Financial services disputes – sharing perspectives

Legal issues in automated FX trading

David Foxton QC, James Willan and James Sheehan

Earlier this year, the Financial Services Disputes Group of Deloitte LLP and David Foxton QC, James Willan and James Sheehan of Essex Court Chambers held a seminar to discuss legal issues arising from automated FX trading. This paper summarises the issues addressed.

1. The discussion was based around the following case scenario:

   1.1 **KEF Bank** acts as principal in the arrangement and execution of FX transactions for clients, including **Yuna Corp**.

   1.2 To use **KEF Bank's** electronic trading facilities, **Yuna Corp** ticked assent to **KEF Bank's** Standard Terms and Conditions for Electronic Trading.

   1.3 **Order management:** An algorithm within the FX trading platform at **KEF Bank** operates such that when **Yuna Corp** hits a price shown on the trading screen, it is electronically managed (with no human interaction).

   1.4 **KEF Bank's** automated FX trading platform is programmed to consider movements in the market price between the Request For Quotation ("RFQ") and the completion of the trade, and to reject any RFQ if the market had moved in a manner adverse to **KEF Bank** (so-called "last look").

   1.5 The algorithm is programmed to look to put in place a hedging trade before any RFQ is accepted, even though this might involve the relevant FX rate moving against the client.

   1.6 **KEF Bank's** standard terms and conditions provide that **KEF Bank** can reject any RFQ at its sole discretion.

General considerations

2. The traditional legal concepts regulating a bank's trading with clients are premised on human interactions and behaviour, and at first blush are not obviously applicable to algorithmic trading. For example:

   2.1 On certain legal theories, KEF Bank's ability to back out from accepting Yuna Corp's RFQ might depend on the purpose for which the decision is taken, or whether irrational or capricious.

   2.2 Regulatory rules addressing trading may distinguish between transactions depending on whether they are designed or intended to benefit the client or the bank.

   2.3 The concepts of purpose, rationality and intent are concepts which are easy enough to apply to a human decision-maker, but less obviously applicable to the pre-ordained processes of software.

2.4 And the position might be more complex if the software in question is not KEF Bank's proprietary software but software licensed from a third party.

3. Although these issues are interesting, there is little doubt as to the likely legal outcome. While English criminal law has struggled with the notion that it is possible to deceive a machine (R v. Holmes [2004] EWHC 2020 (Admin), [2005] 1 WLR 1857), which meant that the issue had to be addressed by statute (s.2(5) Fraud Act 2006), there is not going to be the same difficulty with finding that banks are legally liable for bad practice hard-coded into their algorithms.

4. Some idea of the Court's likely attitude to arguments premised on the absence of human intervention can be seen in the decision of the Court of Appeal in 7722656 Canada Inc v. Financial Services Authority [2013] EWCA Civ 1662. The appellant argued that it had not effected transactions or orders to trade in a qualifying investment, when what it had done was enter into non-qualifying investments, CFDs, which then led a Merrill Lynch computer automatically to conclude a qualifying investment. The Court of Appeal took view that the Court should ignore the "black box", and that the appellant should be treated in law as having effected any trades which were the automatic consequence without human intervention of the appellants' conduct.

5. The likelihood is that the court will fashion a rule of attribution under which the intent of those who designed any objectionable features of the algorithm will be attributed to the bank which uses it. In other markets, where "bad conduct" by an agent preceded the principal's relationship with the agent, the courts have had no difficulty in holding the principal responsible for that conduct (The Zephyr [1984] 1 Lloyd's Rep. 58).

6. A second interesting feature presented by the scenario is the difficulty of distinguishing between legitimate and illegitimate uses by KEF Bank of the knowledge acquired by the platform of the client's trading intentions, in circumstances in which the relationship KEF Bank and Yuna Corp is as potential principals to a trade rather than an advisory or agency relationship:

6.1 For example, it is information that KEF Bank might wish to use to manage its own risk, by laying off part or all of the risk through a hedging transaction? That does not seem objectionable "in principle".

6.2 Equally clearly, if KEF Bank deliberately bought currency ahead of a client's large foreign currency purchase with a view to driving up the price and profiting when it re-sold the currency to the client, KEF Bank would be facing regulatory sanction.

