



BANK OF ENGLAND

Speech

“E-Commerce and the FX Market – have the promises been met?”

Speech given by

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It's a pleasure to be invited to address you this morning as the first keynote speaker at this, the 4th Annual Foreign Exchange Markets Summit. In tackling the issues surrounding the benefits of e-commerce this morning I am going to be wearing two closely related hats.

First, as Head of the Foreign Exchange Division at the Bank of England, I am interested in the developments in the foreign exchange market as they impact on our own operations: these include management of the UK's foreign exchange reserves, with assets totalling some \$45bn and management of the foreign currency elements of the Bank of England's balance sheet with assets totalling around \$20bn. More importantly, as a central banker, I am interested in how developments in the foreign exchange market impact on the Bank's core responsibilities for monetary and financial stability and our role in promoting the effectiveness of financial markets.

My second hat – which is, as I said, closely related - is as Chairman of the Foreign Exchange Joint Standing Committee (or FXJSC).

For those of you that don't know much about the FXJSC and its work, a short history may be helpful. This is not a total digression from the topic of this talk – you will see that the impact of technology on the foreign exchange market is something that the FXJSC has spent a great deal of time considering in the past and that e-commerce in particular is very much a current topic of interest.

The Foreign Exchange Joint Standing Committee was formed in the autumn of 1973 as an initiative of both the banks and the broking community: specifically it was set up at the request of what was then called the Foreign Exchange Committee (a powerful group representing the banking community) and the Foreign Exchange and Currency Deposit Brokers Association (the FECDBA). These two organisations were engaged in some rather difficult negotiations over a wide range of issues, not least the rate of brokerage which was then negotiated centrally for the market as a whole. The FXJSC was established really to intermeditate between the banks and the brokers, with the Bank taking the chair and providing the secretary.

Throughout its 30 years of life the FXJSC has been heavily involved in drafting or influencing the code of conduct for transactions in the wholesale market in foreign exchange and that is now the bread and butter of the Committee's work. As an over-the-counter, professional market, foreign exchange has always been regulated by a code of conduct rather than legally-enforced supervision. Until the late 80s these codes were published in the form of a letter to market participants from the chair of the FEC. The details of those regimes need not bother us today but I briefly offer you the following list covering the last 35 years or so which may jog some memories:

1967-1975	“the (Mr) Stirling letter”
1975-1988	“the O'Brien letter(s)/regime”
1988-2001	“the London Code of Conduct”
2001-to date	“the Non-Investment Products Code” known as the NIPs code.

Today, one of the prime responsibilities of the JSC is to review and maintain the NIPs Code on behalf of the wholesale foreign exchange market in London. This initiative

came out of the creation of the Financial Services Authority which took on the Bank of England's supervisory and regulatory functions. But it was agreed that the foreign exchange market should continue to be subject to a code of conduct and the foreign exchange part of that code would be devised, published and maintained by the FXJSC in consultation with other market groups (the NIPs code also covers the bullion market and wholesale money market).

The Committee now comprises some 25 members including heads of foreign exchange trading from 16 banks (formally chosen for their market knowledge and experience, not to represent their institutions), 3 representatives of the broking community including the WMBA, trade associations such as the Association of Corporate Treasurers and the British Bankers Association. The Committee continues to be supported by the Bank through the Chair and Secretaryship and, importantly, is also attended by the FSA. Internationally the Committee has established good contacts with seven committees in other centres: New York, Tokyo, Frankfurt, Canada, Singapore, Hong Kong and Australia. But London remains the largest foreign exchange market centre in the world. In the last BIS triennial survey some 32% of transactions in the global market were priced in London: twice the number in the next largest centre (New York).

In addition to reviewing the NIPs code, the Committee has always kept a watchful eye on developments in the structure of the foreign exchange market, especially those related to technology associated with innovations in the market.

