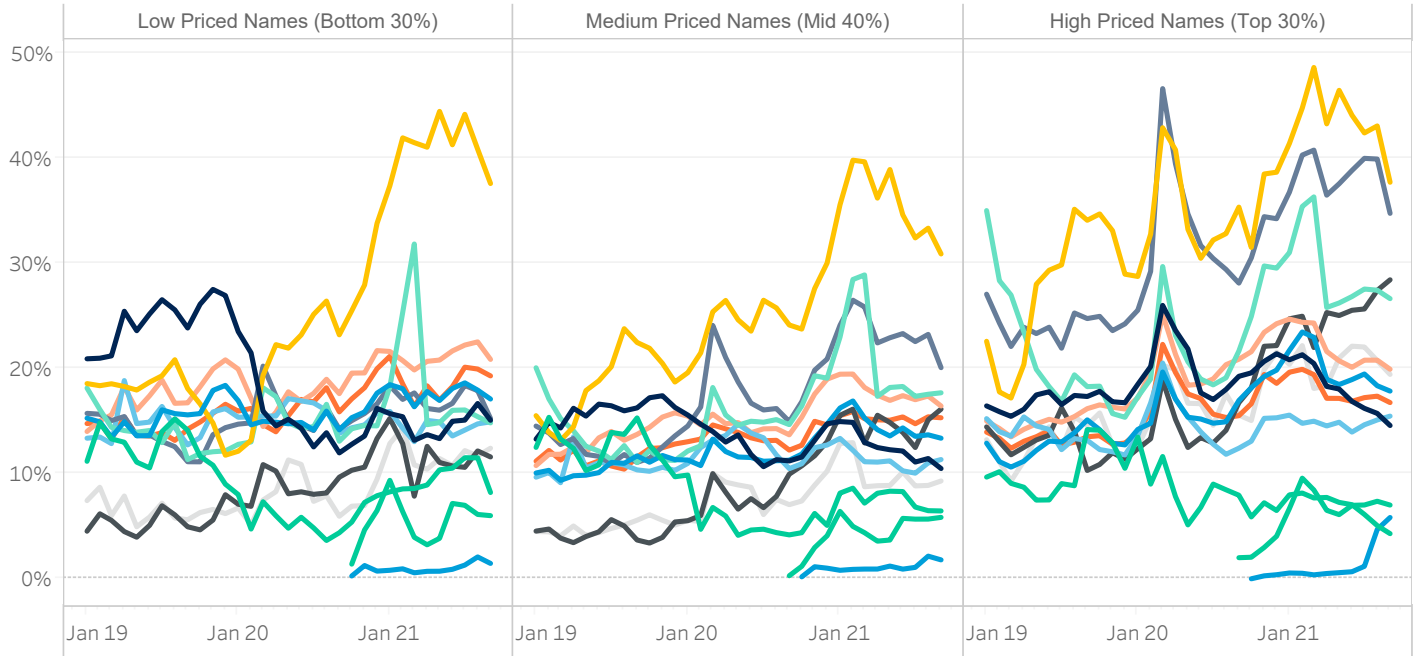
Median used for all metrics

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

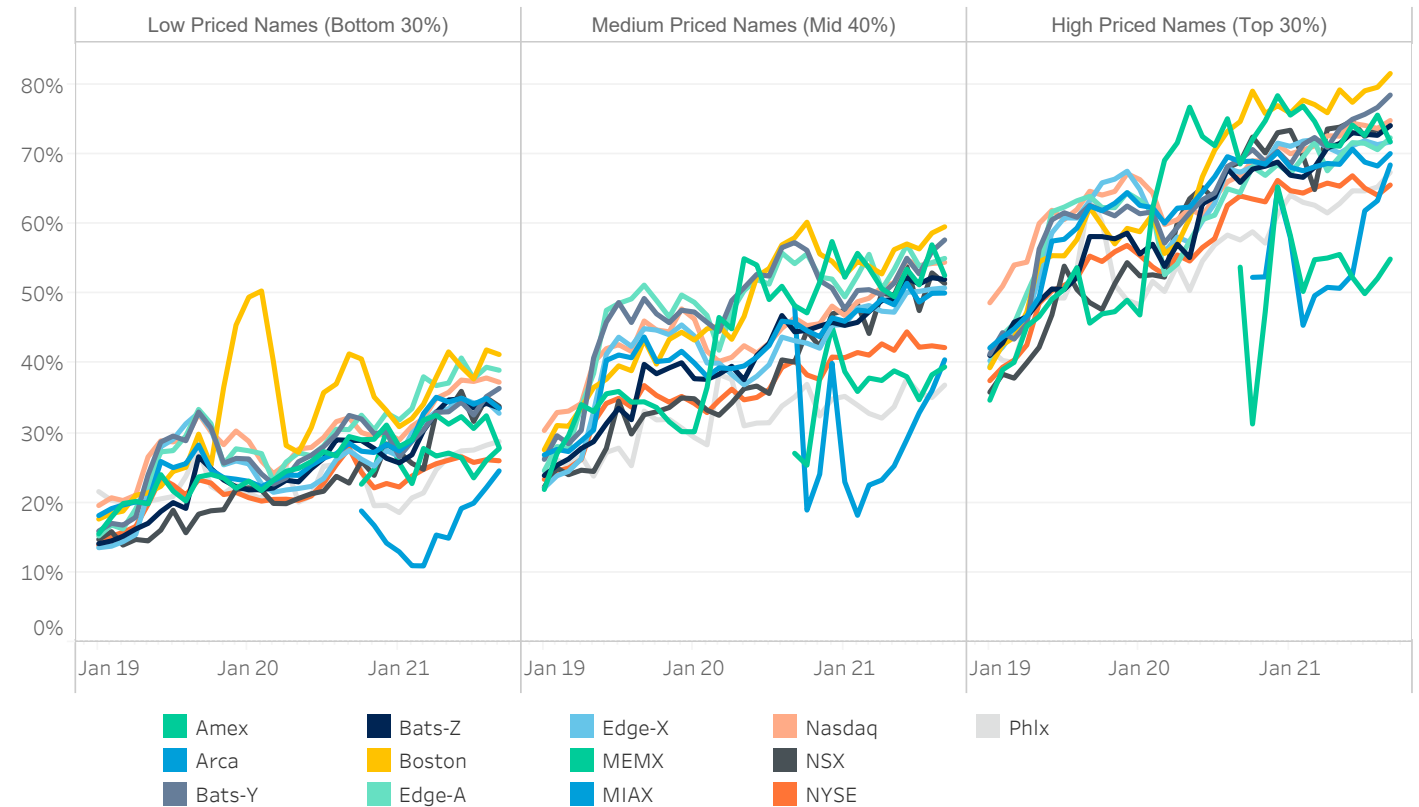
Source data: Virtu Financial



Hidden Trades Proportion by Price and Venue



Oddlot Trades Proportion by Price and Venue



Source data: SEC



ABOUT VIRTU

Virtu is a leading financial services firm that leverages cutting-edge technology to provide execution services and data, analytics and connectivity products to its clients and deliver liquidity to the global markets. Leveraging its global market making expertise and infrastructure, Virtu provides a robust product suite including offerings in execution, liquidity sourcing, analytics and broker-neutral, multi-dealer platforms in workflow technology. Virtu's product offerings allow clients to trade on hundreds of venues across 50+ countries and in multiple asset classes, including global equities, ETFs, foreign exchange, futures, fixed income and myriad other commodities. In addition, Virtu's integrated, multi-asset analytics platform provides a range of pre and post-trade services, data products and compliance tools that clients rely upon to invest, trade and manage risk across global markets.

To learn more, contact your sales representative or call our desk at:

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

© 2021 Virtu Financial, Inc. All rights reserved. Not to be reproduced or retransmitted without permission. These materials are for informational purposes and are not intended to be used to make trading or investment decisions, they are not intended as