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The foreign exchange market is a global market which fulfils a central function in the financial system. It is therefore important that it functions well and in everyone's best interest. The cases of market abuse seen over the past few years have encouraged authorities to initiate comprehensive global reforms to improve the conduct of participants on the market. Recommendations have been produced for how foreign exchange reference rates should be determined and for how market participants should manage their trading at such rates. A new global code of conduct for foreign exchange trading is also being drawn up. In order to contribute to a well-functioning foreign exchange market, it is important that market participants actually apply the new guidelines in practice. This also applies to the major Swedish banks and other Swedish participants operating on the foreign exchange market.

Towards a better-functioning foreign exchange market

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Different participants trade currency on the foreign exchange market. It is a market that stretches all over the world and can be seen as a trading hub for goods, services and financial assets across currency borders. The foreign exchange (FX) market has an enormous daily turnover and affects us all in one way or another. It is therefore important that it functions well and in everyone's best interests. It is a market, however, that is self-regulating to a greater extent than other financial markets. This means that market participants not only establish codes of conduct among themselves, with principles and standards for best market practice, but also ensure that these codes are adhered to.

Over the past years, however, this format has been proved to not have worked sufficiently well. Investigations in several countries have shown that FX traders at various banks have been sharing confidential information with each other about their customers' trading activities and have tried to manipulate prices on the FX market, just when key FX reference rates[2] are being determined, in order to maximise their own gain at the expense of others. Such behaviour risks damaging confidence in the FX reference rates and the FX market more generally, with economic losses as a result. Extensive global reform efforts are therefore currently underway aimed at improving conduct on the FX market by enhancing financial benchmarks and codes of conduct. The market participants have a major responsibility themselves to ensure that the new reforms are implemented in practice. This responsibility also rests on the major Swedish banks and other Swedish market participants.

The FX market is global and significant

Huge amounts of currency are traded on the FX market among a large number of participants. Currency is traded via either "spot" or "derivative" transactions. In a spot transaction, two parties agree on an immediate currency exchange (which normally takes place two bank days after the deal is finalised). In a derivative transaction, two parties instead agree on a currency exchange sometime in the future. This can take place in many different ways; the most common derivative instruments being FX forwards, swaps and options.[3]

The FX market is built up around so-called market makers – mostly larger banks – who quote bid and ask rates on an ongoing basis. The market makers undertake to trade currency bilaterally at these rates with other market participants such as banks, insurance companies, pension funds and non-financial corporations. This type of trading is called Over-The-Counter (OTC). FX trading therefore differs from, for example, equity trading on a regulated market, where the trading interests of buyers and sellers are compiled and matched in a centralised order book.

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2. FX reference rates are special exchange rates used as references when determining the value of financial transactions, assets and liabilities.
3. An FX forward resembles a spot transaction with the difference that the payment takes place further in the future. An FX swap means that two parties agree to simultaneously buy and sell one currency against another with two different settlement dates. An FX option resembles an FX forward with the difference that the purchaser has the possibility, but not the obligation, to purchase currency on the settlement day.

FX trading is global. For example, only an estimated 14 per cent of market making trading in Swedish kronor took place in Sweden in 2013.[4] Globally speaking, most FX trading takes place in the United Kingdom, followed by the United States, Singapore, Japan and Hong Kong. Most FX transactions were previously agreed over the telephone. Nowadays, most trading takes place on different types of electronic trading platform, some estimates putting the figure at just over 90 per cent.[5] This technological development has rationalised trading, and today's FX market is one of the most liquid markets in the world with low transaction costs and rapid dissemination of price information.

The FX market can be seen as a trading hub for goods, services and financial assets over currency borders and affects us all in one way or another. A well-functioning FX market in everyone's best interests, i.e. one that is both fair and effective, has considerable economic benefits. A fair market can be said to be one that has clear, proportionate and consistently applied standards of market practice. A fair market is also transparent enough for market participants to be able to verify that these standards are indeed applied consistently. It is also accessible to everyone[6], allows market participants to compete on the basis of merit and provides confidence that market participants behave with integrity. An effective market allows end-users to undertake investment, funding, risk transfer and other transactions in a predictable way. An effective market is also underpinned by robust trading and post-trade infrastructures enabling market participants to source available liquidity, enables market participants to form, discover and trade at competitive prices and ensures proper allocation of capital and risk.[7]

Irregularities surrounding FX reference rates

Over the last few years, there has been reason to question how well the FX market is actually working, especially regarding so-called foreign exchange (FX) reference rates, i.e. exchange rates that are used as references when determining the value of financial transactions, assets and liabilities. FX reference rates, that are also called FX fixings or FX benchmarks, are determined by a number of different participants. They aim to reflect the price on the FX market of a given currency pair, often at or around a specified point in time. They are needed because currency is traded OTC and there is therefore no natural, single central institution that publishes the currency price in the same way as, for example, a stock exchange does for a share price. It is important that these FX reference rates are accurate and inspire a high level of confidence. If the rates were to be misleading, it may lead to uneven distribution of capital and risk within the economy as a whole. Similarly, it may also result in economic stakeholders having to negotiate the use of new FX reference rates, which is both time-consuming and costly. It is therefore important to safeguard a high level of confidence in the FX reference rates, especially those used for financial transactions.

