

September 2022

EMEA Market Structure Monthly

MICROSTRUCTURE OBSERVATIONS

- In September 2022, the average daily volume in EMEA equities increased to €42.7B, 23% higher than August (€34.7B) and below September 2021's volume by 4.4% (€44.6B).
- The median quote size at the European Best Bid and Offer (EBBO) increased by 9.8% in September for STOXX 50 and STOXX 600 during the intraday trading period (08:30 to 16:00 GMT).
- Median spreads in STOXX 50 increased by 9.3% to 3.5bps and STOXX 600 symbol spreads increased by 9.3% as well to 5.9bps in September, during the intraday trading period.
- Volatility levels increased significantly in September, STOXX 50 increased by 32% and STOXX 600 increased by 25% during intraday trading.
- The market share distribution between venues changed slightly from the prior month. Primary Auctions market share increased by 1.1%, MTF lit and FBA venues market share increased by 0.4% while dark venues decreased by 0.6%.
- Cboe and Turquoise's dark market share increased by 2% while Aquis market share decreased by 3% post their migration from UBS to Aquis technology.
- Cboe's large-in-scale market share increased by 2%, Turquoise's increased by 1% while Liquidnet decreased by 2% and POSIT decreased by 1%.
- In September the closing auction percentage of the daily volume for both STOXX50 and STOXX600 fell 0.8%, to 20.7% and 20.3%, respectively.

EMEA MARKET STRUCTURE NEWS

UK Government Announced a New Growth Plan

On 23 September, the Chancellor announced new growth plan with the largest package of tax cuts in generations. The plan sets the ambitious target for 2.5% trend of growth.

In October and early November, the Chancellor will, as part of that program, will announce further changes to the planning system, business regulations, childcare, immigration, as well as outline regulatory reforms to ensure the UK's financial services sector remains globally competitive.

<https://www.gov.uk/government/news/chancellor-announces-new-growth-plan-with-biggest-package-of-tax-cuts-in-generations>

Association for Financial Markets in Europe Calls for Shortening Settlements Cycles

A paper published by the Association for Financial Markets in Europe (AFME) discussed whether Europe should move to a one-day settlement cycle (known as T+1), which in Europe is currently two business days or T+2. By moving to a T+1 cycle, participants will be able to better manage their margin requirements and capital and liquidity risk by reducing the number of days between execution and settlement.

<https://www.afme.eu/News/Press-Releases/Details/AFME-calls-for-industry-discussion-on-shortening-settlement-cycles-in-Europe>

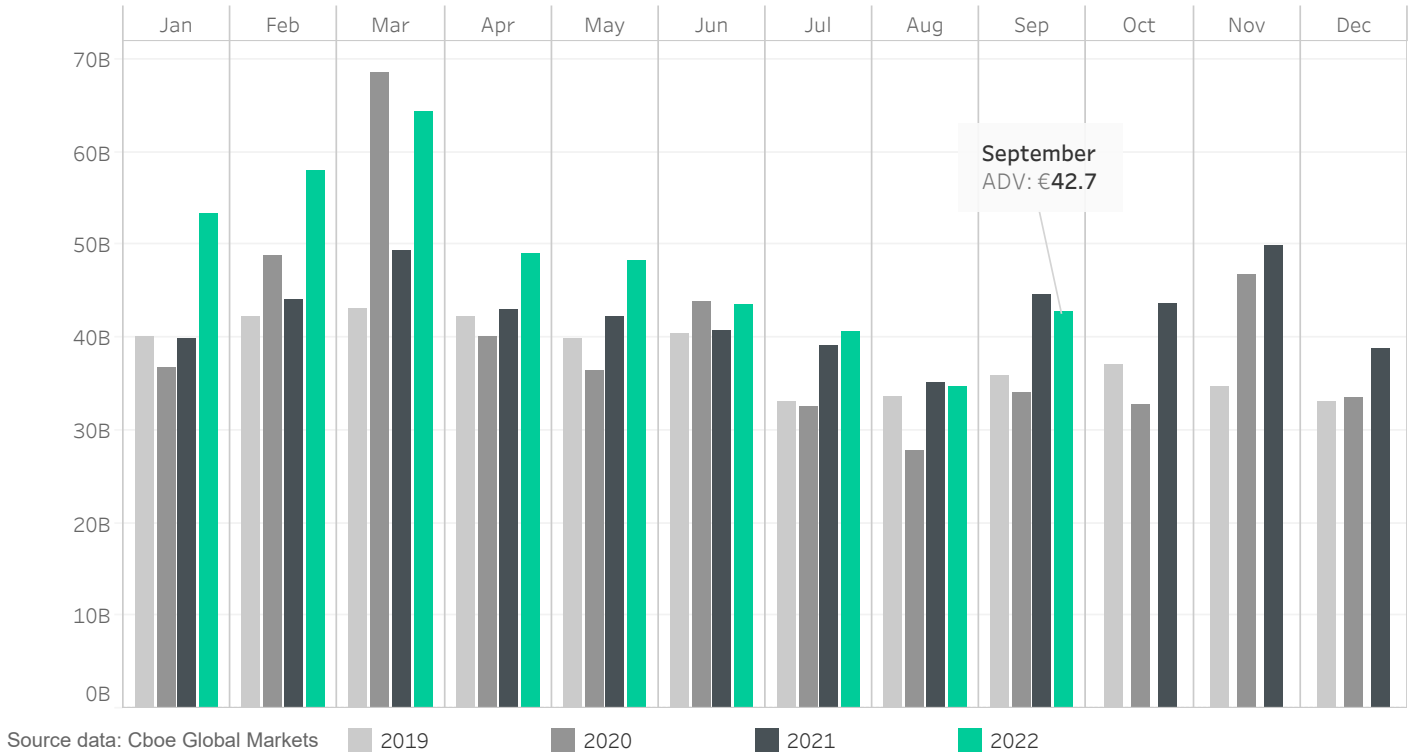
European Securities and Markets Authority Consultation on Market Outages

The European Securities and Markets Authority's (ESMA) new Consultation Paper (CP) aims to gather stakeholders' views on market outages. Feedback is being sought on what communication protocols should be in place during outages. A requirement for trading venues to prevent outages affecting the closing auctions and to provide the market with an official closing price when closing auctions are affected.

