

August 2024

US Market Structure Monthly

MICROSTRUCTURE OBSERVATIONS

- The average daily volume in US equities was 11.5B shares in August 2024, up 3% month over month (MoM) and up 10% year over year (YoY).
 - Volume in sub \$1 dollar stocks as a percent of total consolidated share volume was 12% in August 2024, down 1% from 13% in July 2024 and down 3% from August 2023.
- Trade reporting facility (TRF) share volume as a percent of total consolidated share volume was 47.0% in August 2024, the second consecutive month where the TRF was at or above 47%.
- Quoted spreads in both S&P 500 and Russell 2000 stocks widened in August 2024 to their highest levels of the year. Excluding the first and last half hour of the trading day, the median S&P 500 stock's spread increased to 6.5bps in August, from 5.6bps the prior month, while the median Russell 2000 stock's spread increased to 23.2bps in August from 21.9bps the prior month.

US MARKET STRUCTURE NEWS

Nasdaq Proposes Stricter Rules for Delisting Penny Stocks

In early August, Nasdaq filed with the Securities and Exchange Commission (SEC) to amend its rules pertaining to delisting securities on its market that fall below a \$1 stock price. Under current rules, companies listed on Nasdaq whose shares have a closing price below \$1 for 30 consecutive days are deemed non-compliant and are given 180 days for their share price to get above \$1 to avoid delisting. After the 180-day period, listing companies can request an additional 180 days to get their share price over \$1, and then have the option to appeal Nasdaq's delisting ruling after the second 180-day period. Under the new proposal, Nasdaq will eliminate the ability for listing companies to appeal delisting after the 360-day period. Additionally, under the proposal, Nasdaq would immediately delist a company if its share price fell below \$1 and effected a reverse stock split within the prior 1 year.

<https://www.reuters.com/markets/us/nasdaq-considers-stricter-delisting-rules-penny-stocks-2024-08-08/>

SEC Pulls Back from Swing Pricing Proposal

In an SEC meeting agenda on August 28th, the Commission did not include mention of a swing pricing proposal for mutual funds that was originally proposed in November 2022. Instead, the SEC approved more frequent disclosures of mutual fund performance that had accompanied the swing pricing proposal, as well as issued guidance on existing liquidity risk management rules. The swing pricing proposal, which would allow funds to adjust the share price of a fund above or below the fund's net asset value in times of heavy redemptions, received opposition from the mutual fund industry and certain Democratic lawmakers, citing concerns on the incremental costs investors would incur due to the measure.

<https://finance.yahoo.com/news/sec-retreats-swing-pricing-mandate-142148746.html>

SEC Adopts More Frequent Mutual Fund Holding Disclosures

The SEC adopted amendments to the reporting requirements for mutual funds on Form N-PORT, which will provide the Commission and investors more frequent disclosures on fund holdings. The new rules will require mutual funds to report portfolio holdings on Form N-PORT monthly and within 30 days of the month's end. Under current rules, funds are required to file portfolio holdings on a quarterly basis and

must report these holdings 60 days after the quarter's end. The new amendments will become effective in November 2025.

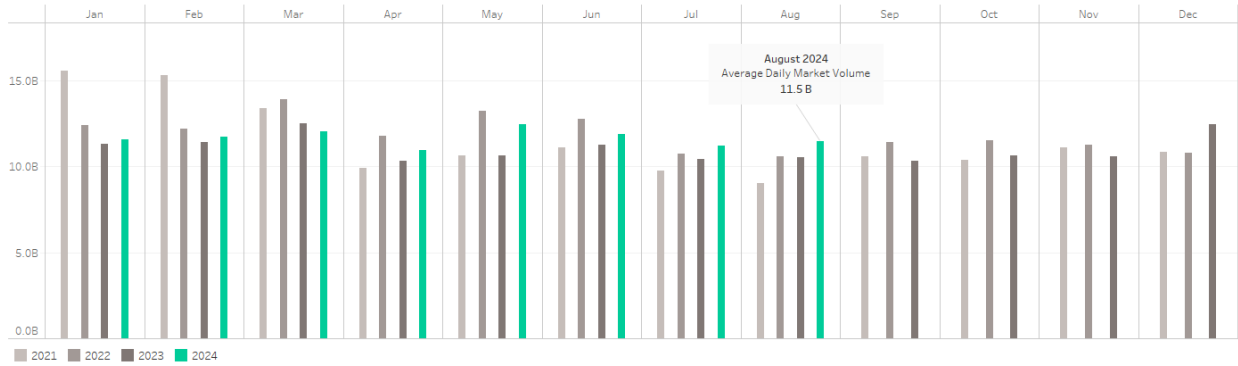
<https://www.sec.gov/newsroom/press-releases/2024-110>

