BANK OF ENGLAND

Speech

"Recent Developments and Challenges in the Foreign Exchange Market" – Speech by Paul Fisher

Speech given by

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Recent Developments and Challenges in the Foreign Exchange Market

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It is a great pleasure – indeed an honour – for me to be able to kick-off the inaugural FX-week Foreign Exchange Congress. I'd like to start by saying a bit about my role as Head of the Foreign Exchange Division at the Bank of England, which I took over from Clifford Smout at Easter this year. We cover a wide range of markets – foreign exchange, foreign currency money and bond markets, and gold; and we carry out a wide range of functions. Our operations involve transactions on behalf our government and central bank customers, including acting as investment managers for the UK government's foreign exchange reserves, with a portfolio totalling around $40 billion at present. We are involved both in asset management and foreign exchange dealing. Using our knowledge of the market we provide information on market developments to policymakers, including the Monetary Policy Committee. We monitor financial stability issues, remaining alert to stresses and strains in the markets. Personally I chair the Foreign Exchange Joint Standing Committee, which brings together many of the leading practitioners in London, not just bankers and brokers but also the Association of Corporate Treasurers and other industry groups. It is these various roles – both as policy makers and as users of the market – which govern our perspective on developments in foreign exchange.

In this keynote address I would like to highlight some of the more important changes we have recently been witness to, in particular those which have followed the introduction of more advanced technology and new systems. Many of these changes will, of course, be discussed in detail during the sessions of this Congress over the next two days. Improvements introduced by market participants will be motivated by a variety of factors including reducing costs and improving the services offered to customers, but the particular factor that I would like to emphasise in my remarks is the impact of these changes on the management and reduction of risk – for both the buy-side and the sell-side. Risk management is, of course, one of the major functions of financial markets in general, but particularly for the foreign exchange market which is essential not just for the trading of goods and services, but financial assets on a global basis. Although the major impact of recent developments has been both to reduce operational risk substantially and to improve the management of market, credit and liquidity risk, I would also like to spend a little time on those operational risks which remain and one or two which may even have been accentuated. Before getting on to these issues however, I would like to spend a short while reviewing movements in asset prices over the year to date, to put some of the market structure developments into context.

Financial markets in 2002 have been dominated by developments in the global macroeconomic cycle - in particular the continued downward adjustment in expectations of US growth and the associated correction in global equity markets associated with that adjustment; initially in the IT and telecoms sectors and then spreading into a more general bear market. Since the start of the year the NASDAQ fell some 43% to its low point in October for example, the FT-SE 100 fell by around 30% and the Dow

Jones by around 27% (see Chart 1). All three indices have since recovered somewhat from those lows but the equity markets remain volatile.