Going back through the files the following technology-related issues have attracted the attention of the Committee:

- Tape recording systems (1976)
- Reuters Mark I and Mark II dealing systems (1977 onward)
- 'Squawk boxes' (1979)
- London's Telecoms infrastructure (1980)
- Telex confirmation and automated confirmation systems (1980-84)
- Relocation of back offices overseas (1994)
- Herstatt risk (1994), the Allsopp report (1996), CLS (since)
- Internet trading (1996 and onwards)
- Y2K (1998&99)

All of these issues have been considered in terms of their impact on the market and how it operates. E-commerce in the foreign exchange market has been a regular discussion topic in the past two years with two separate sub-committee reports. The latest can be found on the Bank's internet site² but a version is also available in the Bank of England *Quarterly Bulletin*³ and I believe that the conference organisers have kindly made that available in your packs.

The work of the Committee has therefore been of great help, not only to me with my central banking hat on, but when, at events such as these, I am asked to try to answer

² (<http://www.bankofengland.co.uk/qb/qb030208.pdf>)

³ Bank of England *Quarterly Bulletin* May 2003 (pp235-239)

the question posed in the title of my speech which I will now try to do, albeit from my own perspectives.

Efficient and effective markets – for any good or service or financial product - are essential to the economic welfare of society. I hope I don't need to elaborate to this audience that free, competitive markets are a key mechanism in ensuring that resources are efficiently allocated between competing ends in our society. The foreign exchange market is absolutely central to this process on a global scale. An efficient foreign exchange market allows, of course, for goods and services to be traded internationally. More importantly in the context of this conference, it facilitates the cross-border trading of other financial instruments - equities, bonds, credit derivatives etc - thus contributing to the efficient allocation of capital internationally. As a general principle, the more efficient and effective the foreign exchange market is in this function, the greater should be economic welfare in the global economy as a whole.

The key question for this speech is whether new technology has delivered many benefits and, from my perspectives, that means how it has impacted on the efficiency and effectiveness of the market. I am going to take a pretty broad view of new technology to include the following: electronic broking in the inter-bank market, single-bank e-portals, multi-bank e-portals, and some of the related developments such as prime brokerage and white labelling. Although only some of these can strictly be called e-commerce, they are actually all intimately related. I also want to say something about Continuous Linked Settlement.

To address these developments I am going to set out some of the key criteria that might be used to evaluate any market development. There is no unique or definitive approach to this that I am aware of, but my personal list certainly includes: liquidity, transactions costs, operational risk, market risk management, settlement risks and market integrity.

First, liquidity: A key question is whether any market development improves liquidity. To be clear, what I mean is the ability to trade in size on demand without substantially moving the price against the trader.

Transactions costs: The investment in new technology should naturally reduce cost per transaction. I don't include in this the cost of 'failed trades' – that comes next – or the capital costs. What I mean is simply the physical systems cost of processing. That includes the cost to end-users - or the buy-side if you prefer – and for that group, the transactions costs include the profits being earned by the intermediary. As the market gets more efficient and more competitive, bid-offer spreads should narrow and the price for the end-user should get closer and closer to that in the inter-bank market. For constant risk, that should represent an improvement in economic welfare.

Operational risk: given that the majority of foreign exchange trading is in relatively simple products, the 'failure' rates that people have mentioned to me privately can be surprisingly high. By a failed trade I mean, for example, disputed trades or non-matching trade confirmations or other settlement errors. The costs of clearing up such problems can be significant and the FXJSC used to spend a lot of time and effort in

helping to resolve disputes. I also include under operational risk the disruption to the market caused by system crashes.

Market risk management: the importance of monitoring, analysing and managing risk in financial markets is still very much a growth industry. Developments in trading and settlement systems can help make risk management more effective e.g. by speeding up the passing of deal information to the risk manager or providing more or better quality information.

Settlement risk: in particular the so-called Herstatt risk which is the probability of a counterparty defaulting at a point when one leg of a foreign exchange trade has been paid away but the defaulting corresponding payment by the counterparty has not been received. Reducing this form of settlement risk has been a key objective for central banks for at least the past 10 years. I also include under this heading the more prosaic risk arising from inappropriate legal agreements. A particular problem is caused by the proliferation of very similar names but different legal entities within a single corporate structure.

