

January 2022

US Market Structure Monthly



US Market Microstructure Observations

- The average daily volume in US equities was 12.4B shares in January 2022, up 14.8% month over month (MoM) while down 20.5% year over year.
- Trade reporting facility (TRF) market share decreased for the third consecutive month, down 1.2% MoM to 39.9%.
- Excluding the first and last half hour of the day, median spreads widened 1.8% and 2.9% MoM for S&P 500 and RUS 2000 symbols, respectively, in January 2022.
- Consistent with the trends in spreads, excluding the first and last half hour of the day, intraday volatility increased 24.6% and 20.3% MoM for S&P 500 and RUS 2000 symbols, respectively.
- MoM, the proportion of volume traded in the closing auction decreased from 10.7% to 8.9% for RUS 2000 symbols and decreased from 13.9% to 11.5% for S&P 500 symbols.

Market Structure News

The US Securities and Exchange Commission Propose to Change the Scope of “Exchange”

The US Securities and Exchange Commission (SEC) is requesting feedback to a proposal that seeks:

- a) Amendments to Exchange Act Rule 3b-16 regarding the definition of “exchange” to include “Communication Protocol Systems” (CPS), which would include Request for Quote (RFQ) systems, conditional order systems, “stream axes”, and negotiated orders initiated via OMS/EMS scraping systems.
- b) Amendments to Regulation ATS that impact ATSs that trade US government securities, NMS Stocks, and Other Securities. and
- c) Amendments to Regulation SCI for ATSs that Trade US Treasury Securities and Agency Securities.

<https://www.greenwich.com/blog/expanding-scope-%E2%80%9Cexchange%E2%80%9D%E2%80%94sec%E2%80%99s-latest-proposal>

<https://www.sec.gov/rules/proposed/2022/34-94062.pdf>

SEC Rejects Proposal to List Fidelity Bitcoin ETF

SEC rejected Cboe BZX Exchange Inc.’s proposal to list and trade shares of Fidelity’s Wise Origin Bitcoin Trust on the grounds that it did not meet standards to protect investors. This marks the sixth rejection to launch the first spot Bitcoin ETF since the SEC permitted futures-backed Bitcoin ETFs in October 2021.

<https://www.bloomberg.com/news/articles/2022-01-27/hopes-for-a-spot-bitcoin-etf-fade-with-yet-another-sec-denial?sref=GrQuSk5T>

Virtu Comment Letters

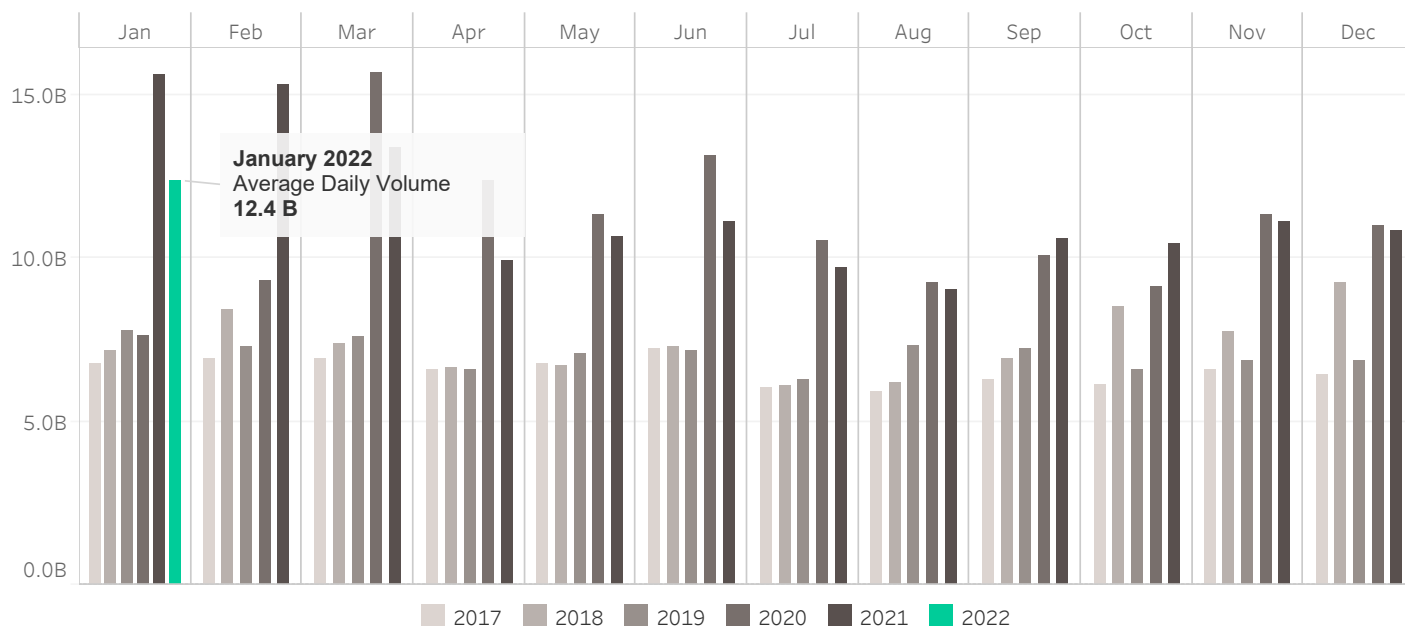
Virtu Commends the Transparency in IEX’s SEC Filing to Amend Market Data Fee Schedule

