EMU or Ostrich?

A contribution to the assessment of the economic issues relevant to UK membership of the European single currency

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Introduction

It is too early to attempt a definitive judgement about the costs and benefits of participation in the Euro-zone for EMU members, or about the costs and benefits for the UK of remaining outside EMU.[1] The 'irrevocable' locking together of the EMU currencies became effective on January 1, 1999, and the introduction of Euro notes and coin is barely a year old. Unfortunately, we cannot ask for a twenty year moratorium on our judgement. A decision on whether the UK should join EMU could be imminent.

From a technical point of view, the birth of the Euro has been a great success. There had been concerns (even confident predictions) that the fixing of the conversion rates would be precluded by massive last-minute speculative attacks. There were even benighted commentators who predicted a collapse, through a speculative shift out of lira and into the D-mark, between January 1, 1999 and the introduction of Euro coin and notes on January 1, 2002. Since January 1, 1999, the lira and the D-mark were just non-integer and therefore somewhat inconvenient denominations of the Euro. This channel for the collapse of EMU was therefore about as likely as a collapse of the UK monetary standard through a speculative shift out of £5 notes into £10 notes. The technical costs of the Euro's introduction appear to have been exaggerated to an extent similar to the non-event of Y2K. Clearing and settlement systems have worked virtually flawlessly. The introduction of the Euro notes and coins, possibly Europe's greatest peace-time logistic challenge, was an unqualified success. The Euro corporate debt markets have grown spectacularly. Monetary growth in the Euro area, which has consistently outstripped the forecasts of the ECB, is driven by strong demand for the currency.

However, the fact that the birth of the Euro was painless is no pointer to the odds that the Euro will have a long and successful life. While it is clear that of the fifteen current EU members, the ten smaller ones cannot individually be optimal currency areas, the issue is perhaps not as self-evident for Germany, the UK, France, Italy and Spain. In this note we look at the recent experience of the EU countries, both the 12 EMU members and the three EMU outsiders - the UK, Sweden and Denmark - to find patterns that may inform a preliminary judgement. With the short run of data, just over 4 years, on the full EMU experience, it is particularly difficult to disentangle transitional and long-term effects.

We shall focus on the implications of EMU membership for macroeconomic stability, leaving aside the microeconomic transaction cost savings and the benefits from increased competition, greater price transparency and financial market-deepening.

EMU is not just the adoption of a common currency. It comes with a wide range of other economic and political measures, practices and arrangements that will affect the economic performance of the Euro area and its constituent member states. Especially relevant for our purposes is the fact that the common currency comes bundled with the Stability and Growth Pact. The fiscal rules of this Pact are arbitrary and rigid in design as well as highly politicised in their implementation. They are therefore not

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[1] We refer to the UK being outside EMU or the UK not being a member of EMU as shorthand for the UK not having proceeded to the third and final phase of Economic and Monetary Union.

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credible.[2] While this is regrettable, we believe that the Pact will evolve from its poor beginnings into something that will enhance rather than hamper EMU-wide macroeconomic stability. Note also that, even outside EMU and without striving to meet the EMU membership conditions, the UK is subject to some of the key clauses of the Pact, notably the requirement that the general government budget be close to balance or in surplus over the medium term. The only way for the UK to escape all direct effects of the Pact would be to leave the European Union. The likelihood and speed of reform of the Pact towards something more robust, credible and stability-enhancing will be greater with the UK inside the EMU tent than outside it.

The legal framework governing monetary policy in the UK and the operating procedures of the Monetary Policy Committee (MPC) are, in most respects and on balance, superior to those of the European Central bank (ECB). The key distinctions concern first, the division of labour between the elected political authorities and the technocrats to whom monetary policy implementation has been delegated, and second, the openness, transparency and accountability of the two monetary authorities (see Buiter [1999a, b, c], Buiter and Sibert [2000] and Issing [1999]). These weaknesses of the ECB arrangements should not, however, present an insurmountable barrier to UK membership. In the four years since the birth of EMU, the ECB has shown itself willing and able to change its *modus operandi* when its shortcomings became apparent. Again, the UK will have a greater influence on the outcome of these Treaty revisions if it is viewed as 'pre-in' rather than 'out'.

1. Independent Monetary Policy Need Not Imply Higher Short-Term Exchange Rate Volatility

Have the Euro countries experienced a reduction in short-term exchange rate volatility relative to that experienced by the UK? If yes, is this a benefit from the Euro? The second question is pertinent, because a reduction in volatility is not a plus if observed volatility reflects the appropriate response of the exchange rate to news about fundamentals.

