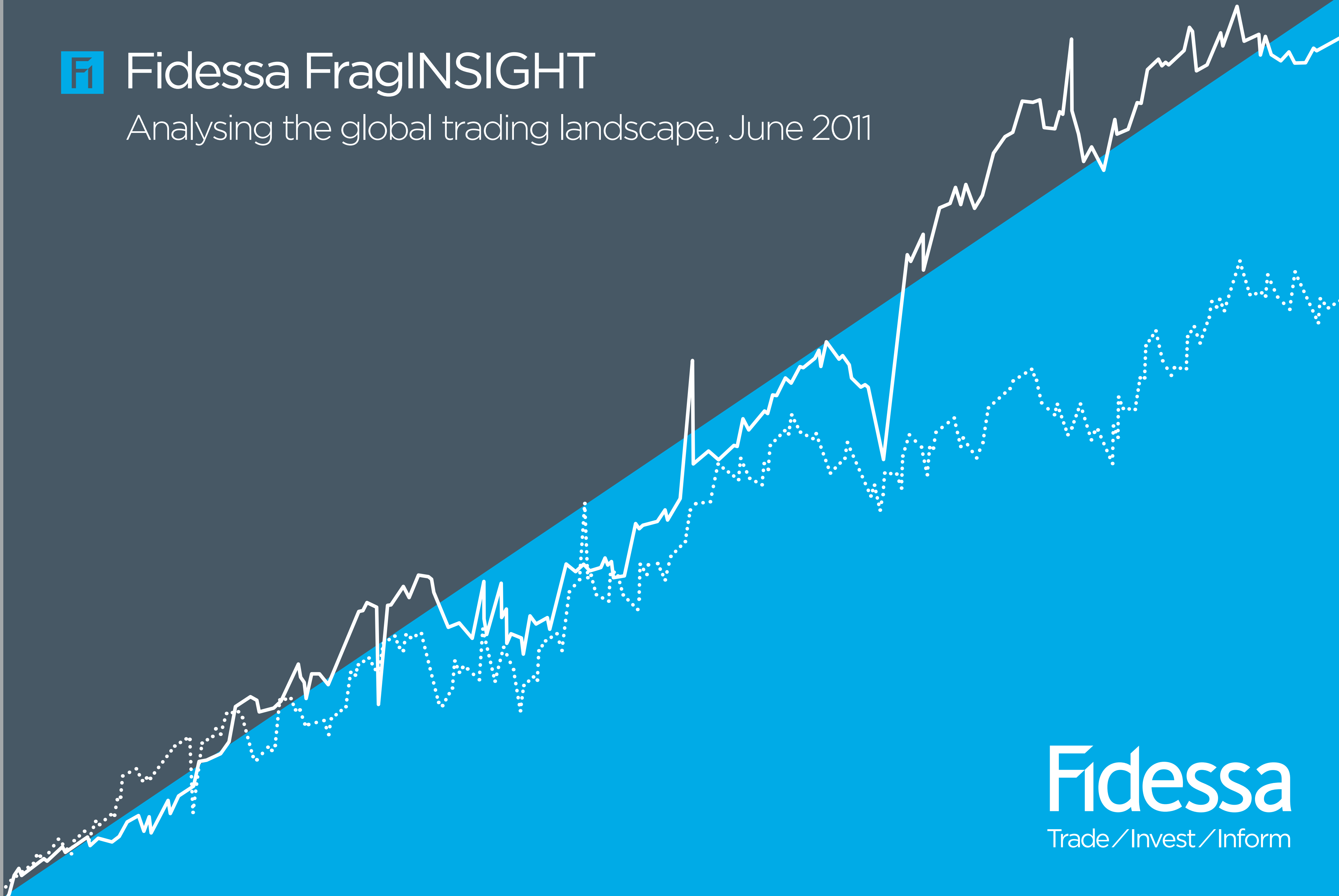
Fidessa FragINSIGHT

Analysing the global trading landscape, June 2011



Fidessa

Trade / Invest / Inform

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Welcome to the first issue of FragINSIGHT in which we aim to provide you with analysis and insight into the constantly evolving global equity markets.

Regulatory changes and technological innovation have completely reshaped the equity trading landscape, breaking up the monopolies of the primary exchanges and introducing a dazzling array of alternative trading venues competing for liquidity.

Over the past three years, Fidessa has been committed to providing business intelligence tools that help market participants of all types make sense of the fragmented trading landscape.

