BANK OF ENGLAND

Speech

The Exchange Rate and the MPC: What can we do?

Speech given by

Dr Sushil Wadhwani, Member of the Monetary Policy Committee, Bank of England

To the Senior Business Forum at the Centre for Economic Performance, London

31 May 2000

1 INTRODUCTION

Even after its recent fall, the current level of sterling (versus the euro) is[1] clearly an issue of great concern to many businessmen. This is reflected in the considerable media attention that, in recent weeks, has been devoted to the pain caused by the overvalued level of sterling. Indeed, in recent meetings with people from businesses around the country, there is little else that they want to talk about.

My talk today can, therefore, be thought of as some answers to the most frequently-asked questions. The issues that I hope to deal with are:

1 Why has the pound risen considerably against the DM over the last few years?

2 What is likely to happen to the sterling-DM exchange rate over the next few years?

3 What, if anything, can the MPC do about it ? In particular, can we do anything in terms of how we incorporate asset price misalignments into our decision-making process and/or use foreign exchange intervention to help? Should we look again at our forecasting convention for the exchange rate? Or, given our remit, is there nothing that we can do? I shall conclude that, although there is no 'quick fix', there are things which are entirely consistent with its remit that the MPC can do which might reduce the degree of over-valuation of sterling.

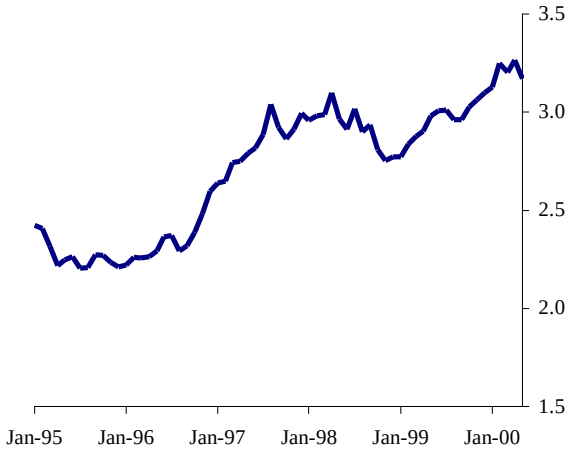
2 CAN WE UNDERSTAND THE POST–1995 RISE OF THE POUND?

The pound has risen from around DM2.20 in mid-1995 to around DM3.17 now, an increase of over 40%[2] (see Figure 1). In terms of possible factors that might explain the rise, one could point to:

[1] It has fallen from DM3.44 in early May to around DM3.17 at close of business, 24 May.
[2] Of course, as already mentioned, in the interim, we have been even higher with the £-DM rate reaching DM3.44 – on 3 May).

Figure 1

£/DM exchange rate



(i) Purchasing Power Parity (PPP) considerations

Most measures of the PPP exchange rate are around DM2.60, so when sterling was at DM2.20 in 1995-96, it was undervalued on this measure.

(ii) A change in the macroeconomic framework

Historically, Labour governments in the UK have been associated with sterling crises (eg 1967, 1976). Having the 'party of the Left' commit to low inflation by granting the Bank of England independence while simultaneously committing to rules vis-à-vis fiscal policy was always likely to boost sterling by reducing the risk premium associated with holding UK assets.[3]

[3] I should say that I do not mention these two factors as an ex post rationalisation for the strength of sterling. Writing in 1996, I argued then (see Wadhwani (1996)) that PPP considerations and the macroeconomic probity implied by either joining EMU (or, failing that, Bank of England independence), were likely to lead to a stronger pound.

(iii) Supply-side reform

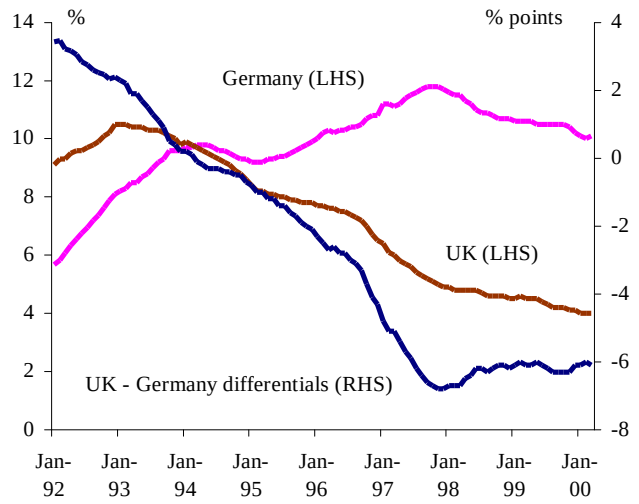
Many market participants argue that sterling deserved to be re-rated relative to the DM because the UK undertook much more far-reaching supply-side reforms in the last 15 years as compared to Germany.

Indeed, Mr Jim Leng, the Chief Executive of Laporte, was recently quoted in The Financial Times (9 May 2000) as saying that the employment law changes of the 1980s had given UK companies a competitiveness boost equivalent to a sterling depreciation of DM0.75.

One might attempt to proxy for the superior supply-side performance of the UK by looking at the performance of unemployment in the two countries (Figure 2).