6.3 The FSA decision in the Morgan Grenfell programme trading case (https://www.the-fca.org.uk/publication/final-notices/m-grenfell_18mar04.pdf), 18 March 2004, makes it clear that even in the putative principal-principal context, there are uses of the information as to the client's trading intentions which are illegitimate for the purposes of (what is now) the FCA Principles for Business.

6.4 But there are intermediate positions which require further analysis. What about information from RFQs being aggregated by a bank to identify overall market trends with a view to determining the bank's macro-strategy with regard to a particular currency or with a view to providing "Market Colour"? Or a bank reviewing the historical pattern of a particular client's RFQs with a view to predicting its next trade?

6.5 One thing which is clear is that the traditional distinction drawn in other areas of commercial law between transactional and advisory relationships does not itself provide the answer here.

7. A client wishing to claim private law damages for loss caused by a bank's (mis)use of foreknowledge of the client's trade might seek to characterise pre-hedging trades as an impermissible abuse of confidential information. There is some support for that approach. In Brandeis (Brokers) limited v. Black [2001] 2 All ER (Comm) 980 at [30], Toulson J. described front-running as "a particular form of misuse of confidential information". There is something to be said for the view that the real vice of front-running lies not so much in use of information *per se* but the act of disloyalty inherent in the causing of deliberate harm to client. However the Global Code Principles published by the central bank Foreign Exchange Working Group support the view that information about a client's future trading intentions is confidential information (and since this talk, the FX Global Code had adopted the same analysis: http://www.globalfxc.org/docs/fx_global.pdf). Whatever approach is adopted, the question of what is *legitimate use*, and what is *illegitimate misuse*, remains. This is addressed in the second section of this paper.

8. The final issue of interest is the contractual analysis when, as will often be the case, there are terms and conditions as to the use of the electronic trading platform which may themselves define when a trade is concluded. The U.S. litigation on automated FX spot trading has largely concentrated on this issue, in two actions brought by Axiom and others.

8.1 The first was against Barclays complaining about the "last look" feature of the BAR-X platform. That has settled.

8.2 The second, against Deutsche Bank concerning the Autobahn platform, continues, although a decision of District Judge Lorna Schofield has slimmed it down (Axiom Investment Advisors, LLC v. Deutsche Bank AG, 15 Civ. 9945). The US law firm of Scott and Scott promise actions in Europe.

9. These cases raise familiar issues of incorporation, interpretation and regulation of standard terms which are addressed under the third heading below. In addition, the electronic trading platform cases raise some issues about quite what the nature of the contract for the use of the system is.

9.1 Is it a contract for services, capable of being subject to some form of implied terms and statutory controls?

9.2 Or is it simply the contractual framework for an offer and acceptance process akin to a set of tender rules or the rules of an auction house, in which you act at your own risk?

Regulatory issues

10. The scenario raises issues relating to the use of "last look" and "pre-hedging" by KEF Bank:

10.1 "Pre-hedging" is, in broad terms, where the firm uses the information about its client's prospective trade to manage its own risk in the event that it accepts the client's order.

10.2 "Last look" is, again in broad terms, a process by which the firm is given a short time to decide – after a trade request has been submitted by a client at a quoted price – whether to accept or reject the trade. This period may be measured in milliseconds.

11. These processes **can** serve entirely legitimate functions:

11.1 For example, they enable a market maker to offer more favourable pricing, because they do not need to widen the spreads to absorb the risk of movements in the market.

11.2 They can also avoid latency arbitrage – that is, they can prevent traders using super-fast technology to "snipe" rates quoted on a platform just before the platform can withdraw the price, knowing that the price has already moved – and risks of *e.g.* larger orders being split between sellers.

12. However, they can also give rise to concerns:

12.1 The bank's rejection poses a problem: if a trader has, for example, indicative prices from three banks with one offering a marginally better rate, it suffers detriment if it submits a trade request to the most favourable only to find once that trade is rejected, that it has lost the opportunity to fill its order from other banks at only marginally worse rates.

12.2 The processes can also be operated in a manner which disadvantages clients:

12.2.1 For example, a firm might impose a short delay before deciding whether to accept a trade request - and then accept a trade where the market has moved in its favour but reject a trade where it has moved against it: a "heads I win, tails you lose" situation.