In a comment letter to the SEC regarding IEX’s proposal to charge fees for the distribution of certain proprietary market data feeds, Virtu commends the level of detail around costs and the disclosure regarding charging a markup, and encourages the Commission to use this process to establish a baseline for the disclosure that should be included in future fee filings.

<https://virtu-www.s3.amazonaws.com/uploads/documents/Virtu-Financial-IEX-Market-Data-comment-letter-20220126>

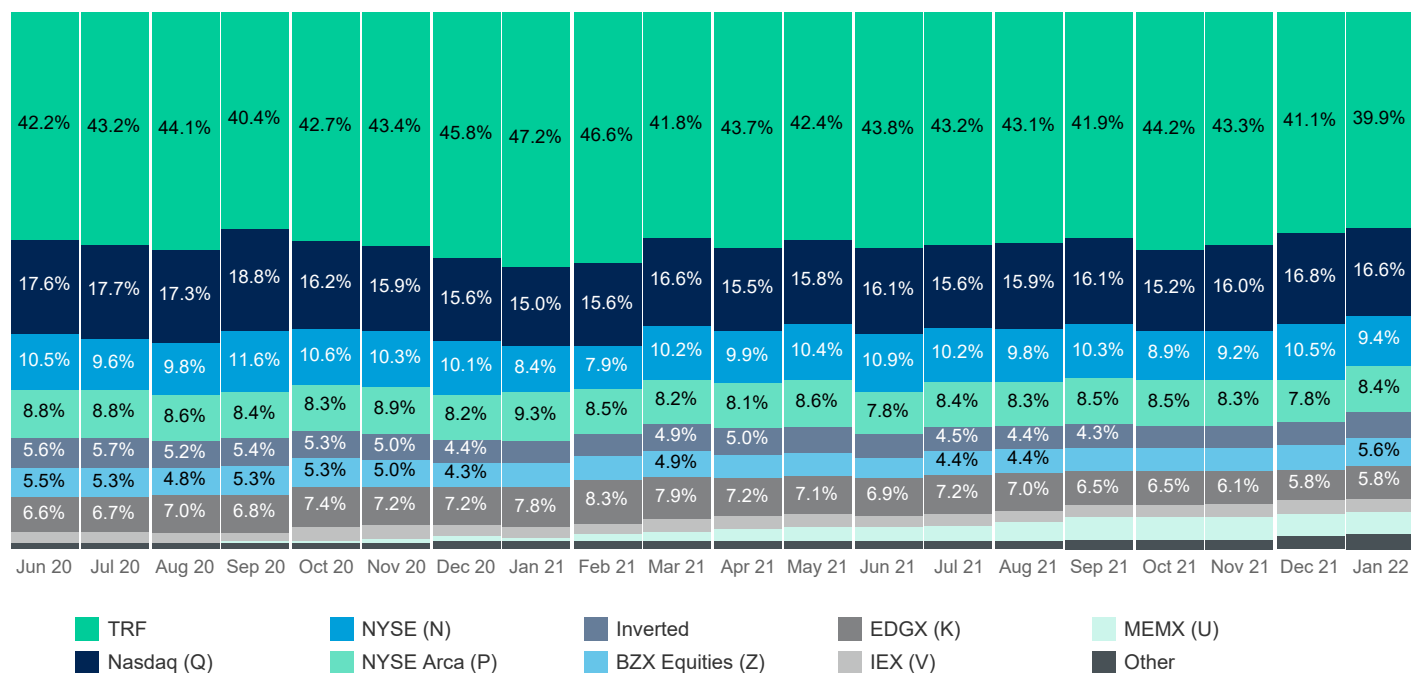


Average Daily Market Volume



Source data: Cboe Global Markets