Chart 1: Equity Indices

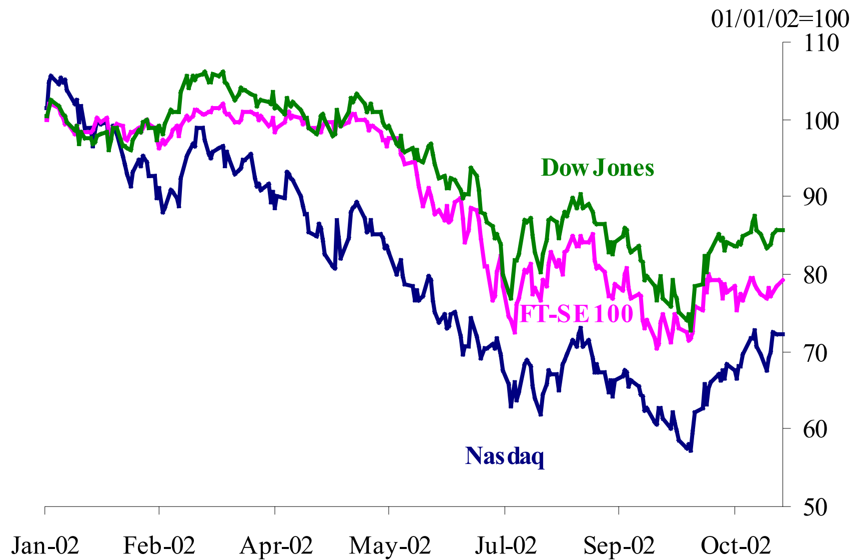
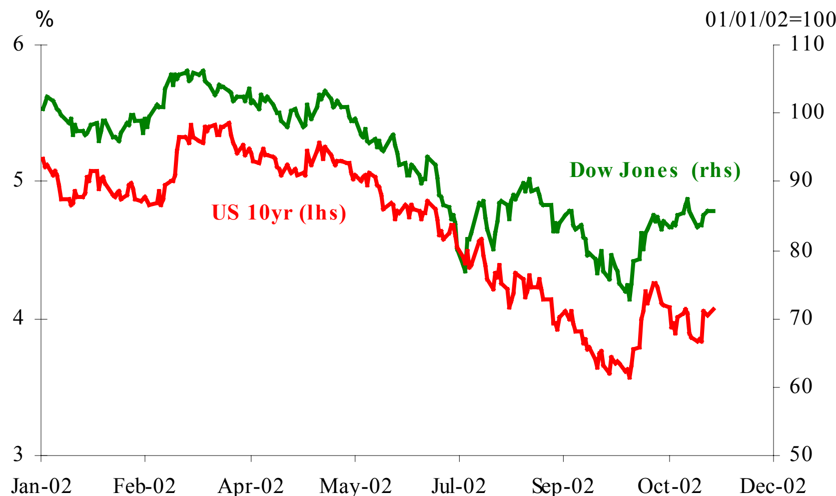
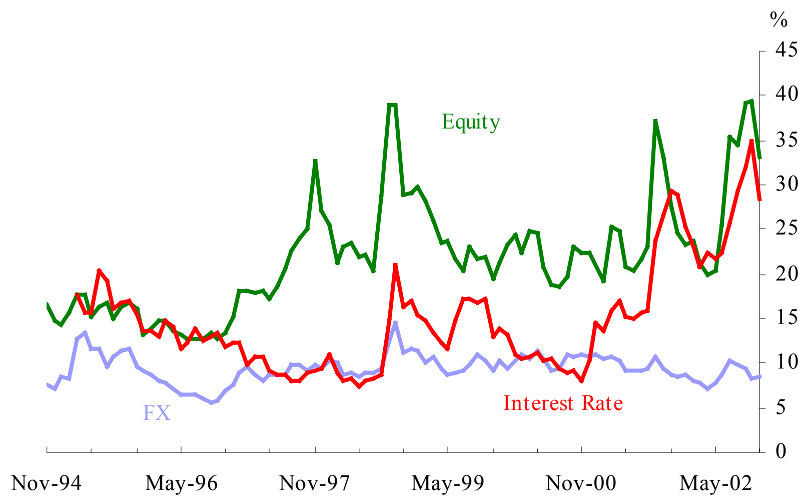


Chart 2: Dow Jones Industrial Average and US 10 yr Treasury



Bond markets have been trading in direct negative correlation with equity markets for much of the year, with yields generally falling, supported by low and stable policy rates (see Chart 2). The US 10 year treasury yield, for example, is some 100bps lower at around 4%. Implied (and actual) volatilities derived from option prices in bond and equity markets have been rising and are close to historical highs (see Chart 3). Equity markets have been impacted by corporate scandals and markets more generally by geopolitical risks. In contrast the foreign exchange market – at least in the most heavily traded

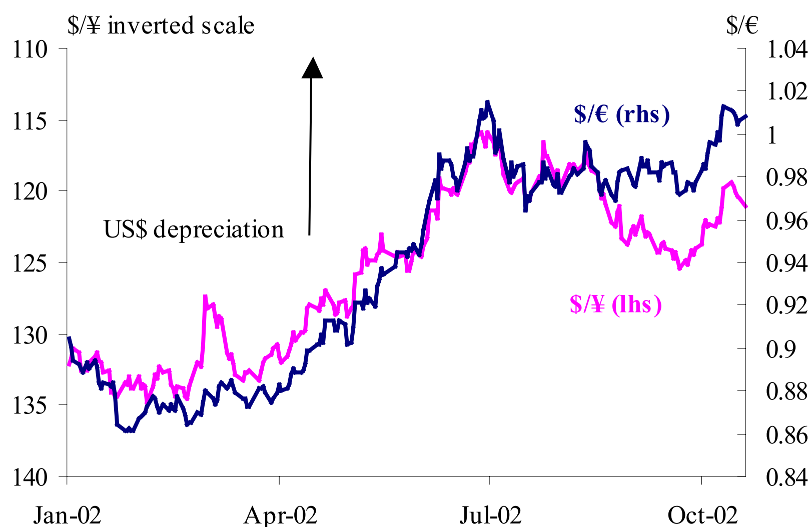
Chart 3: Equity, Interest rate and FX volatility