12.2.2 Building on that example, a firm might even have executed a "pre-hedge" during that period of delay but still reject a trade where the market has moved against it – taking for itself the profit on the "pre-hedge": trading risk-free at the client's expense.

12.2.3 And, in certain cases, the "pre-hedge" (or even attempt to pre-hedge) could itself move the market against the client whose order has been rejected, leaving it in a worse position than before it placed the order.

13. This section on the paper looks at these issues principally from a regulatory perspective although, as noted above, there may well be an interplay with the private law remedies as what is regarded as acceptable market practice may feed into what use can be made of 'confidential' trade information.

14. Spot FX is generally outside the FCA's regulatory perimeter – such trading is not generally a "regulated activity" for the purposes of the FCA Handbook, although such transactions can be "ancillary services" where connected to the provision of investment services (such as selling currency to buy a regulated financial instrument, such as a bond).

15. However, the Principles do apply to FCA-authorised persons, especially:

15.1 Principle 5 – a firm must observe proper standards of market conduct;

15.2 Principle 6 – a firm must pay due regard to the interests of its customers and treat them fairly;

15.3 Principle 8 – a firm must manage conflicts of interest fairly, including as between itself and its customers.

16. The Principles do not give rise to a right of action under s. 138D FSMA, even in respect of a private person. And it is very difficult to rely on the Principles as giving rise to any other form of civil law claim. But, of course, they can lead to very substantial penalties – as was the case with the penalties totalling £1.1bn issued by the FSA in November 2014 relating to voice trading on the FX markets.

17. A real difficulty here is the limited guidance available as to how those principles will be applied to electronic FX trading – particularly because there are no *specific* rules, as would apply to regulated instruments. However, there are indicia as to the FCA's likely approach. As mentioned above, the FCA issued a Final Notice to Morgan Grenfell in 2004 which concerned (non-electronic) trading in shares where, having provided a quotation in a blind bidding exercise, Morgan Grenfell pre-hedged in a manner which moved the price significantly prior to the strike time. The FCA concluded that Principles 6 and 8 permitted a firm to have *reasonable participation* in the market prior to executing the client's trade, but found that (i) the firm is constrained in the use that can be made of the information provided by the customer, (ii) it must have in place systems and controls that seek to minimise the impact of pre-hedging on the client, and (iii) it must ensure that customers are adequately informed of pre-hedging and the impact it may have.

18. Similarly – the key considerations with "last look" are likely to be (i) fairness and (ii) transparency. A few points on this:

18.1 Adequate disclosure will be key – both pre-trade (of the existence of "last look") and post-trade (regarding the rejection of trades due to application of "last look"). The FCA are likely to look at whether the information allows an informed choice as to which market marker/platform to use.

18.2 Algorithms will need to be carefully 'tuned' to balance legitimate protection against excessive rejection rates, for example as regards (i) the period of delay before "last look" and (ii) the "tolerance" in terms of movement. Differentiation by type of customer and trading history may well be appropriate. For example, (i) "last look" to verify that the price hasn't moved significantly during the delay between putting a price up on the platform and receiving the trade request may well be justifiable, (ii) having a relatively long "last look" period to allow the firm to place a series of passive buy orders at rising prices in an attempt to maximise the firm's profit may well be objectionable.

18.3 Symmetrical "last look" – where a trade will be rejected if it has moved beyond a tolerance either for <u>or against</u> the firm – is likely to be far more easily justified than asymmetrical "last look". An example of regulatory action in this sector, albeit in the US, is the Consent Order concluded between the New York State Department of Financial Services and Barclays in November 2015, with a substantial fine,[1] for the use of asymmetric "last look". Key findings were that (i) "last look" was not applied merely defensively to address *e.g.* latency arbitrage but, effectively, to reject unprofitable trades and keep profitable trades and (ii) the process was not used transparently (e.g. "last look" was not mentioned when trades were rejected).

19. "Pre-hedging" during the "last look" window is, perhaps, the most difficult area facing banks now:

19.1 At one end of the spectrum, ongoing risk management in a liquid currency pair by reference to the overall exposure of the market participant – actual and anticipated – is unlikely to be objectionable.