Venue Market Share

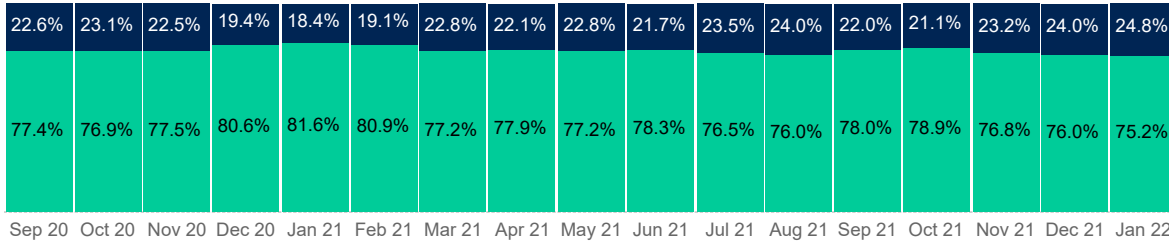


Source data: Cboe Global Markets



TRF Volume Breakdown

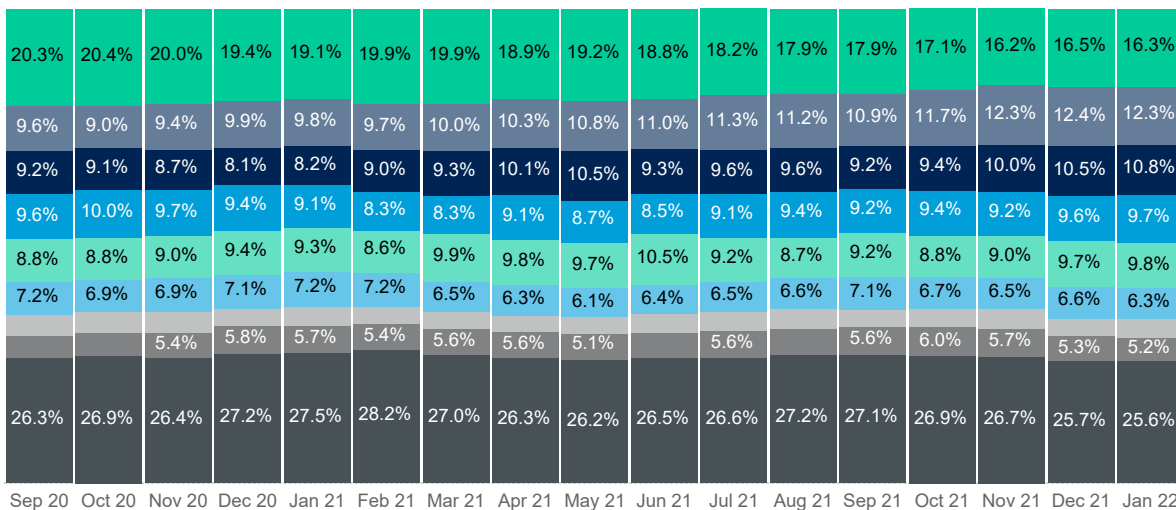
■ ATS
■ OTC Non ATS



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

ATS Market Share

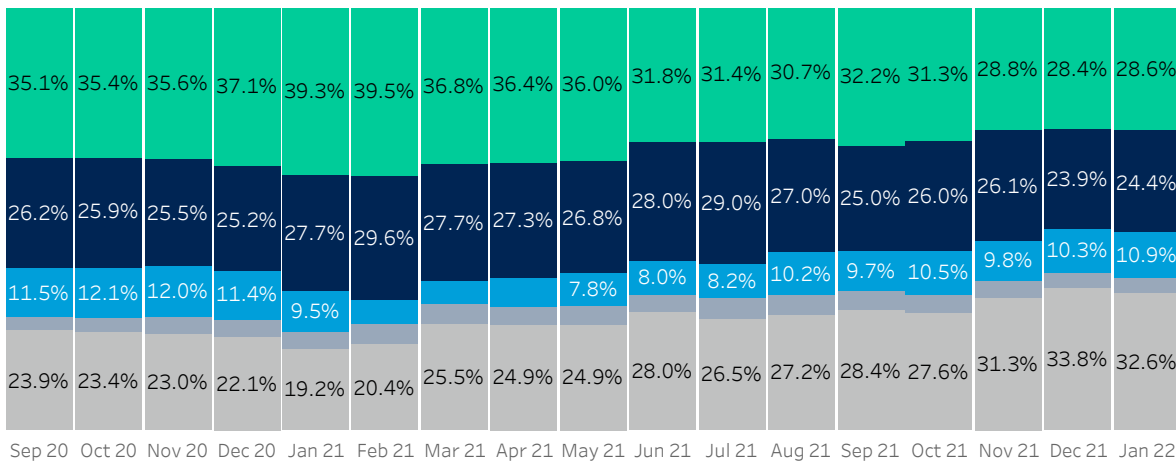
■ UBS
■ Goldman Sachs
■ Morgan Stanley
■ JP Morgan
■ Credit Suisse
■ Level
■ BIDS
■ Virtu
■ Other



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

OTC Non-ATS Market Share

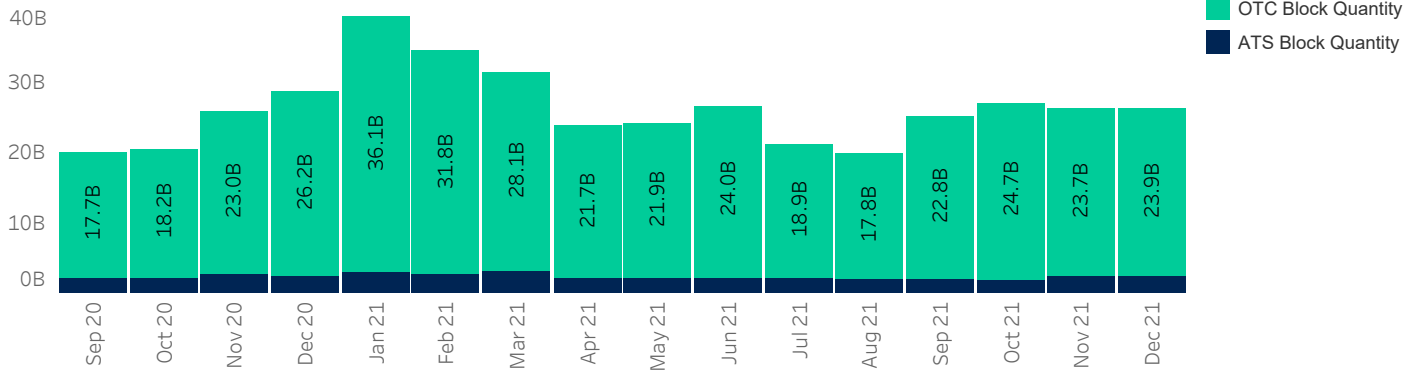
■ Citadel
■ Virtu
■ G1
■ Two Sigma
■ Other



