

July 2022

EMEA Market Structure Monthly



MICROSTRUCTURE OBSERVATIONS

- In July 2022, the average daily volume in EMEA equities decreased to €40.6B, 7% lower than June (€43.6B) and above July 2021's volume by 4% (€39.1B).
- The median quote size at the European Best Bid and Offer (EBBO) decreased by 23% in July for STOXX 50 and by 8% for STOXX 600 during the intraday trading period (08:30 to 16:00 GMT).
- Median spreads in STOXX 50 increased by 6% to 3.6bps while STOXX 600 symbol spreads increased by 7% to 6.3bps in July, during the intraday trading period.
- July's volatility levels increased significantly, STOXX 50 increased by 34% and STOXX 600 increased by 13% during intraday trading. Volatility levels are higher than in July 2021 by over 60%.
- The market share distribution between venues changed slightly from the prior month. Lit MTF market share increased by 1.5%, dark venues market share increased by 0.7% while primary auctions decreased by 2.8%.
- Virtu's POSIT dark market share increased by 1% while Cboe's decreased by 1%.
- Cboe's large-in-scale market share increased by 1%, while Virtu's POSIT decreased by 2%.
- Closing auctions maintain a large percentage of the daily volume for both STOXX50 and STOXX600 at above 23%.

EMEA MARKET STRUCTURE NEWS

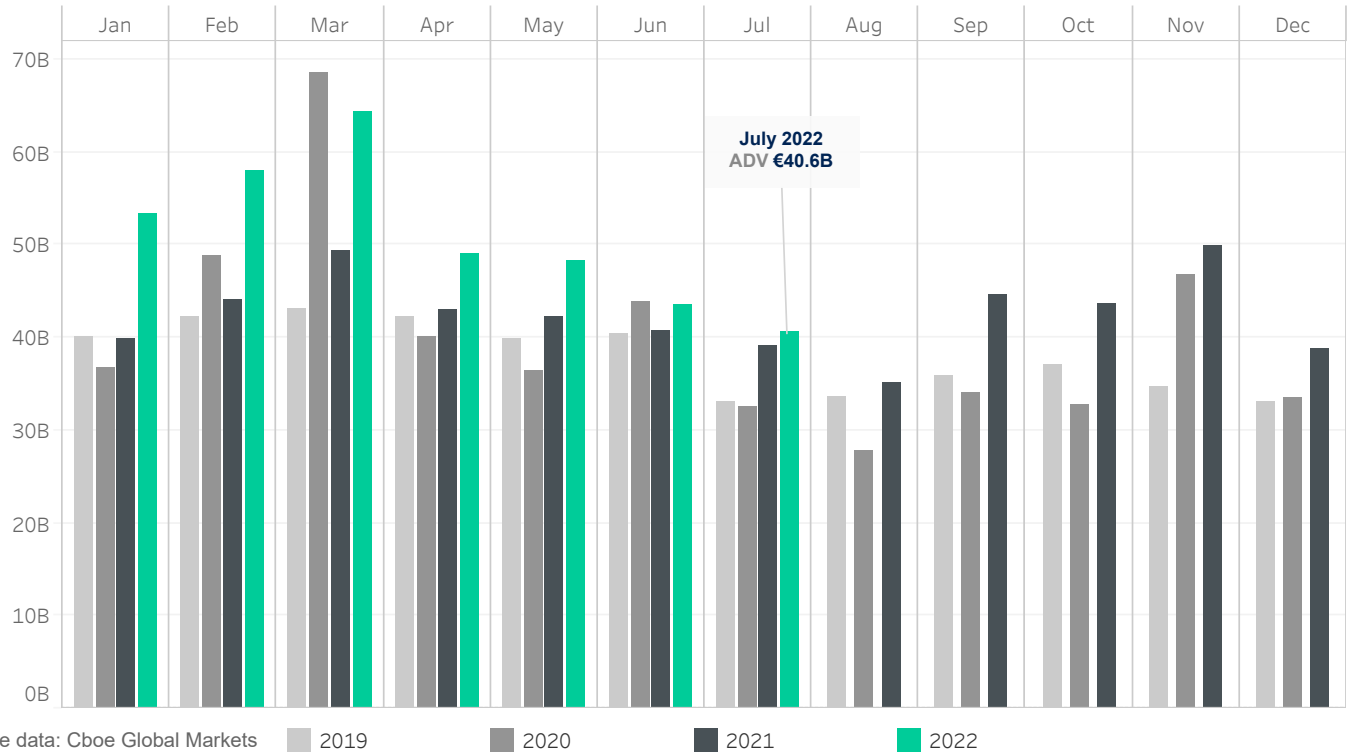
London Stock Exchange CEO to Lead UK Capital Market Industry Taskforce

On 19 July, London Stock Exchange plc, an LSEG business, announced the launch of a UK Capital Markets Industry Taskforce, convened with participants across the financial markets ecosystem to drive the development of the UK's capital markets forward. The new task force will comprise CEOs, chairs and industry leaders representing private and publicly listed companies, asset owners and managers, and the advisory services that support their access to capital and investments representing the full end-to-end ecosystem of the public and private capital markets.

