

European Market Microstructure Review

Q3 2020

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IN OUR REGULAR survey, we present data and commentary on trends affecting the workings of the European equity market, using as our starting point the beginning of MiFID2 in January 2018.

In this edition we cover

1. TRENDS IN MARKET VOLUMES
2. MARKET FRAGMENTATION
3. MARKET QUALITY
4. VOLUME PROFILES

If you are new to Market Microstructure, and unfamiliar with the terms, please see Appendix 1.

The data and analysis presented here, and much more, is available for all subscribers to our European Liquidity Cockpit, which gives comprehensive access to European market data analytics in thousands of instruments, on daily, weekly, quarterly and annual trends in all major trading centres and all relevant trading venues.

If you do not already have access, please go to <https://liquidity-cockpit.com> to request a trial or contact us at sales@big-xyt.com.

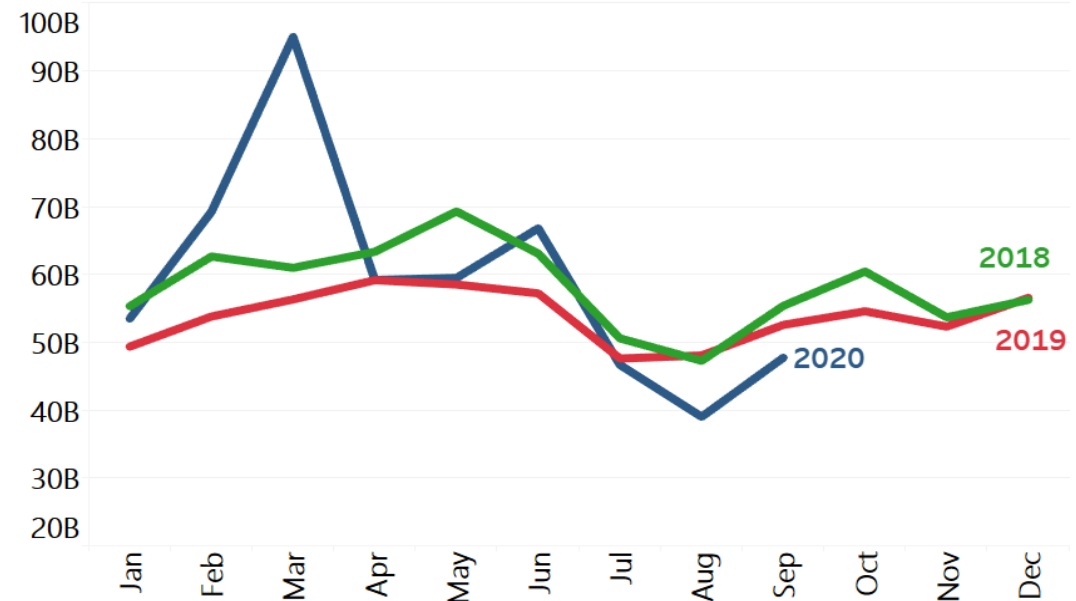
SUMMARY - The Key Takeaways for Q3

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MARKET VOLUMES reached a MiFID2 era low.

1. Annualised 2020 volumes are +11% ahead of 2019; but this has reduced from +34% in Q1.
2. Average Daily Volume fell from €73B in Q1 to €45B in Q3, 24% below the long term average (€57B).
3. July and August set consecutive new monthly lows, with August at €39B ADVT.
4. Fragmentation between On and Off Order Book trading remains unchanged. In Q3, all ships were beached by the ebb tide.
5. Intraday Lit trading continues to give up market share to Dark pools and the closing auctions, recording a monthly low in August of €19B a day, compared with the long term average of €26B.
6. Market quality metrics continue to improve, with spreads in most countries close to their levels a year ago. UK and Italian large caps are the exception.