We believe that much of the short-term exchange rate volatility we observe does not represent optimal responses to fundamental shocks. The same also holds for more persistent, medium-term exchange rate misalignments. This belief is firmly based on research which has consistently shown that only a fraction of observed exchange rate volatility (even at frequencies as low as 1 year) can be explained by movements in fundamentals such as money supply shocks, productivity shocks etc. (e.g. Clarida and Gali [1994], Faust and Rogers [1999]). Socially costly movements of the exchange rate (or failures of the exchange rate to move when it should) could reflect flaws elsewhere in the economy, e.g. in product or labour markets. They also could be due to flaws in the operation of the foreign exchange markets themselves, e.g. herding behaviour, bandwagon effects, irrational exuberance and pathological despondence or panic. Even asset prices that efficiently aggregate all information held by market

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[2] In an interview with Le Monde on 18 October 2002, EU Commission President Romano Prodi said that the rules which govern the euro – the Stability and Growth Pact - are "stupid". His exact words were: "I know very well that the Stability Pact is stupid, like all decisions that are rigid." That same week, EU Trade Commissioner Pascal Lamy described the Pact as "medieval" and praised the economic framework that the United Kingdom has established.

participants do not provide the appropriate allocative signals for savers and investors if much of the information is rumour, tittle-tattle or complete nonsense (*vide* the tech boom of the second half of the 1990s).

Monetary union is likely to reduce not only excessive high-frequency volatility of the exchange rate, but also to reduce medium-term misalignments due to attempts by policy makers to manipulate the exchange rate, such as competitive devaluations.

The relevant summary measure of exchange rate volatility is the volatility of the effective exchange rate, which aggregates bilateral exchange rates using weights reflecting the size of the trade flows between countries. Table 1 shows the volatility of the nominal effective exchange rate for the Euro-area member countries and the three outsiders. The US is included as another reference point.

Table 1 here.
Volatility of Nominal Effective Exchange Rates

The volatility of the nominal effective exchange rate for Euro-area countries has decreased and is now at a relatively low level, significantly below that for the United States, Denmark and Sweden, and moderately below that for the UK.[3] However, the largest decline in volatility is registered by the UK. As EMU is not a monetary union containing all countries in the world other than the UK, it is not certain that joining EMU union will lower the volatility of the (global) effective exchange rate of sterling. If the covariance between the Sterling-Euro exchange rate and the effective exchange rate of Sterling vis-à-vis the world excluding EMU is negative and sufficiently large in magnitude, the volatility of Sterling's global effective exchange rate could in principle increase as a result of the UK joining EMU.[4]

Table 2 here
Volatility of Nominal USD Exchange Rates

Table 3 here
Volatility of Nominal ECU/Euro Exchange Rates

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[3] Germany's volatility, on our measure, was actually slightly higher than the UK's in 1999-2002.

[4] Let $\overline{e}$ denote the global effective exchange rate of sterling, e_1 the exchange rate of sterling with the Euro and e_2 the effective exchange rate of sterling with the non-EMU world, the USD rate, for simplicity. The weight of the Euro in the global effective exchange rate of Sterling is a. *Var* denotes the variance and *Cov* the covariance. Then

$Var(\overline{e}) = a^2 Var(e_1) + (1-a)^2 Var(e_2) + 2a(1-a)Cov(e_1, e_2)$. If Sterling joins EMU,

$Var(e_1) = Cov(e_1 e_2) = 0$. Sterling's global effective exchange rate will be more variable after joining

EMU if and only if $-Cov(e_1, e_2) > \dfrac{(1-a)^2}{2a(1-a)} Var(e_2)$.

As shown in Tables 2 and 3, the decline in the volatility of the nominal effective exchange rate for both Euro area members and Euro area outsiders is driven by a decline in volatility in the national exchange rate vis-à-vis the Euro despite increased volatility against the USD. While this is hardly surprising for the Euro area members, it is somewhat of a puzzle that the steepest decline in volatility against the Euro/Ecu is registered by the UK.

Any reduction in the volatility of nominal variables is unlikely to be of economic significance if it is not mirrored in comparable changes in the behaviour of real variables. The decline in volatility of the real exchange rate (we use the IMF's measure that adjusts the nominal effective rate for developments in relative unit labour costs), shown in Table 4, shows a similar pattern to that of the nominal exchange rate. At high frequencies, this is hardly surprising as it is well known that labour cost series are rather stable compared to exchange rate series. The magnitude of the decline in real exchange rate volatility is, however, somewhat larger that the decline in nominal exchange rate volatility both for the Euro area countries and for the three outsiders. The decline in the volatility of the real exchange rate observed for the EU is not a world-wide phenomenon, *vide* the rise in the volatility of the real exchange rate of the US over the period.