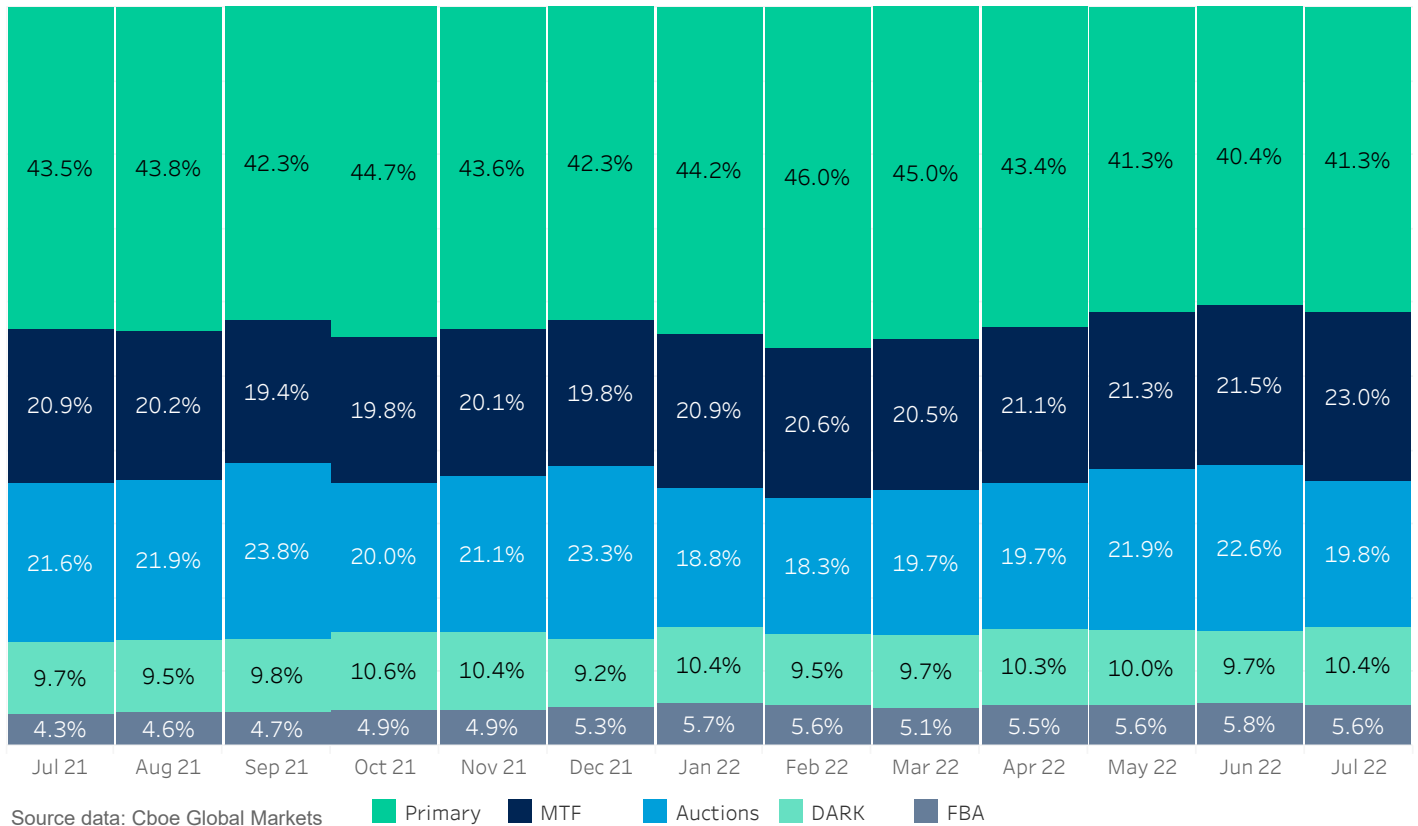
<https://www.lseg.com/resources/media-centre/press-releases/uk-capital-market-reform-set-receive-boost-chancellor-welcomes-new-taskforce>