Source: FINRA, NMS Tier 1 & 2 Securities

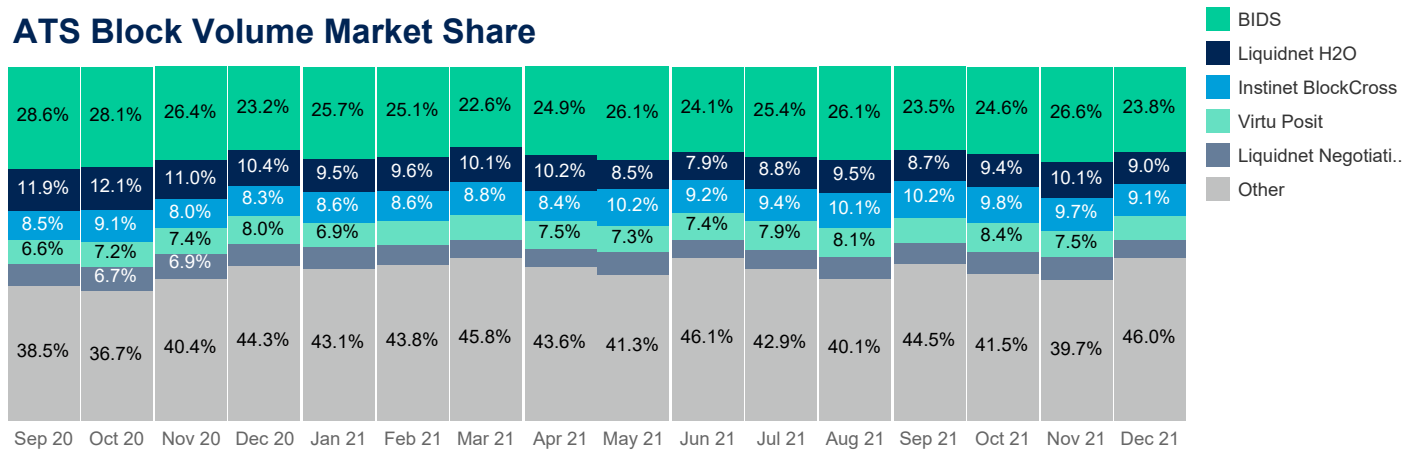


TRF Block Volume Breakdown (Shares)