Figure 2

UK and German unemployment rates



In Wadhwani (1999), I reported some econometric evidence supporting a link between movements in the relative unemployment differential and exchange rate movements. This relationship held across a variety of exchange rate pairs. The estimates reported then suggested that the lower level of UK unemployment relative to German unemployment could, of itself, account for a sterling appreciation of around DM0.15 during 1996-98.

(iv) External balance considerations

While the aforementioned factors suggest that sterling-DM should be stronger than is implied by PPP considerations, the UK's inferior net foreign assets position and current account deficit would suggest a weaker level for sterling-DM. This is perhaps why some estimates of the so-called "Fundamental Equilibrium Exchange Rate" (FEER, hereafter) suggest an "equilibrium" value of sterling-DM that is rather lower (eg 2.04-2.49 in Wren Lewis and Driver (1998)). I return to an evaluation of the relative quantitative importance of this factor below.

(v) Cyclical considerations

There are plenty of studies of exchange rate behaviour which suggest that the returns associated with holding the currency of a country with a higher-than-normal interest rate advantage over another country are positive (see eg Froot and Thaler (1990) for a survey). Currently, European real short-term interest rates are low, and this is associated with an abnormally high real short rate differential between the UK and Germany. Other things being equal, the evidence suggests that this is consistent with a somewhat higher level of sterling-mark.

Last September (see Wadhwani (1999)), I estimated an econometric model[4] which suggested that the intermediate-term model-based equilibrium exchange rate (ITMEER, hereafter) was around DM3. Essentially, the superior unemployment performance of the UK and the high interest differential were, empirically, more important than external balance considerations and, therefore, suggested an equilibrium exchange rate that was higher than PPP levels. However, this estimate was likely to over-estimate the longer-term equilibrium level because it included the effect of temporary, cyclical considerations in terms of a higher-than-normal interest rate differential. On the other hand, the model did not include the potential effect on the exchange rate of the improved macroeconomic framework. Anyhow, that work suggested that while one could explain a sterling-DM exchange rate of around DM3 (and, perhaps, a further

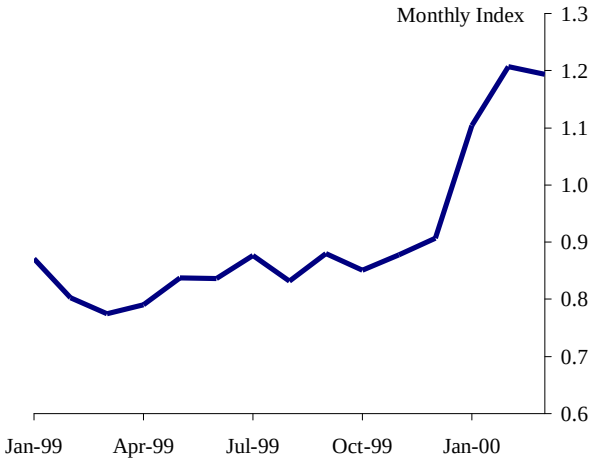
[4] The work then was carried out by Hasan Bakhshi of the Bank of England – to whom I am grateful.

modest cyclical overshoot) the level of DM3.43 (which was attained on 3 May) is less easy to explain.

Indeed, the rise of sterling against the DM in recent months has been quite difficult to rationalise, especially as it appears to have been accompanied by greater relative optimism about, both, the supply-side and demand-side prospects of Euroland vs the UK. Specifically, the German stock market has significantly outperformed the UK stock market in recent months (see Figure 3),[5] and the normal historical correlations (reported, eg in Wadhwani (1999)) would, other things being equal, have been associated with an appreciation of the euro vs sterling. However, in recent months,

Figure 3

Performance of the DAX against the FTSE 100



even news about structural reform in Euroland has failed to lift the currency. For example, news of a proposed reform of corporate taxation on 23 December 1999 is said to have boosted the DAX by around 4½% on the day (see, eg The Financial Times, 24 December). However, the euro-dollar exchange rate barely moved in reaction to that news.[6]

Hence, to summarise, I think that one can "explain" a significant proportion of the rise in sterling vs the DM from its mid-1995 levels of around DM2.20. Purchasing power

[5] The German market has outperformed on both, a local currency and a common currency basis.
[6] The euro was up around 0.25%, well within the average normal daily levels of volatility.

parity considerations, the superior supply-side performance of the UK and the reforms in the macroeconomic framework have all probably played a role. However, I have argued that the rise of sterling above DM3 is much more difficult to explain in terms of the underlying economic fundamentals. Moreover, the fact that the euro has, sometimes, failed to respond to news about structural reform in Euroland does suggest that it has, to some extent, acquired a "life of its own".

3 PROSPECTS FOR THE £-DM EXCHANGE RATE

If one updates the econometric equation used in my September 1999 speech to incorporate recent developments, it suggest that, on the assumption of unchanged macroeconomic conditions (eg constant relative interest rates, equity prices, etc) the pound might depreciate to around DM2.95 in a year or so. This is because the pound is significantly overvalued against the DM on a PPP basis, and also because the German stock market has outperformed the UK stock market by a considerable amount in recent months.

