

December 2021

EMEA Market Structure Monthly

MICROSTRUCTURE OBSERVATIONS

- In December 2021, the average daily volume in EMEA equities decreased to €38.7B, 13% lower versus November 2021 (€49.9B) and above December 2020's volume by 15.7% (€33.4B).
- The median quote size at the European Best Bid and Offer (EBBO) marginally increased in December. The STOXX 50 and STOXX 600 increased by over 4% during the intraday trading period (08:30 to 16:00 GMT).
- Median spreads marginally increased in December, STOXX 50 increased by 4% from 2.4bps to 2.5bps and STOXX 600 symbols spreads remain unchanged at 4.5bps.
- Volatility levels decreased in December, STOXX 50 and STOXX 600 symbols were down 5% during the intraday trading period (08:30 to 16:00 GMT).
- The average daily volume during the close period increased to 29% for STOXX600 names, similar to December 2020's level. This is expected given the FTSE rebalance and lower than average trading activity during the holiday period.
- The market share distribution between venues changed in December, relative to the prior month. Primary auctions increased by 2.2% while primary lit venues decreased by 0.9% and dark venues decreased by 1.2%.

EMEA MARKET STRUCTURE NEWS

Top Themes and Questions Likely to Impact Market Structure Changes in 2022:

- **Financial Conduct Authority and European Securities and Markets Authority:** will regulators stay aligned on MiFID II changes? Also, as we approach Brexit's first post-implementation anniversary, how will new rules impact financial markets.
- **Consolidated Tape:** The much-debated European consolidated tape—how and when will it launch? Will lessons learned from the US equity consolidated feed, help or hinder its progress?
- **Close Auction:** will liquidity continue to shift away from continuous trading in favor of the closing auction?
- **Crypto Currency:** how soon will it be before investor demand compels the buy- and sell-side to trade this increasingly popular asset class.
- **Retail Surge: Trend or New Standard:** As we approach the second anniversary of Covid's European lockdown, will the prolonged and sharp increase in retail market share continue to grow in Europe?
- **Covid-related Volatility:** as new Covid variants emerge and disrupt will there be additional volatility events? Or are we already in a new normal environment?
- **Climate Change:** European exchanges and venues take account of their own carbon footprints. The Vienna Stock Exchange already announced that it is CO2-neutral, will other exchange(s) or venue(s) follow suit or be mandated to do so?

<https://www.thetradenews.com/the-trade-predictions-series-2022-liquidity/>

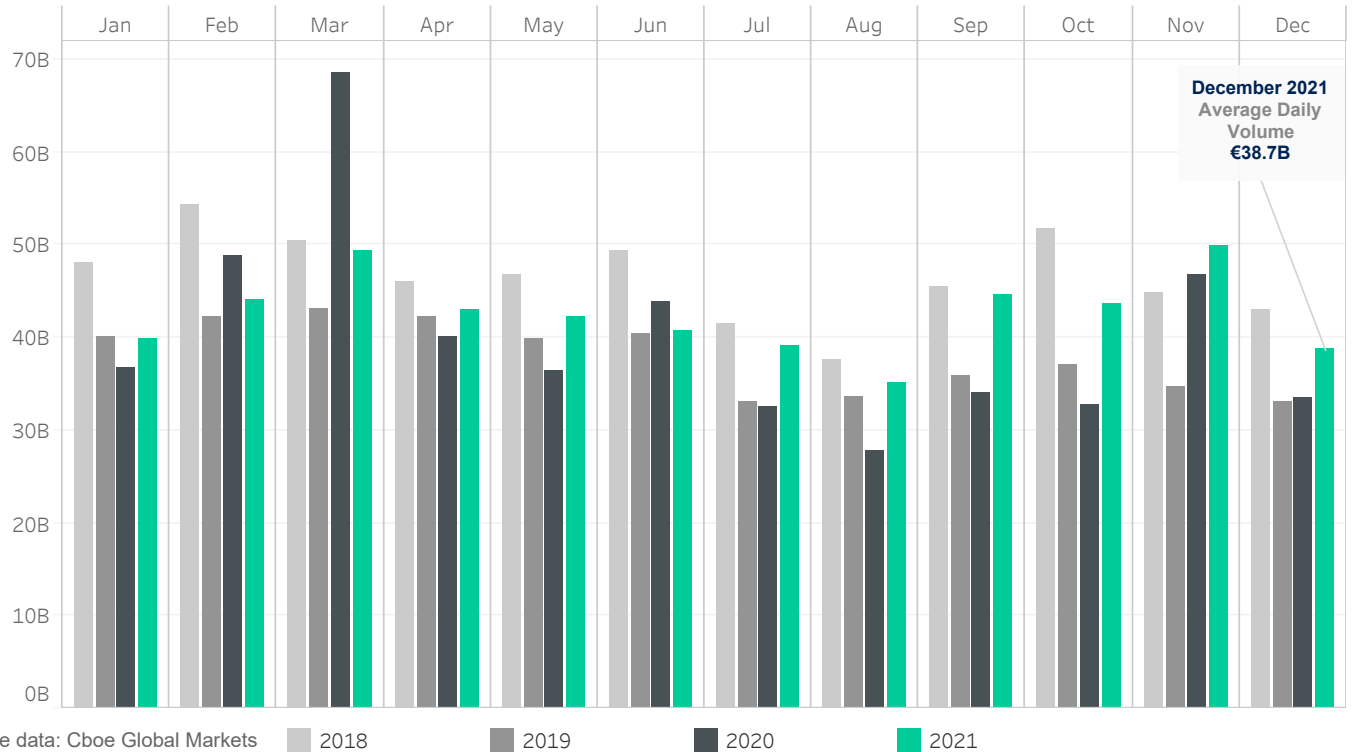
<https://www.greenwich.com/market-structure-technology/top-market-structure-trends-watch-2022>