In particular, the Fidessa Fragmentation Index (FFI) provides a simple, unbiased measure of how different stocks/indices are fragmenting across primary markets and alternative venues, measuring competition between lit venues. (See the Appendix for a full explanation of how the FFI is calculated).

Inside this issue

Notes:

Our analysis is based on weekly figures.

Monthly figures are derived by aggregating weekly figures. Weeks that are split across two months are attributed to the month to which the majority of the trading days belong.

For May 2011, figures from the week ending 06/05/2011 to the week ending 27/05/2011 are used.

Europe refers to the following indices: AEX, BEL 20, CAC 40, DAX, FTSE 100, FTSE 250, FTSE MIB, IBEX, ISEQ, OMX C20, OMX H25, OMX S30, OSLO OBX, PSI 20, SMI.

Figures at 27/05/2011.

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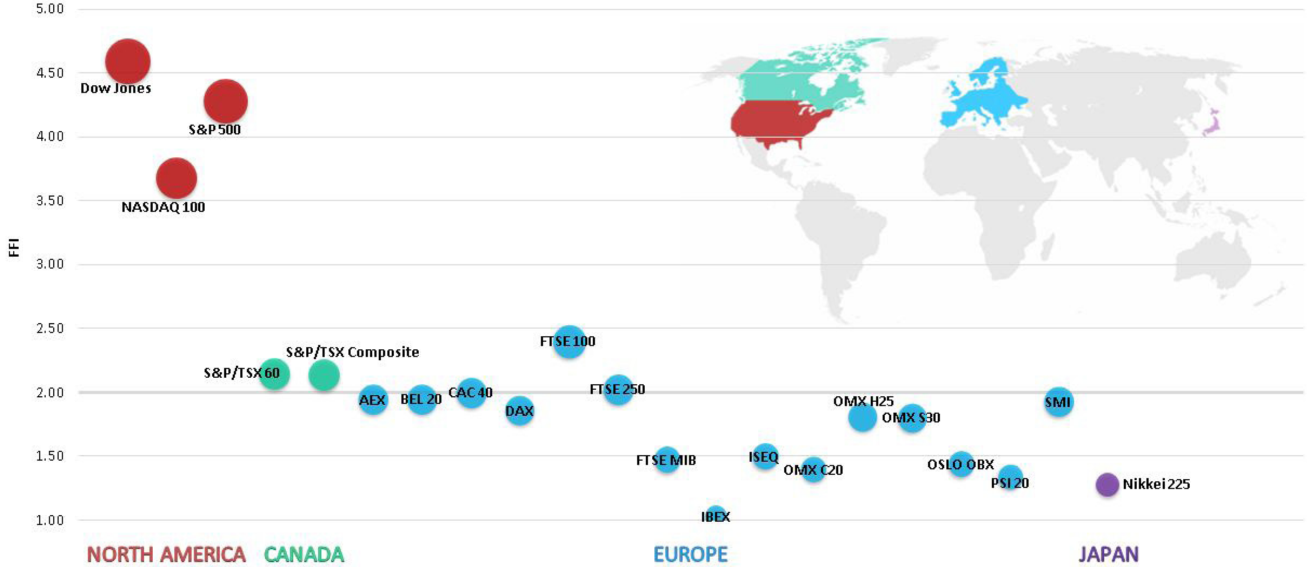
Fidessa Fragmentation Index (FFI): a global perspective

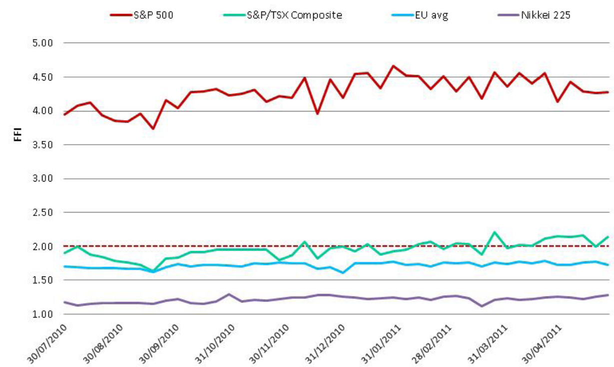
Global fragmentation at a glance

FFI map (week ending 27/05/2011)



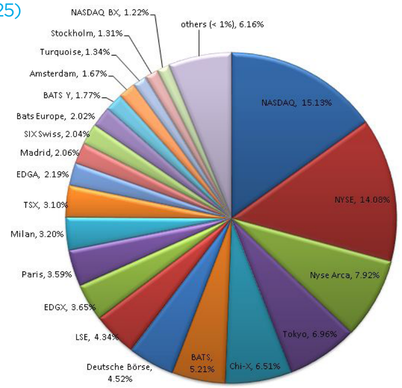
How is global fragmentation evolving?