Monthly Average Daily Volume Traded in €
All Trading Venue Types



Market Volume - Record low quarter and two record low months. Q3 2020

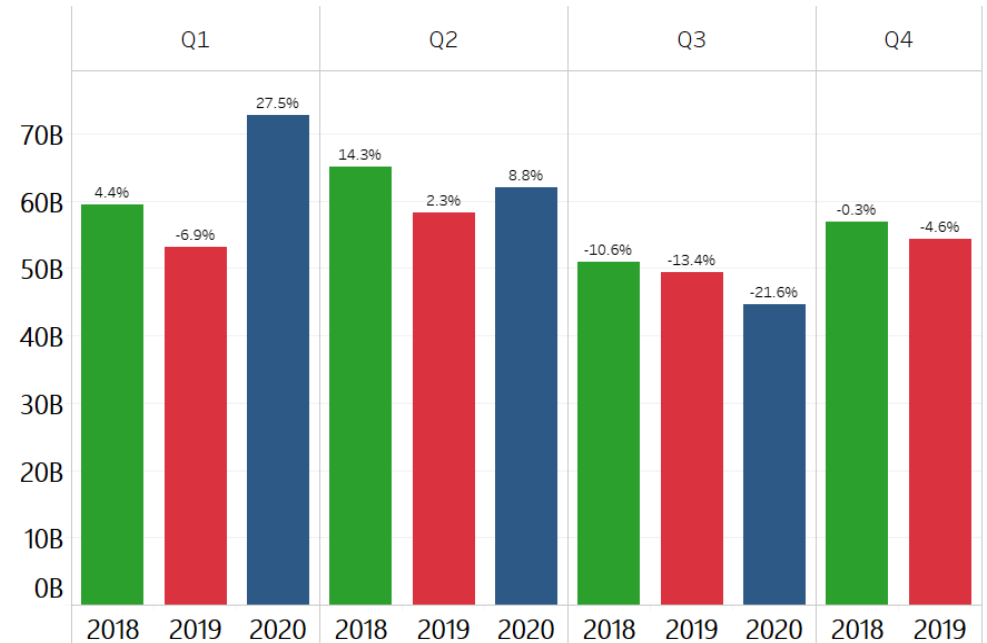
IN CONTRAST to the record highs of Q1, the markets were stuck in the doldrums in Q3.

It is normal to see reduced volumes over the summer months - both 2018 and 2019 Q3 were at least 11% lower than the long term average.

Q3 2020 fared badly at -22%, with July and August setting new record monthly lows for the MiFID2 era, while September narrowly avoided joining them in the bottom 3 worst months owing to another bumper index reshuffle.

August was -32% below the average monthly volume and the first to register below €40B.

Quarterly Average Daily Volume Traded in € - 2018 to 2020



Marks show % v Long Term Average of €57B

Market Volume - Country Variations

Q3 2020

THE COUNTRY HEATMAP compares quarterly ADV to the long term average.

The pattern across country indexes is very similar, perhaps reflecting the national agnosticism of passive trading.

Six of the top 7 largest indexes by ADV saw record (negative) deviations from the long term average in Q3, with the exception of the Netherlands.

The most notable falls in Q3 were in Spain (-34%) and Italy (-30%), with the UK not far behind.

The greatest resilience is seen in Ireland, the Netherlands and the Scandinavian countries (excluding Norway). In Ireland the growth comes from several major names that are also listed on the LSE and are transferring to an EU marketplace.

Country	2018				2019				2020		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
UK	6%	12%	-6%	5%	-1%	-3%	-9%	3%	22%	1%	-28%
France	-2%	18%	-14%	-1%	-11%	14%	-18%	-6%	36%	8%	-24%
Germany	14%	15%	-11%	-5%	-12%	-1%	-20%	-8%	25%	24%	-21%
Switzerland	3%	-3%	-20%	5%	6%	8%	-10%	-18%	39%	11%	-22%
Netherlands	-5%	10%	-10%	-13%	-15%	-9%	-10%	-5%	38%	25%	-6%
Spain	11%	37%	-4%	2%	-9%	10%	-16%	0%	13%	-11%	-34%
Italy	20%	27%	-12%	-10%	-9%	4%	-10%	-5%	31%	-7%	-30%
Sweden	2%	5%	-15%	4%	1%	4%	-16%	-3%	19%	9%	-9%
Denmark	-2%	-2%	-6%	-1%	-15%	-7%	-12%	-4%	29%	21%	-1%
Finland	0%	4%	-20%	1%	5%	2%	-13%	-5%	23%	5%	-2%
Belgium	1%	52%	-6%	1%	-12%	-4%	-12%	0%	15%	-7%	-28%
Norway	-8%	36%	3%	19%	-12%	8%	-9%	-9%	7%	-5%	-29%
Ireland	-55%	-59%	-60%	-4%	-10%	11%	-8%	21%	87%	62%	14%
Austria	3%	24%	-7%	8%	-4%	4%	-14%	4%	19%	-6%	-32%
Portugal	-10%	24%	-11%	-15%	-17%	3%	-16%	-10%	43%	28%	-19%
Poland	5%	-3%	2%	-7%	-2%	-4%	-10%	-13%	12%	32%	-12%
Grand Total	4%	14%	-11%	-1%	-7%	3%	-13%	-4%	28%	9%	-22%