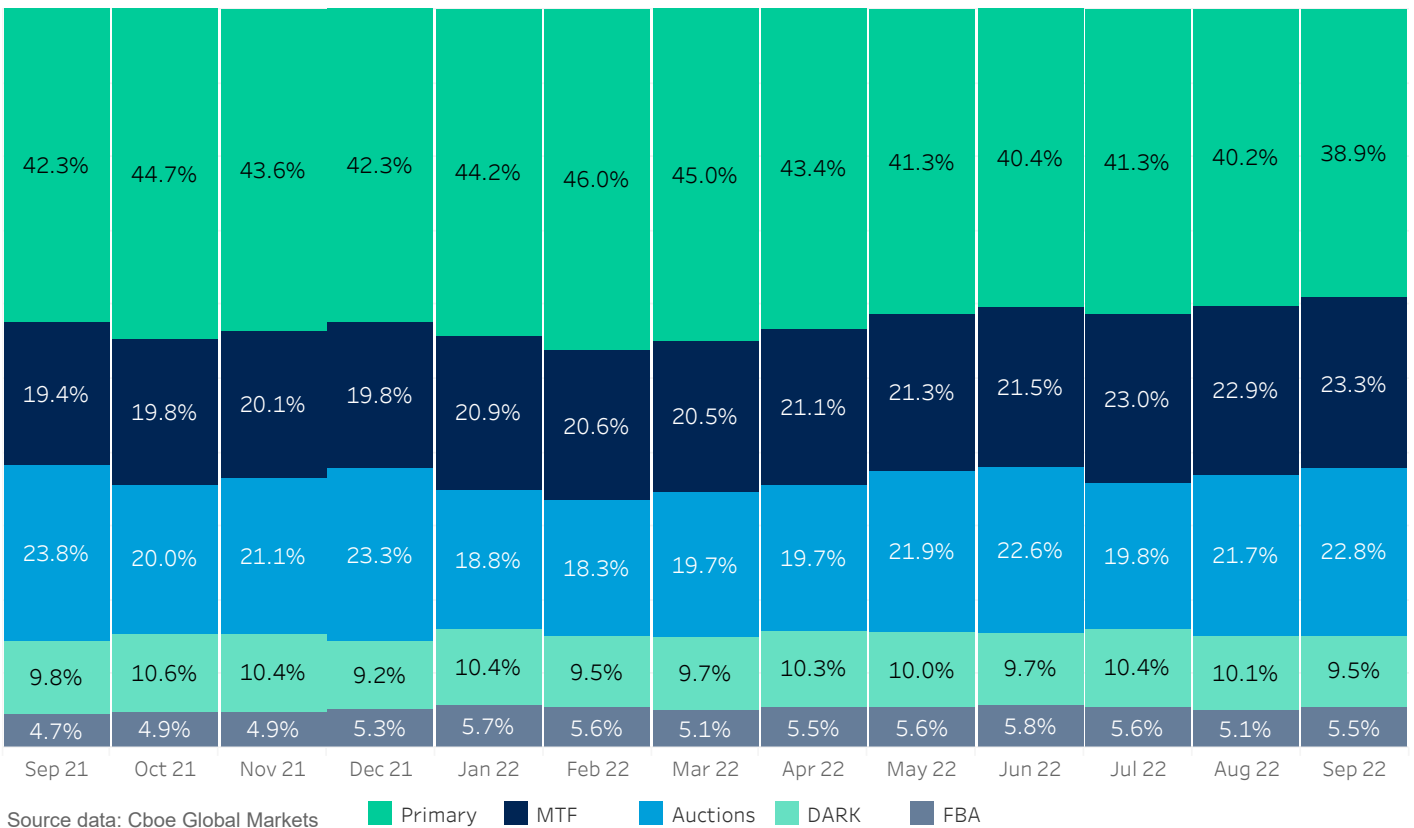
<https://www.esma.europa.eu/press-news/esma-news/esma-consults-guidance-market-outages>