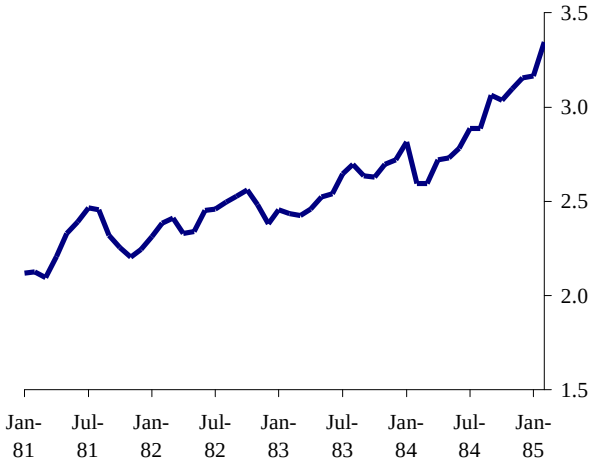
Of course, our model does not incorporate the possibility that the pound deserves to be re-rated because of the improvement in the macroeconomic framework in the UK. Also, the assumption of constant relative interest rates might not be valid as the pound falls. Specifically, if the pound were to fall for reasons which had no offsetting impact on domestically generated inflationary pressures, it is then plausible that UK interest rates would have to rise. Hence, the pound might fall by less than our model implies. On the other hand, other events (eg a significant fall in global equity markets) could (as discussed in Wadhwani (1999)), drive the pound significantly lower. Although sterling does look "overvalued" against the DM, this is not true versus the US dollar (currently, around 1.4750). Hence, it would be reasonable to expect further, significant weakness of sterling versus the euro, but not the US dollar.

Although we have argued that the pound is likely to depreciate against the euro over the next year, one should recognise the fact that exchange rate overshoots can last longer than one thinks. For example, many economists predicted a fall in the US dollar from early 1984 onwards, as it had already risen significantly since 1981, and yet, it rose almost 30% between March 1984 and February 1985 (see Figure 4). However, periods

of persistent overvaluation are costly and may be associated with a permanent loss of capacity. Export markets lost when the exchange rate is overvalued are difficult to re-enter even when the exchange rate has come down again. Hence, it is not surprising that many commentators and people from industry that we meet ask the MPC to 'do something' about the exchange rate. What can we do?

Figure 4

$/DM exchange rate



4 WHAT CAN THE MPC DO?

4.1 SOME THINGS THAT WE SHOULD NOT DO

First, let me reject some proposed solutions that would, in my opinion, be damaging and are, in any case, inconsistent with the MPC's remit. Some have suggested that a little more inflation would not be overly worrying, and so we could increase the level of the inflation target from, say, 2½% to something a little higher.[7] That would be a mistake. In recent years, inflation expectations have come down significantly in this country, and these are gains that are worth preserving. Allowing a 'little more inflation' now would be perceived as the thin end of a wedge and could be hugely damaging to the credibility of the new monetary framework in the UK, and long-term interest rates would almost certainly rise.

[7] Of course, the choice of the inflation target is, in any case, a matter for the Chancellor, not the MPC.

Alternatively, others have suggested that we have an exchange rate target as well as an inflation target. Again, I think that would be a mistake. We have but one main policy instrument – the short-term interest rate.[8] Obviously, we could not achieve both targets simultaneously. In the current conjuncture, this would increase inflation expectations and thereby be damaging.

Therefore, I explore some alternative policies in the context of the MPC's remit below.

4.2 INCORPORATING ASSET PRICE MISALIGNMENTS WITHIN AN INFLATION-TARGETING FRAMEWORK

4.2.1 THEORETICAL CONSIDERATIONS

Recently, I had the privilege to be a part of a group of economists who were asked to write on how asset prices should affect central bank policy (see Cecchetti, Genberg, Lipsky and Wadhwani (2000)). We were a fairly diverse bunch, with my co-authors including the former Research Director of the New York Fed, a Swiss-based monetary economist and the chief economist of a leading Wall Street firm. We concluded that, when operating in an inflation-targeting regime, central banks could reduce the volatility of inflation around the target if they allowed the interest rate-setting decision to be influenced by, both, the prospective inflation forecast (say, 2 years out), and any obvious asset price misalignments. We presented some simulation results in two different macroeconomic models suggesting that such a policy rule would reduce inflation (and, usually output) variability as compared to a policy rule which merely reacted to a fixed-horizon inflation forecast. One of the models that we used for our simulations has, in the past, been used at the Bank of England to shed some light on the issue of the optimal forecast horizon (see Batini and Nelson (2000)).[9]

Our proposal is wholly consistent with the remit for the MPC, where the Chancellor has defined price stability as a target for RPIX of 2½%, and where "the inflation target is

[8] We may, occasionally use foreign exchange intervention, which potentially gives us an additional policy instrument. However, as I argue below, this is an instrument to be used judiciously and sparingly.
[9] I am grateful to Nicoletta Batini of the Bank of England for running some simulations on the Batini-Nelson model.