Average Daily Market Volume

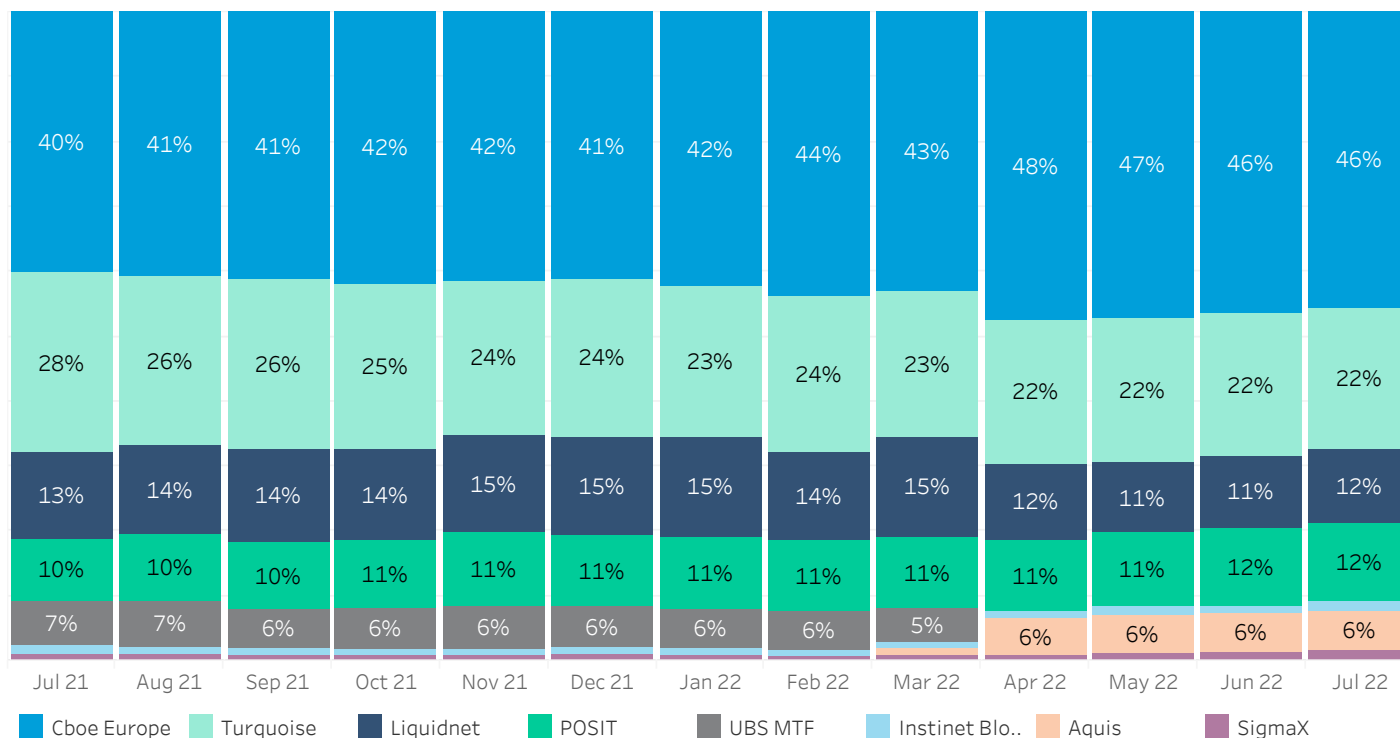


Venue Type Market Share



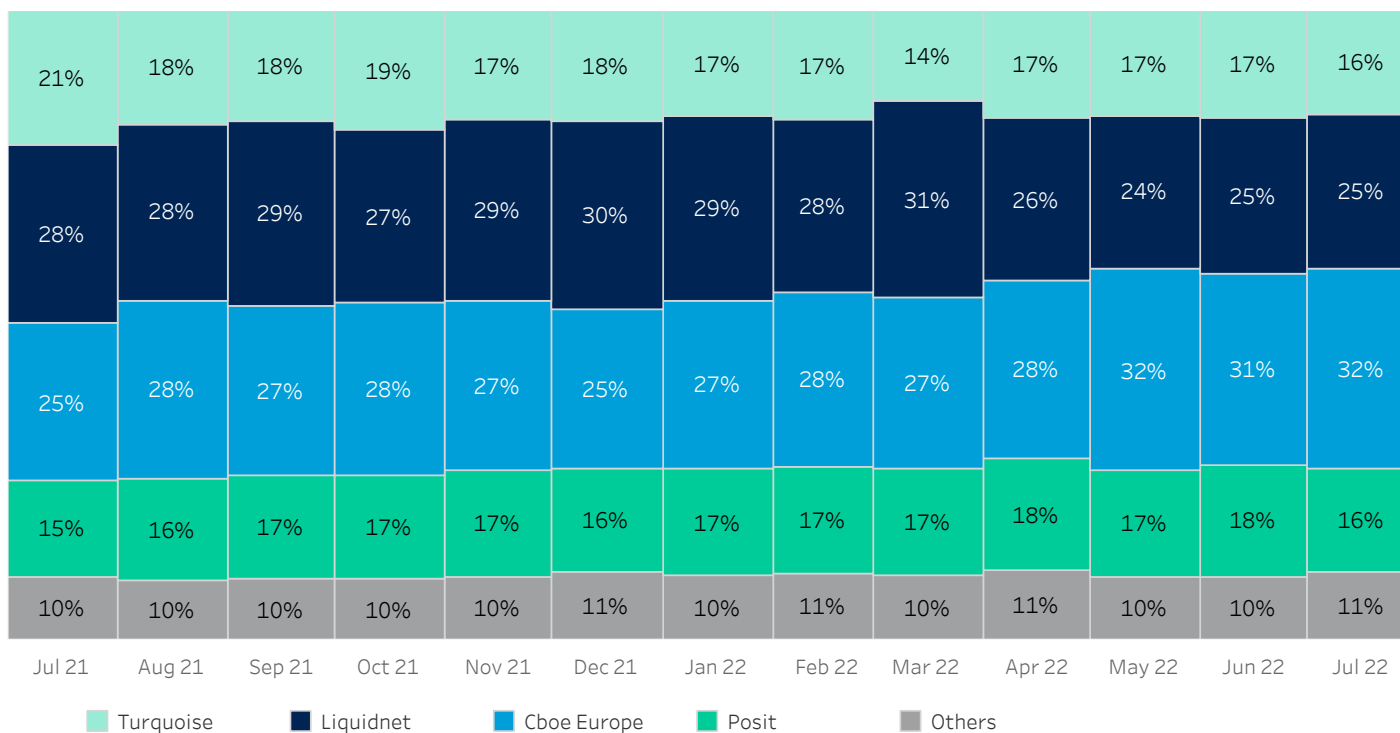


Dark Market Share



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

		3Q 21			4Q 21			1Q 22			2Q 22			3Q 22
		Jul 21	Aug 21	Sep 21	Oct 21	Nov 21	Dec 21	Jan 22	Feb 22	Mar 22	Apr 22	May 22	Jun 22	Jul 22
8:00 - 8:30	Stoxx50	19.3K	20.0K	18.7K	19.1K	18.0K	18.5K	18.8K	16.3K	17.3K	18.3K	17.9K	21.0K	16.8K
	Stoxx600	10.6K	11.0K	10.6K	10.4K	10.1K	10.6K	10.4K	9.6K	10.1K	11.0K	10.5K	10.0K	9.5K
8:30 - 16:00	Stoxx50	32.5K	34.4K	32.7K	33.3K	32.0K	33.6K	33.8K	29.7K	23.1K	25.8K	26.4K	33.9K	26.0K
	Stoxx600	16.0K	17.0K	16.7K	17.0K	16.3K	17.0K	17.0K	15.5K	12.6K	14.0K	13.3K	12.9K	11.9K
16:00 - 16:30	Stoxx50	38.1K	40.2K	37.8K	39.7K	38.1K	39.3K	37.9K	35.1K	28.3K	33.3K	33.1K	39.8K	31.3K
	Stoxx600	18.4K	19.4K	19.1K	19.9K	18.9K	19.0K	19.1K	18.6K	14.6K	17.0K	16.0K	15.4K	14.6K

Spread Bps

8:00 - 8:30	Stoxx50	4.5	4.1	3.9	4.1	4.2	4.2	4.0	4.5	5.3	4.9	5.0	5.4	5.9
	Stoxx600	8.0	7.2	7.0	7.6	8.1	7.8	8.2	8.8	10.1	9.1	9.4	9.6	10.4
8:30 - 16:00	Stoxx50	2.7	2.3	2.3	2.3	2.4	2.5	2.5	2.7	3.2	3.0	3.0	3.4	3.6
	Stoxx600	4.4	4.0	4.0	4.2	4.5	4.5	4.7	5.0	5.8	5.2	5.6	5.9	6.3
16:00 - 16:30	Stoxx50	2.3	2.0	2.0	2.0	2.1	2.2	2.2	2.3	2.7	2.5	2.6	2.8	3.0
	Stoxx600	3.7	3.4	3.5	3.5	3.8	4.0	4.1	4.1	4.7	4.4	4.7	4.8	5.1

One Minute Volatility Bps

8:00 - 8:30	Stoxx50	12.7	10.5	11.9	12.7	12.9	12.1	14.8	17.6	22.3	18.2	16.5	16.9	22.3
	Stoxx600	11.5	9.8	11.0	11.8	12.5	11.0	14.1	16.5	21.5	17.3	16.3	16.2	18.2
8:30 - 16:00	Stoxx50	5.3	4.5	5.3	5.2	5.6	5.3	6.6	7.8	10.0	7.3	7.3	7.6	10.2
	Stoxx600	4.8	4.2	4.8	4.9	5.2	4.9	5.9	6.7	8.5	6.5	6.8	6.8	7.7
16:00 - 16:30	Stoxx50	5.1	4.2	5.1	4.7	4.9	5.6	6.7	7.0	9.5	7.2	8.4	8.1	9.2
	Stoxx600	4.3	3.8	4.4	4.1	4.5	4.8	5.5	5.5	7.3	6.0	7.0	6.5	6.8