The Daily Highs and Lows

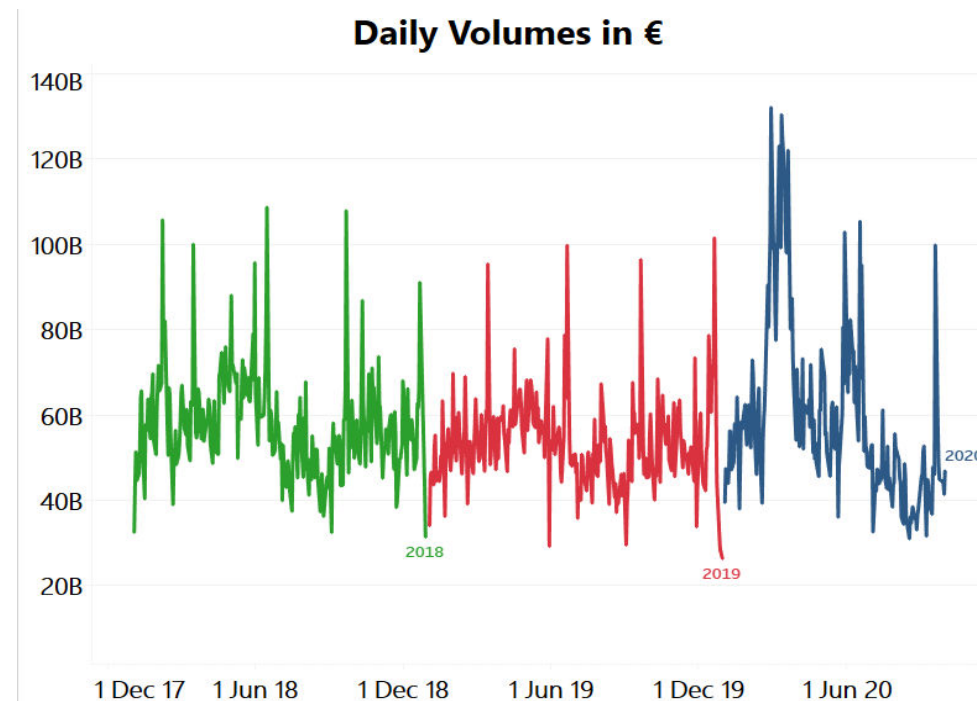
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IN ELEVEN QUARTERS since January 2020, there have been 21 days in which the European equity markets have punched through the €100B ADVT threshold.

Thirteen of these days have been in 2020, with 12 during the 17 trading days between February 27th and March 20th at the height of the crisis. The period record was February 28th, with €133B.

There was one day each in May, June and September. Two of these coincided with major index re-shuffles, reflecting how dramatic changes in share prices are affecting market capitalisation and therefore weightings. The effect of these changes drives very high levels of volume as tracker funds rebalance their portfolios into the Closing auctions.

Without the rebalance, September would have joined July and August to form the three lowest volume months in nearly 3 years.



