FINANSTILSYNET

Finanstilsynet

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J.nr. 6252-0353
/tas

Redegørelse om uvildig undersøgelse af Saxo Bank A/S (manuelt eksekverede handelsordrer)

1. Indledning

Efter en undersøgelse i juni 2010 og efter forelæggelse for Det Finansielle Virksomhedsråd påbød Finanstilsynet den 5. juli 2010 i medfør af § 347 b i lov om finansiel virksomhed Saxo Bank A/S (Saxo Bank) at lade foretage en uvildig undersøgelse af, hvorvidt manuelt eksekverede handelsordrer afgivet i bankens elektroniske handelssystem Saxo Trader systematisk eksekveres i overensstemmelse med bankens almindelige handelsbetingelser og Best Execution Policy. Den uvildige undersøgelse, der er udført af det internationale konsulentfirma Oliver Wyman, er afsluttet, og Oliver Wyman har afrapporteret undersøgelsens resultater til Finanstilsynet og Saxo Bank.

Finanstilsynets undersøgelse i juni 2010 gav ikke anledning til bemærkninger til den tekniske indretning af handelssystemet og dets robusthed, og tilsynet vurderede derfor, at tilsynsindsatsen skulle rettes mod de manuelt eksekverede handelsordrer. Vurderingen understøttes af, at Oliver Wyman har vurderet, at Saxo Bank stiller priser på et kompetitivt og transparent marked, hvor de priser, som stilles i Saxo Banks handelssystem, kontinuerligt vurderes af dem, som anvender bankens online handelsplatforme. Markedet omfatter også større og store finansielle virksomheder. Det er således sandsynligt, at markedet vil reagere, hvis de priser, som stilles i handelssystemet, afviger systematisk fra markedspriserne.

Manuelt eksekverede handelsordrer udgjorde i den undersøgte periode 1,52 pct. af de samlede transaktioner.

Finanstilsynet vurderede, at den uvildige undersøgelse skulle vurdere prisfastsættelsen ved de manuelt eksekverede handelsordrer både i forhold til de priser, som stilles i handelssystemet, og i forhold til markedspriserne. Det skulle herunder undersøges, om Saxo Bank eksekverer handelsordrer til priser, som er i overensstemmelse med bankens Best Execution Policy og med princippet om best execution.

Den uvildige undersøgelse har ikke haft til hensigt at undersøge konkrete kundeklager, men handler omfattet af kundeklager er inddraget i undersøgelsen på lige fod med andre handler. Det gælder kundeklager, som vedrører både manuelt og automatisk eksekverede handelsordrer.

Denne redegørelse om den uvildige undersøgelse offentliggøres efter reglerne i bekendtgørelse om penge- og realkreditinstitutters pligt til at offentliggøre Finanstilsynets vurdering af instituttet.

2. Sammenfatning og risikovurdering

Nedenfor følger først en sammenfatning af den uvildige undersøgelse i form af Oliver Wymans executive summary og dernæst Finanstilsynets vurdering af den uvildige undersøgelses resultater.

Sammenfatning

"2. Executive summary

2.1. Scope of work

Following a public tender process, Oliver Wyman was appointed by Finanstilsynet in early September 2010 to conduct a review of Saxo Bank's manual order executions. Specifically, Finanstilsynet asked Oliver Wyman to focus on identifying systematically unfavourable execution for Saxo Bank's clients in its manually executed orders between January 1, 2008 and June 30, 2010 in spot FX and CFDs in relation to their consistency with the Saxo Bank General Business Terms and Best Execution Policy, both of which are public documents. The review looked to test two hypotheses:

- Saxo Bank's clients received unfavourable execution terms for manual orders which violated the terms of the publically available policy documents named above
- This abuse was systematic across a subset of instruments and clients, and was consistent over time

Finanstilsynet was explicit that this review did not cover automated order flow or trade flow. The focus on manually executed orders reflects that manual orders are by nature outliers (in terms of trade size, timing, etc.) in the context of Saxo Bank's execution flow and, given human intervention in execution, they therefore could be subject to dealer error or manipulation. As a general observation on the industry of FX trading, it is Oliver Wyman's experience that leading banks periodically evaluate the quality of execution prices on their automated executions. This is done principally from a commercial rather than a compliance perspective as, given the competitive dynamics of the market; any shortfall in execution quality is likely to manifest itself in a sustained loss of business. Finanstilsynet was explicit that it intended this review to be a top down review for systematic violations of the aforementioned documents, No conclusions about Saxo Bank's automated executions can be inferred from the results of the manual order analysis.