SEC Ends Legal Battle on Private Fund Fee Disclosure Rule

The SEC will not challenge a June 2024 ruling by the 5th U.S. Circuit Court of Appeals that overturned the Commission's new rules that would have required private funds to provide investors more disclosures on fees and expenses. The SEC had a deadline of September 3, 2024, to take the case before the Supreme Court. The June ruling by the Court of Appeals said that the SEC had overstepped its authority, citing that the Commission's basis for the new disclosure rules were based on current laws that are intended to protect retail investors, which are not the investors in private funds.

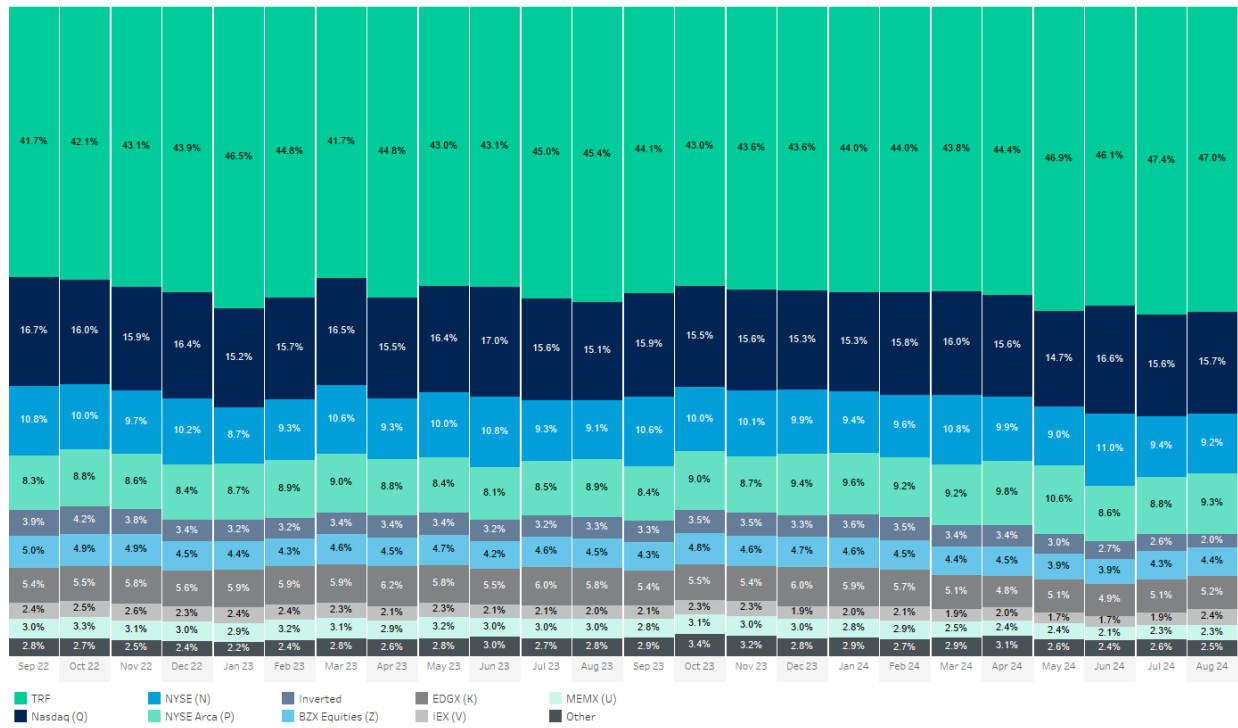
<https://www.bloomberg.com/news/articles/2024-09-04/sec-ends-legal-push-to-revive-hedge-fund-fee-disclosure-rule>