2½% at all times" (emphasis added – see the Chancellor's letter to the Governor, 3 June 1998). Hence, the MPC should be concerned about deviations of inflation from target at all time-horizons, not just 2 years ahead, which is the perception of some market participants. I would argue that looking at asset price misalignments as well as our 2 year-ahead inflation forecast might help the MPC fulfill the Chancellor's remit more effectively than just looking at inflation forecasts 18-24 months out. Note that, although, there is no mechanical link between 2 year-ahead inflation forecasts and the voting behaviour of the MPC, most market participants perceive the 2 year-ahead inflation forecast as playing a very important role in the final decision. As my colleague Goodhart (2000) points out, many outside observers have noted that all the fan charts for inflation published since the MPC was established have shown inflation very close to target at the terminal date, but deviating by more in the preceding quarters. Goodhart concludes that "The implication of this would seem to be that a horizon of 18 to 24 months is also the policy horizon of the MPC." (page 7)

A purist might argue that the central bank should really look at inflation forecasts at several (all) future time periods, and set the interest rate so as to achieve the smoothest path consistent with hitting the pre-specified target on average. While in principle correct, such a procedure is, however, much too ambitious given the uncertainty related to the time lags in the effects of policies and shocks in general. Moreover, such a policy might not be easy to implement. As Kazuo Ueda, member of the Bank of Japan Policy Board said in his contribution to the conference at which our report was presented, a central bank that was looking at inflation forecasts 5-10 years out would have been raising interest rates in 1987-88 in Japan. However, given that the central bank was focussed on inflation only 1-2 years out, it was much more difficult to justify increasing interest rates. Our proposal for incorporating asset price misalignments can

be interpreted as an alternative way of allowing for considerations relating to longer time-horizons.[10]

A second way to rationalise our recommended policy rule is that in an uncertain world where central banks necessarily operate on the basis of rather limited knowledge about some of the crucial variables (eg the size of the output gap), asset price misalignments can, sometimes, convey information that is not necessarily available in the inflation forecast. For example, as Ueda emphasises, inflation was low in Japan during the 1986- 89 period, and estimates of total factor productivity growth had risen (see also Yamaguchi (1999)). Indeed, as Ueda points out, the IMF said as late as February 1989 that there was no inflationary threat in Japan. Yet, if the framework had explicitly allowed for asset price misalignments, monetary policy would have been tighter than what was implied by just looking at a near-term inflation forecast based on what turned out to be an over-optimistic view of the likely growth rate of potential output. This is a fairly general point. Financial market prices are typically based on an implicit forecast of the economy. If the central bank's view is that the market's forecast might change (because it is wrong now), then, the effects of this revision should impact policy-making today.

4.2.2 THE CURRENT CONJUNCTURE IN THE UK

In the current conjuncture in the UK, where we have an "overvalued" exchange rate, the aforementioned analysis would suggest that interest rates should be held a little lower than would be necessary to hit the inflation target two years out. The advantages of this stance would include the possibility that by keeping interest rates lower than they would otherwise be, the level of the pound is also likely to be lower than it would otherwise be. This would have the effect of reducing the size of the inflation undershoot now. Moreover, if the pound overshoots its equilibrium level by less now,

[10] An alternative justification for our procedures is to recognise that, of course, in conventional macro-models, once one allows for either non-linearities in the model, or for non-additive uncertainty, then, the conventional theoretical argument for inflation forecast-targeting is no longer valid (see eg Svensson (1999)). In that particular case, policy should be set by looking at the forecast of the entire distribution of possible outcomes rather than just a point forecast. Once again, looking at asset price misalignments might be thought of as providing information about the distribution of possible outcomes over and above looking at the forecast of the mean outcome for inflation. At the Bank, we already do look at our fan chart, but given the other difficulties associated with that, looking at asset price misalignments might be a reasonable simple alternative.

this reduces the size of the inflationary shock and the corresponding possible inflation overshoot associated with the likely fall of the pound at some uncertain date in the future. Also, if a lower level of the pound now reduces the number of firms that go out of business because of an "overvalued" exchange rate (ie firms that would be perfectly viable at the equilibrium exchange rate), the higher level of capacity of the economy is also likely to reduce the size of any inflationary overshoot that might follow a fall in the pound .

Hence, I would argue that in the current conjuncture, if one wants to reduce the average deviation of inflation from target,[11] which, after all, is more consistent with the MPC's remit of trying to hit the inflation target "at all times" than a policy that is tied to the 2-year horizon, then an interest rate which is a little lower than what is necessary to hit 2½% on our modal projection in 2 years is likely to do it. This is because the reduced inflation undershoot in the near-term and the reduced inflation overshoot when the pound falls from a less elevated level will easily more than offset the modest deviation from target 2 years out in terms of an objective function that weights deviations from target at all time-horizons equally.

Note that this policy recommendation contrasts sharply with the view that, in the current conjuncture, interest rates should be higher than is necessary to hit the inflation target in 2 years in order to prepare for sterling's fall. Currently, I disagree with this prescription because the higher interest rates would not only exacerbate the inflation undershoot now, but could end up by increasing the degree of inflation overshoot later by increasing, both, the likely size and the probability of the pound eventually collapsing, by taking it up to even more overvalued levels first.