Average Daily Market Volume

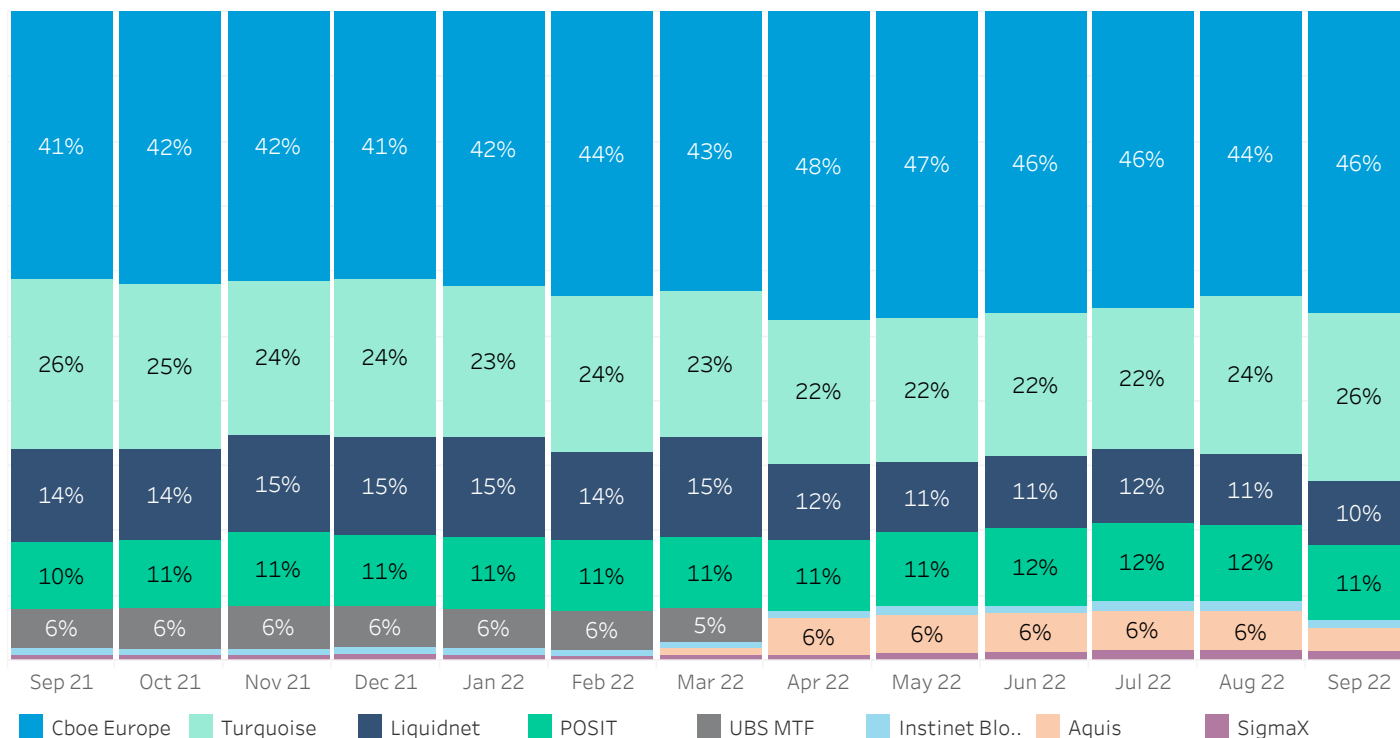


Venue Type Market Share



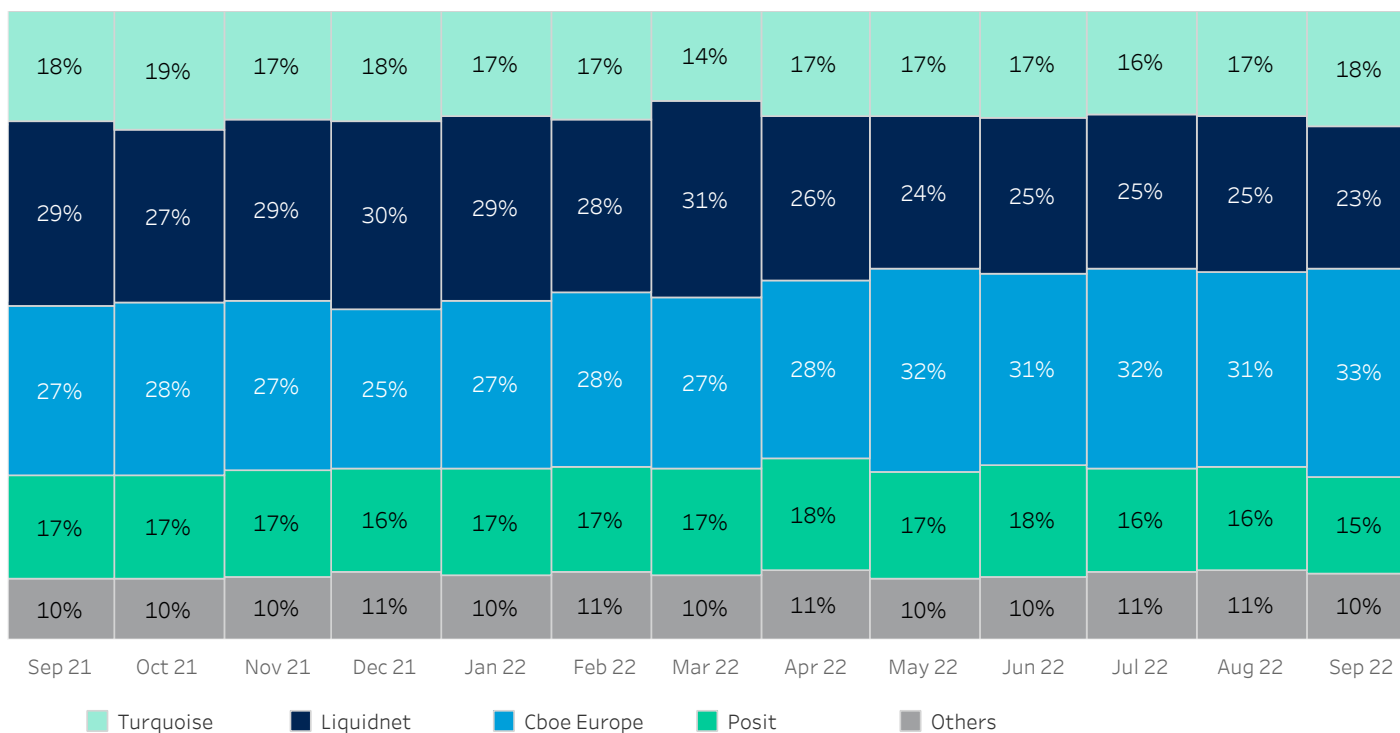


Dark Market Share



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		
		Sep 21	Oct 21	Nov 21	Dec 21	Jan 22	Feb 22	Mar 22	Apr 22	May 22	Jun 22	Jul 22	Aug 22	Sep 22		
8:00 - 8:30	Stoxx50	18.7K	19.1K	18.0K	18.5K	18.8K	16.3K	17.3K	18.3K	17.9K	21.0K	16.8K	19.2K	18.2K		
	Stoxx600	10.6K	10.4K	10.1K	10.6K	10.4K	9.6K	10.1K	11.0K	10.5K	10.0K	9.5K	10.2K	10.9K		
8:30 - 16:00	Stoxx50	32.7K	33.3K	32.0K	33.6K	33.8K	29.7K	23.1K	25.8K	26.4K	33.9K	26.0K	26.6K	25.8K		
	Stoxx600	16.7K	17.0K	16.3K	17.0K	17.0K	15.5K	12.6K	14.0K	13.3K	12.9K	11.9K	12.2K	13.4K		
16:00 - 16:30	Stoxx50	37.8K	39.7K	38.1K	39.3K	37.9K	35.1K	28.3K	33.3K	33.1K	39.8K	31.3K	31.4K	29.0K		
	Stoxx600	19.1K	19.9K	18.9K	19.0K	19.1K	18.6K	14.6K	17.0K	16.0K	15.4K	14.6K	14.7K	15.0K		

Spread Bps

8:00 - 8:30	Stoxx50	3.9	4.1	4.2	4.2	4.0	4.5	5.3	4.9	5.0	5.4	5.9	5.0	5.3
	Stoxx600	7.0	7.6	8.1	7.8	8.2	8.8	10.1	9.1	9.4	9.6	10.4	9.2	9.6
8:30 - 16:00	Stoxx50	2.3	2.3	2.4	2.5	2.5	2.7	3.2	3.0	3.0	3.4	3.6	3.2	3.5
	Stoxx600	4.0	4.2	4.5	4.5	4.7	5.0	5.8	5.2	5.6	5.9	6.3	5.4	5.9
16:00 - 16:30	Stoxx50	2.0	2.0	2.1	2.2	2.2	2.3	2.7	2.5	2.6	2.8	3.0	2.7	2.9
	Stoxx600	3.5	3.5	3.8	4.0	4.1	4.1	4.7	4.4	4.7	4.8	5.1	4.5	4.8

One Minute Volatility Bps

8:00 - 8:30	Stoxx50	11.9	12.7	12.9	12.1	14.8	17.6	22.3	18.2	16.5	16.9	22.3	14.6	17.4
	Stoxx600	11.0	11.8	12.5	11.0	14.1	16.5	21.5	17.3	16.3	16.2	18.2	14.1	17.4
8:30 - 16:00	Stoxx50	5.3	5.2	5.6	5.3	6.6	7.8	10.0	7.3	7.3	7.6	10.2	6.6	8.7
	Stoxx600	4.8	4.9	5.2	4.9	5.9	6.7	8.5	6.5	6.8	6.8	7.7	5.9	7.4
16:00 - 16:30	Stoxx50	5.1	4.7	4.9	5.6	6.7	7.0	9.5	7.2	8.4	8.1	9.2	6.9	8.5
	Stoxx600	4.4	4.1	4.5	4.8	5.5	5.5	7.3	6.0	7.0	6.5	6.8	5.4	6.8