19.2 At the other end of the spectrum, "pre-hedging" the specific RFQ then rejecting a trade is likely to give rise to real difficulties: this is certainly likely to be perceived as by the FCA as "front running".

20. This was a topic of controversy in the run-up to the finalisation of the Global FX Code published by the Bank for International Settlements' Foreign Exchange Working Group earlier this year: https://www.globalfxc.org/docs/fx_global.pdf The Code sets out broad principles rather than detailed rules. It sets out three general principles under the heading "Ethics", and four under the heading "Governance", but the real interest comes in the section on "Execution".

21. Principle 11 provides that "a Market Participant should only Pre-Hedge Client orders when acting as a Principal, and should do so fairly and transparency". The accompanying commentary says pre-hedging is permissible "for such purposes and in manner that is not meant to disadvantage the Client or disrupt the market". There is a strong emphasis on market participants communicating their pre-hedging practices to clients.

22. Principle 17 addresses "Last Look". Contrary to some expectations, it does not seek to prohibit the practice altogether but provides that "Market Participants employing last

[1] A fine of US$150m.

look should be transparent regarding its use and provide appropriate disclosures to clients". At a minimum, this requires disclose of whether and how changes in price in either direction may impact the decision to accept or reject the trade, how long it is expected to take to reach the decision, and Market Participant's purpose in using Last Look.

23. The Code identifies an acceptable purpose of "Last Look" as a risk control mechanism in order to verify validity (that the transaction details are operationally appropriate, that there is sufficient credit available to the client to enter into the transaction) and price (whether the price at which the request was made remains consistent with the current price available to the client). By contrast, "Last Look" will not be acceptable for the purpose of information gathering, with no intention to accept the client's request to trade.

24. The Code also addresses the "Last Look" issue from the perception of confidential information:

24.1 It provides that Confidential Information arises from the receipt of a trade request at the start of the "Last Look" window, which information must be handled in accordance with Principles 19 and 20.

24.2 It states that during the "Last Look" window, trading activity utilising that information, *including hedging*, is likely to be inconsistent with good market practice because it may signal the client's trading intentions to other market participants, and move the market against the client.

25. The Code does not, in and of itself, have any legal status. However:

25.1 Many regulators[2] and central banks have made it clear that they are going to seek to force adherence in practice.

25.2 It is likely to be taken into account by the FCA in applying the principles – the November 2014 Final Notices drew on statements of good practice and guidance (including the NIPS Code[3] and the ACI[4] Model Code as what was "*recognised within the market*").

25.3 And the FCA have made it clear that they expect such codes to be embedded into firm's internal controls. The FCA has said that it sees such codes as evidence of "proper standards of market conduct",[5] with which senior managers are required comply as part of the Individual Conduct Rules – which apply to all activities, whether or not regulated.

25.4 The FCA statement welcoming the publication of the FX Code noted that "standards can be a useful way for the industry to police itself" and that it expected "firms, Senior Managers, certified individuals and other relevant

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2 E.g. the Reserve Bank of Australia

3 Non-Investment Products Code published by the Bank of England.

4 The ACI Financial Markets Association.

5 COCON 2.1.5: Rule 5: You must observe proper standards of market conduct.

persons to take responsibility for and be able to demonstrate their own adherence with standards of market conduct":

https://www.fca.org.uk/news/statements/fca-statement-publication-fx-global-code

Contractual issues

26. The fact that KEF Bank may have the technical capability to engage in the practice of "last look" will not, of course, assist the bank if it remains contractually bound to execute a given trade upon receipt of the client's RFQ. For this reason, banks typically seek to ensure that they are not bound to trade until the trade is actually executed by the bank.

27. The action against Deutsche Bank referred to above provides a good illustration of this. Deutsche Bank's terms and conditions provided that it may execute or reject a customer's trade "*at its discretion in accordance with the criteria set forth in this agreement*". Those criteria included (among other things) that "*the price shall have expired or has been withdrawn*" in the time gap between receipt of the RFQ and the decision whether or not to execute. In the electronic trading context, the gap is measured in milliseconds.