Average Daily Market Volume



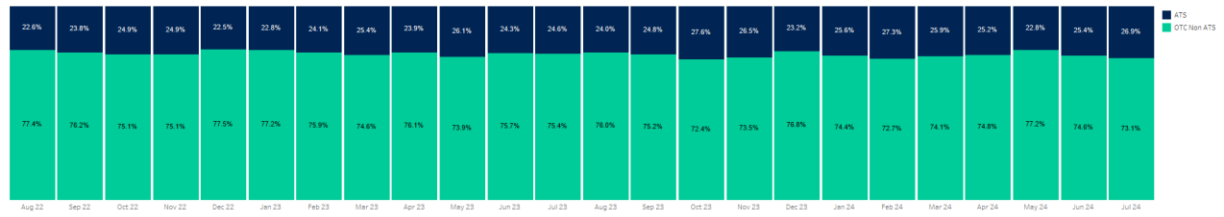
Source: Cboe Global Markets

Venue Market Share



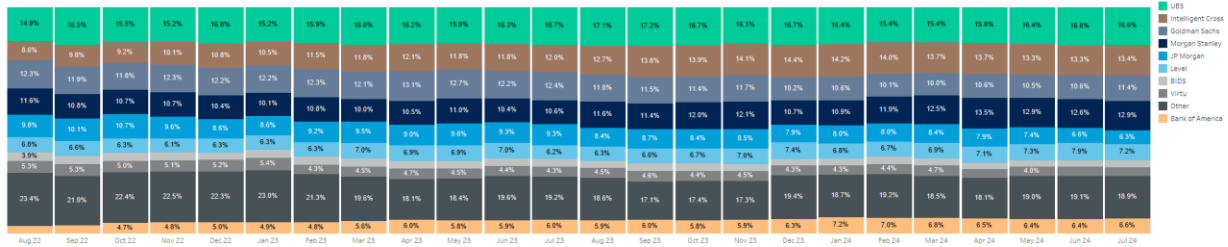
Source: Cboe Global Markets

TRF Volume Breakdown



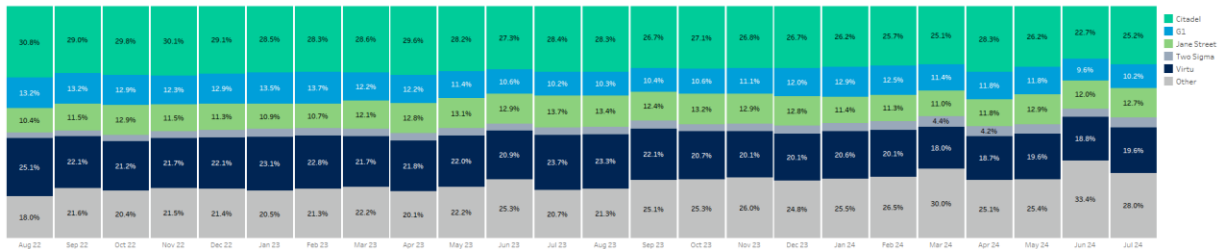
NMS Tier 1 & 2 Securities, Excludes Dealership
Source: FINRA