Market integrity: I mean by this the protection of confidential information about clients, the quoting of true market prices, the absence of fraud or other criminal activity etc. This is a subject which all trading operations have to be constantly alert to, in order to protect both themselves and their clients.

I'm sure that many of you here could add to this list or provide me with a better classification scheme, but let's see whether this one captures the benefits and risks. I should stress that most of what I am about to say is based on what I or colleagues hear in discussion with those of you in the industry.

Considering the interbank electronic systems first, these are hardly new with Reuters having been around for over 20 years – but it is obvious they remain absolutely key in under-pinning the e-commerce platforms and so worthy of a few thoughts here. I think it is clear that EBS and Reuters have become very impressive liquidity 'pools'. The number of transactions on both systems has been steadily rising in recent years, despite continued consolidation in the interbank market generally, and, although liquidity is sometimes concentrated e.g. around fix times, there has been little evidence of significant price-gapping even when trading is hectic. Overall these systems seem to have delivered clear benefits to the inter-bank market.

The counterpart to the efficiency of these systems is just how dependent on them the industry has become. The volumes being traded every day are huge – EBS alone averages some \$90-\$100bn a day and up to 700 trades a minute. When there are systems or external communications problems – as happened a few times just recently with EBS and in autumn 2002 on Reuters – the disruption, even from a few seconds of broken links or a period of slow running, can be quite significant. These events also serve as a timely reminder of how much the market relies on the robustness of the surrounding telecommunications infrastructure – which was really the cause of EBS' problems - not just the resilience of the systems themselves. The market may be fortunate that it has two such systems operating in a competitive fashion with either able to take over the business of the other should that be necessary.

Feeds from the inter-bank systems have, of course, become the main pricing source for most of the e-trading portals. So the latter will be affected by any disruption in the inter-bank market. We have – very occasionally I would stress - heard some reports of banks having to shut down their pricing feeds to the e-portals because those feeds were generating off-market prices. Like much new technology that people come to depend on in everyday life, the benefits are huge, but it is when those benefits are made unavailable - even temporarily - that they are really appreciated!

The single and multi-bank portals have been continuing to battle it out for market share. If, in 2002, the talk was all about the multi-bank portals – with the lead contenders benefiting from reducing numbers and each of the main platforms finding their niche in the market - 2003 may well come to be seen as the year that single-bank portals came of age. I can't be specific because of commercial sensitivity, but we have had reports of single bank e-trading platforms now handling the vast majority of customer tickets within a firm and the largest share by value, with just the resulting net position and the very biggest tickets worked by dealers through the market in the traditional way. These systems are still developing and growing and the market-leading systems which invest in the best technology are almost certainly gaining market share.

The choice between multi- and single-bank platforms is itself complicated. Some end-users who use multi-bank systems like the price transparency and the audit trail that they provide. Others prefer the relationship with a single bank across a wide range of products.

The fineness of pricing on the e-portals means that end-users are benefiting from close to inter-bank market prices and this is creating a greater sense of transparency in the market which would generally be welcomed. Of course there is a corresponding risk: that very transparency and ease of access could attract the inexperienced or unwary user and those who offer such platforms must take some responsibility for how they are used and by whom.

Both single- and multi-bank portals appear able to generate a more flexible market, for example opening up the door to multi-product and hence cross-market trading. But it is clear that there is quite a long way to go yet before the full potential is realised. Most of the systems, for example, are still based on 'Request for Quote' – although there are now a growing number of systems which offer prices which can be hit and this seems to be more popular with end-users. And the cross-market functionality of existing systems is usually quite limited, although gradually expanding.

Another innovation made possible by these e-commerce systems is the use of 'intelligent' software – a bit like on-board computers in formula one cars. Flow analysis has been used to generate trading signals for banks' own accounts for a number of years and the next step is likely to be automating the trading process in response to these signals.

Because these e-trading solutions can be implemented flexibly for individual customers and don't require special terminals they have the advantage of being relatively easily connected to internal systems. Some well-known corporates have

used this to their advantage to enhance their straight-through-processing: reducing costs and operational risk and, in the process, improving management information and risk management more generally.