Market Fragmentation: Market Share Between Exchange/MTFs and Off Order Book

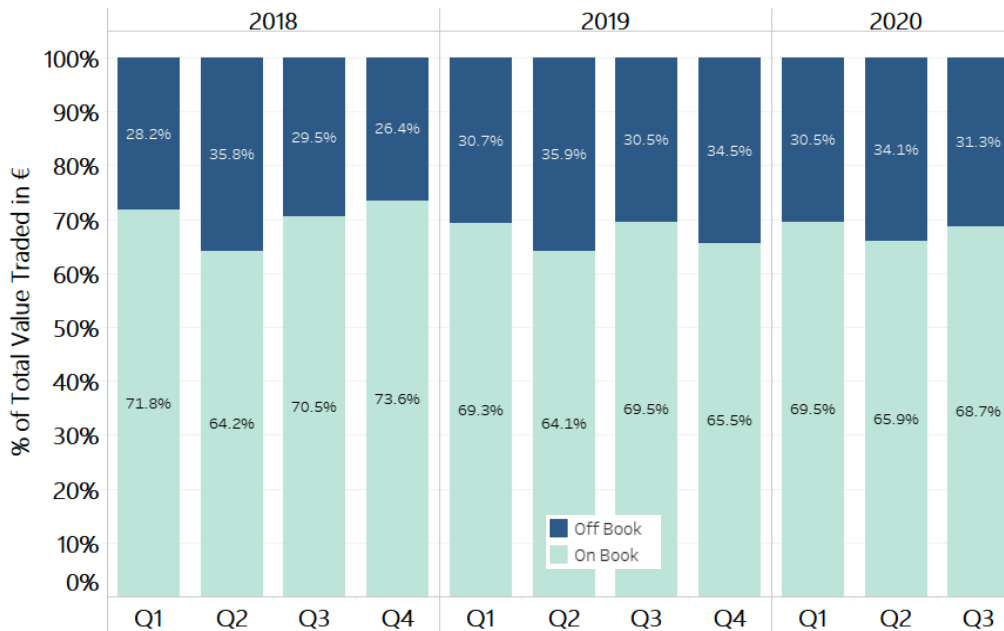
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DISTRIBUTION OF market share between the Exchange and MTF Order Books and off order book trading remains remarkably consistent.

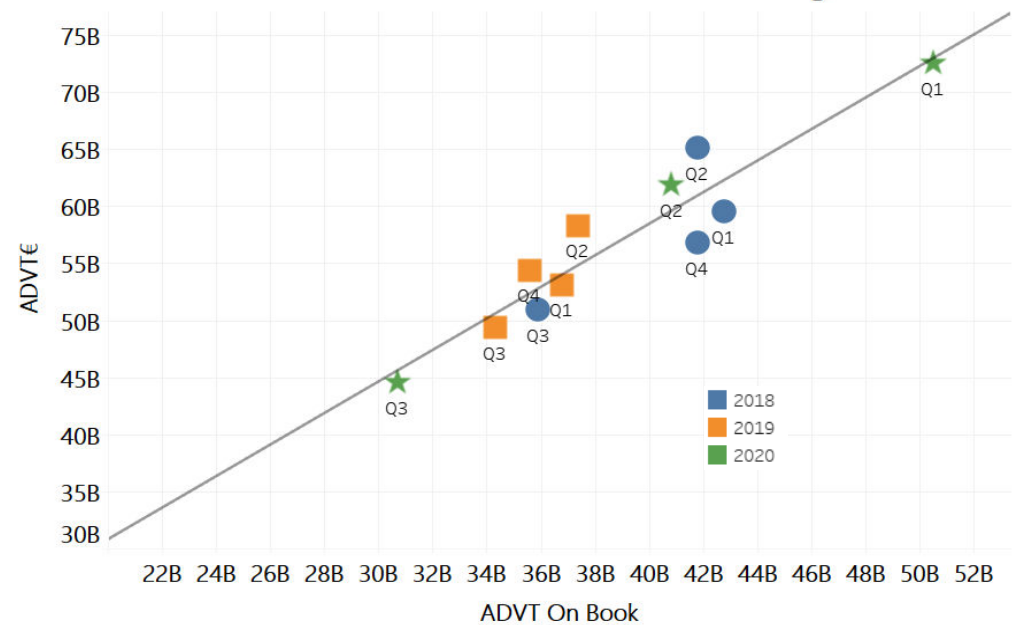
The Lit and Dark order books, including the auctions average around €39B per day against the whole market at €57B a day, or around 68%. This has fallen 2% since 2018.

There is a curiously regular quarterly pattern in the relationship between On Book and Off Book trading with the Order Books gaining ground in Q1 and Q3 of each year but losing it in Q2. This could simply be due to increased block trading activity during dividend season, traded away from the Exchanges and MTF systems.

Market Share On Order book v Off Order Book



Value Traded On Order Books v All Settings



Market Fragmentation: But Intraday Trading on Lit Order Books Continues to Lose Ground