ATS Market Share



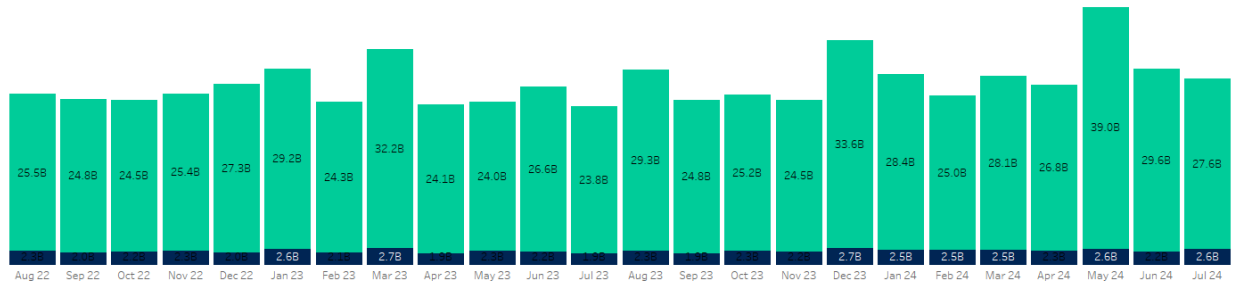
Excludes Dealership and OTC, Venues rolled up to firm level
Source: FINRA

OTC Non-ATS Market Share



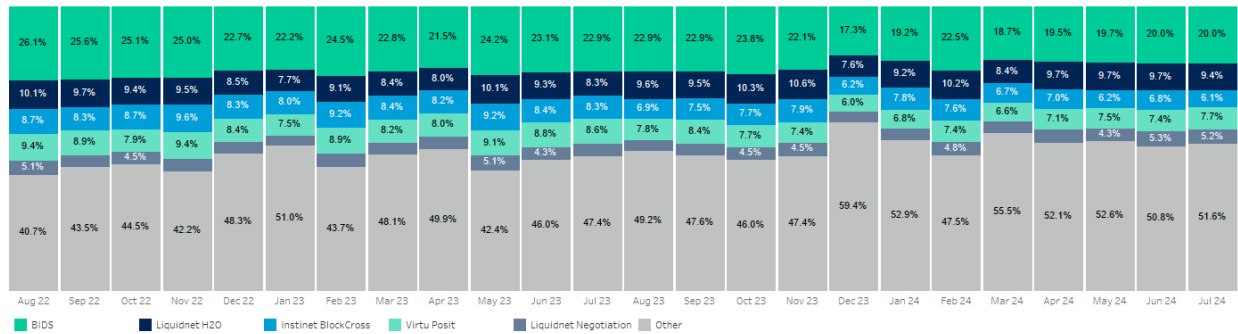
NMS Tier 1 & 2 Securities
Source: FINRA

TRF Block Volume Breakdown (Shares)



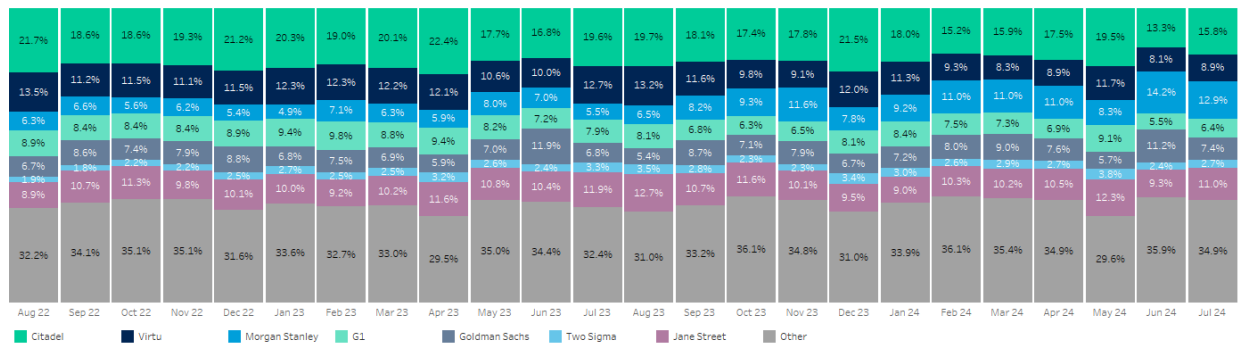
■ OTC Block Quantity ■ ATS Block Quantity