Percent ADV by Time of Day

Open	Stoxx50	1.0%	1.0%	0.9%	0.9%	1.0%	1.0%	0.9%	1.0%	0.8%	0.9%	0.7%	0.7%	0.7%
	Stoxx600	0.6%	0.5%	0.5%	0.6%	0.7%	0.6%	0.5%	0.6%	0.5%	0.5%	0.4%	0.4%	0.4%
8:00 - 8:30	Stoxx50	7.0%	8.5%	9.4%	9.0%	9.9%	9.2%	7.8%	7.5%	7.6%	15.1%	22.2%	14.5%	15.5%
	Stoxx600	7.0%	7.1%	7.3%	6.8%	8.3%	7.9%	7.8%	8.2%	7.7%	8.3%	9.3%	9.6%	9.9%
16:00 - 16:30	Stoxx50	15.2%	11.7%	18.3%	19.4%	16.1%	15.5%	16.9%	14.8%	15.3%	16.2%	16.1%	12.3%	11.0%
	Stoxx600	13.1%	11.5%	12.8%	13.6%	12.7%	12.2%	12.4%	10.6%	11.9%	12.1%	12.7%	13.7%	12.9%
Close	Stoxx50	26.5%	26.6%	25.8%	28.7%	22.2%	21.9%	23.6%	23.5%	23.8%	25.7%	24.4%	22.5%	20.7%
	Stoxx600	26.9%	26.7%	26.3%	29.0%	24.0%	24.5%	23.8%	26.0%	24.2%	26.3%	23.2%	21.1%	20.3%