In 2013, the UK Financial Conduct Authority (FCA) initiated an official investigation into accusations of market abuse made against FX traders at a number of banks in London. The FCA investigation showed that the majority of banks did not have sufficient routines and controls to prevent unacceptable market conduct among their FX traders.[8] Traders at various banks had been sharing confidential information with each other about their customers' trading activities and tried to manipulate prices on the FX market, just when key FX reference rates were being determined, in order to maximise their own gain at the expense of others. This manipulation mainly occurred in connection with transactions at FX reference rates but also linked to outstanding FX options with the reference rates as the underlying reference price.

4. "Triennal Central Bank Survey, Foreign Exchange and Derivatives Market Activity in 2013", Bank for International Settlements, 8 Dec 2013.
5. "Foreign Exchange Benchmarks, Final Report", Financial Stability Board, 30 September 2014.
6. Either directly or through an open, competitive and well-regulated system of intermediation.
7. The definition of a fair and effective market has been taken from "Fair and Effective Markets Review – Final Report", HM Treasury, Bank of England and Financial Conduct Authority, 10 June 2015.
8. "FCA fines five banks £1.1 billion for FX failings and announces industry-wide remediation programme", Financial Conduct Authority, 12 November 2014 and "FCA fines Barclays £284 432 000 for forex failings", Financial Conduct Authority, 20 May 2015.

In a transaction at an FX reference rate, a customer agrees with a market maker to trade currency at a reference rate that has yet to be determined. The market maker then fulfils the customer's order by trading currency on the market at around the time the reference rate is determined. The customer trades at the reference rate and the market maker's profit or loss will be the difference between the reference rate and the price the market maker has paid on the market to fulfil the customer's order. By having shared information about their customers' orders and coordinated trading on the market, a number of market makers attempted to maximise their profits in an improper manner.

The pricing of the Swedish krona was also affected by the manipulations abroad. After the FCA had initiated its investigation, a number of other authorities around the world[9] began investigations into misconduct on the FX market, in several cases with similar results.

Swedish market participants also take part in trading at FX reference rates

In light of the international investigations and the Riksbank's assignment to promote a safe and efficient payment system, the Riksbank initiated a study of FX reference rates in 2014.[10] One aim of the study has been to analyse how FX reference rates in Swedish kronor are used in Sweden. Another aim has been to draw conclusions from the international discussion regarding what needs to be done from a Swedish perspective in order to safeguard a high level of confidence in key FX reference rates and a fair and effective FX market. The study has not, however, had the aim of investigating whether any irregularities have occurred in Sweden. Finansinspektionen (the Swedish Financial Supervisory Authority) exercises supervision with respect to Swedish banks and other financial corporations and would have the option to investigate this should such suspicions arise. The study has been based on conversations with Swedish market participants such as banks, investors, marketplaces and industry associations, as well as Finansinspektionen and a number of foreign banks and authorities.

The study shows that market participants in Sweden primarily use the daily FX reference rates for the Swedish krona determined by WM/Reuters[11] at 16.00 in Edinburgh, the European Central Bank (ECB) at 14.15 in Frankfurt, and Nasdaq at 09.30 in Stockholm.[12] With the exception of Nasdaq's rates, this is similar to the procedures in many other countries. WM/Reuters rates are used in particular to determine the value of fund holdings, calculate benchmark indices and value financial derivatives. They are also the rates most often used in trading at FX reference rates. ECB rates are also often used in trading at FX reference rates. Nasdaq's FX rates are, on the other hand, mostly used for bookkeeping and tax return purposes. A contributory cause of this is that the Riksbank publishes them and that several Swedish rules and guidelines refer to the rates published by the Riksbank.

The study indicates that the scope of Swedish market makers' trading in Swedish kronor at FX reference rates is in line with that of market makers in other countries and in other currencies – an estimated 1 to 2 per cent of total trading.[13] Swedish market makers trade at FX reference rates to a varying extent, however, depending on the needs of their customers. Apart from trading with customers, they also trade at FX reference rates with other market makers, normally via interbank agents. In this way, market makers can redistribute risk among themselves at desired levels and currency pairs. As regards customers, it is primarily certain portfolio managers who trade at FX reference rates, although there are other types of customers as well. Their main

9. Including authorities in the United States, Germany, Switzerland, Singapore, Hong Kong, Japan, Australia, New Zealand and South Africa as well as the European Commission. Behaviour in connection to other areas than just FX reference rates are or have also been investigated in certain countries.