ATS Block Volume Market Share



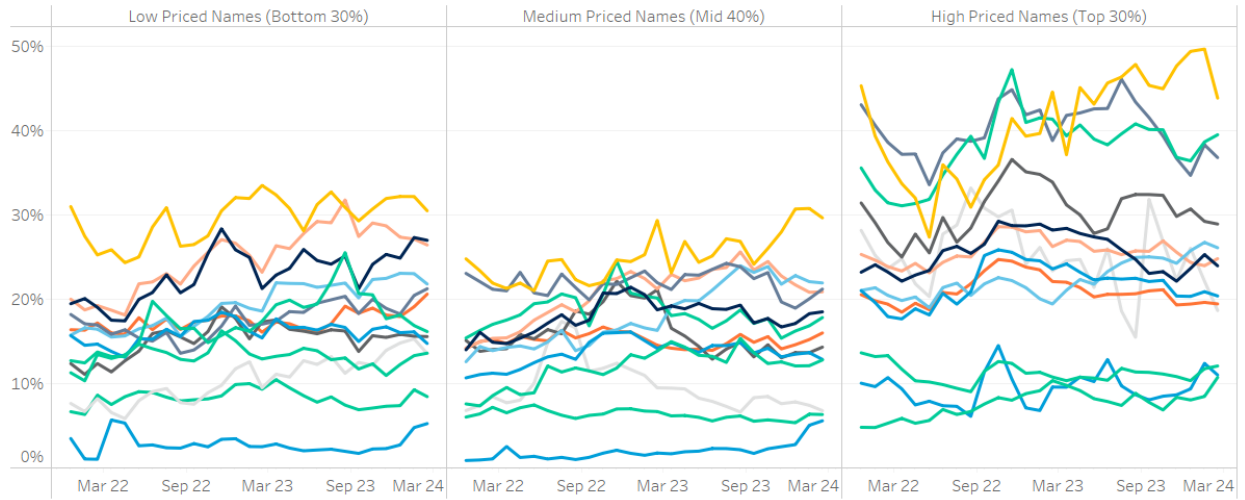
Excludes Dealerweb; Blocks defined as >10K shares
Source: FINRA