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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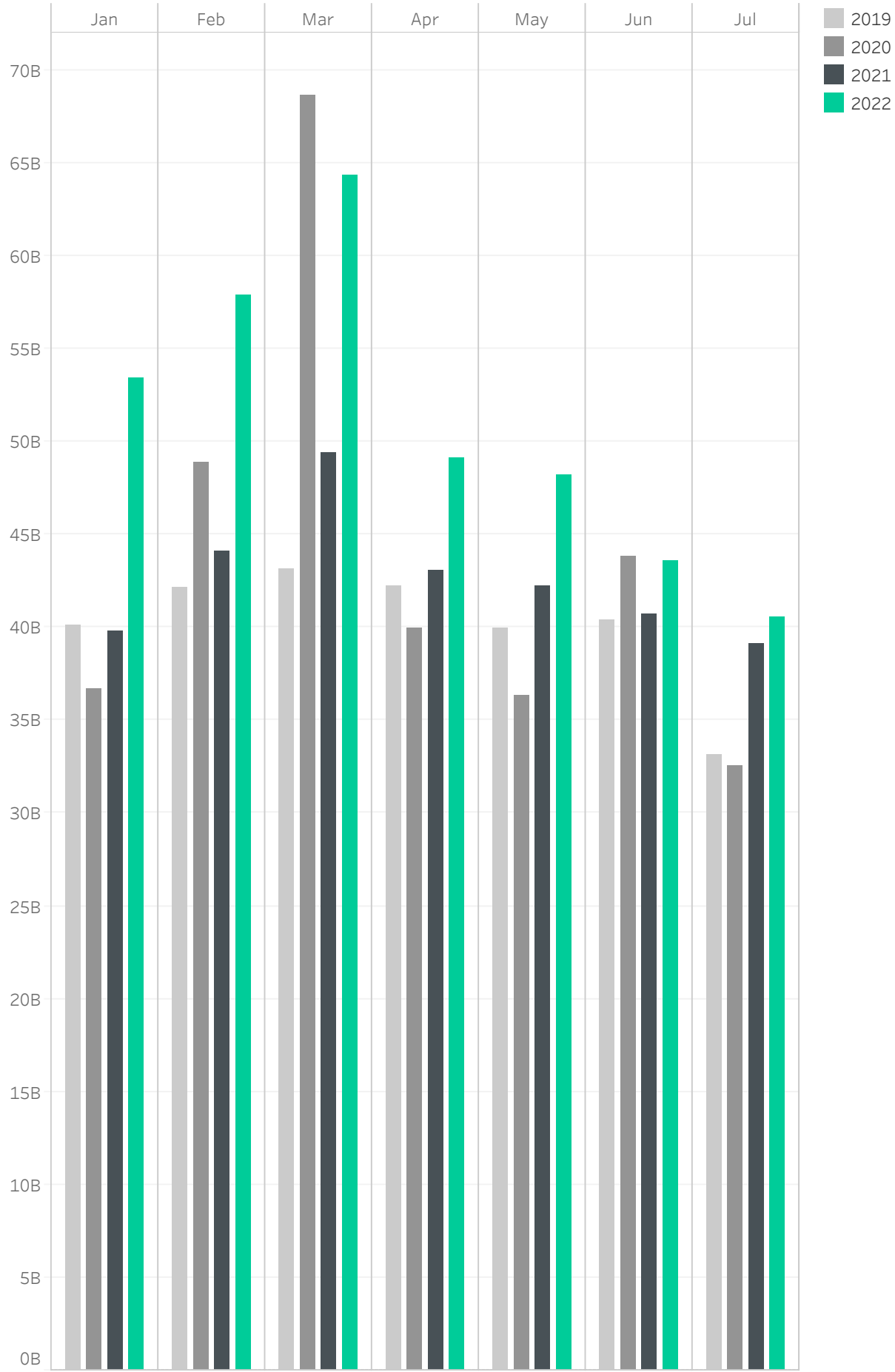
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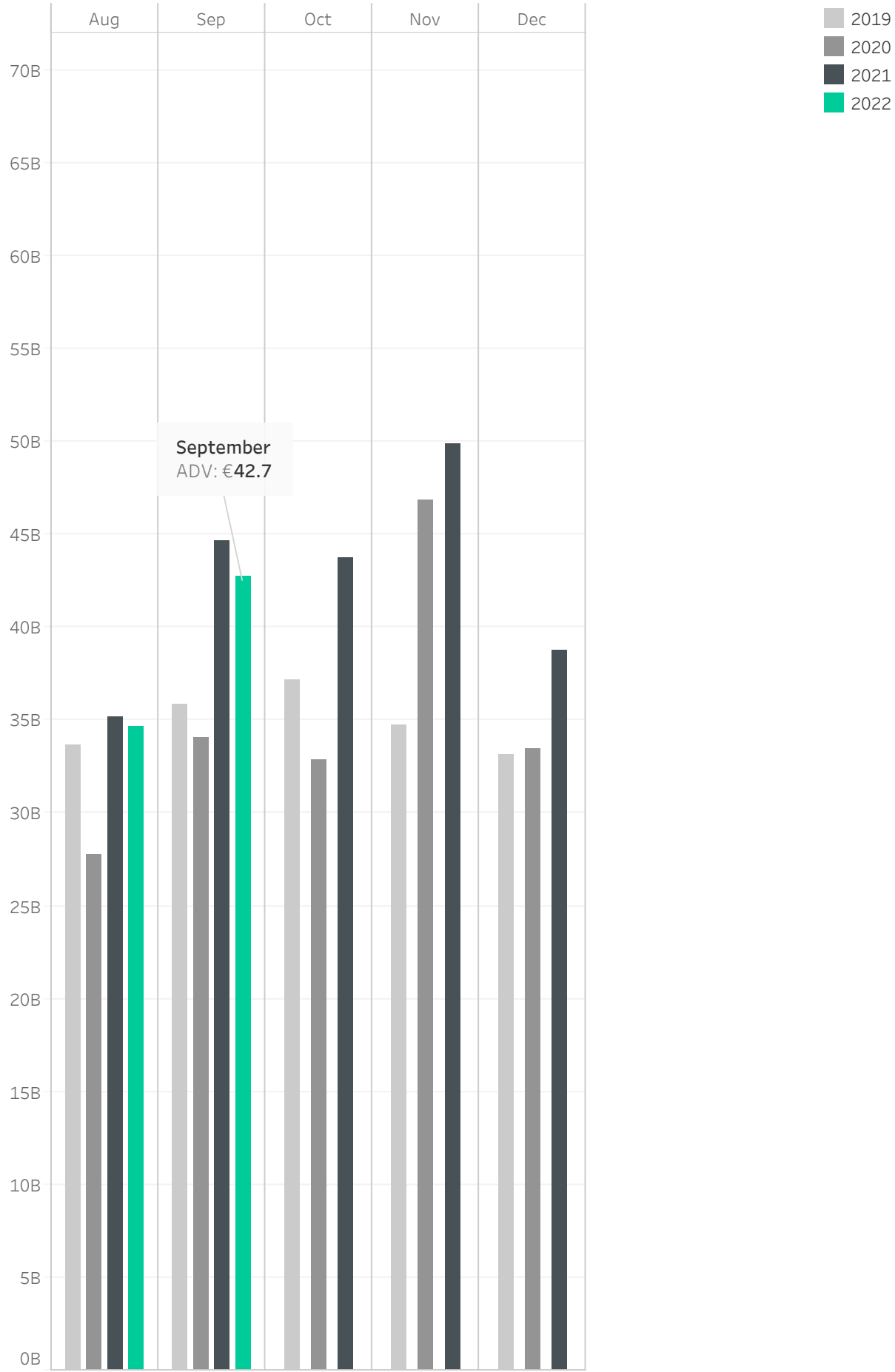
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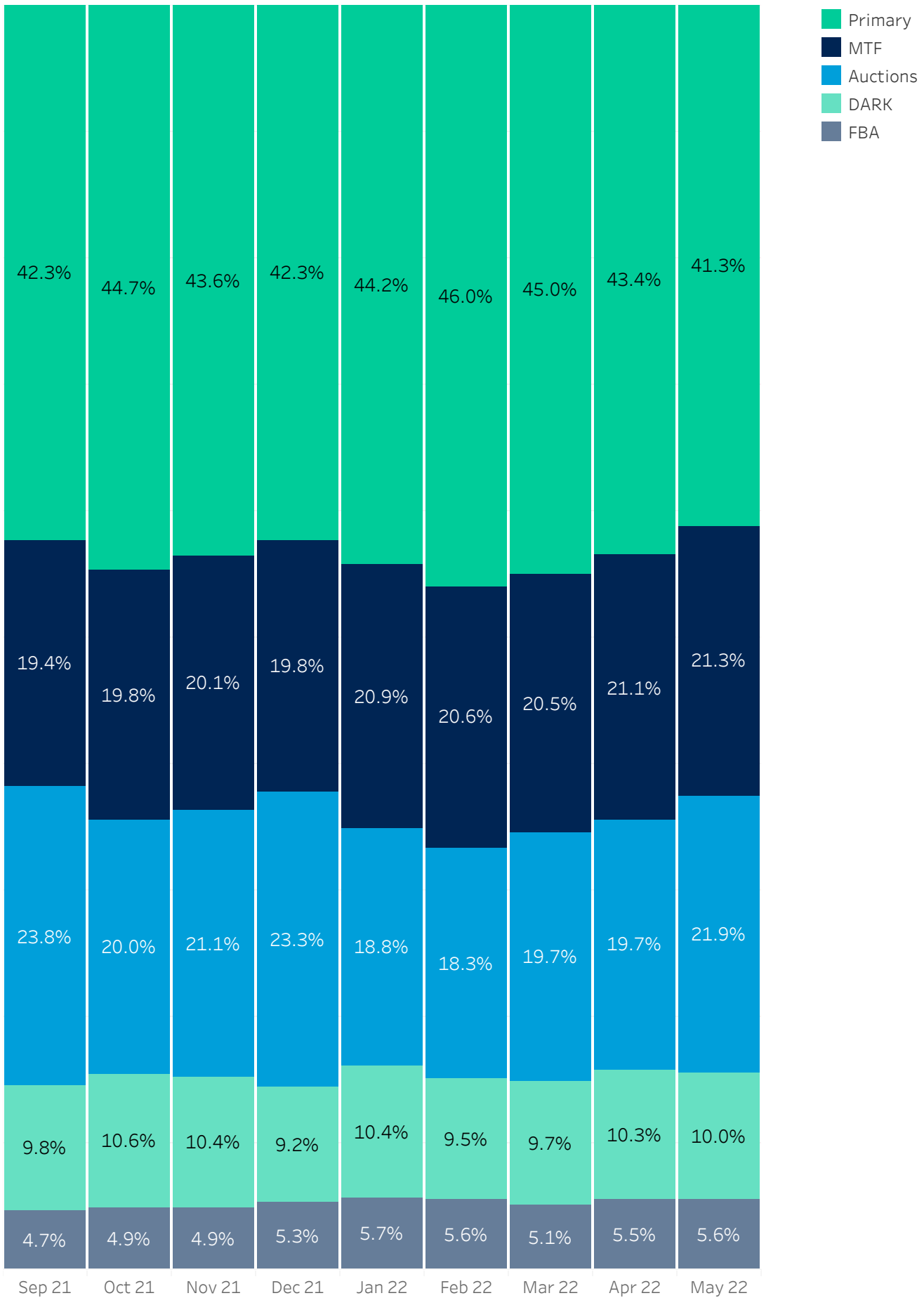
Average Daily Market Volume