Percent ADV by Time of Day

Open	Stoxx50	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%	1.0%	1.0%	0.9%	1.0%	0.8%	0.9%	0.7%
	Stoxx600	0.5%	0.5%	0.6%	0.5%	0.5%	0.6%	0.7%	0.6%	0.5%	0.6%	0.5%	0.5%	0.4%
8:00 - 8:30	Stoxx50	7.0%	7.1%	7.0%	8.5%	9.4%	9.0%	9.9%	9.2%	7.8%	7.5%	7.6%	15.1%	22.2%
	Stoxx600	6.6%	6.5%	7.0%	7.1%	7.3%	6.8%	8.3%	7.9%	7.8%	8.2%	7.7%	8.3%	9.3%
16:00 - 16:30	Stoxx50	16.3%	17.2%	15.2%	11.7%	18.3%	19.4%	16.1%	15.5%	16.9%	14.8%	15.3%	16.2%	16.1%
	Stoxx600	13.0%	13.8%	13.1%	11.5%	12.8%	13.6%	12.7%	12.2%	12.4%	10.6%	11.9%	12.1%	12.7%
Close	Stoxx50	27.2%	26.5%	26.5%	26.6%	25.8%	28.7%	22.2%	21.9%	23.6%	23.5%	23.8%	25.7%	24.4%
	Stoxx600	27.8%	27.7%	26.9%	26.7%	26.3%	29.0%	24.0%	24.5%	23.8%	26.0%	24.2%	26.3%	23.2%