There is also another important reason as to why it would be a mistake to raise interest rates pre-emptively in order to slow domestic demand growth now in order to better prepare the economy for a likely fall in sterling. It is the conventional argument that whether or not the MPC actually responds to a fall in the pound by raising interest rates surely depends on why the pound falls. If, for example, global equity markets were to tumble from their current, overvalued levels, then, it is likely that the US dollar would

[11] As measured in absolute value terms, or, alternatively, as squared deviations.

also fall against the euro and take the pound with it (see also Wadhwani (1999) for some empirical evidence on this linkage). Of course, a significant fall in global equity markets would make the MPC less likely to raise interest rates, notwithstanding the effect on sterling.

To take another example, suppose that the level of the sterling-mark exchange rate is, other things being equal, associated with the relative growth rates of the two economies. If, hypothetically, sterling falls because the UK economy slows autonomously, there might once again, be no need to raise interest rates. In both cases, there would have been no need to "prepare" the economy for sterling's fall. Hence, in this case, what might appear to be a prudent, pre-emptive policy might actually lead to over-kill.

Of course, it is important to incorporate misalignments in all asset markets into our decision. Some have argued (see, eg Yamaguchi (1999)) that, perhaps excessive attention was paid to the strong yen by Japanese monetary policy-makers in 1986-88. Arguably, had they looked at misalignments in the land and equity markets at the same time, monetary policy would probably have been tighter.

Consequently, in focussing on the exchange rate misalignment in the discussion above, I am implicitly making a judgment that, currently, the misalignments in the housing and equity markets are quantitatively less important for interest rate-setting. Of course, this could change. The fall in sterling-mark from DM3.44 to DM3.17 in recent weeks has already significantly reduced the size of the FX misalignment. I can certainly envisage circumstances where, hypothetically, I might be more worried about a house price misalignment than a FX bubble. In that case, interest rates would have to be a little higher than what would be needed to achieve the 2 year-ahead inflation forecast. Note that in forming my judgment that the misalignment in the foreign exchange market is more important at the moment, I am not only looking at the degree of misalignments in the various asset markets, but I am also influenced by the fact that a 1% move in the exchange rate has a much larger effect on inflation than a 1% move in the price of either equities or houses.

I should emphasise that the "third way" solution that I have proposed above does not involve having an exchange rate target. Price stability is, still, as per the remit, the

paramount consideration. The recommended policy does not set out to prick the exchange rate bubble. It merely contends that in the presence of a bubble, interest rate policy should recognise the presence of such a misalignment, and that interest rates should be set such that the volatility of inflation is reduced. Hence, the proposal is entirely consistent with the notion of using one instrument for one target – only that the target is the likely volatility of inflation around the 2½% level, instead of being seen as largely focussed on the 2 year-ahead inflation forecast. Although the policy guide is not designed to prick bubbles, if market participants knew that the central bank modified interest rates in response to asset price misalignments, then, bubbles would, plausibly be less likely to occur. This is likely to be a considerable benefit that would be associated with this proposal.

As is clear from this discussion, I think that there are powerful theoretical reasons for considering this alternative interest rate policy, though the fact that most market participants see the Bank as using an interest rate that feeds back off an inflation forecast 2 years or so out is a potential hurdle.

An important argument against the Bank changing its procedures is that the system is still new (it only dates back to May 1997), and a change could be damaging to credibility. As Sir Samuel Brittan (2000) argues about a change in the remit to incorporate exchange rate considerations:

> "I have to admit that, if made now, such a change would only increase the impression that the British adopt a bewildering succession of monetary objectives, only to drop then when the going gets rough."

Although Sir Samuel is talking about a change in remit, while I am discussing a change that might help the MPC fulfill its remit more effectively, the risk is clear. If, hypothetically, the MPC were to say that it took asset price misalignments into account separately, there is a clear risk that the markets would, in the current conjuncture, think that the Bank had gone soft on inflation (although this would be to wholly misunderstand the true situation).

On the other hand, as The Economist (2000a) reminds us when discussing the incorporation of asset prices in central bank policy,

> "That simple – but bad – policy rules can be easily explained does not make them better than good policy rules."

It seems to me that the MPC's interest rate reaction function can legitimately be made more complex (by, for example, including asset price misalignments), but it is of critical importance that any change be justified and explained ONLY with reference to doing a better job in terms of achieving price stability, ie the ultimate objective should remain simple and easy to explain.

Of course, another important reason for being cautious is that we do need more research in this area.

Also, there might be other ways of refining our operating procedures that might help us reduce the volatility of inflation. A theoretical example of this would be to produce a forecast that was conditioned on a prospective time-path of interest rates rather than the current conditioning assumption of constant interest rates. A discussion of that issue would detain us for too long tonight, but my colleague, Charles Goodhart (2000) has recently written an excellent paper on the practical difficulties surrounding this proposal.