<https://www.wienerborse.at/en/news/vienna-stock-exchange-news/vienna-stock-exchange-is-now-co2-neutral/>

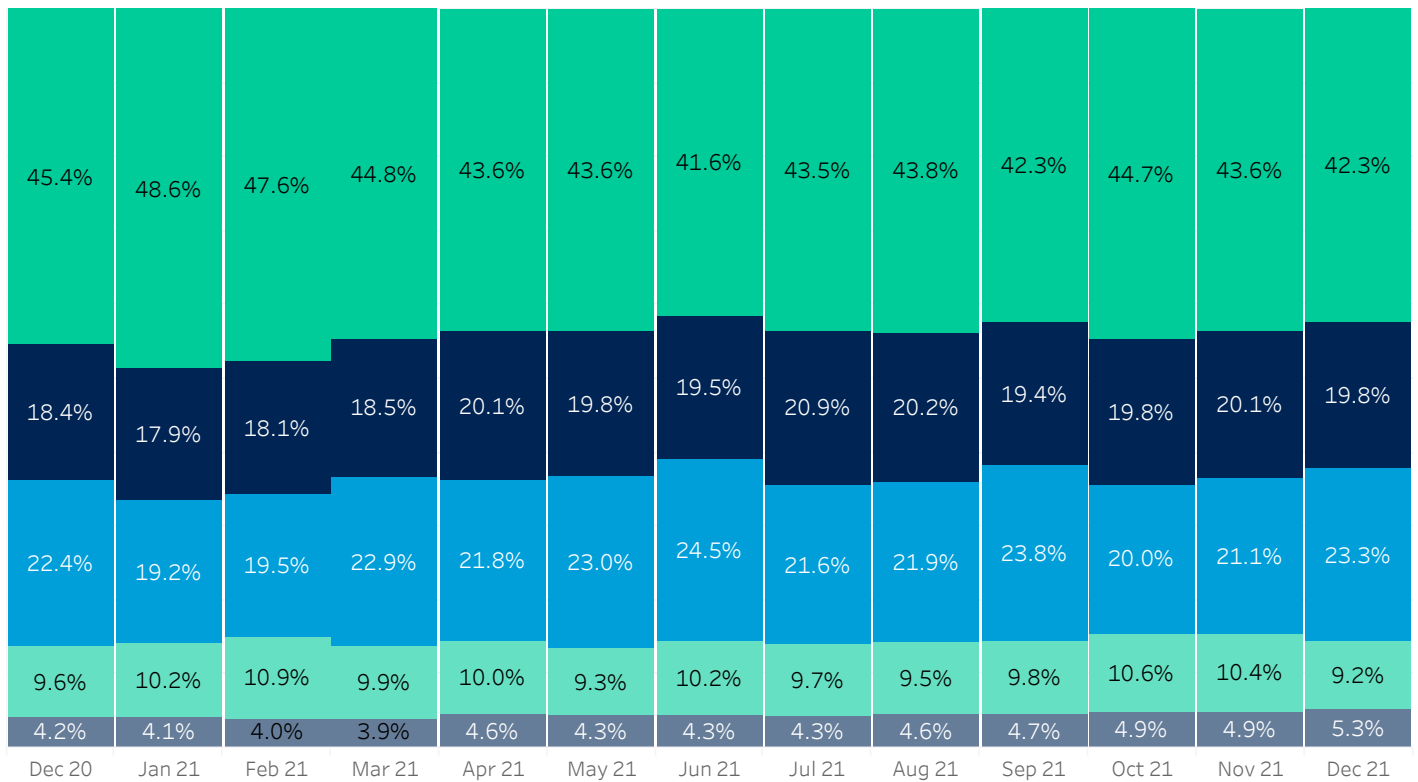
<https://www.thetradenews.com/trading-associations-hit-out-at-european-commissions-consolidated-tape-revenue-scheme/>