Equity is average of DAX, FTSE100, SPX and Nikkei implied volatility; Interest Rate is average of 2nd contract short-sterling, eurodollar and euribor implied volatility; FX is average of euro-dollar, dollar-yen, cable, dollar-swiss and dollar-cad one-month implied volatility. Source Bloomberg, UBS Warburg.

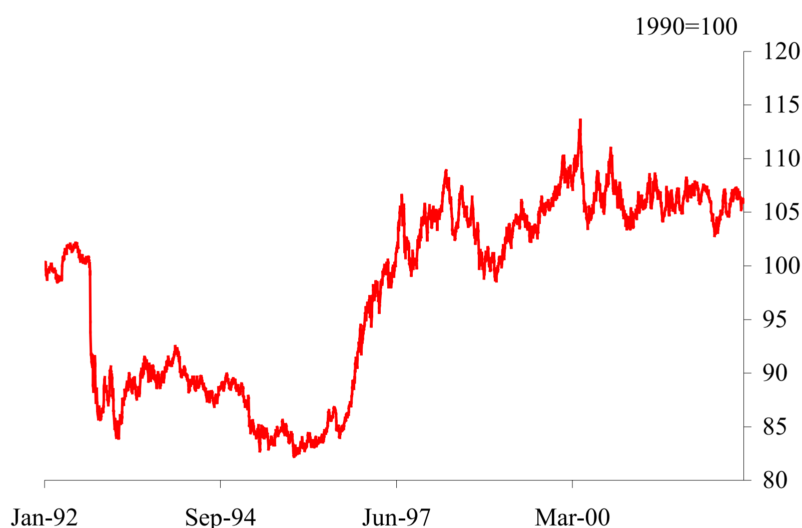
currencies – has been more stable. Implied volatilities from the foreign exchange market were close to historical lows in April and are only a little higher now. In the Summer issue of the Bank of England *Quarterly Bulletin*, we included a short piece by one of our analysts, Robert Hillman, which reflected on this contrary behaviour. He concluded that possibly the best explanation was that economic shocks have been sufficiently global in nature that, whilst generating plenty of uncertainty about the level of equity prices or interest rates across markets, they have affected the major economies in a similar fashion implying relatively little about exchange rates. Although implied volatilities in foreign exchange picked up for a while during the early summer, that recovery has proven to be short-lived.

Chart 4: G3 Exchange Rates



We have nevertheless seen some significant changes in the levels of exchange rates (see Chart 4). The year started with anticipation of economic recovery led by the US. As it became clear that recovery in US growth might take longer than the initial, rather optimistic market expectations, and equity markets started to slide, a growing concern could be perceived in the market about the ability of the US to continue to attract the necessary inflows of capital to fund a current account deficit equivalent to some 5% of GDP. Eventually, this re-appraisal of prospects by the market led to the dollar depreciating significantly against the euro and yen, moving from Spring highs of 0.86 and 135 on euro-dollar and dollar-Yen respectively to lows of 1.02 and 115. While the long-awaited recovery of euro-dollar to parity was publicly welcomed by officials in Europe, the strengthening of the Yen was clearly a concern for the Japanese authorities and the market saw substantial foreign exchange intervention on several occasions, not least leading up to the turning point for dollar-yen in July.

Chart 5: Sterling ERI



Sterling initially weakened in the face of the euro-dollar move: Cable appreciated from around 1.41 to recent highs of over 1.59, but this was dominated by a depreciation against the euro from under 0.61 to over 0.65. As the sterling ERI fell from 107.8 to 102.8, it looked as though the near six-year strength of sterling might be about to fade (see Chart 5). But, as it recovered against the euro, sterling soon moved back into a range where it has been for much of the last three years, and for the past few months the ERI has since been moving within +/- 2% of the average this century: 106.5 starting from Jan 1st 2000!

Market reports suggest that sterling and the Swedish krona have both been affected from time-to-time by euro convergence plays as have the currencies of the East European accession countries. Roberto Schiavi from the ECB will be talking to you tomorrow morning about euro-accession issues.