Anyhow, over the next few months, the MPC will have to continue to make difficult decisions about how it incorporates asset price misalignments into its policy decision and, indeed, on how it communicates its policy formation process. I shall now turn to another possible 'solution' to our current predicament – direct intervention in the FX markets.

4.3 CAN FOREIGN EXCHANGE INTERVENTION HELP SOMETIMES?

In the UK, although the Government is responsible for the exchange rate regime, the Bank may use its own separate pool of exchange rate reserves "at its discretion to intervene in support of its monetary policy objective" (see the Chancellor's letter to the

Governor, 6 May 1997). In addition, of course, the Bank would act as an agent for intervention using the Government's foreign exchange reserves (action which would be automatically sterilised).

Although the issue of FX intervention has been debated at some MPC meetings, the committee has not, as yet, decided to intervene.

If one felt that sterilised intervention were effective,[12] then it could be a useful additional tool in the current conjuncture. Anything that pricked the "bubble" in sterling now would, both, reduce the current inflation undershoot, and prevent the UK economy from receiving a significant inflationary impulse at some future, uncertain, date when the inflation rate may well already be above target. Hence, I see no problem in justifying a successful FX intervention policy in terms of our monetary policy objective, as it is likely to make the prospective path of inflation smoother. In addition, given that our remit includes concerns about output and employment (of course, without prejudice to the price stability objective), FX intervention that prevented the "hysteresis" effects associated with a period of exchange rate overvaluation could also be interpreted as supportive of our monetary policy objective.

However, there are those who argue that sterilised intervention is unlikely to be effective because the likely size of any operation is small in relation to the daily volume of the FX market. In this context, I like the analogy for FX intervention used by Dominguez and Frankel (1993 – DF, hereafter). They liken the role of intervention to the role played by herd dogs among cattle. It is clear that, often, a few dogs, who, after all, are smaller in size and fewer in number than the steers, cannot always sustain control of the cattle. However, on those occasions when a stampede gets under way because each panicked steer is following its neighbours, the herd can potentially wander off quite far from their initially desired direction. The dogs can, sometimes be helpful in a stampede, for, by turning a few steers around, they might induce the herd to follow. It is interesting that DF claim, after careful analysis of the data, that

[12] And it is sterlised intervention that we are discussing, because unsterlised intervention is just equivalent to changing interest rates, which we discussed above.

> "Intervention does appear to have been instrumental in pricking the 1984-85 speculative bubble in the dollar." (p 139)

If one recognises the reality that the FX markets contain many participants who trade on the basis of past price momentum rather then the underlying economic fundamentals, it is easy to see how overshoots might occur. Those who trade currencies on the basis of economic fundamentals obviously have to take the activities of the momentum-based traders into account. Under some circumstances, FX intervention can give the fundamentals-based traders greater confidence to initiate positions during overshoots. Alternatively, in an overextended market, intervention can sometimes directly affect the behaviour of the momentum-based traders.[13]

In terms of the empirical evidence on the efficacy of FX intervention, DF concluded that "foreign exchange intervention can "work" if properly conceived and executed" (p 140). In a more recent study put out by the European Central Bank, Fatum (2000) argued that

> "… the results clearly suggested that intervention is indeed effective in terms of influencing the evolution of exchange rates over the short-run, …clear evidence was presented that coordinated intervention was more likely to be associated with a success." (p 18)

Of course, it is important to put these results in perspective. In the UK, we all remember the failed intervention operations associated with trying to stay within the ERM. Intervention is unlikely to work if it works in the opposite direction to the underlying economic fundamentals. For me, sterilised intervention is no magic weapon to wheel out generally. In my opinion, while intervention is a valuable weapon in the MPC's arsenal, it should only be used when the chances of success are relatively high, eg during periods of significant misalignment, provided some other conditions that are conducive to success are also met.

[13] See, eg Rosenberg (1996), pp 310-315 – a book written by a currency economist at a leading Wall Street firm. Academics call this the "noise trading" channel.

There are those who argue that successful FX intervention in the current conjuncture would be self-defeating because a lower pound would lead to higher interest rates which would take the pound back up (see, eg The Economist (2000b)).

Even putting aside the issue that there is no mechanical link between exchange rate movements and our interest rate decision, I do not believe that the pound would necessarily go up all the way back to the original position even if interest rates were raised. This is because I think that "hysteresis" effects in exchange rates can be important. When a market includes a significant number of momentum-based traders, demand curves can become perversely-sloped, and multiple equilibria are possible.[14] Under certain circumstances, FX intervention can cause a large move, while any subsequent interest rate rise might only have a modest effect.

Further, allowing an overshoot to continue can, of itself, begin to affect the "fundamentals", or at least, the market's perceptions of them. For example, allowing the euro to fall indefinitely might, rightly or wrongly, increase perceptions of the political risk associated with holding that currency. It is, therefore, a mistake to assume that the fundamentals are independent of the precise time-path of the moves of a currency. Intervention can, therefore, even affect the "fundamentals" by altering the time-path of a currency's movements.