Average Daily Market Volume

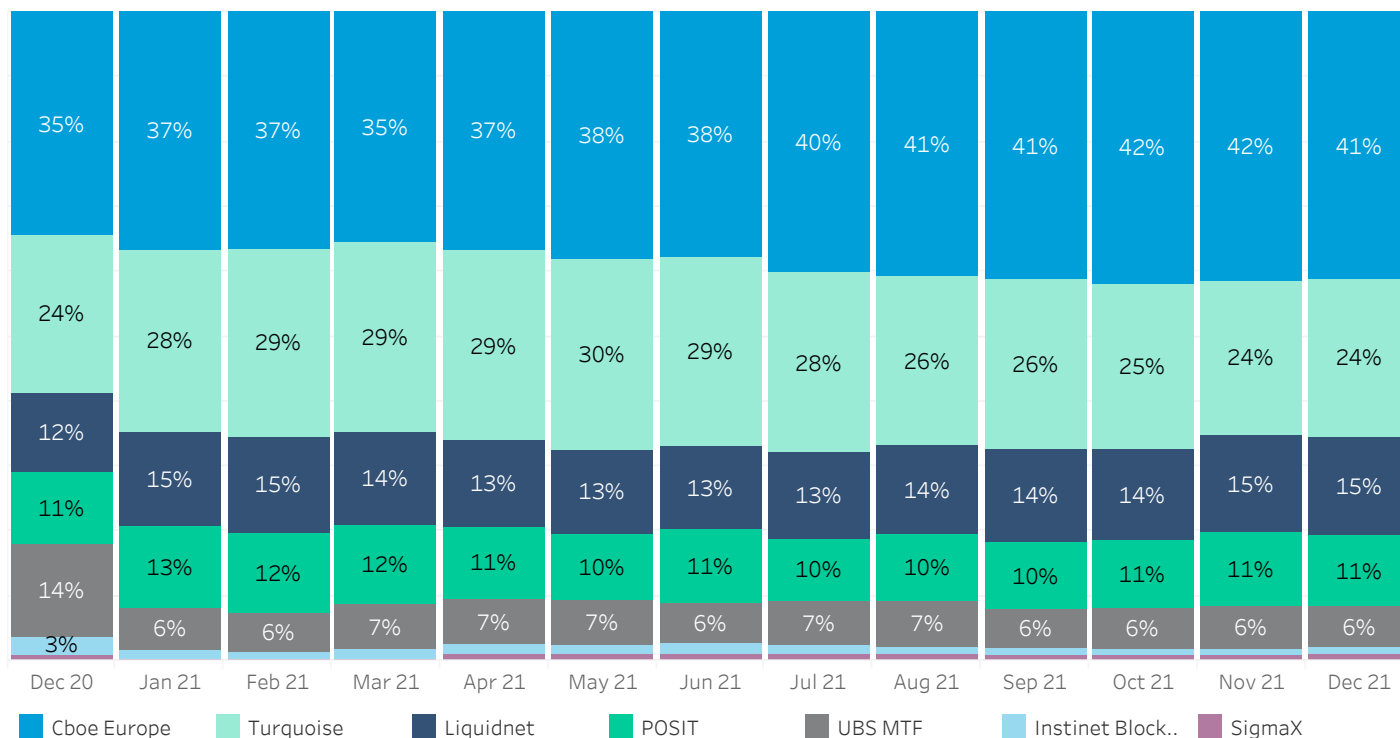


Venue Type Market Share



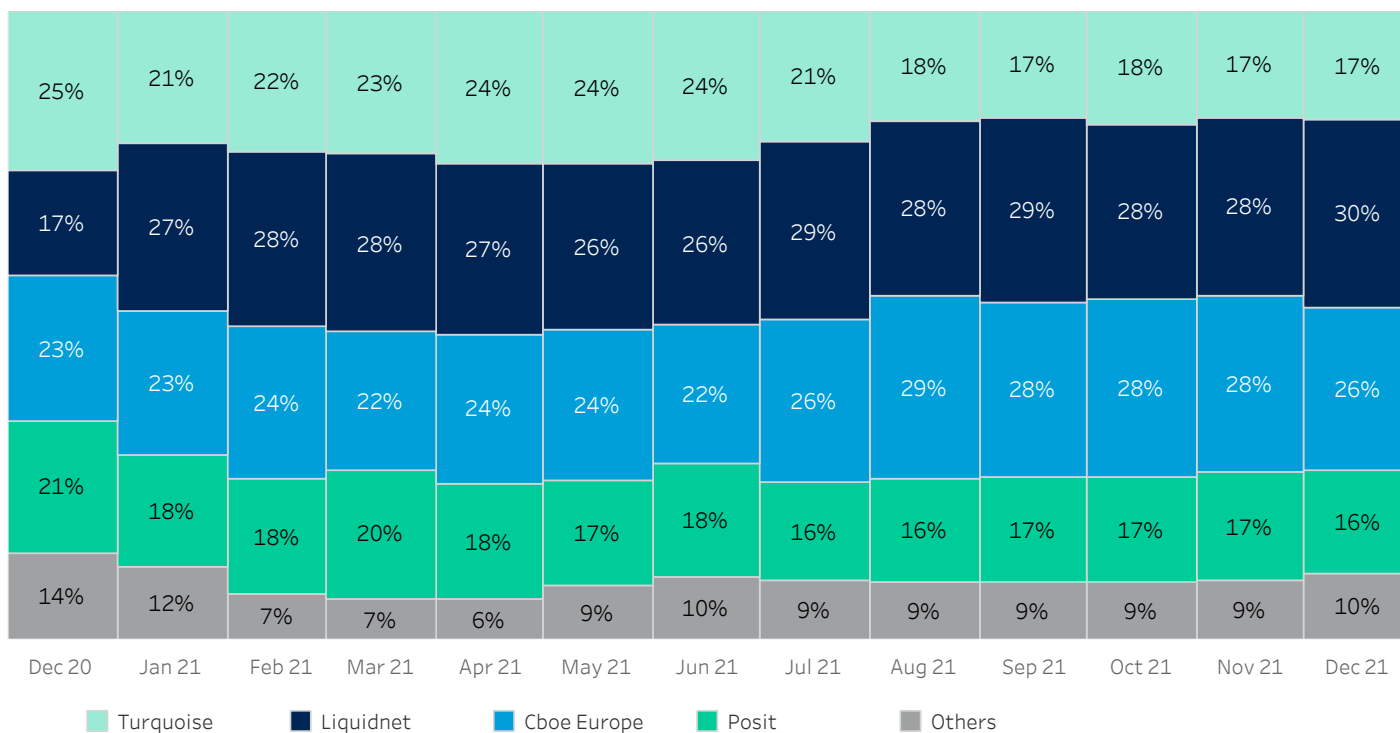


Dark Market Share



Source data: Cboe Global Markets

Block Market Share



Large In Scale values as per defined per symbol by ESMA; Source data: Virtu Financial



Quotesize in Notional USD

		4Q 20	1Q 21			2Q 21			3Q 21			4Q 21		
		Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21	Jul 21	Aug 21	Sep 21	Oct 21	Nov 21	Dec 21
8:00 - 8:30	Stoxx50	32.2K	25.3K	25.5K	26.3K	20.8K	21.9K	22.4K	19.3K	20.0K	18.7K	19.1K	18.0K	18.5K
	Stoxx600	13.4K	11.1K	11.0K	11.4K	11.0K	11.0K	11.5K	10.6K	11.0K	10.6K	10.4K	10.1K	10.6K
8:30 - 16:00	Stoxx50	50.6K	38.4K	37.8K	40.4K	35.0K	36.3K	37.4K	32.5K	34.4K	32.7K	33.3K	32.0K	33.6K
	Stoxx600	20.3K	15.9K	16.2K	17.2K	16.9K	17.3K	18.2K	16.0K	17.0K	16.7K	17.0K	16.3K	17.0K
16:00 - 16:30	Stoxx50	67.2K	46.9K	46.7K	51.1K	44.3K	43.3K	44.8K	38.1K	40.2K	37.8K	39.7K	38.1K	39.3K
	Stoxx600	26.2K	19.0K	19.2K	21.3K	20.6K	20.8K	22.1K	18.4K	19.4K	19.1K	19.9K	18.9K	19.0K