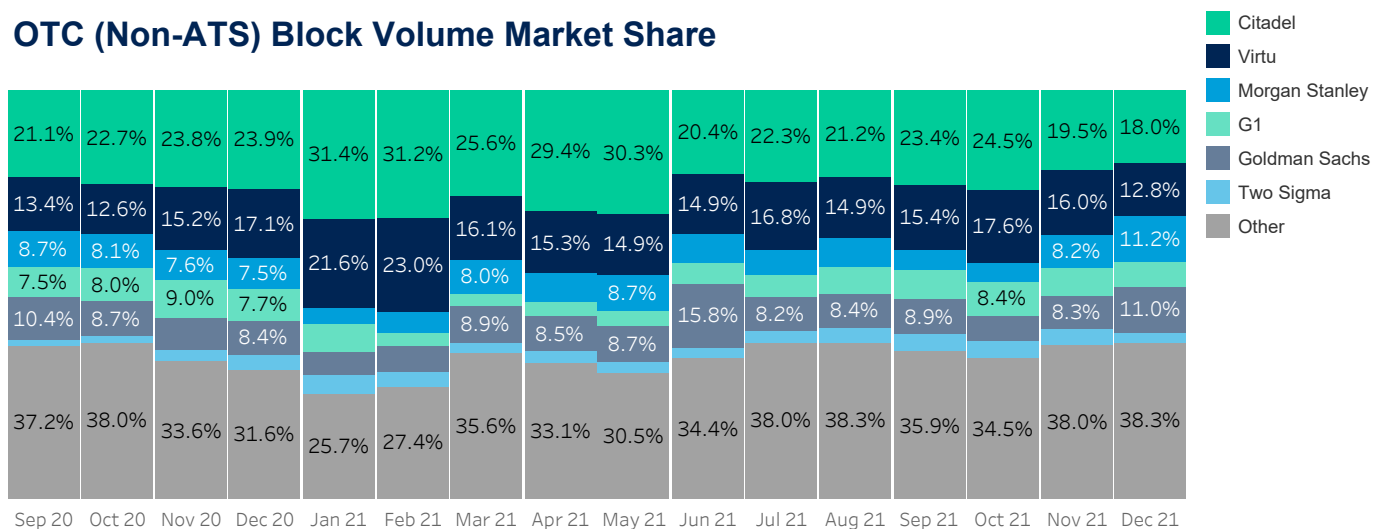
Source: FINRA

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 21			2Q 21			3Q 21			4Q 21			1Q 22
	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Aug 21	Sep 21	Oct 21	Nov 21	Dec 21	Jan 22
First 30 Min SP500	192	193	191	188	184	178	177	176	171	170	172	187	184
RUS2000	216	217	222	231	225	217	222	221	214	207	201	220	224
Mid Day SP500	201	204	195	198	193	197	190	193	184	181	183	192	188
RUS2000	223	220	207	216	211	213	210	215	208	205	209	219	225
Last 30 Min SP500	231	238	217	225	224	239	232	238	219	210	213	208	200
RUS2000	250	255	225	238	235	243	240	249	236	232	238	242	244

Spread Bps

First 30 Min SP500	13.2	13.6	13.2	10.3	10.2	8.1	9.7	9.9	9.3	11.1	12.3	13.9	14.2
RUS2000	63.2	61.8	67.0	57.7	56.8	45.0	52.7	51.5	45.7	47.3	50.2	58.4	57.4
Mid Day SP500	5.7	5.3	5.6	4.4	4.3	3.5	4.1	4.0	4.1	4.3	4.7	5.6	5.7
RUS2000	26.8	25.5	27.7	23.1	22.6	18.0	19.9	18.8	18.2	18.7	21.0	24.2	24.9
Last 30 Min SP500	3.7	3.6	3.8	3.1	3.1	2.6	2.9	2.7	2.8	3.0	3.1	3.7	3.8
RUS2000	19.7	19.3	20.8	17.5	16.9	14.1	14.4	14.2	14.3	14.8	15.6	18.0	18.6

One Minute Volatility Bps

First 30 Min SP500	17.5	18.7	18.8	14.5	16.4	12.8	14.5	14.2	14.8	15.3	15.9	17.3	20.0
RUS2000	20.7	22.1	25.8	18.4	21.6	15.9	19.3	18.8	18.6	17.7	18.9	22.2	23.2
Mid Day SP500	6.9	6.7	7.9	5.4	6.1	4.5	5.3	4.8	5.4	5.2	5.0	6.1	7.6
RUS2000	6.6	6.9	9.3	5.9	6.5	4.9	6.2	5.3	5.7	5.2	5.2	5.9	7.1
Last 30 Min SP500	7.6	7.3	8.8	6.2	7.1	5.2	5.7	5.3	6.2	6.1	5.5	7.2	9.0
RUS2000	8.7	8.7	11.8	7.5	8.6	6.5	7.2	6.6	7.7	7.2	7.3	9.1	10.0