Weekly FFI, evolution over time



Where stocks are traded?

Lit value breakdown, May 2011 (EU indices, S&P 500, S&P/TSX Composite, Nikkei 225)



- US indices are the most fragmented with FFI values that are around double those of other indices/regions
- Across Europe there are differences between individual markets with FTSE 100 and IBEX 35 being the most and the least fragmented respectively although, on average, the FFI value remains below 2
- Japan has the lowest FFI of the regions shown, indicating a higher concentration of trading activity on the primary market (Tokyo Stock Exchange)
- Whilst fragmentation in Europe has levelled off since August 2010 and remains minimal in Japan, both Canada and the US show both higher levels of fragmentation and a continuing (but gradual) increase, with the FFI for the S&P 500 now oscillating between 4 and 4.5 and the S&P/TSX Composite moving around the statistically significant level of 2
- Looking at all major EU indices plus one each for the US (S&P 500), Canada (S&P/TSX Composite) and Japan (Nikkei 225), we ranked lit venues according to their traded values. More than 50% of the value traded across these indices during the period is attributed to US-based venues and Japan's TSE. The first European venue in the ranking is Deutsche Börse with 4.52%, followed by the LSE with 4.34%. Canada's TSX, with 3.10%, ranks in 12th position. The residual category includes 34 venues accounting for a little over 6% of total market activity.

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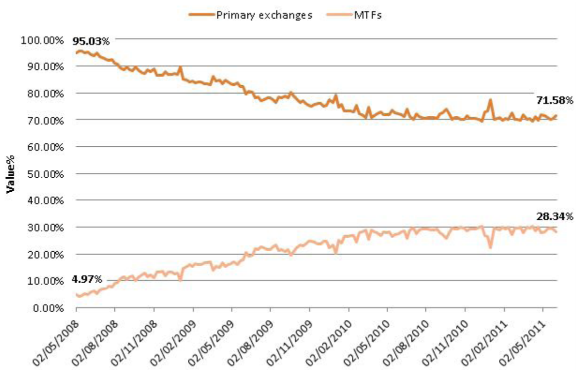
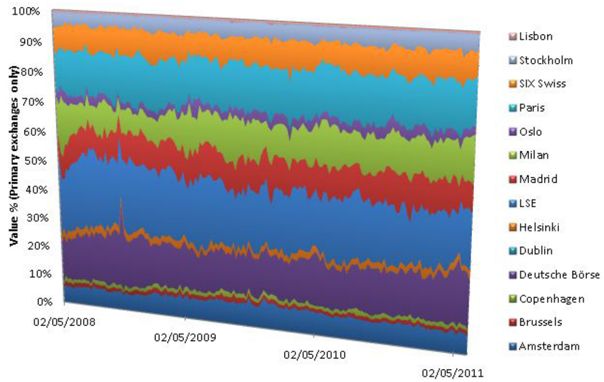
FOCUS: Where is the real competition between trading venues in Europe?

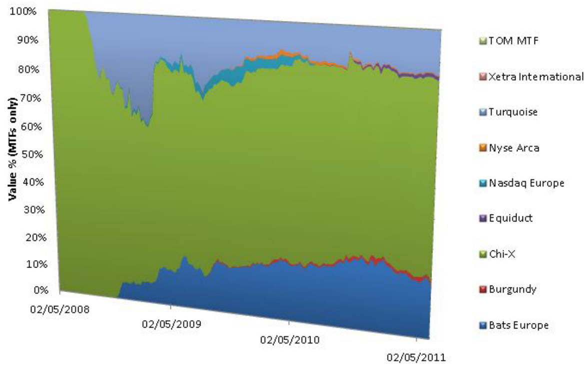
Lit value share, Europe



Primary exchanges



MTFs



Whilst there is no doubt about the existence of competition between the incumbents (the primary exchanges) and the challengers (the MTFs), what about competition between primary exchanges?

European primary exchanges lost, on average, around 25% market share in their respective indices to the MTFs following the implementation of MiFID and no doubt aided by the technological advances that have ensued since that time.