OTC (Non-ATS) Block Volume Market Share

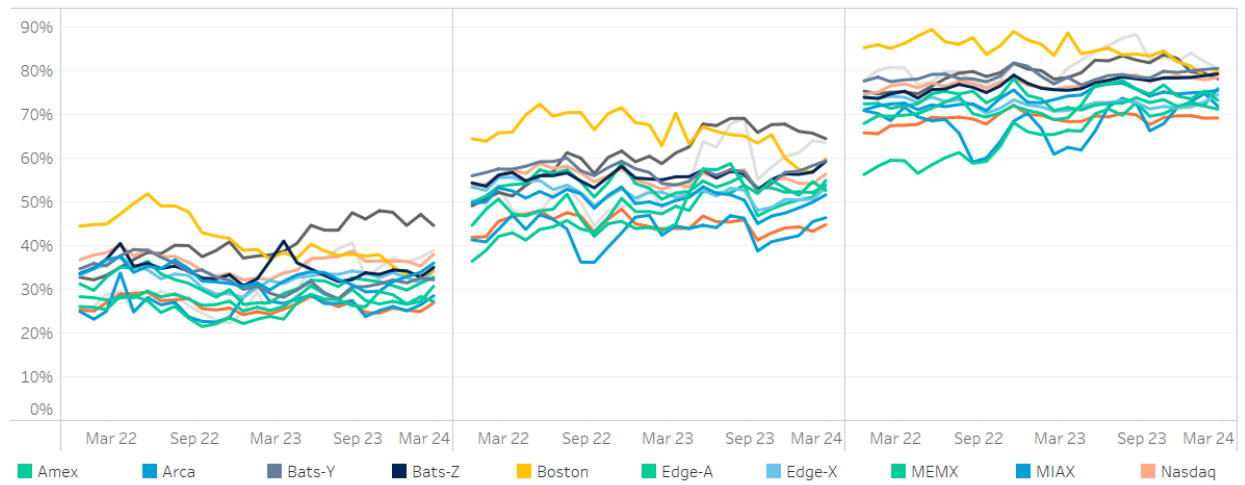


Blocks defined as >10K shares
Source: FINRA

Hidden Trades Proportion by Price and Venue



Oddlot Trades Proportion by Price and Venue



Source: SEC

Quotesize in Shares

		3Q 22			4Q 22			1Q 23			2Q 23			3Q 23			4Q 23			1Q 24			2Q 24			3Q 24	
		Sep 22	Oct 22	Nov 22	Dec 22	Jan 23	Feb 23	Mar 23	Apr 23	May 23	Jun 23	Jul 23	Aug 23	Sep 23	Oct 23	Nov 23	Dec 23	Jan 24	Feb 24	Mar 24	Apr 24	May 24	Jun 24	Jul 24	Aug 24		
First 30 Min	SP500	183	187	186	189	194	218	235	229	227	226	222	224	222	230	236	243	247	240	241	239	236	240	244	245		
	RUS2000	225	232	226	231	250	271	300	300	298	290	278	288	288	300	301	307	306	300	298	293	285	293	289	283		
Mid Day	SP500	184	189	192	194	199	214	228	224	217	216	213	212	211	211	220	224	221	218	219	219	221	223	222	215		
	RUS2000	235	245	248	250	257	262	279	283	280	275	270	275	283	286	300	300	294	283	291	288	292	300	288	268		
Last 30 Min	SP500	201	212	210	210	216	222	230	231	222	226	222	212	217	212	226	227	222	221	220	217	221	222	221	209		
	RUS2000	263	274	279	291	289	283	300	309	300	304	289	288	303	316	331	318	314	304	307	308	314	317	304	276		

Spread Bps

First 30 Min	SP500	10.7	12.5	12.9	12.3	11.7	11.4	10.7	9.6	10.7	10.9	10.1	10.8	10.3	12.4	11.7	10.8	11.6	11.6	11.3	11.8	11.7	13.1	14.7	17.1
	RUS2000	43.2	49.2	51.1	49.8	47.8	47.1	48.9	44.7	47.7	45.4	40.3	40.8	39.4	45.6	48.1	44.8	43.6	43.9	43.3	43.2	44.0	50.7	51.8	58.2
Mid Day	SP500	4.9	5.4	5.5	5.1	4.9	5.0	5.1	4.4	5.0	4.6	4.2	4.8	4.6	5.4	5.0	4.4	4.2	4.4	4.3	5.0	4.7	5.2	5.6	6.5
	RUS2000	18.7	19.9	21.2	18.6	18.1	18.3	19.6	18.0	19.6	17.8	16.3	17.2	17.4	20.4	20.6	19.2	18.1	18.7	18.4	19.0	19.2	20.5	21.9	23.2
Last 30 Min	SP500	3.2	3.4	3.2	3.2	3.1	3.2	3.2	3.0	3.3	3.0	2.8	3.1	3.1	3.3	3.1	2.9	2.8	2.9	3.0	3.2	3.1	3.4	3.5	4.1
	RUS2000	14.1	14.7	15.5	14.2	13.6	14.1	14.7	14.2	15.2	13.8	13.0	13.3	13.2	14.4	14.7	13.9	13.0	13.5	13.9	14.6	14.4	15.5	16.1	17.1