For those who believe that FX intervention cannot work if monetary policy is not working in the same direction, just think back to the intervention to support the yen in 1998 (on June 17). Within a few hours, the currency moved from around Y144 to Y136 (a dollar depreciation of more than 5%), despite the fact that there was, then, no immediate prospect of the Japanese tightening monetary policy or the US easing monetary policy. It is possible that this particular intervention operation was successful because it was coordinated, with the US Fed coming in as well as the Bank of Japan.

[14] See Genotte and Leland (1990) for an application of such a model to the 1987 stock market crash.

Hence, to summarise, FX intervention is no panacea, and can easily fail. However, used judiciously, it can sometimes be helpful in terms of achieving our monetary policy objective.

4.4 EXCHANGE RATE FORECASTING PROCEDURES AND THE INTEREST RATE DECISION

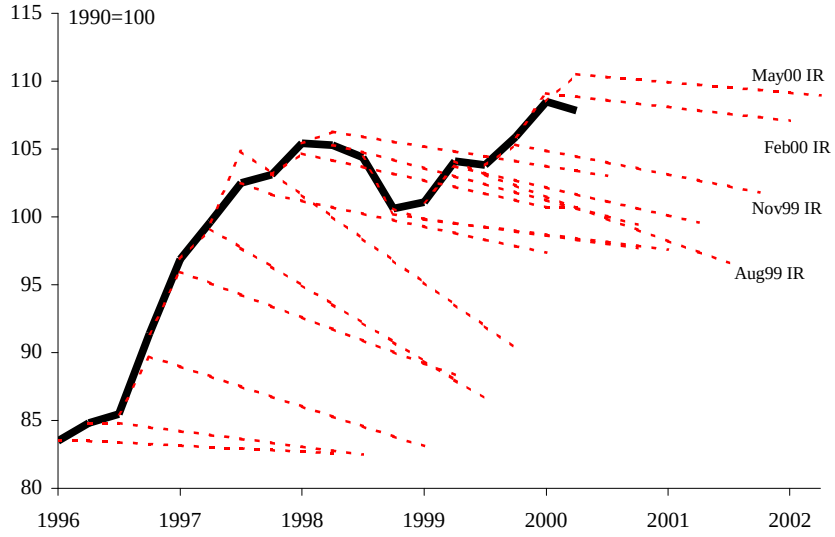
In a small, open economy like the UK, the exchange rate can have an important effect on the inflation forecast. For example, in the context of the core macro-econometric model used in the MPC's forecasting process, if one takes an exogenous fall in the exchange rate of 10% (i.e. a change that, hypothetically, occurs for reasons that are unrelated to the fundamentals), then, this would imply an increase of as much as 1.4 percentage points on RPIX inflation 2 years out. Hence, if one were to use the inflation forecast and the model mechanically (which the MPC does not), the implied impact on interest rates of a difference in the exchange rate forecast can be substantial.

Note also that, therefore, the more pessimistic that the MPC is about sterling, then, other things being equal, the higher that UK interest rates will be and consequently, the higher that sterling will be. Hence, those who desire sterling to be lower must actually want the MPC to expect sterling to remain high!

Now, at the Bank of England, the exchange rate has (until November 1999) been forecast using the assumption of the textbook uncovered interest parity (UIP, hereafter) hypothesis whereby the exchange rate is assumed to move in line with existing interest rate differentials. Note that during a period where the effective exchange rate has moved from around 83 in 1996 Q1, to about 113 in May 2000, at each stage during this near 35% appreciation of the currency, the Bank of England has tended to predict a depreciation (see Figure 5). A corollary of this is that, other things being equal, the Bank of England's inflation forecast has been persistently higher than it might have been under perfect foresight of the exchange rate and, therefore, there is a risk that interest rates have been set too high. Of course, as we discussed above, forecasting exchange rates is not easy.

Figure 5

Inflation Report ERI forecasts relative to outturn



We have linearly interpolated between the starting point and the 2yr ahead projection published in each IR.

A lesson that I draw from our difficulties with forecasting exchange rates is that one needs to be open-minded and willing to use a variety of different inputs and techniques to arrive at one's view about the likely evolution of the exchange rate. I think that it would be a mistake to stay within the straitjacket of academic, Rational Expectations-based models.

In terms of policy-setting, I wonder if a lesson is that, perhaps, one should not set interest rates on the assumption that exchange rates would fall, but, instead, react to the situation if and when the exchange rate falls. This is analogous to how the MPC treats equity prices, and it may well turn out to be appropriate here, though I regard it as very much the second-best alternative.

CONCLUSIONS

I have argued today that:

(i) Re-rating of sterling

Although there are some good reasons (eg supply-side reform, improved macroeconomic framework) for a re-rating of sterling versus the DM, and the "equilibrium" exchange is likely to be higher than the PPP level of around DM2.60 it is very difficult to justify the level of around DM3.40 that was achieved in early May.

(ii) Prospects for sterling

Given that sterling is now "overvalued" against the DM, it should plausibly decline over the next 2 years or so. However, while we wait for the FX market to 'get it right', otherwise viable businesses might face considerable difficulties, and the prospective volatility of inflation is likely to be high (and could go even higher). Therefore, it is legitimate to ask whether the MPC should 'do something' about the exchange rate misalignment.