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



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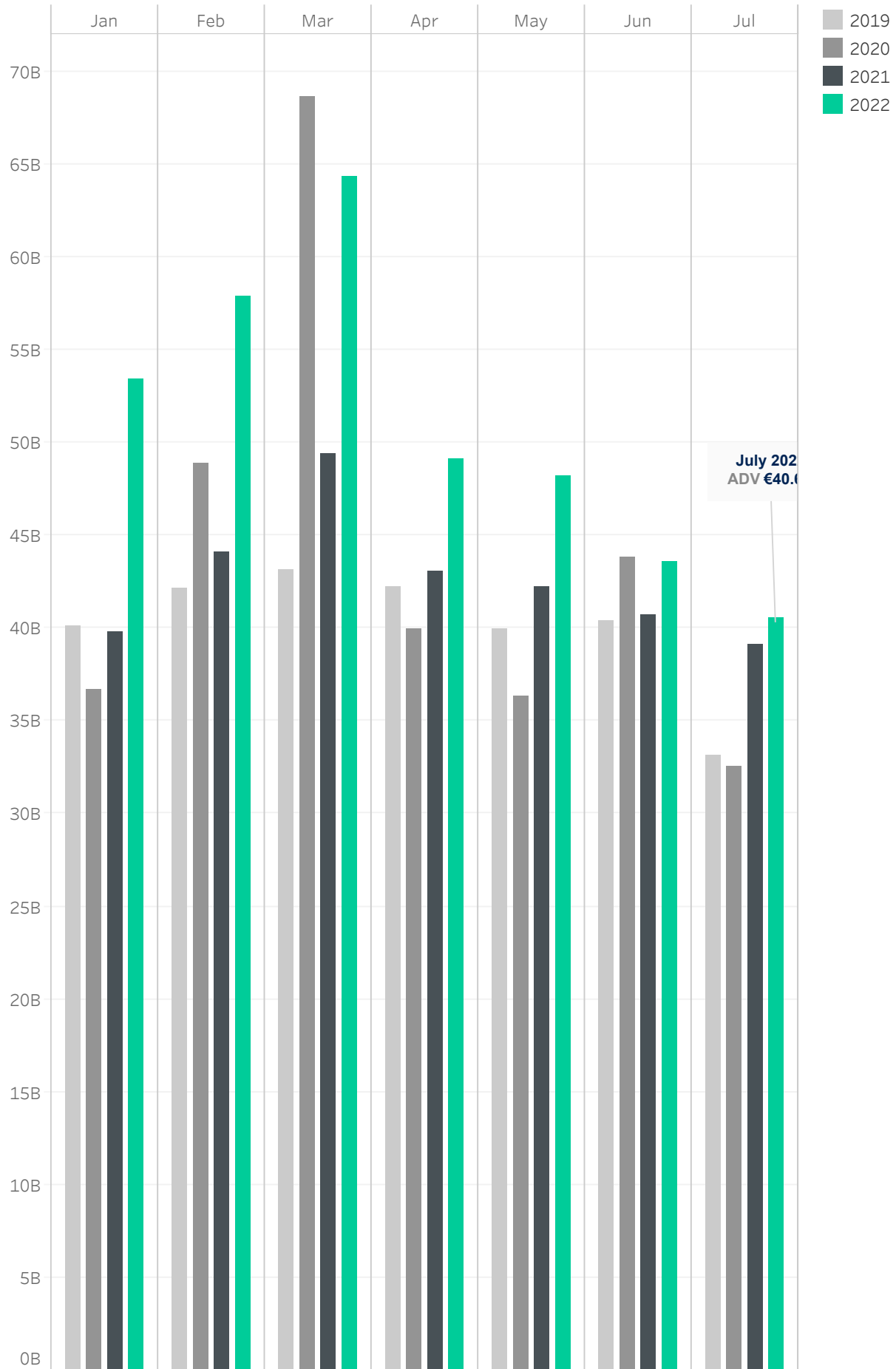
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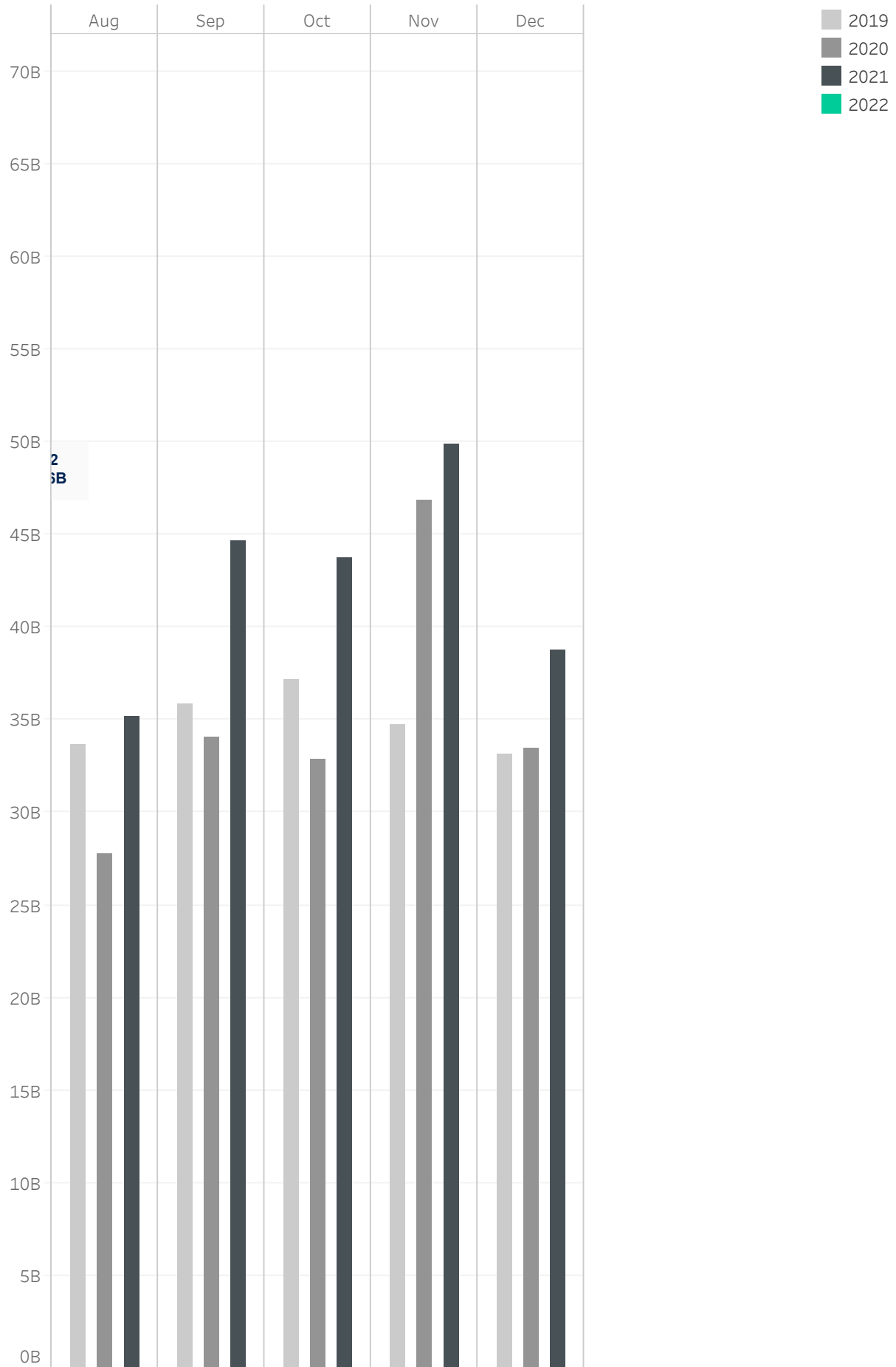
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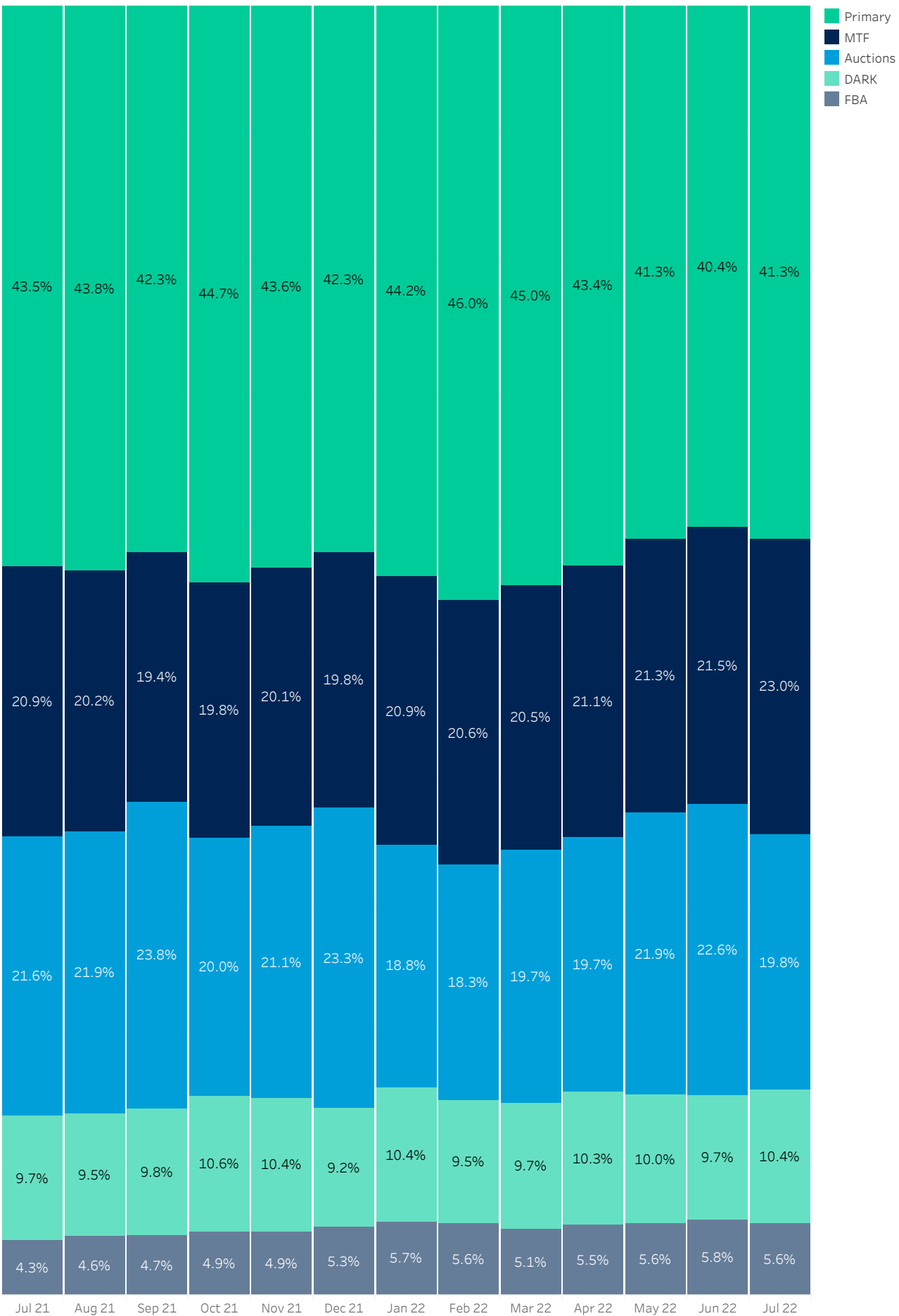
Average Daily Market Volume