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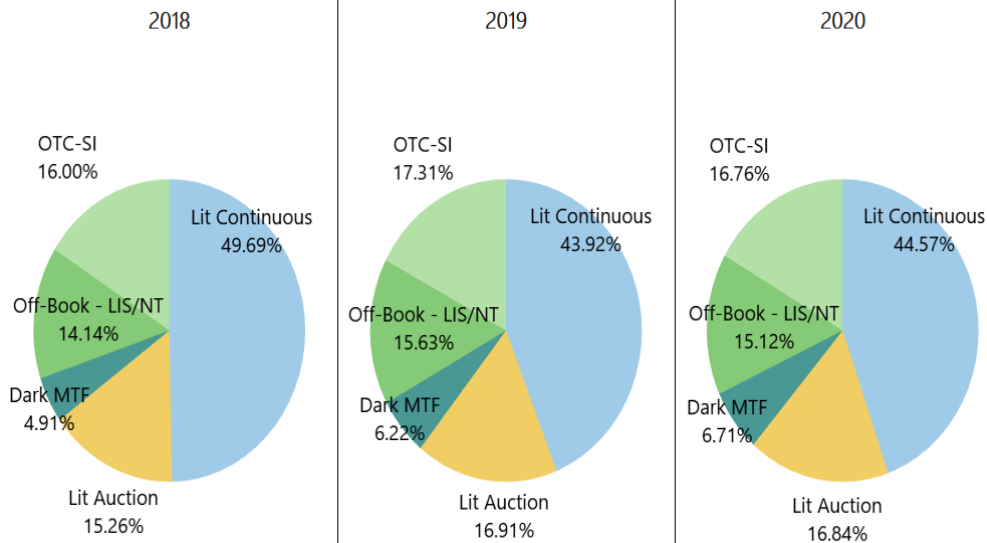
THE MAIN STORY of fragmentation remains the drift away from intraday Lit Continuous Order Book trading, which has fallen 5% over the MiFID2 era. Q3 recorded the 2nd lowest volume of the whole period.

In Q1, Lit Continuous trading was €2.1T (a record high) while in Q3, it was just €1.3T a 38% drop. By contrast, the auctions fell from €7.7B to €5.1B, a drop of 33%.

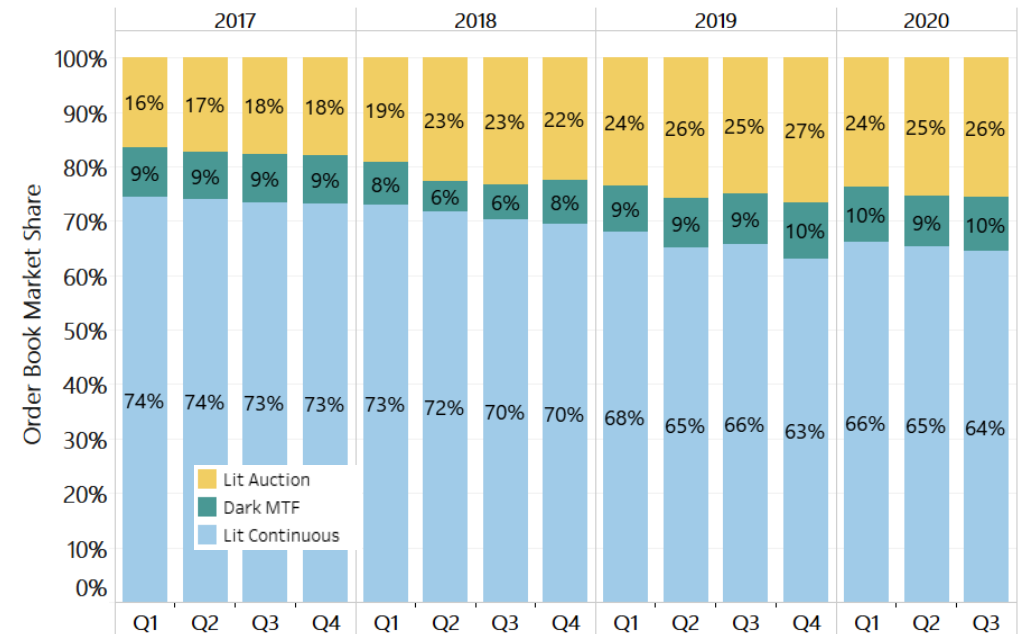
As noted before in our surveys and especially for 2019, Lit Continuous trading tends to bear the brunt of a slow down in volumes.

The market share is passing fairly evenly to all other types of liquidity pools, 0.7% to Sis, 1% to Off Book trading, 1.8% to dark pools and 1.6% to auctions.