Percent ADV by Time of Day

Open SP500	1.3%	1.2%	1.1%	1.3%	1.2%	1.1%	1.2%	1.1%	1.0%	1.1%	1.1%	1.0%	1.0%
RUS2000	0.9%	1.0%	0.9%	0.9%	0.9%	0.8%	1.0%	0.9%	0.9%	0.9%	0.9%	0.8%	0.7%
First 30 Min SP500	9.6%	10.1%	9.2%	9.6%	9.7%	9.5%	10.0%	9.7%	9.7%	9.5%	9.7%	9.2%	9.2%
RUS2000	8.1%	8.7%	8.4%	8.1%	8.4%	7.9%	8.9%	8.8%	8.5%	8.3%	8.5%	8.2%	7.5%
Last 30 Min SP500	16.9%	17.2%	17.6%	17.8%	18.4%	18.5%	18.3%	18.3%	18.2%	18.8%	18.3%	18.4%	18.7%
RUS2000	18.5%	18.6%	18.6%	19.3%	19.3%	19.4%	19.8%	19.5%	19.6%	19.1%	19.4%	19.8%	20.3%
Close SP500	12.0%	10.6%	11.9%	13.2%	11.1%	12.3%	12.5%	10.7%	11.7%	12.1%	11.5%	13.9%	11.5%
RUS2000	10.0%	8.3%	9.2%	9.5%	8.7%	10.0%	9.9%	8.9%	9.7%	10.1%	8.8%	10.7%	8.9%