Spread Bps

8:00 - 8:30	Stoxx50	4.6	5.3	5.1	4.6	3.7	3.9	3.8	4.5	4.1	3.9	4.1	4.2	4.2
	Stoxx600	8.2	8.9	8.9	7.8	7.0	7.2	6.9	8.0	7.2	7.0	7.6	8.1	7.8
8:30 - 16:00	Stoxx50	3.0	3.2	3.1	3.1	2.4	2.4	2.4	2.7	2.3	2.3	2.3	2.4	2.5
	Stoxx600	4.5	4.7	4.7	4.5	4.0	4.0	4.0	4.4	4.0	4.0	4.2	4.5	4.5
16:00 - 16:30	Stoxx50	2.6	2.7	2.8	2.8	2.2	2.2	2.1	2.3	2.0	2.0	2.0	2.1	2.2
	Stoxx600	4.0	4.0	4.1	3.9	3.5	3.6	3.5	3.7	3.4	3.5	3.5	3.8	4.0

One Minute Volatility Bps

8:00 - 8:30	Stoxx50	12.8	14.5	14.3	12.2	10.3	11.1	9.1	12.7	10.5	11.9	12.7	12.9	12.1
	Stoxx600	13.0	14.0	14.0	12.2	10.4	10.5	9.2	11.5	9.8	11.0	11.8	12.5	11.0
8:30 - 16:00	Stoxx50	5.1	6.1	5.5	5.5	4.5	4.7	4.2	5.3	4.5	5.3	5.2	5.6	5.3
	Stoxx600	4.9	5.3	5.1	5.1	4.3	4.4	4.0	4.8	4.2	4.8	4.9	5.2	4.9
16:00 - 16:30	Stoxx50	5.6	6.6	6.2	5.6	4.4	4.7	4.2	5.1	4.2	5.1	4.7	4.9	5.6
	Stoxx600	5.0	5.5	5.4	4.9	4.2	4.2	3.8	4.3	3.8	4.4	4.1	4.5	4.8

Percent ADV by Time of Day

Open	Stoxx50	1.0%	1.4%	1.1%	1.2%	1.1%	1.1%	1.0%	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%
	Stoxx600	0.5%	0.8%	0.6%	0.6%	0.5%	0.6%	0.5%	0.5%	0.5%	0.6%	0.5%	0.5%	0.6%
8:00 - 8:30	Stoxx50	10.7%	10.5%	8.7%	7.2%	6.9%	7.2%	6.1%	7.0%	7.1%	7.0%	8.5%	9.4%	9.0%
	Stoxx600	8.6%	9.3%	7.9%	7.3%	7.1%	7.2%	6.2%	6.6%	6.5%	7.0%	7.1%	7.3%	6.8%
16:00 - 16:30	Stoxx50	22.5%	23.4%	19.3%	15.9%	15.4%	20.1%	18.0%	16.3%	17.2%	15.2%	11.7%	18.3%	19.4%
	Stoxx600	19.4%	17.8%	15.3%	15.1%	14.4%	15.2%	14.4%	13.0%	13.8%	13.1%	11.5%	12.8%	13.6%
Close	Stoxx50	26.6%	31.5%	24.8%	26.6%	26.6%	26.6%	29.3%	27.2%	26.5%	26.5%	26.6%	25.8%	28.7%
	Stoxx600	29.0%	32.0%	27.0%	27.4%	28.9%	26.9%	30.4%	27.8%	27.7%	26.9%	26.7%	26.3%	29.0%

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



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+852.2846.3553 | **CAN**+1.416.874.0800 | **EMEA**+44.20.7670.4066 | **US**+1.212.444.6250

info@virtu.com | www.virtu.com

© 2022 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 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).