One of the features of the current market structure is that prices are still determined largely in the inter-bank market. We have heard of two closely related issues here. The first is the potential for a circularity problem: market-makers typically offer prices and then lay off their risks in the inter-bank market. The growing liquidity available in the e-portals could perhaps start to attract some activity away from the inter-bank market, affecting the liquidity which feeds most of the e-portals in the first place. This doesn't appear to have become a live problem as yet but it is a widely recognised concern. What does appear to be a live issue is the magnification of liquidity. We hear examples of prices on EBS or Reuters that are good for, say, \$10mn being fed into, say, three portals for the same size at the same rate meaning that \$40mn is potentially being quoted for. This could mean that liquidity is being under-priced systematically: the existence of many systems being fed from one price source, could be a risk for the banks while the buy-side could find liquidity somewhat fractured. However, I suspect that these risks will provide the motivation for change and possibly further natural selection and so I expect any such concerns to be temporary.

My general conclusion is that, despite these risks, both single- and multi-bank portals have contributed substantial benefits, leading to a more efficient and effective market, especially for the buy-side.

Prime brokerage and white labelling have been two of the hot topics over the past year, depending in large part on the growth of the e-commerce systems. Both deliver clear benefits to the provider and the user. White labelling allows the larger banks to earn revenue streams to set against the largely fixed cost of their e-trading systems – which must promote greater investment and further efficiency gains at least in the most successful systems. The smaller banks effectively out-source their technology getting the advantage of high quality systems at a reduced cost, the benefits of which they can pass on to their customers. The smaller bank can also take price feeds from the larger bank although I understand that an element of choice is usually available as to whether to take prices for all or only some currency pairs and there can be reciprocal arrangements in pricing e.g. for an exotic currency in which the smaller bank specialises.

As long as there remain a sufficient number of systems to ensure competition, the advantages of economies of scale from white labelling are fairly clear. Interestingly, the effects on industry consolidation may be less clear cut than one first imagines – the smaller banks may be able to use the out-sourced systems and liquidity to help retain their markets with, for example, the smaller or more specialised clients.

Prime brokerage generates a similar gain in respect of the more efficient use of balance sheets and credit, again earning the larger banks a revenue stream while reducing costs for the fund managers or smaller banks and others who are the main users of such arrangements. What are the risks here? In both white labelling and prime brokerage, there is a distancing of the end-user from the direct supplier of liquidity and credit respectively. The supplier banks must ask themselves – are they

pricing liquidity and credit too cheaply? Are they really sure they know what risks they are exposed to? If something goes wrong with white-labelled technology, who is going to take responsibility (think Railtrack and the carriers!) Is there a concentration of liquidity and credit risk which is going unnoticed? Who has the incentive to carry out checks to 'know your customer'?

The final development I want to say something about is Continuous Linked Settlement (CLS). A major milestone in risk reduction in the foreign exchange market, this initiative is fast becoming a market standard. Unlike the other technology improvements, CLS has slightly increased direct transactions costs in order to significantly reduce settlement risk. I have also heard that the use of CLS has quite significantly reduced the number of settlement errors and the savings from this, as well as the reduction of Herstatt risk, must be set against the direct costs.

On the other hand, the rapid take-up of CLS also creates a new risk due to the possible single point of failure. On the one occasion when there was a significant glitch last year the consequences created a problem of some scale: the subsequent smooth clean-up operation however, did much to demonstrate sound contingency arrangements. Resilience clearly needs to be a watchword for any system which becomes part of the market infrastructure and I know the CLS management take this very seriously. Despite the residual or new risks, CLS must be regarded as a major step forward in the market.

I haven't said much about market integrity. Initial fears about internet security seem to have been largely overcome but I can't help thinking that new technology of any sort will always have plus and minus points. On the positive side, automated systems allow quicker, fuller and better quality management information and more complex security features which should help to keep the market clean as well as efficient. On the other hand the opportunities to exploit technology to help wrong-doing tend to rise proportionately. To take me back to my starting point I see it as essential that codes of conduct for foreign exchange trading are kept up to speed with new technology and that is one reason why the FXJSC and the other market practices committees overseas must keep their eyes on the e-commerce ball.