One Minute Volatility Bps

First 30 Min	SP500	17.5	20.4	17.7	14.4	14.5	13.9	14.9	12.9	13.8	14.8	14.6	12.7	12.3	16.4	13.7	12.0	13.5	13.7	12.1	12.6	11.0	11.8	13.3	13.0
	RUS2000	20.8	23.1	21.4	16.2	16.2	17.0	17.2	14.6	15.9	16.5	16.2	15.1	14.0	17.6	17.6	16.3	16.1	15.4	14.3	12.0	11.1	10.2	13.5	13.5
Mid Day	SP500	8.6	8.1	6.8	5.8	5.7	5.9	6.7	4.9	5.4	4.8	4.6	4.9	4.1	6.2	4.9	4.3	4.6	4.8	4.2	4.9	3.5	3.5	4.0	4.6
	RUS2000	7.4	6.7	5.4	4.1	3.8	4.5	5.5	2.9	3.6	3.3	3.0	2.8	1.5	3.2	2.4	2.8	2.9	3.6	2.3	2.4	1.5	1.0	2.4	2.9
Last 30 Min	SP500	9.3	8.8	7.1	6.5	6.3	6.9	7.4	5.9	6.0	5.5	5.4	5.7	5.1	6.3	5.3	5.0	5.3	5.7	5.6	6.3	5.0	5.1	5.5	6.7
	RUS2000	8.9	7.2	6.8	5.7	5.4	6.9	7.9	5.4	5.9	5.2	4.9	5.0	3.8	4.5	4.5	5.6	5.0	5.8	5.9	5.8	5.0	4.3	6.5	7.4

Percent ADV by Time of Day

Open	SP500	0.9%	0.9%	0.9%	1.1%	0.9%	1.0%	0.9%	1.1%	1.0%	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%	1.0%	1.0%	1.0%	0.9%	1.0%	1.0%	1.0%	1.0%	1.0%
	RUS2000	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.8%	0.7%	0.6%	0.7%	0.7%	0.6%	0.6%	0.7%	0.7%	0.9%	0.8%	0.8%	0.7%	0.8%	0.8%	0.8%	0.8%
First 30 Min	SP500	9.0%	9.0%	9.2%	8.6%	8.7%	8.6%	8.5%	8.7%	8.8%	8.7%	9.1%	8.4%	8.1%	8.1%	8.5%	8.0%	8.3%	8.6%	7.9%	7.9%	8.1%	7.7%	7.8%	7.8%
	RUS2000	7.4%	7.6%	7.5%	7.2%	7.5%	7.5%	7.2%	7.3%	7.5%	7.3%	7.5%	7.3%	6.9%	6.4%	7.0%	6.9%	7.7%	7.5%	7.4%	6.6%	6.7%	6.4%	7.0%	6.4%
Last 30 Min	SP500	18.7%	18.8%	18.7%	19.0%	19.3%	19.3%	18.7%	19.4%	18.9%	18.8%	19.2%	20.3%	20.1%	19.5%	19.1%	19.2%	19.1%	19.0%	19.2%	19.8%	20.2%	19.7%	19.7%	20.0%
	RUS2000	20.1%	20.0%	21.0%	20.0%	20.3%	20.6%	19.9%	20.4%	19.9%	20.1%	20.3%	20.8%	21.3%	20.9%	20.6%	20.1%	19.6%	20.3%	20.0%	20.7%	21.0%	21.3%	20.9%	21.1%
Close	SP500	12.3%	11.9%	11.6%	14.7%	12.9%	12.2%	13.4%	13.6%	12.9%	14.1%	13.4%	13.8%	16.3%	13.7%	14.7%	16.2%	15.3%	14.2%	16.3%	15.1%	15.7%	17.0%	15.5%	17.1%
	RUS2000	11.4%	11.6%	10.4%	11.9%	10.7%	11.0%	11.4%	11.8%	11.0%	11.7%	11.6%	11.7%	14.5%	14.5%	13.3%	14.2%	13.8%	13.8%	12.7%	14.9%	14.0%	13.8%	14.3%	13.8%

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: Virtu Financial

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

© 2024 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.

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 Canada Corp., member Canadian Investor Protection Fund and Canadian Investment Regulatory Organization; in Europe, Virtu Europe Trading Limited, registered in Ireland No. 283940 ("VETL") (VETL 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 VETL and VFIL is North Dock One, Fifth Floor, 91-92 North Wall Quay, Dublin 1, Ireland, D01 H7V7; 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).