(iii) Incorporating asset price misalignments within an inflation- targeting framework

The MPC has an inflation target, and given that we only have one instrument, I do not believe that we can try to target the exchange rate as well. Also, I certainly do not think that we should try to get the exchange rate down by aiming for a higher inflation rate, as high and variable inflation ultimately destroys jobs.

Therefore, I explored an alternative, whereby the MPC would focus on minimising the average volatility of inflation around the 2½% target at all times in the future, but, in order to achieve this goal, interest rates would respond to both, the 2 year-ahead inflation forecast and asset price misalignments. Of course, this would be entirely in line with the Chancellor's remit. In the current conjuncture, it would imply that interest rates be held modestly lower than what is necessary to hit the inflation target

2 years out, because such a policy would, by keeping the pound lower than it would otherwise be, both, reduce the size of the inflation undershoot now, and would plausibly reduce the likely size of the inflation overshoot that might occur if and when the pound falls eventually (because it would fall from a less elevated level). Hence, the average deviation (in absolute terms) of inflation from target would plausibly be reduced by the pursuit of such a policy. Although this alternative policy rule does not set out to prick asset price bubbles directly, it is plausible that the knowledge that the central bank would adjust interest rates in response to an asset price misalignment would, of itself, make the emergence of an asset price bubble less likely. This would represent an additional contribution to macroeconomic stability.

Although I believe there to be sound theoretical and practical reasons for adopting the above proposal, one potential hurdle is that market participants perceive us setting interest rates by feeding off an inflation forecast 2 years or so out. If, hypothetically, the MPC were to say that it took asset price misalignments into account separately, there is a clear risk that the markets would think that the Bank had gone soft on inflation. This would, of course, be to entirely misunderstand the true situation, as we would only be taking asset price misalignments in order to do a better job of achieving consumer price stability. Nevertheless, there is an important issue relating to communication here, and this will clearly be an important consideration in how this debate evolves.

(iv) The role of FX intervention

Sterilised intervention that helped prick the current sterling 'bubble' would, in the current conjuncture, make it easier to achieve (consumer) price stability in this country. Although there have been some spectacular instances where intervention has failed (eg trying to keep the UK within the ERM), there is empirical evidence that, under certain circumstances, sterilised intervention can be effective (especially when there is a 'bubble'). Consequently, I feel that, used judiciously, FX intervention could potentially be useful in terms of achieving our overall monetary policy objective, though it is no panacea. It would be important to only use it when the pre-conditions for likely success were in place.

Finally, I do not believe that one can offer any 'quick fix' to the problem of an overvalued exchange rate. Given that the MPC's remit is consumer price stability, there are clear limitations (for good reason) on what we can do. I have, though, discussed some suggestions with respect to our interest rate-setting procedures and FX intervention that might alleviate the extent of the pound's overvaluation and, thereby, help us to do a better job in terms of delivering consumer price stability.

BIBLIOGRAPHY

Batini, N and E Nelson (2000) "Optimal Horizons for Inflation Targeting", Bank of England Working Paper.

Brittan, Samuel (2000) "Beware the Politics of Sterling", The Financial Times, 13 April.

Cecchetti, S, H Genberg, J Lipsky and S Wadhwani (2000) "Asset Prices and Central Bank Policy", ICMB/CEPR special paper, forthcoming.

Dominguez, K and J Frankel (1993) "Does Foreign Exchange Intervention Work?", Institute for International Economics, Washington DC.

The Economist (2000a) "Central Banks and Asset Prices", 13-19 May.

The Economist (2000b) "Rescuing the euro", 13-19 May.

Fatum, Rasmus (2000) "On the Effectiveness of Sterlised Foreign Exchange Intervention", ECB Working Paper No10.

Froot, K A and R H Thaler (1990) "Anomalies: Foreign Exchange", Journal of Economic Perspectives, Vol 4, No 3, Summer, pp 179-192.

Genotte, G and H Leland (1990) "Market Liquidity, Hedging and Crashes", The American Economic Review, December.

Goodhart, C A E (2000) "Monetary Transmission Lags and the Formulation of the Policy Decision on Interest Rates", Bank of England, mimeo.

Rosenberg, Michael R (1996) "Currency Forecasting", Irwin, Chicago.

Svensson, Lars (1999) "Price Stability as a Target for Monetary Policy: Defining and Maintaining Price Stability", IIES, Stockholm, mimeo.

Wadhwani, Sushil B (1996) "Sterling work for Labour", New Economy, pp 138-142.

Wadhwani, Sushil B (1999) "On Sterling's Puzzling Behaviour", BEQB, November, pp 416-427.

Wren-Lewis, Simon and Rebecca L Driver (1998) "Real Exchange Rates for the Year 2000", Institute for International Economics, Washington DC.

Yamaguchi, Yutaka (1999) "Asset Prices and Monetary Policy: Japan's Experience", Remarks at Symposium sponsored by the Federal Reserve Bank of Kansas, August.