Oliver Wyman notes that some instruments which were specified by public complaint-lodgers were considered in the analysis, in spot FX this included the EUR ISK pair, in CFDs this included the DAX index and GS single stock CFDs. However, Oliver Wyman stresses that it did not review specific clients or complaints.

In this type of analysis, based on similar experience from other work, Oliver Wyman expected that a small number of manual order executions would surface which would be unexplainable by analysis of the data. In order to be acceptable in the review, such manual order executions should include both favourable as well as potentially unfavourable pricing to clients. Such manual order executions may be fully explainable; however such analysis was explicitly outside the scope of this review. Saxo Bank themselves did provide bottom-up analysis detailing each manual order execution deemed unexplained and unfavourable to the client.

Oliver Wyman's report sets forth the information required by the terms of Oliver Wyman's engagement by Finanstilsynet and is prepared in the form expressly required thereby. No individual number should be viewed in isolation and no conclusion should be drawn on the basis of any individual number other than the conclusions drawn by Oliver Wyman.

2.2.Methodology

Due to the complexity of the analysis and high volume of data to be analysed, a rules-based statistical approach was undertaken. To understand Saxo Bank's overall business, Oliver Wyman initially reviewed the bank's full transaction set. From January 1, 2008 – June 30, 2010 Saxo Bank executed 58,203,031 client transactions, of which1.52% were manual orders. Of these manual orders, FX spot and CFDs accounted for 28.8% and 71.0% respectively. This forms the perimeter of the review.

The analysis Oliver Wyman used was explicitly to test the two aforementioned hypotheses. Oliver Wyman employed four work steps for this which are depicted in Figure 1:

Figure 1: Overview of analysis process

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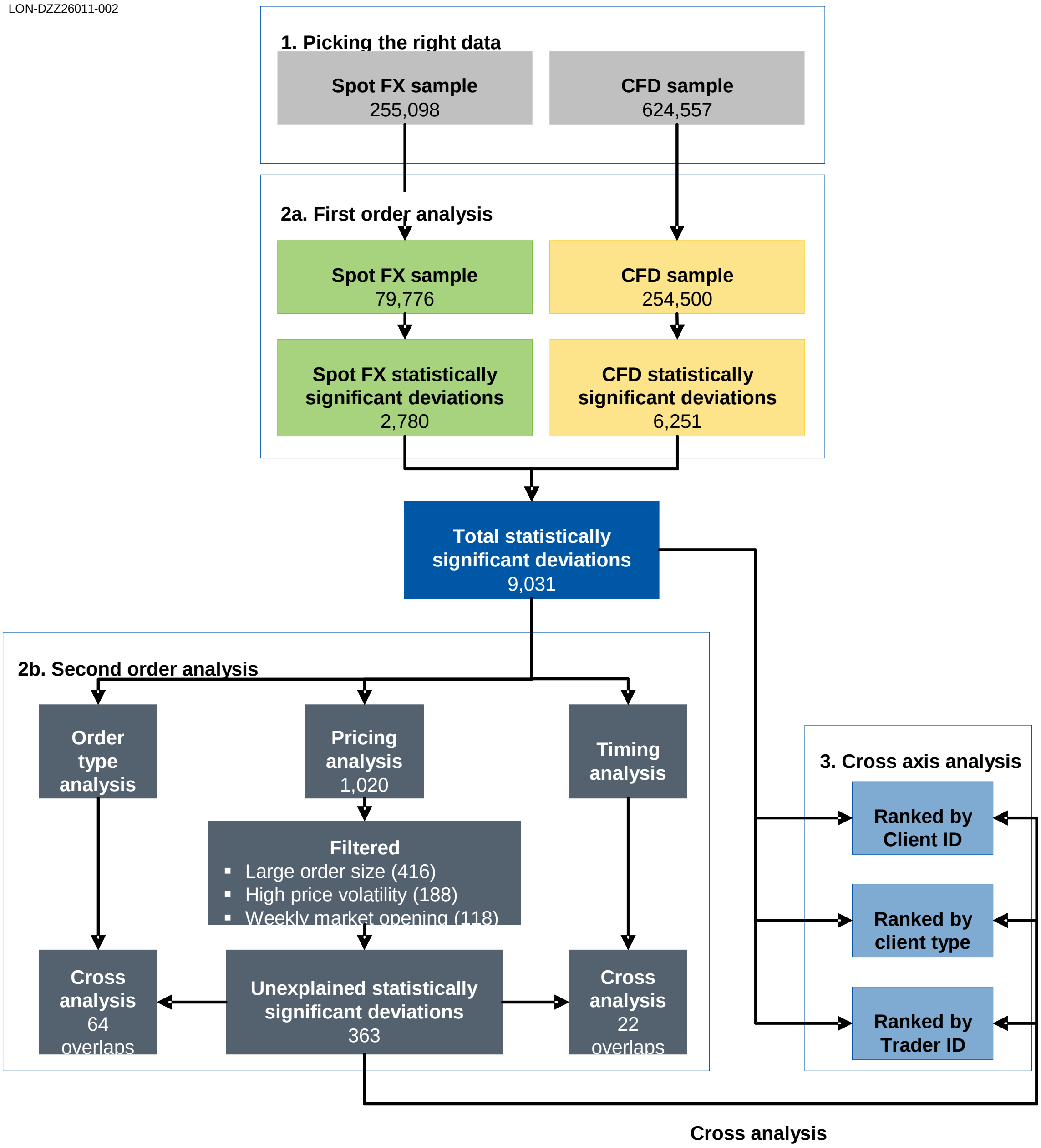

Number of client transactions
2008-01-01 – 2010-06-30

1. Picking the right data – The first step was focused on identifying a representative sample of transaction activity. Specifically, Oliver Wyman narrowed down the instruments used in the analysis whilst ensuring they were representative of Saxo Bank's manual order flow in terms of volume and breadth of liquidity characteristics. This involved:
   - Initial instrument concentration analysis across the full dataset for contextualisation of the data by both number of manual orders per instrument as well as total volume (denominated in Euros)
   - For FX, the final selection of pairs was qualitative to ensure that the sample included both highly liquid pairs (e.g. EUR USD) and less liquid pairs (e.g. USD ZAR)
   - For CFDs the final selection of instruments took into account both single stocks as well as index CFDs with a view to ensuring regional diversification across the US, UK, Scandinavia, the rest of Europe, and Australia
   - Finally, for both FX as well as CFDs, Oliver Wyman included instruments which were explicitly mentioned in the complaints lodged with the FSA to ensure any systematic deviations would be identified in the subsequent analyses
   - Oliver Wyman selected 33 instruments in total, 9 FX pairs and 24 CFDs representing 66% of manual orders by volume and 38% of manual orders by number of orders executed
   - The final dataset for analysis included all manually executed orders from January 1, 2008 to June 30, 2010 in the 33 selected instruments – a sample of 334,276 manually executed orders

2a. First order analysis – The first order analysis focused on an evaluation of individual instruments by means of time series testing to identify values lying outside a 2 standard deviation tolerance from the expected value. This involved 4 core steps:
   - Transcribing Saxo Bank's policies into 6 independent tests per product type, testing pricing of manual orders, execution of orders, and time lag of execution
   - Further splitting the 6 primary tests into 36 sub-category tests for FX and 32 sub-category tests for CFDs to isolate the leg of the order (buy or sell), the order type (e.g. stop, limit, market, etc), and, where appropriate, the client type – resulting in 1152 total tests across all instruments
   - Cataloguing all orders where the resulting value was statistically significantly differentiated from the expected value of the individual test results (a 2 standard deviation tolerance)
   - Running a set of control tests of Saxo Bank's execution pricing were run versus Thompson Reuters tick data to verify internal pricing was in line with market pricing – in all tests (both spot FX and CFDs) Saxo Bank's internal pricing was confirmed as in line with independently observable market prices

