LiquidMetrix –Execution Quality – Oslo Bors/ MTFs

The following analysis is based upon a sample of Pareto order flow executed on Norwegian stocks for April 2017.

Overview

The sample data consisted of Fill executions designated as DMA for the month of April 2017. Flow was categorised into buckets of Order Book Spread with Spreads over 20 basis points excluded from the analysis.

Methodology

The purpose of the analysis is to identify the benefit of using a smart order router utilising all available primary and MTF liquidity as opposed to only executing on Oslo Bors. The way in which we do this is to compare two benchmark figures:

- LiquidMetrix benchmark improvements versus Oslo Bors only and
- LiquidMetrix benchmark improvements versus all venues.

The performance versus all venues will of course be lower. The difference between the two performance figures is an estimate of the benefit of using a smart order router.

The main caveat to this analysis is that strictly speaking, it should only be performed on aggressive (IOC) trades, whereas for the Pareto flow we examine here there is a mixture of aggressive and passive trades. In theory, the inclusion of passive trades simply adds a random element to the overall result so that the result is still representative of the price improvement due to the smart order router. However, ideally the aggressive trades should be separated (tagged with a liquidity flag in the data supplied to LiquidMetrix).

Analysis

The following settings were used to obtain the performance benchmarks described above:
- Setting 1a – Oslo Bors only
- Setting 1b – Oslo Bors + All MTFs (Chix/Bats/Turquoise/Nasdaq-OMX/Aquis)
- Setting 2a – OBX Index stocks - Oslo Bors only
- Setting 2b – OBX Index stocks - Oslo Bors + All MTFs (Chix/Bats/Turquoise/Nasdaq-OMX/Aquis)

The results of the performance from each of the settings is in the table below

BPS Improvement (All Venues)	BPS Improvement (Oslo Bors Only)	BPS Difference
	All Instruments	
4.092	4.375	0.283
	OBX Index stocks only	
4.043	4.331	0.288

In summary:

The important figure is 0.283 BPS of improvement as this represents overall improvement for stocks with spreads up to 20 basis points. The fact that the improvement for all stocks is smaller is not surprising as the other venues are not as competitive for less liquid stocks and hence the advantage of using a smart order router is lessened and the difference is less than in previous studies due to the 20 basis point inclusion limitation.