However, looking at primary exchanges and MTFs separately we see that over the past three years it is the MTFs that have competed with each other. The protection that their respective national monopolies afforded the primary exchanges gave them little or no incentive to change their operating models which is almost certainly the reason why the balance of power between them remained fairly static.

Looking at the evolution of MTF activity in Europe, we can make the following observations: Turquoise, Bats Europe and Chi-X have succeeded as the dominant players with a truly pan-European approach; Burgundy and Equiduct are also doing well focusing on their respective niche activities; less successful was Nasdaq Europe which has now ceased to operate; and Nyse Arca is now losing market share in European trading.

Note: For Germany, only Deutsche Börse is considered as the primary exchange. The other German regional exchanges, accounting for the residual market share, are excluded from the chart.

- It looks like in the future there will be space for only a limited number of players, but what is the "right" number of venues - the one that allows for an equilibrium between competition and sustainability?
- Will some of the proposed mergers go ahead? If they do, will they succeed in their attempts to create pan-European entities and allow the "big players" to recover some of the lost market share?
- Will MiFID II change the balance of power introducing competition amongst the primary exchanges?

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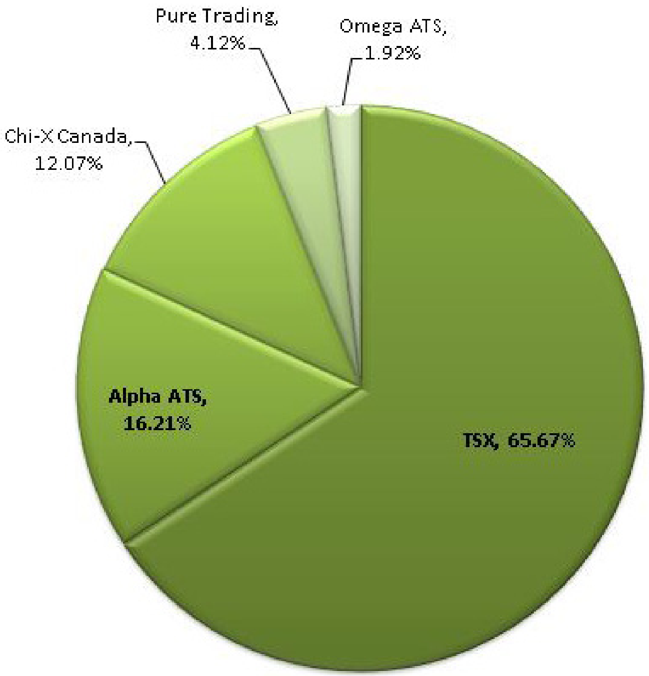
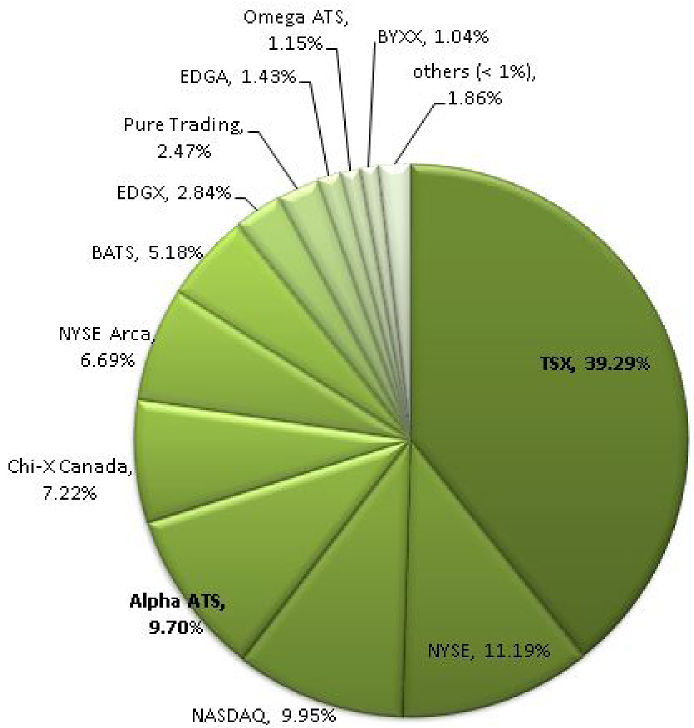
FEATURE: Who's going to win the battle for control of Canada's TMX?