28. On the other hand, in practice it seems that bank's terms and conditions were not always as clear as they now tend to be, particularly during the period before the practice of "last look" came to attract real regulatory scrutiny. With uncertainty comes the opportunity for a client to argue that the bank, having displayed (i.e. offered) certain prices on its website, is bound to trade at those prices upon receipt of the client's RFQ.

29. Depending on the terms agreed, a potential middle ground between these two extremes is that the bank is bound to trade, but subject to a contractual entitlement to engage in "last look". That entitlement in turn may be subject to some sort of reasonableness constraint as to the circumstances in which it may be exercised.

What is the contractual position?

30. There are two primary ways in which KEF Bank might seek to secure a contractual right to engage in "last look":

    30.1 Normally one would expect to see the right set out in the bank's master terms and conditions, which the client will be required to sign (or, more likely, to accept by ticking a box on the website, as in the case scenario above) in order to trade using the bank's platform.

    30.2 The right may be acquired by a suitable disclosure on the bank's website incorporated by reference in the contract between bank and client.

31. Assuming that KEF Bank has acquired a right to engage in "last look" in the first place, the next issue is to consider the correct legal analysis of what happens when KEF Bank decides whether or not to accept a RFQ from a client. In the case scenario, the "decision" is made via the operation of a computer algorithm, but it could also be a human agent in the case of voice trading. There are three main possibilities, depending on how the contractual terms are worded:

31.1 KEF Bank is deciding whether or not to enter into a contract to trade with the client at all, or is exercising an *absolute right* under a pre-existing contract (i.e. the master terms and conditions). The two are functionally equivalent.

31.2 KEF Bank is prima facie bound to execute the trade as set out in the RFQ, but subject to a *contractual discretion* given to it by the pre-existing contract to refuse to do so following "last look".

31.3 KEF Bank is prima facie bound to execute the trade, subject only to the right to engage in "last look" in accordance with *pre-defined criteria*.

32. Each of these possibilities may be considered by reference to example wording.

Example 1: "*Prices communicated on our website do not constitute offers to trade but are indications of interest only. Your electronic trade request constitutes an offer. The firm may accept or reject that offer.*"

33. Here, on the face of it the process involves no more than a simple decision whether or not to contract, i.e. an *absolute right*. It does not of course mean that KEF Bank is free from its regulatory obligations, but as a matter of contract it is probably as close as the bank could get to securing the right to engage in last look for whatever reason it may wish to do so.

Example 2: "*We may execute or reject your trade instruction at our discretion…*

…in accordance with the criteria set forth in this agreement. Such criteria include that the price shall have expired or has been withdrawn, intervening price moves, market disruptions or other unusual market conditions."

34. These terms confer a discretion on KEF Bank. The discretion may be untrammelled (if the provision contains only the first half of the above example), or it may only be exercised if particular circumstances have arisen (as in the remaining part of the example).

35. The exercise of a contractual discretion is subject to common law controls, in summary that it must be exercised in good faith and not arbitrarily, capriciously, perversely or irrationally, or for an improper purpose, to adopt different phrases employed in the cases (see for example <u>Braganza v BP Shipping Ltd</u> [2015] 1 WLR 1661).

36. If the consequence of KEF Bank having a "last look" is that it uses information in the client's RFQ for its own profit (e.g. by front-running) and then seeks to reject the client's RFQ in circumstances where the market has moved against the client in the meantime, the restrictions imposed by the common law may well prevent this by striking down the improper exercise of discretion and holding KEF Bank to the price initially quoted.

37. There is a second interesting feature of the contractual discretion here. There is some indication in <u>Braganza</u> (though a case decided in a different factual context, that of employment) that the courts may be willing to police whether the decision-maker has taken into account all relevant factors and ignored irrelevant ones. Again, if KEF Bank has taken into account price movements with a view only to benefiting itself and regardless of the consequent detriment to the client, that opens up an argument that this is an improper exercise of discretion.

38. Finally in this context, there may be room for doubt in a given case as to whether the preconditions for the exercise of discretion have been met in the first place – for example, whether market conditions which have arisen are “unusual” or constitute a “disruption”. These are objective questions, the assessment of which will not typically involve any discretion on the part of KEF Bank unless the conditions specifically say so.

Example 3: ““*The “last look” process will be applied as follows: the refreshed price is compared to the trade request price. If the refreshed price is within X of the trade request price, the firm will accept the trade request. If the refreshed price is higher or lower than the trade request price by more than X, the firm will reject the trade request*.”