an offer to sell or the solicitation of an offer to buy any security or financial product, and are not intended as advice (investment, tax or legal). The information contained herein includes Virtu proprietary information and/or has been taken from sources we believe to be reliable, but we do not represent or warrant that such information is accurate or complete and it should not be relied upon as such.

Analytics products and services referenced herein may not be subject to oversight by regulatory authorities in one or more jurisdictions, including in Europe, where such products and services are offered by Virtu ITG Ventures Limited, registered in Ireland No. 295549 ("VIVL"). VIVL does not engage in regulated activity.

Securities products and services are offered by the following subsidiaries of Virtu Financial, Inc. In the U.S., Virtu Americas LLC, member FINRA and SIPC; in Canada, Virtu ITG Canada Corp., member Canadian Investor Protection Fund and Investment Industry Regulatory Organization of Canada; in Europe, Virtu ITG Europe Limited, registered in Ireland No. 283940 ("VIEL") (VIEL is authorized and regulated by the Central Bank of Ireland), and Virtu Financial Ireland Limited, registered in Ireland No. 471719 ("VFIL") (VFIL is authorized and regulated by the Central Bank of Ireland). The registered office of VIEL and VFIL is Whitaker Court, Whitaker Square, Sir John Rogerson's Quay, Dublin 2, Ireland; in Asia, Virtu ITG Hong Kong Limited (SFC License No. AHD810), Virtu ITG Singapore Pte Limited (CMS License No. 100138-1), and Virtu ITG Australia Limited (AFS License No. 219582)