Average Daily Market Volume

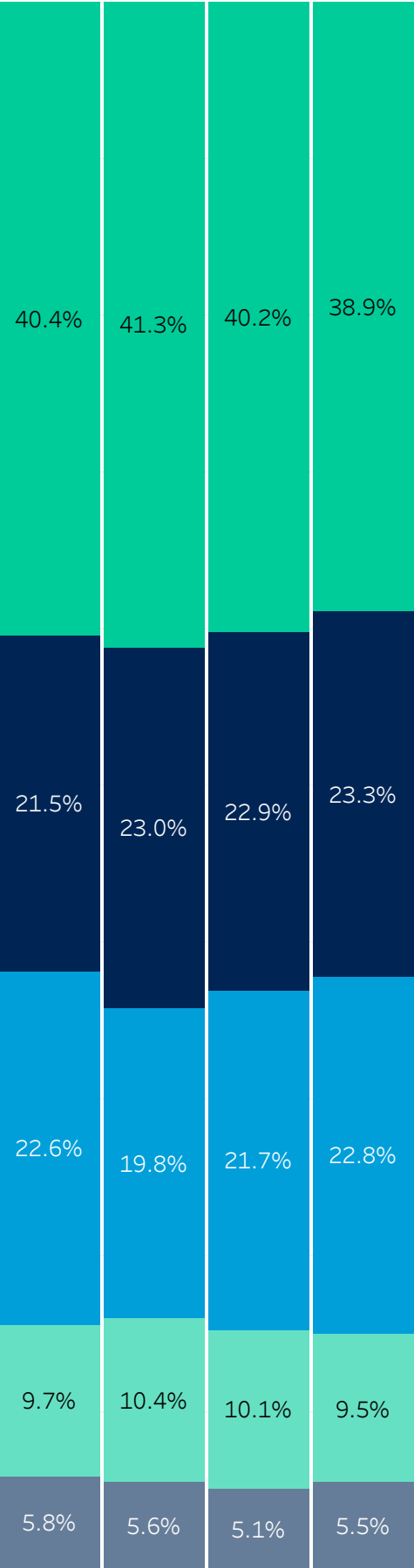


Venue Type Market Share



Venue Type Market Share

- Primary
- MTF
- Auctions
- DARK
- FBA



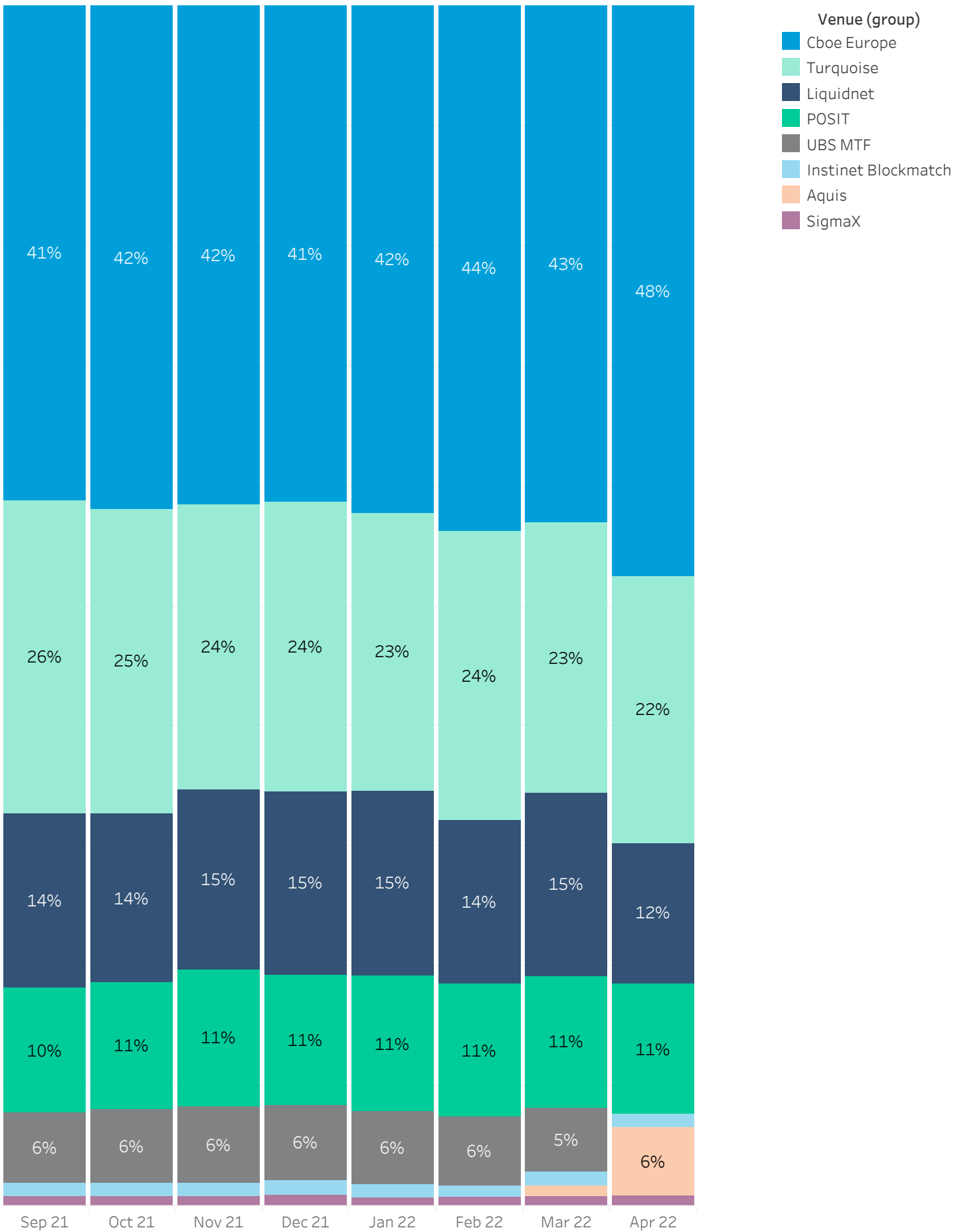
Jun 22

Jul 22

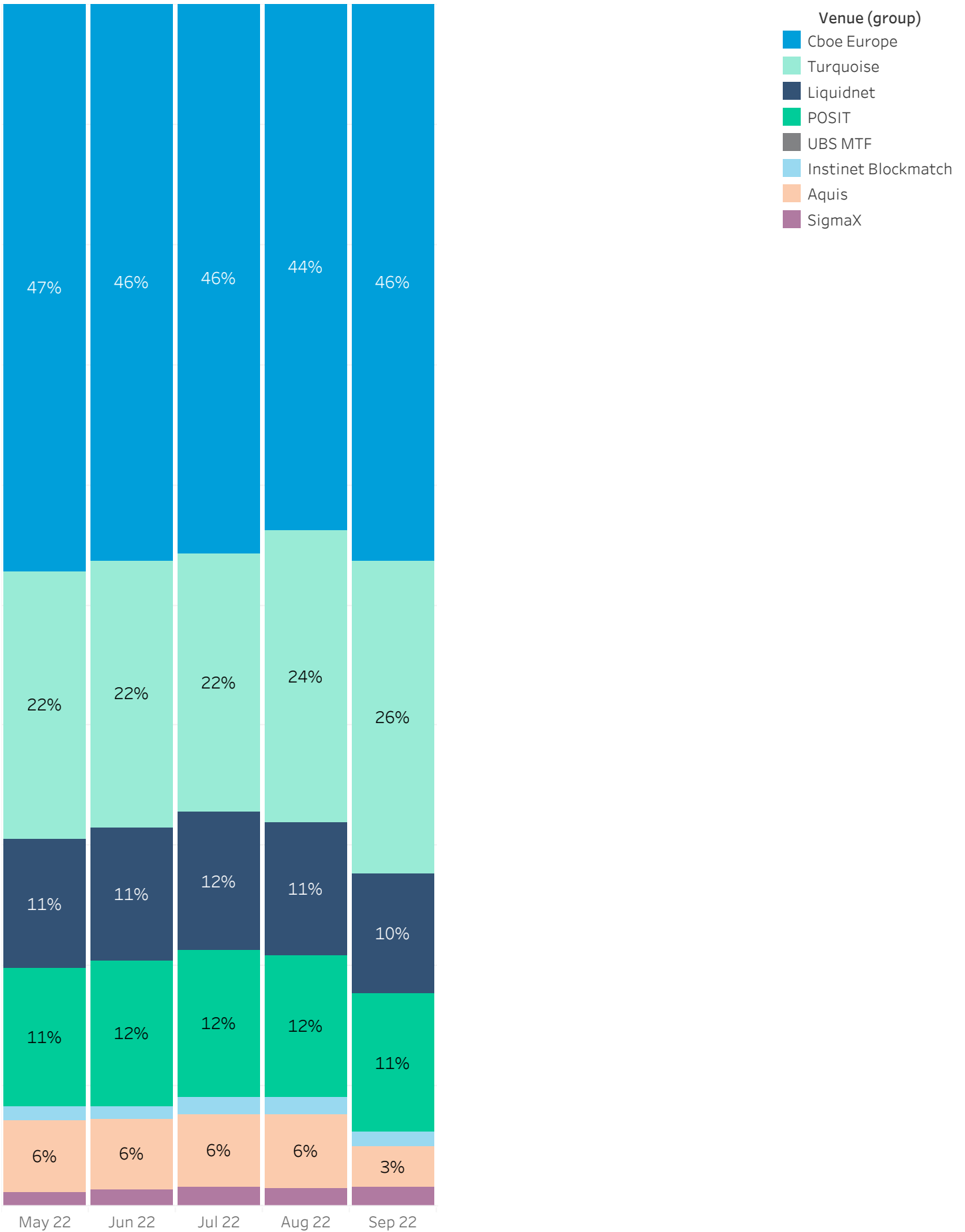
Aug 22

Sep 22

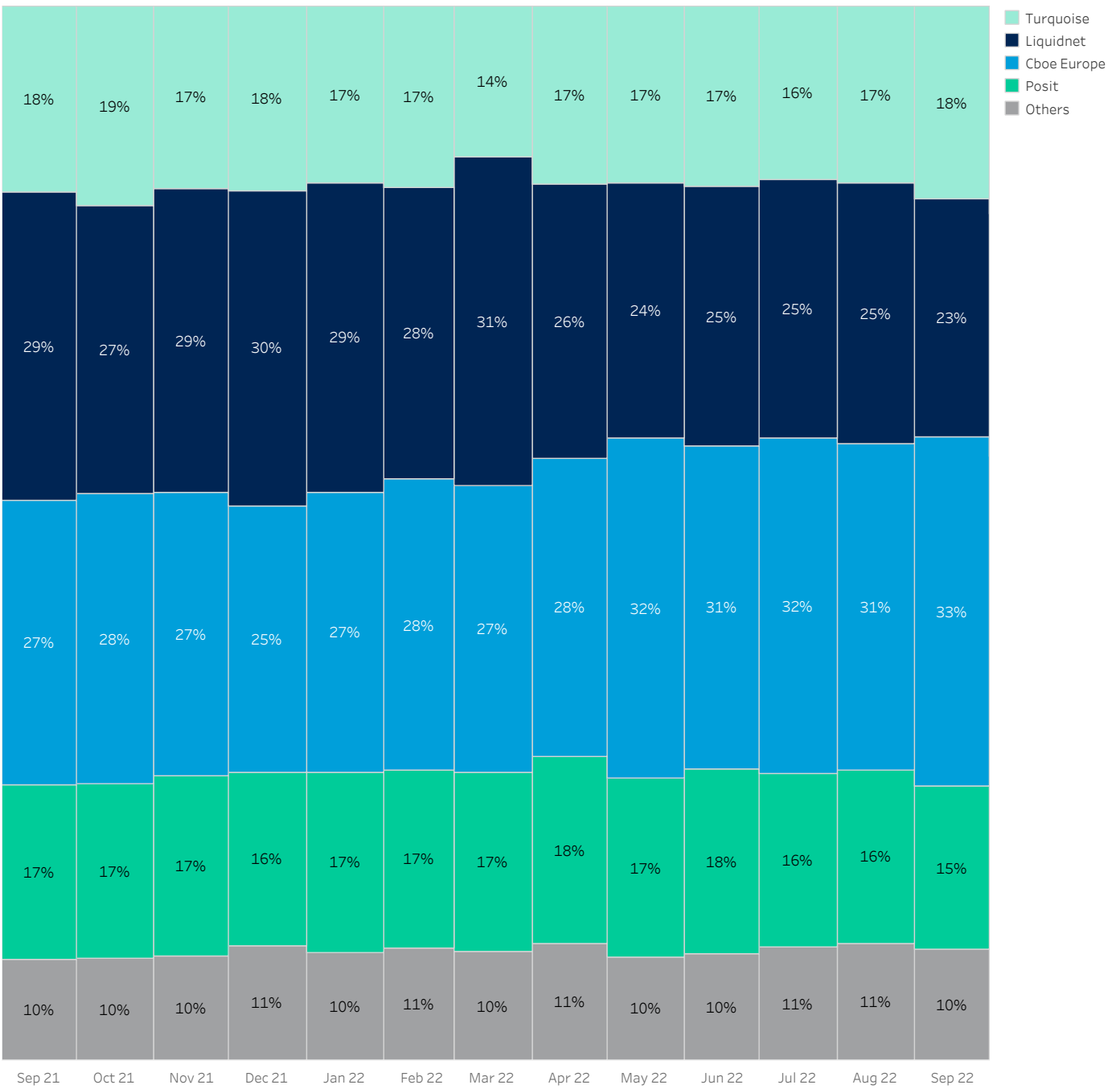
Dark Market Share



Dark Market Share



Block Market Share



Quotesize in Notional USD

		3Q 21	4Q 21			1Q 22			2Q 22			3Q 22
		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	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	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	32.7K	33.3K	32.0K	33.6K	33.8K	29.7K	23.1K	25.8K	26.4K	33.9K	26.0K
	Stoxx600	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	37.8K	39.7K	38.1K	39.3K	37.9K	35.1K	28.3K	33.3K	33.1K	39.8K	31.3K
	Stoxx600	19.1K	19.9K	18.9K	19.0K	19.1K	18.6K	14.6K	17.0K	16.0K	15.4K	14.6K