39. This example sets out a single pre-defined criterion by reference to which KEF Bank is entitled (indeed, is required) to carry out the “last look” process. The bank has no discretion one way or another: either it is required to accept the client’s RFQ, or it is required to reject it.

40. Small changes to the wording of this example could however change the position. If the final words instead were to read “*the firm* <u>*may*</u> *reject the trade request*”, then discretion would once again be an issue, and the considerations referred to in Example 2 above would come back into play.

Statutory controls

41. Once the nature of KEF Bank’s contractual rights has been ascertained, the question then arises whether those rights are subject to statutory control for the purposes of customer protection. There are a two main possibilities.

42. First, the Unfair Contract Terms Act 1977. Section 3(2)(b) of the 1977 Act prevents a contracting party from claiming to be entitled (a) to render a contractual performance substantially different from that which was reasonably expected of it, or (b) to render no performance at all in respect of the whole or any part of its contractual obligation. It applies even if the client is a professional trader (indeed it does not apply if the contract is a “consumer contract” as defined in s.61 of the Consumer Rights act 2015, considered below).

43. Here, one needs to ask whether there is any obligation at all, and what contractual performance (if any) is reasonably to be expected of KEF Bank in circumstances where it decides, as a result of a “last look”, not to accept a client’s RFQ. This will obviously depend on the proper analysis of the terms, including by reference to the factors considered above.

44. Secondly, the Consumer Rights Act 2015. Part 2 of the 2015 Act applies to all contracts between a “trader” and a “consumer”, i.e. a “consumer contract”: s.61. “Consumer” is defined in s.2 as an individual acting for purposes that are wholly or mainly outside that individual’s trade, business, craft or profession. In practice the definition is unlikely to be met in respect of clients having the level of sophistication required to engage in FX trading, but it is not impossible.

45. Where it applies, the 2015 Act provides in s.62 that “unfair terms” are not binding on the consumer. A term is unfair if, contrary to the requirement of good faith, it causes a significant imbalance in the parties’ rights and obligations under the contract to the detriment of the consumer. Schedule 2 gives the following examples of terms which may be regarded as unfair:

45.1 A term which has the object or effect of making an agreement binding on the consumer in a case where the provision of services by the trader is subject to a condition whose realisation depends on the trader's will alone (para 3). A term giving KEF Bank a right to engage in "last look" may have this object or effect.

45.2 A term which has the object or effect of authorising the trader to dissolve the contract on a discretionary basis where the same facility is not granted to the consumer (para 7). Whether the rejection of a trade following "last look" constitutes dissolution of a contract will depend in part on whether the proper analysis is that a contract is formed on receipt of a RFQ by KEF Bank or not until the trade is actually executed.

46. Interestingly there are a number of provisions in the 2015 Act regulating cancellations and variations in price (paras 8, 11, 14 and 15 of Schedule 2) which are disapplied in relation to contracts for the sale or purchase of foreign currency (para 24(b)).

Misrepresentation

47. In a bid to attract customers, KEF Bank may have advertised its FX trading platform on its website in terms which represent the availability of quoted prices. Phrases employed by banks in this context have included "real-time", "continuous spot prices", "seamless execution", "executable streaming prices", and "instantaneous trading". Again, a number of issues arise:

47.1 Arguably phrases such as this give a misleading impression of the bank's willingness to trade at quoted prices, if in fact those prices are subject to the practice of "last look". They may be mere puffs, but a phrase such as "executable streaming prices" perhaps goes beyond this and into the realm of misrepresentation.

47.2 If, however, the practice of "last look" is properly disclosed to the client, this may prevent what might otherwise amount to a misrepresentation, or defeat an allegation of reliance.

47.3 If, on proper analysis, no contract has been formed, then "fiction of fraud" damages will not be available under s.2(1) of the Misrepresentation Act 1967.

47.4 Liability for negligent misstatement may arise on the right set of facts, although in general it is likely to be difficult to establish an assumption of responsibility on the part of KEF Bank to the client in this context.

47.5 Again on the right facts, such representations may become terms of the contract between KEF Bank and the client and enforceable as such.

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