Value breakdown, S&P/TSX Composite (May 2011) – Domestic



Value breakdown, S&P/TSX Composite (May 2011) – Global



In recent weeks much press attention and debate has focused on the battle between LSE Group and the "truly Canadian solution" proposed by the Maple Group for control of TMX (parent group of the Toronto Stock Exchange, the TSX). However, Canada's Competition Bureau (whose task it is to screen the bids with reference to the Canadian Competition Act) has yet to approve either prospective buyer.

Focusing on equity trading, the "virtual" entity resulting from a successful Maple bid would control the TSX and Alpha ATS. The charts on the left show that their combined market share in S&P/TSX Composite trading is more than 75% if domestic trading is considered. With many Canadian stocks listed in both Canada and the US, that figure is closer to 50% when taking account of trading activity across all currencies.

Even at the lower level, it is still difficult for the Maple Group to gain the approval of Canada's Competition Bureau. It's also possible that the probability of success of the respective bids will be one of the factors that the shareholders consider when casting their votes on 30th June. At this point, much depends on the choice of relevant market and relevant product used by the Competition Bureau to calculate the market share and concentration rate. One thing is for sure, if the Maple bid does succeed, life for Canadian ATSs will undoubtedly become much more complicated.

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How is the Fidessa Fragmentation Index (FFI) calculated?

$$FFI = \frac{1}{\sum_{i=1}^{N} [s_i^2]}$$

With:

S being the market share of the venue **i**

and

N being the total number of venues trading the stock

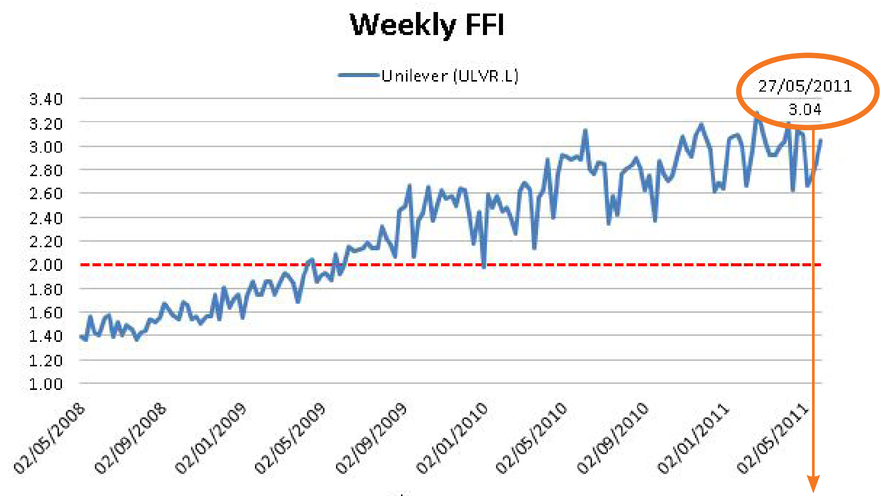
Average number of equivalent venues you should visit in order to achieve best execution when completing an order

More weight to venues with the largest market share

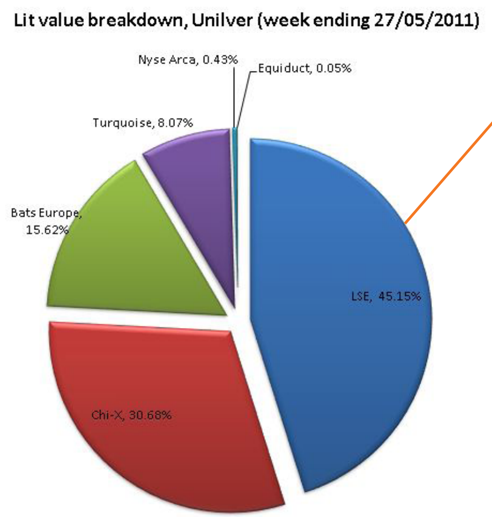
Range from **1** to **N**

Once a stock's FFI exceeds 2, liquidity in that stock has fragmented to the extent that it no longer "belongs" to its originating venue

Note: only LIT, DOMESTIC trading is considered (see next page).



$$\mathrm{FFI} = \frac{1}{0.4515^2 + 0.3068^2 + 0.1562^2 + 0.0807^2 + 0.0043^2 + 0.0005^2} = 3.04$$