Further afield from sterling and the G3, we have also seen something of a search for yield, particularly in the so-called commodity currencies – the Norwegian krone (no doubt in part reflecting the price of oil), the Kiwi, the Australian dollar. Indeed the Norges Bank Governor was recently driven to caution the market about the small size of Norwegian money markets and the possible consequences of a sudden rush to exit the positions being taken. Perhaps reflecting geopolitical concerns, the Swiss franc has also been strong and the price of gold has been relatively firm. It is also true that low foreign exchange rate volatility in the most heavily traded currencies has not meant stability for every currency and for some emerging market currencies this has been a most difficult year, with the Brazilian real for example, having been as strong as 2 ¼ to the US dollar and as weak as 4. The one 'good thing' we can take from their experiences is that there has been much less generalised contagion than there might have been. Markets have been much better at differentiating between countries and currencies on the basis of local events, economic performance and policies, rather than treating emerging markets as an homogenous asset class.

In the context of relatively stable exchange rates and low volatility in the G3 currencies we have, perhaps surprisingly, seen a growth of interest in foreign exchange as an asset class, with the continuing rise of the overlay manager, managing foreign exchange risk and seeking active returns as an element of overall fund management. Indeed the Bank of England's dealing desk could be characterised as providing, amongst other things, an overlay function in respect of our own reserves management operations.

But perhaps we should not see the focus on foreign exchange as so surprising. As cross-market trading strategies become ever more complex and derivatives markets continue to grow – both subjects to be addressed in sessions today and tomorrow – the foreign exchange consequences of other trading activities need to be carefully managed to control the currency risk. And in the context of lower returns available in other financial markets, the marginal returns from currency overlay can be very appealing. We will be hearing more about the overlay function from Momtchil Pojarliev later this morning and on related matters from Christina Böck tomorrow.

One issue which has occurred to me from time to time this year, particularly after discussions about the growth of overlay managers, is how everyone seems to be targeting foreign exchange as a source of extra return – which is intriguing given that the taking of directional bets is a zero-sum game for the market as a whole. I have sometimes put this to market participants and the quickest answer I usually get is that the losers are the central banks!

Another major development in the market has been the creation of the Continuous-Linked Settlement Bank. Commencing live operations on September 9, this most complicated of projects finally came to fruition with seven initial currencies, including sterling. CLS substantially reduces overall settlement risk by eliminating Herstatt risk on the deals settled through it. (Herstatt risk is the credit risk run when paying away one leg of a deal before the other leg is received). This is a major improvement in risk reduction which the world's central bankers have strongly endorsed and encouraged. The initial phases of live operation appear to have been successful with a steady increase in the number of transactions

flowing through the system and any disruptions successfully contained and CLS is now open to third party members.

Although the introduction of CLS is a major landmark in risk reduction, it does not, of course, eliminate all settlement risk as the coverage will not be universal in terms of currencies or market participants in the foreseeable future, and it is still possible for trades to fail, potentially giving rise to replacement costs or liquidity risk. And the use of In/Out swaps represent a continuing risk. I look forward to hearing more about those issues and the experiences from a settlement member's perspective in the session before lunch led by Nicoletta Stella.

But perhaps the biggest changes we have seen on market structure are those created by the impact of new technology, both on trading systems and on internal processes, helping towards to the 'holy grail' of straight through processing (STP).

Starting with the latter, many significant players in the market have already made big strides towards STP – particularly the larger banks who have the resources to make the significant investment in systems. The same technologies can provide STP in the sense of front-to-back-office and in terms of the deal process: with some systems now capable of packaging trades across different instruments as well. But few will have achieved 100% in either direction for all their activities – not least because new products, new trading strategies and new services to customers become an increasing challenge to link in to such systems. As well as improving efficiency and hopefully reducing costs, STP reduces operational risk by reducing the amount of manual re-keying and reconciliation. But of course it places increased responsibility on the original trade input. We have in the last few months heard of a couple of instances of major deals 'whip-sawing' the markets – in both foreign exchange and equities – because the initial trade was put in the wrong way round. It is not enough to simply blame 'fat fingers' for such episodes. It is up to the system providers to make sure that processes are clear and that reasonable hurdles are in place. But still more it is up to the system users – be they market professionals or customers – to ensure that they have proper training and appropriate levels of risk awareness. Some of these issues I hope will be aired in the session after lunch led by Joerg Rachle.