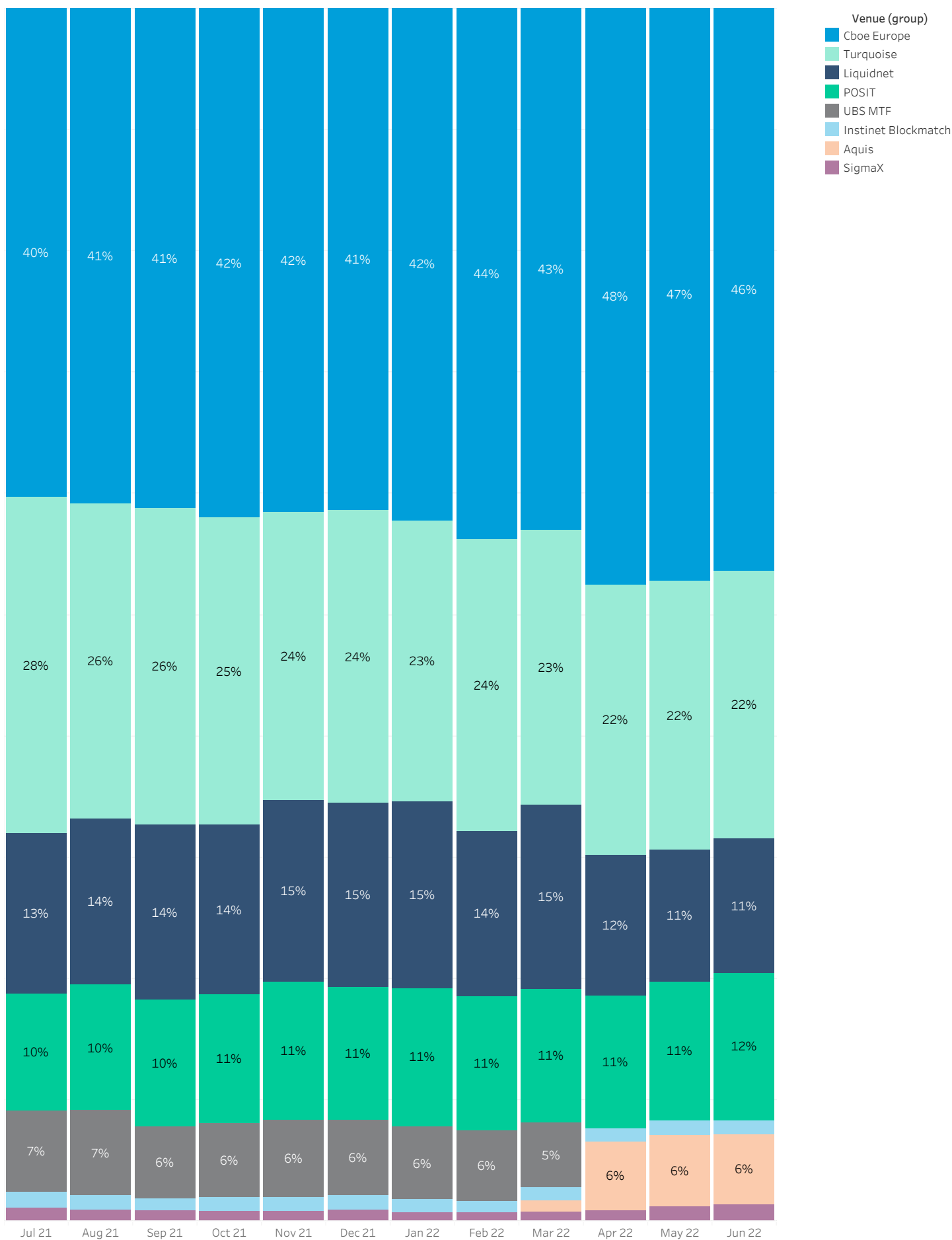
Average Daily Market Volume



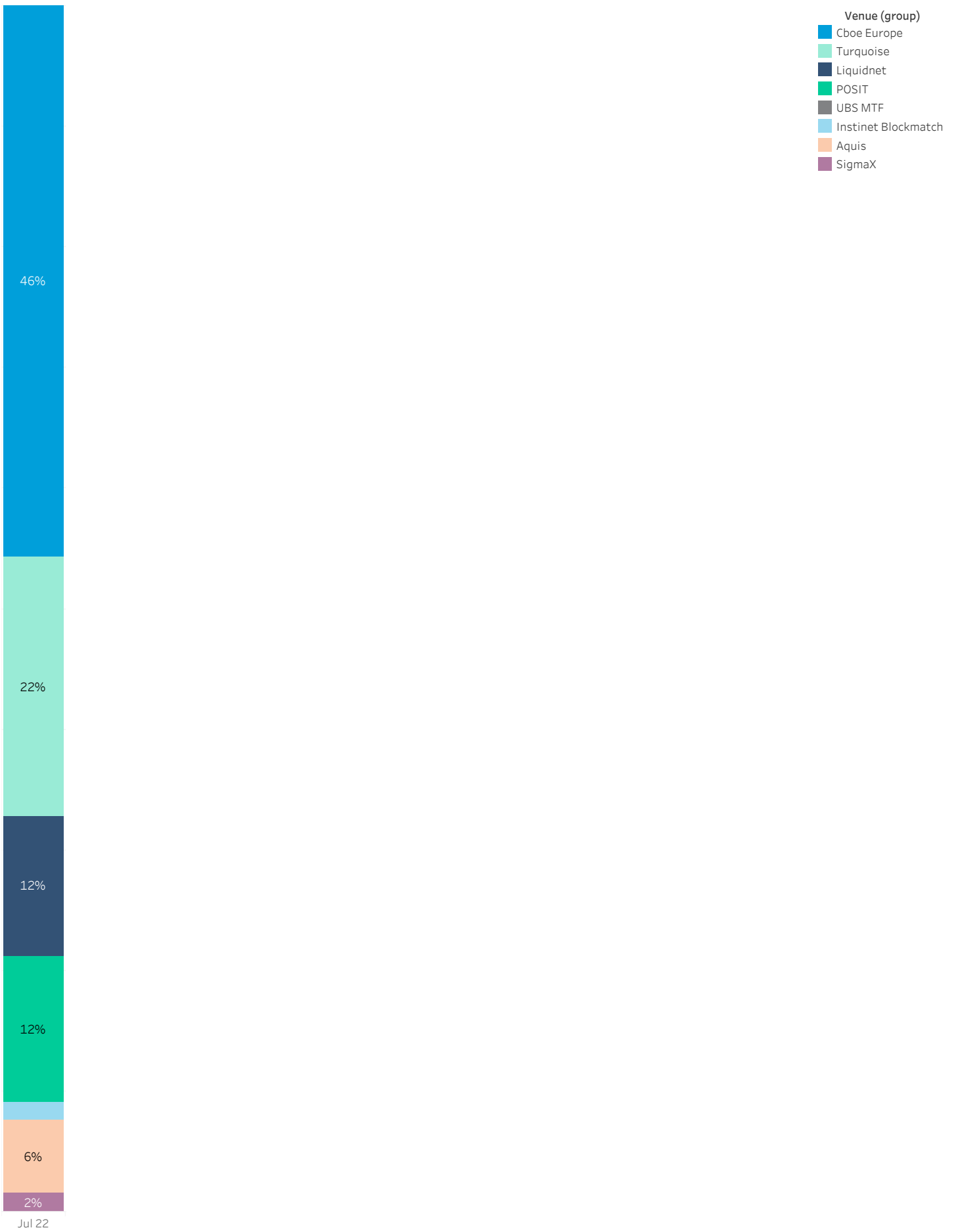
Venue Type Market Share



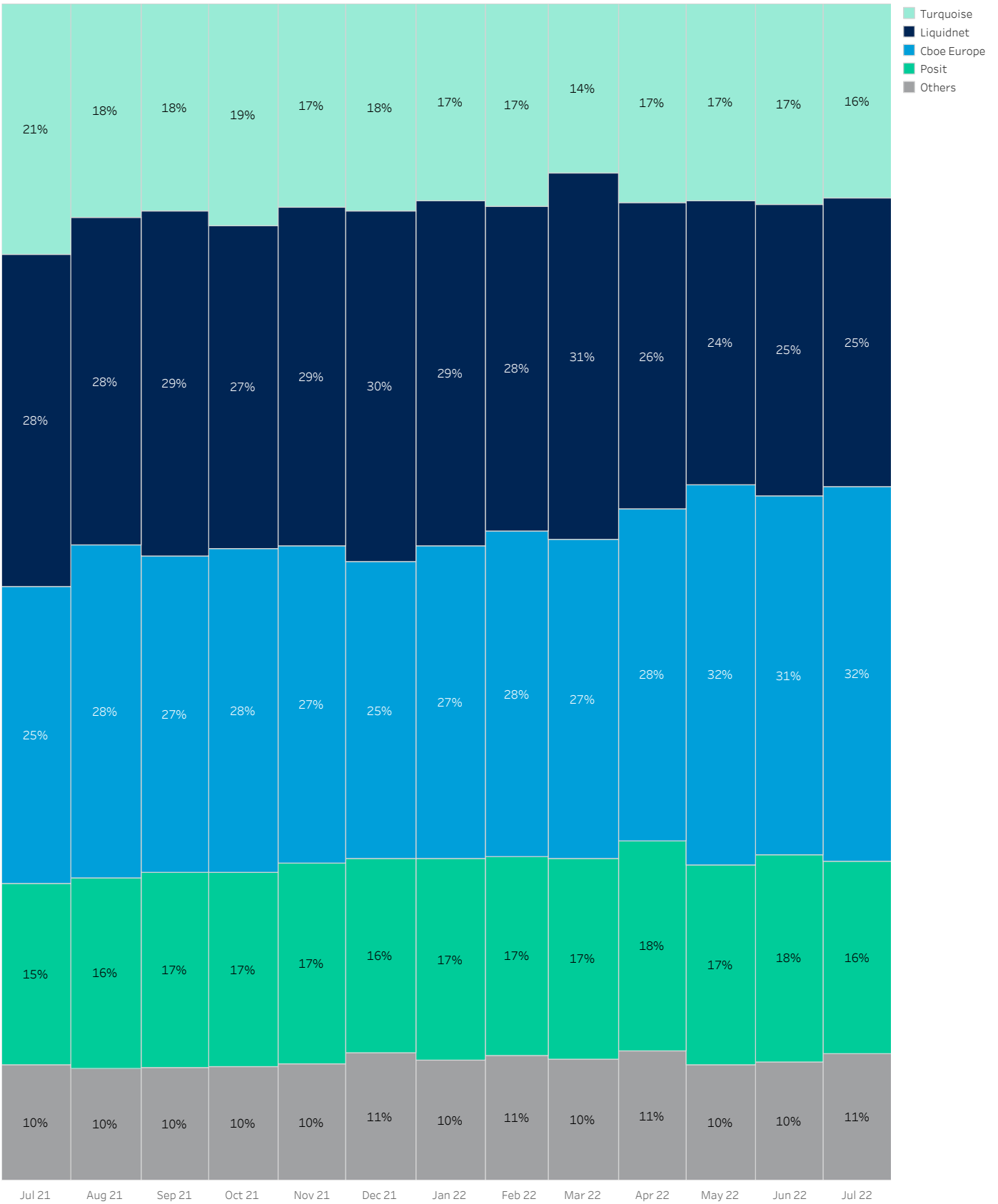
Dark Market Share



Dark Market Share



Block Market Share



Quotesize in Notional USD

		3Q 21			4Q 21			1Q 22			2Q 22	
		Jul 21	Aug 21	Sep 21	Oct 21	Nov 21	Dec 21	Jan 22	Feb 22	Mar 22	Apr 22	May 22
8:00 - 8:30	Stoxx50	19.3K	20.0K	18.7K	19.1K	18.0K	18.5K	18.8K	16.3K	17.3K	18.3K	17.9K
	Stoxx600	10.6K	11.0K	10.6K	10.4K	10.1K	10.6K	10.4K	9.6K	10.1K	11.0K	10.5K
8:30 - 16:00	Stoxx50	32.5K	34.4K	32.7K	33.3K	32.0K	33.6K	33.8K	29.7K	23.1K	25.8K	26.4K
	Stoxx600	16.0K	17.0K	16.7K	17.0K	16.3K	17.0K	17.0K	15.5K	12.6K	14.0K	13.3K
16:00 - 16:30	Stoxx50	38.1K	40.2K	37.8K	39.7K	38.1K	39.3K	37.9K	35.1K	28.3K	33.3K	33.1K
	Stoxx600	18.4K	19.4K	19.1K	19.9K	18.9K	19.0K	19.1K	18.6K	14.6K	17.0K	16.0K