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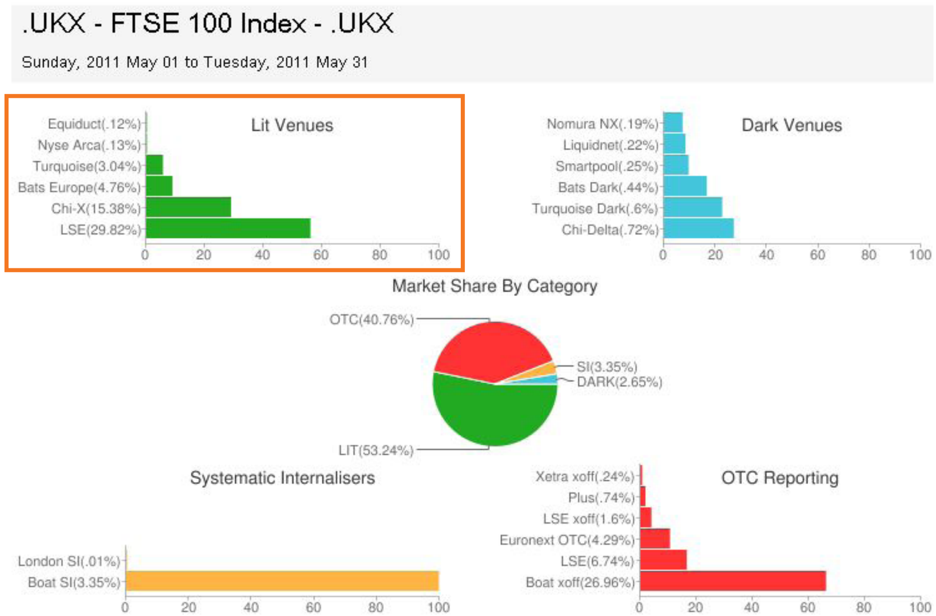
Lit trading

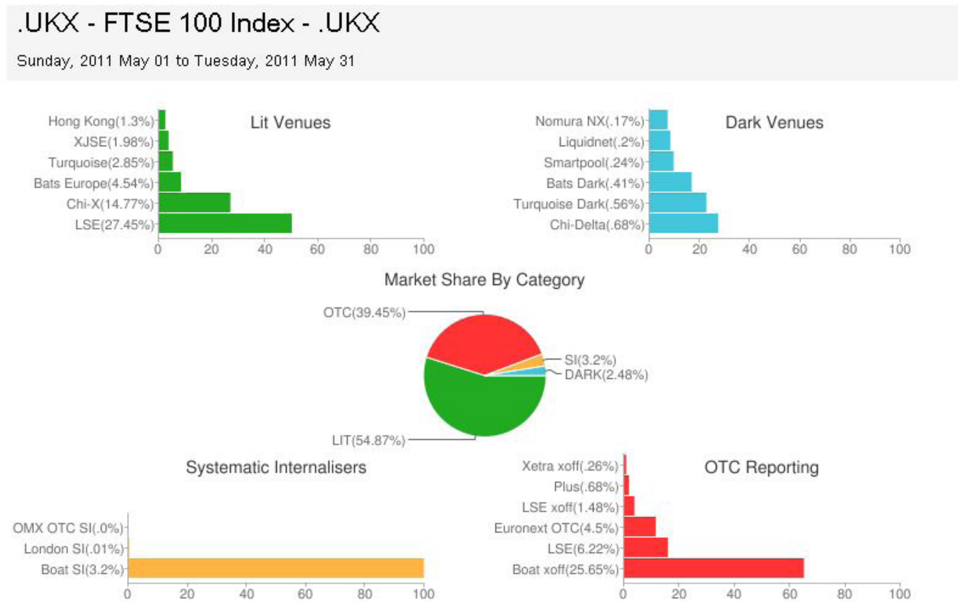
- **Lit** - trades executed on-book
- **Dark** - trades executed on a dark pool where the orders are not visible pre-trade
- **SI** - trades executed by a Systematic Internaliser
- **OTC** - trades executed over the counter and reported to one of the reporting venues



Domestic trading v Global trading

- **Domestic** - trades executed in domestic currency (GBP for FTSE 100)
- **Global** - trades executed in any currency

When you "*fragulate*" a stock/index it is possible to select the Global option.



We hope you have enjoyed this issue of FragINSIGHT.

Our award-winning Fragulator and Tradalyzer tools, the full FFI database and regular blogs can be found on our Fragmentation website.
www.fragmentation.fidessa.com

Join our LinkedIn group.
http://linkd.in/fragulator

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Do you want to know more?
Are you interested in a specific topic?

Submit your questions to the team at
fragmentation@fidessa.com