One particular operational risk – the sort of dirty washing not often aired in public – is mistaken settlement instructions. I would like to think that increased automation in the back office will reduce the number of such errors but it is crucial that front offices sharpen up their act too. Dealers are often not as clear as they should be as to exactly which legal counterparty they are dealing for and the proliferation of legal entities with similar names within a particular institution can be a nightmare for credit risk officers, dealers and settlement staff alike. And we have recently had an example within the energy sector of a subsidiary company within a group being allowed to go bust – demonstrating the importance of knowing precisely which entity one is dealing with.

On the trading side the major development has clearly been in electronic trading and I am glad to see that this will be the subject of the first panel session this morning. I know from our own government customers that e-trading solutions are seen as a major step forward for the buy-side – to reduce costs,

increase flexibility and to improve pricing transparency (through the multi-bank portals for example). Electronic trading will generally make the market much more accessible and efficient, in many cases helping to achieve STP, particularly for corporate and institutional fund customers. But these systems also present their own risks: for example trade entry errors – as I mentioned just now – and liquidity risk. There is always the risk of competing systems fragmenting market liquidity – giving a natural tendency towards consolidation – and there is at least some anecdotal evidence of price mismatches from auto-pricing versus wholesale inter-broker systems. Despite this, our contacts suggest that, at least in the major currencies, liquidity is as good as ever, albeit more concentrated into particular parts of the trading day. And it seems that larger tickets are still traded over the phone and 'worked' in the market rather than entrusted to the electronic systems.

A more direct operational risk arises to the extent that some new bank-to-customer electronic systems use prices generated from wholesale market dealing systems such as Reuters or EBS. A couple of months ago we saw this risk crystallise when price feeds from one of the systems went down and so the supply to some auto-pricing systems was not available. On that occasion the market appeared to cope pretty well but it was a useful warning of the built-in dependencies on the infrastructure and the need for contingency operations. I hope I don't need to elaborate further on the need for proper business continuity plans given the events of September 11, 2001.

A possible side-effect of new trading platforms and new technology is the increasing use of models by hedge funds and CTAs, bank proprietary desks and even currency overlay managers, in some cases operating as a black box triggering buy or sell orders when a particular price level is reached. We have certainly felt the presence of such short-term models on particular days over the last couple of months – particularly on days when other market participants are relatively quiet. In some of the less-traded currencies these models may be impacting on liquidity – at times we have seen 'gapping' in the price where a number of similarly configured models all try to put on the same trade at the same time.

Finally I come to the issue of consolidation. In the last triennial survey of the foreign exchange market in April 2001, some 75% of the turnover in London was generated by just 17 banks and concentration in the market seems to have grown since then. In most industries this would seem like quite a low level of concentration but by historical standards in the foreign exchange market it is high. Partly this trend will reflect the general trend towards mergers and acquisitions in the financial sector. More specifically, it probably reflects the desire of customers to access a full range of services from fewer suppliers and the huge investment in new systems that generate returns to scale. Of course we are also seeing consolidation on the buy side – possibly at an even faster rate. So it is not clear how the balance of market power is shifting. Simon Hills will be addressing the impact of this trend this afternoon. My own observation is that consolidation and greater automation will quite likely work together – not least to continue the reduction in numbers of back-office staff and possibly front-office staff. On the other hand I suspect the one area of employment expansion – at least in the short-run – will continue to be the growth of middle offices and risk managers. Although even here the improvements in systems

should help to cut costs. I'm sure that staff in each group will increasingly need to be better trained and better able to add value through complex bespoke services rather than simply executing manual tasks.

One further consequence of consolidation may be the lack of liquidity in some of the less-traded currencies as it becomes increasingly difficult for the smaller niche banks that currently undertake much of that business to compete. This could be an issue of genuine concern for the countries concerned and one for which efficient markets ought to be able to find a solution.

Well, hoping for efficient markets to find their own solutions is generally a good note on which a central banker can finish his speech.   In summary, the structure of the foreign exchange market is developing at a rapid pace. That brings both new opportunities and new risks. I am confident that the market will meet these challenges in the future as it has in the past, and I am looking forward to hearing more about how that will happen from the speakers over the next two days.

21 November 2002