2b. Second order analysis – The second order analysis was used to further test the statistically significantly differentiated data points against key explanatory variables to isolate orders which were priced unfavourably for the client and could not be explained by the data analysed by Oliver Wyman. This involved tailored analysis of three data sub-sets:

- Data points in which pricing was identified in first order testing as unfavourable to the client were tested across 3 explanatory variables linked to liquidity – size of order, market price volatility, and market open after weekends (FX only) – to understand whether the unfavourable pricing was explainable
- Data points in which an order type was executed away from the trigger price[1] were cross- referenced against the pricing of the order to determine whether the client had received unfavourable pricing
- Data points in which the time from the triggering of an order to execution was statistically significantly differentiated from the test mean were cross referenced against the pricing of the order to determine whether the time lag had a detrimental effect on pricing for the client

3. Cross axis analysis – Oliver Wyman further tested for patterns in the reference data fields across all statistically significantly differentiated data points surfaced in the first order analysis
   - The statistically significantly differentiated data points identified in the first order testing were evaluated to identify consistent patterns in the reference data. Specifically, these data points were tested against Client ID, Client Type and Trader ID
   - 1 Trader ID was identified as an outlier linked to 573 manual order executions. These were cross referenced with the order pricing analyses. No instances were found in which the client received unfavourable pricing terms
   - 3 Client IDs were identified as outliers linked to a total of 150 orders. These were cross referenced with the order pricing analyses. Only a single order was identified in which the client received unfavourable pricing terms

Each of the aforementioned tests acted as a filter to identify orders to prove or disprove the hypotheses. Following the first and second order analyses, Oliver Wyman identified 363 manually executed orders (0.1% of the dataset of manually executed orders analysed) in which the client received unfavourable order pricing terms which could not be explained by the variables included in Oliver Wyman's statistical analysis of the dataset. The analysis did not surface any patterns of systematic mispricing of manually executed orders. Finally, Oliver Wyman also conducted the axis analysis (Workstep 3 in Figure 1) a second time across only the 363 orders, but no statistically significant pattern emerged across Client ID, Client Type, or Trader ID.

2.3. Conclusions

Oliver Wyman analysed 334,276 manual orders, of which 12,979 were identified as being statistically significantly differentiated from the expected value (either in terms of pricing, order handling, or time of execution). Of these, 3,948 were favourable for the client. Of the remaining 9,031 orders, 8,011 were due to execution timing or order handling but were not executed at statistically significantly unfavourable pricing terms. The remaining 1,020 manually executed orders which Oliver Wyman identified as being executed at

[1] Trigger price is defined as the order price (for limit and stop orders only)

unfavourable prices for the client were further analysed against a set of explanatory variables.

As stated above, the filtering process identified 1,020 orders, equivalent to 0.31% of the manually executed orders analysed (or 0.38% by value), in which customer pricing appeared statistically significantly unfavourable, though many of these were explainable given liquidity conditions at the time of the order. More specifically:

- 45% were explained by trade size (risk premium for larger transactions)
- 18% were explained by volatile markets (risk premium for unpredictable reference prices)
- 12% were explained by FX weekly market opening on non GMT trading days (risk premium for limited liquidity)

(Note some orders were explained by more than one of the above liquidity conditions)

The remaining 363 transactions – representing 0.1% of manual orders in the instruments selected – could not be explained by any clear drivers in Oliver Wyman's statistical analyses. As mentioned above, Oliver Wyman’s ingoing expectation based on similar experience from other work was that a number of data points would remain unexplained by the data. For there to be 363 remaining transactions, equivalent to 0.1% of the transactions analysed, falls within our ingoing expectations, not least as there are similar transactions in favour of the client. Oliver Wyman believes that there are a number of possible hypotheses as to why 363 such data points could exist. These include, for instance:

- Market price gaps upon significant market news (i.e. earning releases, new economic figures, etc.)
- System issues or failures
  - Failures in trade data capture
  - Failures in external pricing / data feeds causing disruption to data capture
  - System outages
- Exchange/ liquidity partners experiencing an outage

In the cross axis analysis no statistically significant patterns were found for Client IDs, Client Types or Trader IDs across the 363 transactions. The economic effect across all orders identified as statistically significant (both favourably and unfavourably to the client) in pricing terms was in fact broadly equal over the two and a half years of data. Oliver Wyman therefore concludes that these are truly outliers and Saxo Bank was not systematically mispricing its manual order flow to the detriment of its clients or in violation of its General Business Terms and its Best Execution Policy. Oliver Wyman also concludes that it could find no evidence of clients being systematically unfairly treated at the individual level

We note that Saxo Bank has provided detailed explanations for each of the 363 orders. The explanations for most of the 363 orders were in line with the above hypotheses, but Oliver Wyman did not forensically investigate each instance as part of this work and so are not reporting these as formal parts of this review."

Risikovurdering

Finanstilsynet tager til efterretning, at Oliver Wyman konkluderer, at "Saxo Bank was not systematically mispricing its manuel order flow to the detriment of its clients or in violation of its General Business Terms and its Best Execution Policy" og "that it could find no evidence of clients being systematically unfairly treated at the individual level".

På baggrund af ovenstående er det Finanstilsynets vurdering, at Oliver Wymans undersøgelse ikke giver grundlag for at foretage sig videre vedrørende Saxo Banks eksekvering af manuelt eksekverede handelsordrer og heller ikke vedrørende bankens handelssystem.

Finanstilsynet har lagt vægt på følgende:

- At undersøgelsen har omfattet instrumenter, der udgør en væsentlig del af de handelsordrer, som Saxo Bank eksekverer for så vidt angår både volume og likviditet.

- At der er taget en stor stikprøve på 334.276 handelsordrer af de pågældende handelsordrer.

- At der er taget højde for de instrumenter, som har været repræsenteret i de sager, som har været omtalt i pressen, og de klager, som Finanstilsynet har modtaget.

- At der er udført test med henblik på en vurdering af, om Saxo Banks eksekvering af manuelt eksekverede handelsordrer sker til markedspriser, og at ingen af de udførte test har udvist en statistisk signifikant forskel mellem bankens priser og markedspriserne.

- At kun 1.020 handelsordrer i stikprøven var eksekveret statistisk signifikant til ugunst for kunderne og krævede videre undersøgelse.

- At 657 handelsordrer af de 1.020 handelsordrer kunne forklares af likviditetsforholdene på eksekveringstidspunktet, og at undersøgelsen således kun identificerede 363 handelsordrer, hvilket svarer til 0,1 pct. af stikprøvens handelsordrer, hvor eksekveringsprisen var til ugunst for kunden, og hvor afvigelsen mellem eksekveringsprisen og det forventede ikke kunne forklares af undersøgelsen.

- At antallet på 363 uforklarede handelsordrer ligger inden for Oliver Wymans erfaringer med lignende undersøgelser. Hertil kommer, at de i undersøgelsen identificerede handelsordrer, der er eksekveret til priser, der afviger fra det forventede, har været til både gunst og ugunst for kunderne, og at de gunstige og de ugunstige priser i det store hele har udlignet hinanden.

- At Oliver Wyman anfører, at der kan være legitime grunde til de uforklarede handelsordrer og at Saxo Bank har redegjort særskilt for de uforklarede handelsordrer.

Finanstilsynet har på baggrund af undersøgelsen og Saxo Banks redegørelse for de 363 handler ikke fundet anledning til at foretage yderligere tilsynsreaktioner.

Den uvildige undersøgelse har i øvrigt ikke givet anledning til ændring af Finanstilsynets vurdering af Saxo Banks solvensbehov.