10. See Financial Stability Report 2014:1, Sveriges Riksbank, 4 June 2014.

11. A cooperation between The World Markets Company Plc, which is part of State Street Bank and Trust Company, and Thomson Reuters.

12. Examples of other FX reference rates used to a certain extent are those determined by Bloomberg and the Federal Reserve.

13. Swedish market makers comprise the Danske Bank, Handelsbanken, Nordea, SEB and Swedbank banking groups. The estimate has been made based on data from the Swedish market makers and information from the press, including the article "Investors Shun Currency Benchmark Amid Forex Probe", Wall Street Journal, 23 January 2014.

motive is to minimise the differences in return between investment portfolios and benchmark indices[14], and another is to attempt to ensure best execution[15].

Even if trading at FX reference rates makes up a relatively small part of total FX trading, it nevertheless acquires a disproportionate significance insofar as it gives rise to trading when well-used reference rates are determined and hence affect the reference rates' exact values. It is of course good that FX reference rates can be determined based on transactions as this reduces the need for subjective assessments and the risk for manipulation. At the same time, however, the transactions must take place on fair terms, which has obviously not always been the case according to the international investigations.

Swedish market participants also need to adapt to new guidelines

The international discussion about FX reference rates has meant that both foreign and Swedish market participants have begun to revise the way in which trading is conducted. The Financial Stability Board (FSB) published recommendations in September 2014 which aim to define what action should be taken globally to minimise the risks of market abuse in this trading.[16] Good progress has been made in implementing these recommendations, but there is still room for improvement.[17] In order to contribute to more fair and effective trading around when FX reference rates are being determined, it is important for all parties to adapt to the FSB's recommendations (see table 1). This also applies to Swedish market makers and other market participants which trade at FX reference rates, as well as benchmark index administrators[18].

Aside from fair and effective trading, another prerequisite for a high level of confidence in the FX reference rates is for them to be surrounded by clear and appropriate frameworks. A framework should describe how an FX reference rate is defined, who determines it, how it works, how the process is controlled and how accountability can be demanded if something goes wrong. It is also important that the framework is freely available for those using the rates. A comprehensive global review of financial benchmarks including FX reference rates has been taking place for a few years. Aside from national studies and initiatives, the European authorities responsible for the supervision of banks and financial markets, EBA and ESMA, as well as the global supervisory organisation IOSCO have published principles for financial benchmarks.[19] These principles are used to establish norms for how benchmarks are to be determined, reviewed and supervised. It also aims to coordinate work in this area conducted in different countries. An EU Regulation on financial benchmarks is also in the process of being established, and this has a clear basis in these guidelines. This development has meant that the frameworks are in the process of being reinforced for the FX reference rates used to a large extent in Sweden. WM/Reuters has already updated its framework in line with IOSCO's principles, following recommendations from the FSB. The framework surrounding the euro FX reference rates that the ECB publishes has also been updated recently.[20] Among other things are market participants strongly discouraged from using the reference rates for transaction purposes since the rates are intended to be used solely as a reference for information. Furthermore, the Riksbank is reviewing the framwork surrounding the FX reference rates for the Swedish krona it publishes. For a long time, the Riksbank has published FX reference rates which Nasdaq determines based on information from a panel of Swedish banks. Work is ongoing to update this format using the IOSCO's principles as a starting point.

14. FX reference rates are used to calculate benchmark indices in the indices' base currencies based on the return on financial assets. By trading currency at the rates used to determine the value of the benchmark indices, portfolio managers can avoid the difference in return between portfolios and benchmark indices that would otherwise arise.

15. When trading at FX reference rates, the bid and ask price is often the same.

16. "Foreign Exchange Benchmarks, Final Report", Financial Stability Board, 30 September 2014.

17. "Foreign Exchange Benchmarks, Report on progress in implementing the September 2014 recommendations", Financial Stability Board, 1 October 2015.

18. By calculating the benchmark index using other potentially better-suited FX reference rates than typically WM/Reuters mid-prices at 4 p.m., trading at FX reference rates would be less concentrated and the risk of market abuse would therefore likely be reduced.

19. "ESMA-EBA Principles for Benchmark-Setting Processes in the EU", European Securities and Markets Authority and European Banking Authority, 6 June 2013 and "Principles for Financial Benchmarks – Final Report", International Organization of Securities Commissions, 17 July 2013.