Market Fragmentation



Order Book Market Share



Volume Profiles: Consistent Pattern Across Trading Venue Types

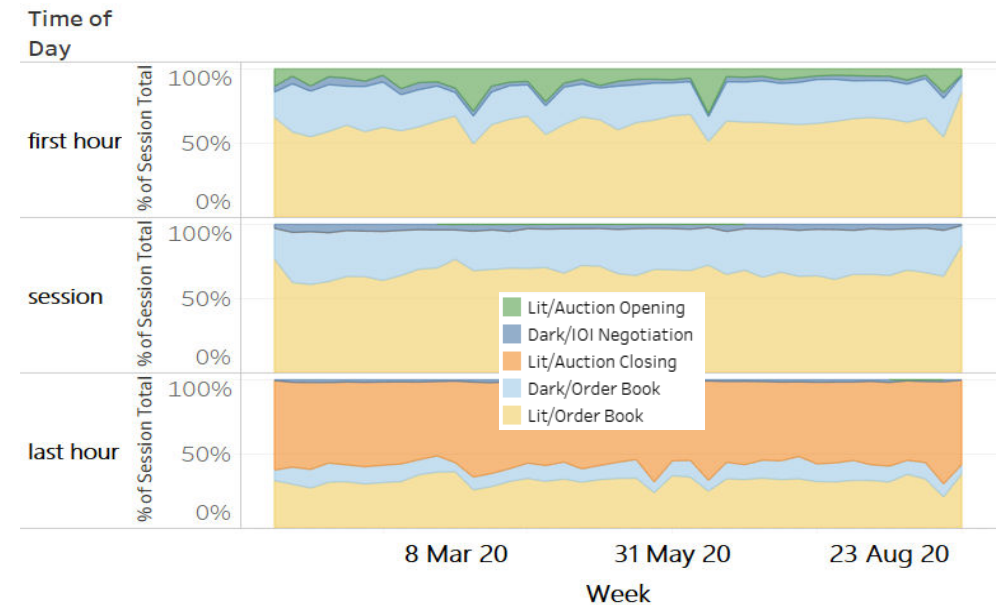
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VOLUME PROFILES have been extreme in 2020. Normally, 50% of the day's trading is completed within half an hour of 15:00 CET (14:00 UK). We have seen examples of the mid way mark being as early as 12:55 CET and as late as 16:05 (see next page).

Despite this, we see little structural change to average intraday distribution of liquidity between venue types as the year progresses (see chart).

There are certainly some exceptions created by volatility such as an increase in Open volume as the markets gapped and in volatility halts. Major adjustments in market cap also drove several near record Closing auctions, on re-shuffle days, the last on September 29th.

Weekly Consolidated Volume Curve



Volume Profiles: Beware the Average

Q3 2020

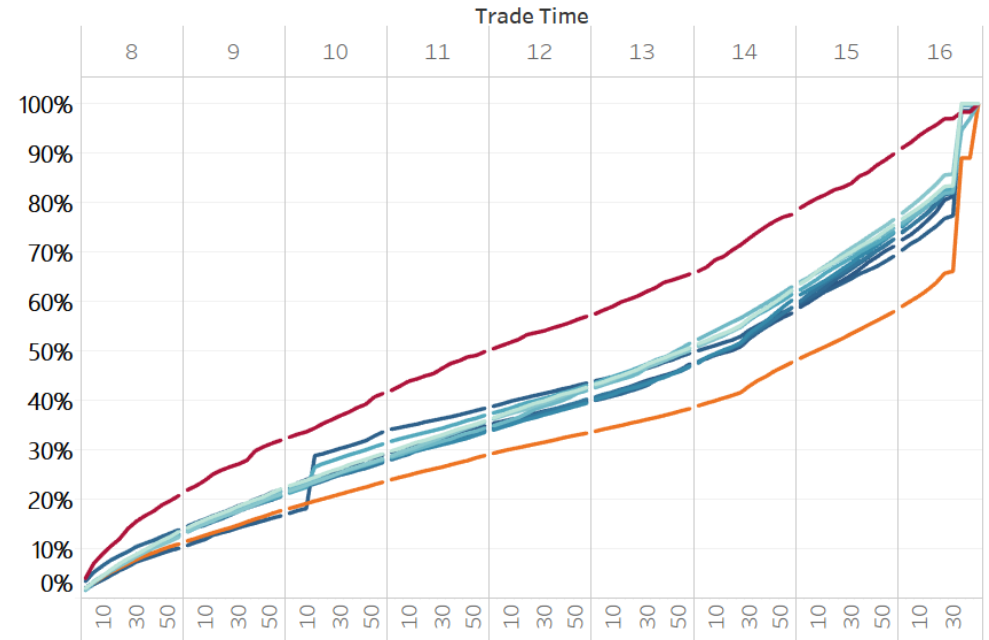
WEEKLY VOLUME curves drifted further towards the end of the day between Q1 and Q3, adding to the observation that when volumes dry up, the closing auctions take market share.