Quotesize in Notional USD

		3Q 22	
		Aug 22	Sep 22
8:00 - 8:30	Stoxx50	19.2K	18.2K
	Stoxx600	10.2K	10.9K
8:30 - 16:00	Stoxx50	26.6K	25.8K
	Stoxx600	12.2K	13.4K
16:00 - 16:30	Stoxx50	31.4K	29.0K
	Stoxx600	14.7K	15.0K

Spread Bps

8:00 - 8:30	Stoxx50	3.9	4.1	4.2	4.2	4.0	4.5	5.3	4.9	5.0	5.4	5.9
	Stoxx600	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	2.3	2.3	2.4	2.5	2.5	2.7	3.2	3.0	3.0	3.4	3.6
	Stoxx600	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	2.0	2.0	2.1	2.2	2.2	2.3	2.7	2.5	2.6	2.8	3.0
	Stoxx600	3.5	3.5	3.8	4.0	4.1	4.1	4.7	4.4	4.7	4.8	5.1

Spread Bps

8:00 - 8:30	Stoxx50	5.0	5.3
	Stoxx600	9.2	9.6
8:30 - 16:00	Stoxx50	3.2	3.5
	Stoxx600	5.4	5.9
16:00 - 16:30	Stoxx50	2.7	2.9
	Stoxx600	4.5	4.8

One Minute Volatility Bps

8:00 - 8:30	Stoxx50	11.9	12.7	12.9	12.1	14.8	17.6	22.3	18.2	16.5	16.9	22.3
	Stoxx600	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	5.2	5.6	5.3	6.6	7.8	10.0	7.3	7.3	7.6	10.2
	Stoxx600	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	4.7	4.9	5.6	6.7	7.0	9.5	7.2	8.4	8.1	9.2
	Stoxx600	4.4	4.1	4.5	4.8	5.5	5.5	7.3	6.0	7.0	6.5	6.8

One Minute Volatility Bps

8:00 - 8:30	Stoxx50	14.6	17.4
	Stoxx600	14.1	17.4
8:30 - 16:00	Stoxx50	6.6	8.7
	Stoxx600	5.9	7.4
16:00 - 16:30	Stoxx50	6.9	8.5
	Stoxx600	5.4	6.8

Percent ADV by Time of Day

Open	Stoxx50	1.0%	1.0%	0.9%	0.9%	1.0%	1.0%	0.9%	1.0%	0.8%	0.9%	0.7%	0.7%
	Stoxx600	0.6%	0.5%	0.5%	0.6%	0.7%	0.6%	0.5%	0.6%	0.5%	0.5%	0.4%	0.4%

Percent ADV by Time of Day

Open	Stoxx50	0.7%
	Stoxx600	0.4%

8:00 - 8:30	Stoxx50	7.0%	8.5%	9.4%	9.0%	9.9%	9.2%	7.8%	7.5%	7.6%	15.1%	22.2%
	Stoxx600	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	15.2%	11.7%	18.3%	19.4%	16.1%	15.5%	16.9%	14.8%	15.3%	16.2%	16.1%
	Stoxx600	13.1%	11.5%	12.8%	13.6%	12.7%	12.2%	12.4%	10.6%	11.9%	12.1%	12.7%

8:00 - 8:30	Stoxx50	14.5%	15.5%
	Stoxx600	9.6%	9.9%
16:00 - 16:30	Stoxx50	12.3%	11.0%
	Stoxx600	13.7%	12.9%

Close	Stoxx50	26.5%	26.6%	25.8%	28.7%	22.2%	21.9%	23.6%	23.5%	23.8%
	Stoxx600	26.9%	26.7%	26.3%	29.0%	24.0%	24.5%	23.8%	26.0%	24.2%

Close	Stoxx50	25.7%	24.4%	22.5%	20.7%
	Stoxx600	26.3%	23.2%	21.1%	20.3%

Close	Stoxx50	26.5%	26.6%	25.8%	28.7%	22.2%	21.9%	23.6%	23.5%	23.8%
	Stoxx600	26.9%	26.7%	26.3%	29.0%	24.0%	24.5%	23.8%	26.0%	24.2%

Close	Stoxx50	25.7%	24.4%	22.5%	20.7%
	Stoxx600	26.3%	23.2%	21.1%	20.3%

Sheet 11

timeofday	index	2021				Q1			2022	
		Q3 Septem..	Q4 October	Q4 Novem..	Q4 Decemb..	January	February	March	Q2 April	Q2 May
8:00 - 8:30	Stoxx50		-3.5%	-2.7%	5.3%	-4.8%	-16.9%	16.7%	-11.2%	15.9%
	Stoxx600		-5.5%	2.7%	9.3%	-10.4%	-13.7%	21.8%	-10.4%	7.7%
8:30 - 16:00	Stoxx50		-3.5%	1.1%	5.5%	-4.8%	-16.6%	-10.8%	-6.1%	19.1%
	Stoxx600		-2.1%	-0.7%	8.3%	-6.5%	-15.4%	-6.2%	-6.7%	8.9%
16:00 - 16:30	Stoxx50		-0.7%	0.6%	1.0%	-0.9%	-5.2%	27.8%	-24.4%	14.5%
	Stoxx600		-0.1%	1.0%	-2.0%	0.9%	-9.1%	-7.1%	-3.4%	13.7%

Sheet 11

timeofday	index	2022			
		Q2	Q3		
		June	July	August	Septem..
8:00 - 8:30	Stoxx50	29.4%	-14.1%	8.2%	-12.4%
	Stoxx600	-0.4%	-12.9%	17.7%	6.2%
8:30 - 16:00	Stoxx50	33.0%	-29.7%	11.6%	-5.5%
	Stoxx600	0.6%	-13.8%	11.9%	5.5%
16:00 - 16:30	Stoxx50	517.2%	-19.2%	40.8%	6.8%
	Stoxx600	-2.1%	-16.1%	10.8%	-1.4%