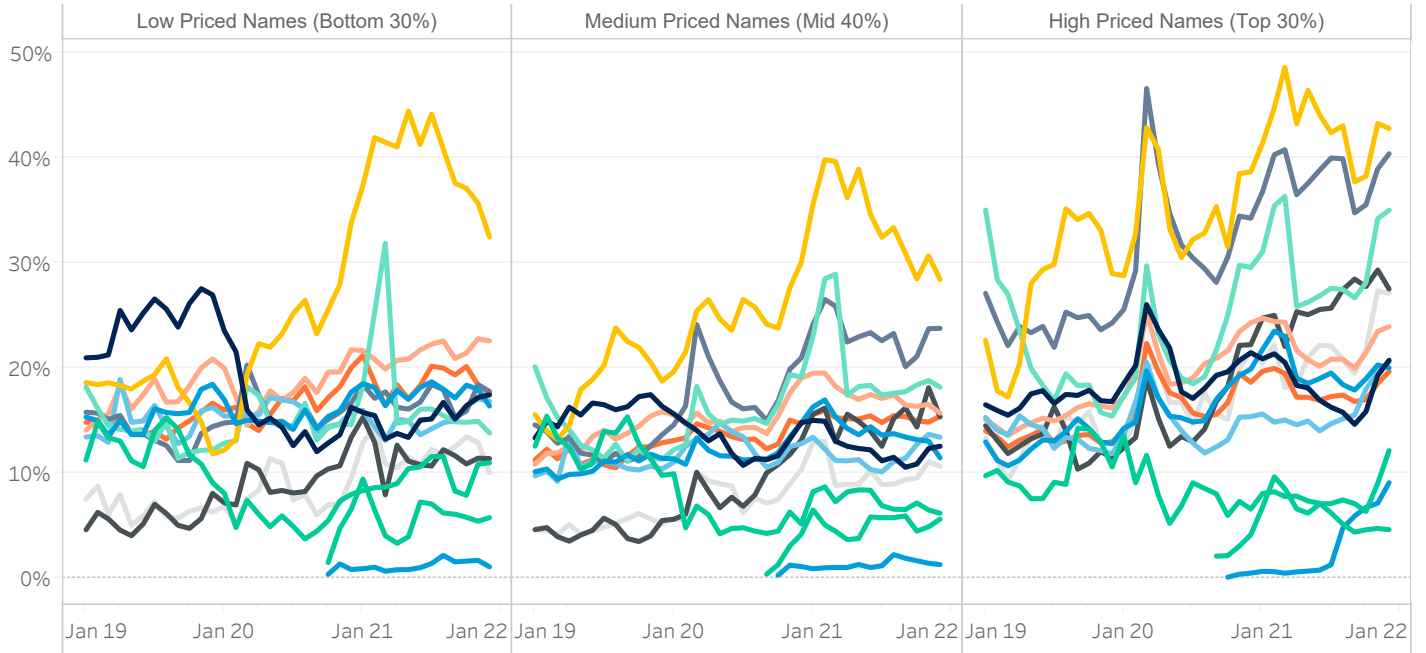
Median used for all metrics

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

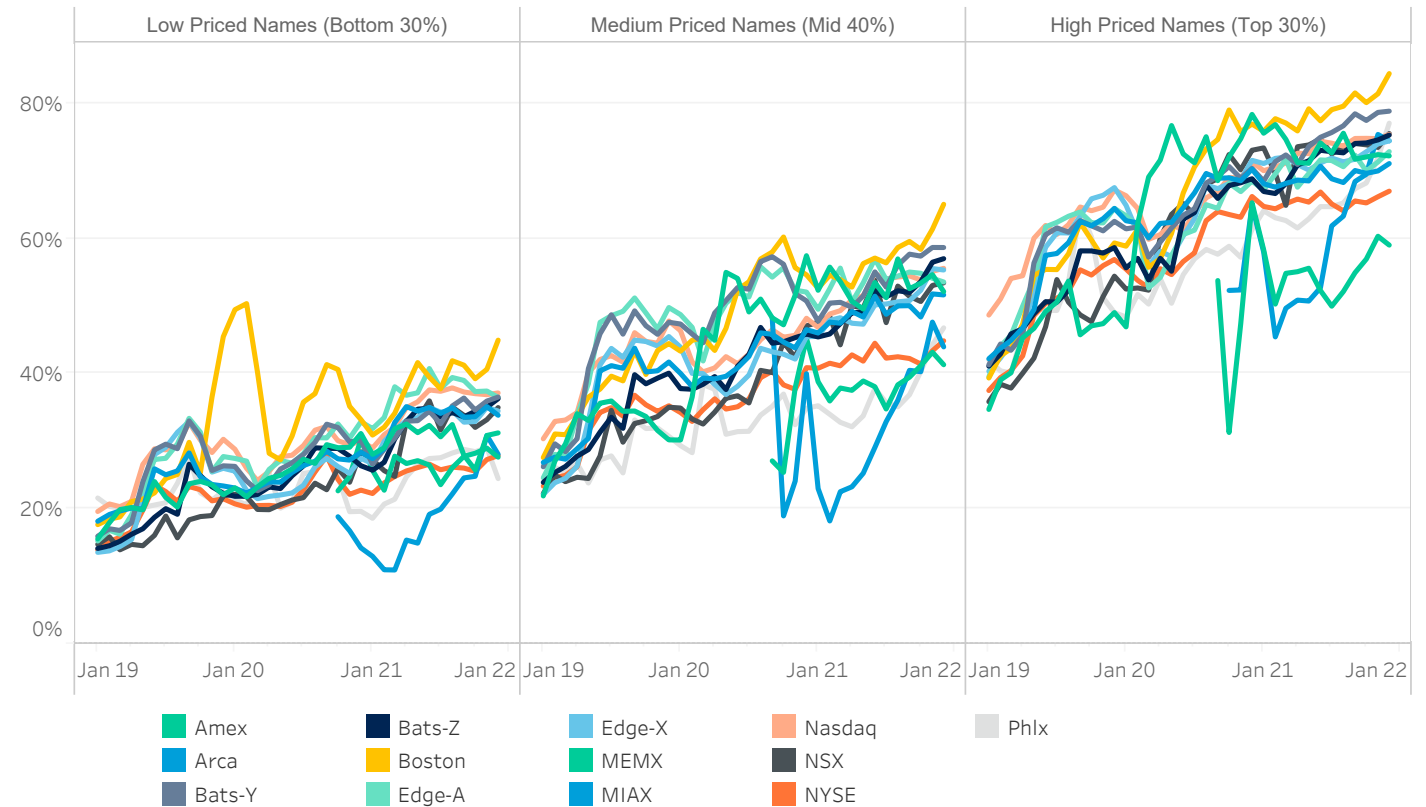
Source data: Virtu Financial



Hidden Trades Proportion by Price and Venue



Oddlot Trades Proportion by Price and Venue



Source data: SEC



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