Quotesize in Notional USD

		2Q 22	3Q 22
		Jun 22	Jul 22
8:00 - 8:30	Stoxx50	21.0K	16.8K
	Stoxx600	10.0K	9.5K
8:30 - 16:00	Stoxx50	33.9K	26.0K
	Stoxx600	12.9K	11.9K
16:00 - 16:30	Stoxx50	39.8K	31.3K
	Stoxx600	15.4K	14.6K

Spread Bps

8:00 - 8:30	Stoxx50	4.5	4.1	3.9	4.1	4.2	4.2	4.0	4.5	5.3	4.9	5.0
	Stoxx600	8.0	7.2	7.0	7.6	8.1	7.8	8.2	8.8	10.1	9.1	9.4
8:30 - 16:00	Stoxx50	2.7	2.3	2.3	2.3	2.4	2.5	2.5	2.7	3.2	3.0	3.0
	Stoxx600	4.4	4.0	4.0	4.2	4.5	4.5	4.7	5.0	5.8	5.2	5.6
16:00 - 16:30	Stoxx50	2.3	2.0	2.0	2.0	2.1	2.2	2.2	2.3	2.7	2.5	2.6
	Stoxx600	3.7	3.4	3.5	3.5	3.8	4.0	4.1	4.1	4.7	4.4	4.7

Spread Bps

8:00 - 8:30	Stoxx50	5.4	5.9
	Stoxx600	9.6	10.4
8:30 - 16:00	Stoxx50	3.4	3.6
	Stoxx600	5.9	6.3
16:00 - 16:30	Stoxx50	2.8	3.0
	Stoxx600	4.8	5.1

One Minute Volatility Bps

8:00 - 8:30	Stoxx50	12.7	10.5	11.9	12.7	12.9	12.1	14.8	17.6	22.3	18.2	16.5
	Stoxx600	11.5	9.8	11.0	11.8	12.5	11.0	14.1	16.5	21.5	17.3	16.3
8:30 - 16:00	Stoxx50	5.3	4.5	5.3	5.2	5.6	5.3	6.6	7.8	10.0	7.3	7.3
	Stoxx600	4.8	4.2	4.8	4.9	5.2	4.9	5.9	6.7	8.5	6.5	6.8
16:00 - 16:30	Stoxx50	5.1	4.2	5.1	4.7	4.9	5.6	6.7	7.0	9.5	7.2	8.4
	Stoxx600	4.3	3.8	4.4	4.1	4.5	4.8	5.5	5.5	7.3	6.0	7.0

One Minute Volatility Bps

8:00 - 8:30	Stoxx50	16.9	22.3
	Stoxx600	16.2	18.2
8:30 - 16:00	Stoxx50	7.6	10.2
	Stoxx600	6.8	7.7
16:00 - 16:30	Stoxx50	8.1	9.2
	Stoxx600	6.5	6.8

Percent ADV by Time of Day

Open	Stoxx50	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%	1.0%	1.0%	0.9%	1.0%	0.8%	0.9%
	Stoxx600	0.5%	0.5%	0.6%	0.5%	0.5%	0.6%	0.7%	0.6%	0.5%	0.6%	0.5%	0.5%

Percent ADV by Time of Day

Open	Stoxx50	0.7%
	Stoxx600	0.4%

8:00 - 8:30	Stoxx50	7.0%	7.1%	7.0%	8.5%	9.4%	9.0%	9.9%	9.2%	7.8%	7.5%	7.6%
	Stoxx600	6.6%	6.5%	7.0%	7.1%	7.3%	6.8%	8.3%	7.9%	7.8%	8.2%	7.7%
16:00 - 16:30	Stoxx50	16.3%	17.2%	15.2%	11.7%	18.3%	19.4%	16.1%	15.5%	16.9%	14.8%	15.3%
	Stoxx600	13.0%	13.8%	13.1%	11.5%	12.8%	13.6%	12.7%	12.2%	12.4%	10.6%	11.9%

8:00 - 8:30	Stoxx50	15.1%	22.2%
	Stoxx600	8.3%	9.3%
16:00 - 16:30	Stoxx50	16.2%	16.1%
	Stoxx600	12.1%	12.7%

Close	Stoxx50	27.2%	26.5%	26.5%	26.6%	25.8%	28.7%	22.2%	21.9%	23.6%
	Stoxx600	27.8%	27.7%	26.9%	26.7%	26.3%	29.0%	24.0%	24.5%	23.8%

Close	Stoxx50	23.5%	23.8%	25.7%	24.4%
	Stoxx600	26.0%	24.2%	26.3%	23.2%

Sheet 11

timeofday	index	2021						2022		
		July	Q3 August	Septem..	October	Q4 Novem..	Decemb..	January	Q1 February	March
8:00 - 8:30	Stoxx50		6.7%	-5.3%	-3.5%	-2.7%	5.3%	-4.8%	-16.9%	16.7%
	Stoxx600		4.3%	-3.9%	-5.5%	2.7%	9.3%	-10.4%	-13.7%	21.8%
8:30 - 16:00	Stoxx50		5.7%	-4.7%	-3.5%	1.1%	5.5%	-4.8%	-16.6%	-10.8%
	Stoxx600		7.3%	-3.2%	-2.1%	-0.7%	8.3%	-6.5%	-15.4%	-6.2%
16:00 - 16:30	Stoxx50		1.0%	-4.5%	-0.7%	0.6%	1.0%	-0.9%	-5.2%	27.8%
	Stoxx600		4.4%	-1.9%	-0.1%	1.0%	-2.0%	0.9%	-9.1%	-7.1%

Sheet 11

timeofday	index	2022			
		April	Q2 May	June	Q3 July
8:00 - 8:30	Stoxx50	-11.2%	15.9%	29.4%	-14.1%
	Stoxx600	-10.4%	7.7%	-0.4%	-12.9%
8:30 - 16:00	Stoxx50	-6.1%	19.1%	33.0%	-29.7%
	Stoxx600	-6.7%	8.9%	0.6%	-13.8%
16:00 - 16:30	Stoxx50	-24.4%	14.5%	517.2%	-19.2%
	Stoxx600	-3.4%	13.7%	-2.1%	-16.1%