The chart shows weekly profiles (blue lines) with Q1 having a lighter shading than Q3. The data is taken from regular samples in the UK, Swiss and Italian index names, including the 'big' weeks of Q1.

Beware the average - note the 3 examples of more extreme curves. The red line is the four days from Feb 25th; during very high volatility we saw more intraday trading. The orange line is one day's profile - May 29th which was a record index rebalance day when 50% of the day's trading took place in the last hour. A futures index expiry week is also included.

Daily profiles are highly variable, with patterns emerging across types of venue, regular events and even days of the week. It underlines the importance of maintaining up to date, accurate and detailed data.

Weekly Consolidated Volume Curves (5 Minute Intervals)



Market Quality: Spreads Returning to Normal, Slowly.

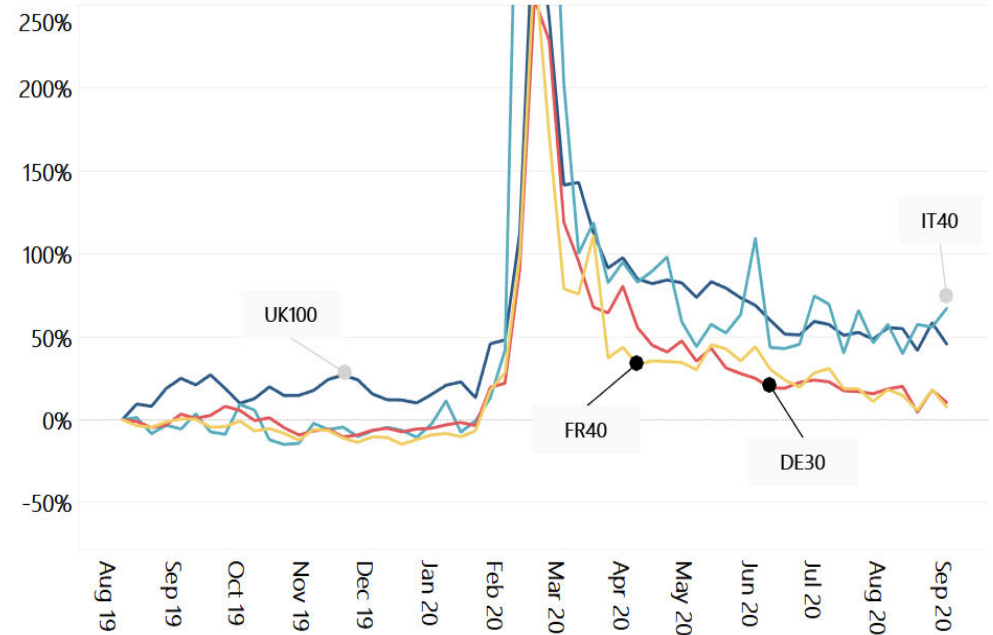
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IN MOST INDEXES, spreads have retraced the levels of a year ago, with the notable exceptions of the UK and Italy, which remain 40% or more higher.

In Germany and France, spreads have returned to within 8% and 10% respectively and 17% in Spain and in several countries such as Switzerland, Finland and Sweden, spreads are back to normal.

We are looking here only at the At-Touch spreads. Other measures, such as available liquidity at depth, and trade sizes vary widely according to different trading venues and should be viewed interactively in the Liquidity Cockpit.

Change in At-Touch Spreads since September 2019



Wrap Up

Q3 2020

- **2020 continues on course to be a better year for volumes than 2019, by 11%.**
- **Q3 volumes were the lowest during the MiFID2 era, falling to €45B per day.**
- **Market Share between Order Book and Off Book liquidity pools remains stable.**
- **Closing Auctions resumed the growth trend, reaching 26% of trading on the Order Books, the 2nd highest so far.**
- **Volume profiles reflect the resumption of this drift towards end of day trading.**
- **Spreads are almost back to pre crisis levels but remain elevated in the UK and Italy.**

For more information please visit our website at www.big-xyt.com where you can find our regular blog and access to our data products. We welcome comments on the Survey and ideas for future topics. Please feel free to get in touch at sales@big-xyt.com.

Appendix 1: European Microstructure 101

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