20."ECB introduces changes to euro foreign exchange reference rates", European Central Bank, 2015-12-07.

Global reform efforts on the way regarding market conduct on OTC markets

Alongside the FSB's work on recommendations for trading at FX reference rates, global reform efforts have also begun regarding the conduct of market participants on the FX market more generally, as with other OTC markets including fixed income and commodity markets. Historically, these markets have been relatively self-regulated when compared to the stock market, for example. In short, self-regulation is based on market participants jointly establishing codes of conduct containing principles and standards for best market practice in order to safeguard the functioning of the market. In terms of FX trading specifically, spot trading is exempted in many countries from many of the laws and regulations which affect trading of financial instruments, in that it is more often regarded as an exchange of payment methods. The market is therefore characterised to a large extent by self-regulation and codes of conduct which set principles and standards for market practice. Codes of conduct have been published by several FX committees[21] in geographical locations where there is a large volume of trading, as well as by the ACI[22]. It is then each individual market participant's responsibility to ensure that they follow established codes of conduct by way of internal procedures and controls.

However, judging by the highlighted cases of market abuse on the fixed-income, FX and commodity markets internationally, this format has not worked satisfactorily. An agreement has therefore been reached within the FSB regarding an action plan which places focus on how market conduct can be improved via reforms of incentive structures, financial benchmarks and codes of conduct.[23] A range of other initiatives are closely linked to this. One example is the British study *The Fair and Effective Markets Review*[24] which assesses that professionalism and accountability need to be reinforced at an individual level, and that market participants need to take collective responsibility for developing and following clear, widely understood and practical standards of market practice. Another example is the work recently started at the Bank for International Settlements (BIS) on establishing a single global code of conduct for FX trading and promoting a greater level of adherence.[25] This work will continue over the next two years in collaboration with central banks and representatives from the private sector, with Sweden represented on both sides.

In summary, extensive global reform efforts are under way which aim to improve the standard of market conduct, both in terms of trading at FX reference rates and other types of FX trading. Market participants have a great responsibility in this regard to ensure that the new reforms are implemented in practice by means of appropriate procedures and controls. A global market requires global standards which are observed globally. It is therefore important that the major Swedish banks and other Swedish market participants adapt to the new principles and standards established and contribute to safeguarding a fair and effective FX market.

21. Forums for FX market participants typically set up by the local central bank.
22. ACI – The Financial Markets Association, an international industry association for fixed-income and FX professionals.
23. "To G20 Finance Ministers and Central Bank Governors, Financial Reforms – Progress on the Work Plan for the Antalya Summit", Financial Stability Board, 5 October 2015.
24. "Fair and Effective Markets Review – Final Report", HM Treasury, Bank of England and Financial Conduct Authority, 10 June 2015.
25. "Working group to strengthen code of conduct standards and principles in foreign exchange markets has commenced work", Bank for International Settlements, 24 July 2015.

Tables

Table 1. Summary of FSB's recommendations which affect Swedish market participants and benchmark index administrators

MARKET MAKERS SHOULD:

- establish and enforce their internal guidelines and procedures for collecting and executing FX reference rate orders, including separate procedures for handling such orders.
- not share information with each other about their trading positions beyond that which is necessary for a transaction. This covers both individual transactions and aggregated positions.
- not pass on private information to counterparties that might enable those counterparties to anticipate the flows of other counterparties, including around times when FX reference rates are being set.
- establish and enforce their internal systems and controls to address potential conflicts of interest arising from managing customers flow.
- price transactions at FX reference rates in a manner that is transparent and consistent with the risk borne in accepting such transactions. This may occur via applying a bid-offer spread, as is typical for FX transactions, or through a clearly communicated and documented fee structure. A prerequisite is, however, a commitment to fulfil the other recommendations above.

PORTFOLIO MANAGERS SHOULD:

- assess whether it is appropriate to trade at FX reference rates.

MARKET PARTICIPANTS SHOULD:

- take the initiative to create independent netting and execution facilities for FX reference rate orders.
- ensure that codes of conduct that describe best practices for trading foreign exchange should detail more precisely and explicitly the extent to which information sharing between market makers is or is not allowed. The codes of conduct should also, where appropriate, incorporate specific provisions on the execution of FX transactions, including FX reference rate orders.
- show more clearly that they are complying with the codes of conduct drawn up by the various FX committees as well as their internal codes of conduct.

BENCHMARK INDEX PROVIDERS SHOULD:

- review whether the FX reference rates used when calculating benchmark indices are fit for purpose.

Note. For a more detailed description of the recommendations, see "Foreign Exchange Benchmarks – Final Report", Financial Stability Board, 30 September 2014.