Table 4 here
Volatility of Real Effective Exchange Rates

High frequency exchange rate volatility, while of vital interest to those making a living trading in the foreign exchange markets and in the forex derivatives markets, does not appear to be of great significance to the behaviour of the real economy - trade flows, capital formation or consumption. In part this is because hedging instruments for short-term foreign exchange exposure are widely available and relatively cheap. The same cannot be said for medium-and long-term fluctuations in nominal exchange rates. The persistent misalignment of Sterling between 1997 and the middle of 2002 has caused costly imbalances in the real economy.

2. EMU Membership Does Not Produce Immediate Trade Performance Miracles

A common argument in favour of adopting the Euro is that the adoption of a common currency will lead to increased trade intensity (see Rose [1999, 2002], Frankel and Rose [2002] and Glick and Rose [2002]). The evidence on this issue for the Euro area (just three years of annual data) is mixed and, on balance, uninformative.[5]

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[5] The estimates of very large effects, produced by Rose using data on other monetary unions, are not credible (Rose [1999, 2002], Frankel and Rose [2002], Glick and Rose [2002]). There is a key 'omitted variables' problem in these studies. Countries that belong to a currency union are also likely to have harmonized laws and regulations pertaining to cross-border transactions within the union.. How is one to distinguish the effects on the progressive completion of the single market through the implementation of the Single European Act from that of adopting the Euro?

Just looking at the trade shares in GDP for the Euro area, shown in Table 5, it appears that the Euro has brought an increase in trade.[6] While the share of trade in GDP has remained roughly constant for the United States and the UK between 1998 and 2001, it has increased significantly for the Euro area in the same period. However, the driving force behind this increase is likely to be found in exchange rate movements rather than volume movements. The USD started to appreciate against the Euro in the last quarter of 1999. The appreciation of the USD against Sterling was less strong. This depreciation of the Euro was also a depreciation of the real exchange rate, an increase in the price of traded goods relative to non-traded goods. Even with constant volumes, this would raise the share of trade in GDP.

Table 5 here
Share of Trade in GDP

Our interpretation is supported by the behaviour of individual countries' trade measured as a share of total industrial country trade, shown in Table 6.

Table 6 here
Share of Trade in Total Industrial Country Trade

The share of the US in total industrial country trade is actually higher in 1999-2001 than it had been in 1996-1998 while the opposite holds for the Euro area as a whole. This is most likely at least partially explained by the higher real growth rate of the US compared to the Euro area as a whole. The UK also shows a small decline.

It is quite plausible that membership in EMU will, over time, raise trade with other member countries without any corresponding reduction in trade with countries outside EMU. It would be very surprising to find strong evidence of such a development in the first two or three years after the creation of EMU.

3. One Nominal Interest Rate – Many Real Interest Rates

Short-term nominal interest rates and long-term nominal interest rates have converged almost completely among EMU members. This is rather surprising, as the elimination of exchange rate risk does not at the same time eliminate sovereign default risk. One would expect sovereign default risk premium differentials to show up, especially in longer maturity sovereign debt yields, between the fiscally sound and the fiscally suspect EMU members.[7]

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[6] The trade share is calculated as (Imports + Exports)*100/GDP

[7] There are several candidate explanations for this absence of differential sovereign default risk premia among EMU members. The most comforting is that even the most highly indebted, deficit-encumbered and pension liability-burdened EMU member state is still well inside the safe zone as regards sovereign default risk. We believe this to be too optimistic. A second explanation is that the markets believe that, should an EMU member state be faced with significant default risk, there would be a bail-out either by the fiscal authorities of the other EMU members or by the ECB, and that this bail out would

Whatever the cause of the absence of substantial differences in sovereign default risk premia in EMU, the implication is that real interest rates will differ across EMU members whenever anticipated inflation rates differ. While long-run inflation expectations are difficult to pin down, realised inflation rates can be combined with short-term nominal interest rates to calculate ex-post short-term real interest rates. Table 7 below offers some illustrative numbers.

Table 7 here
Short-term Real Interest Rates

Short term (ex-post) real interest rates have moved quite differently across Euro area member states. Countries for which real interest rates have fallen most are typically those that, from an initial condition of lower than average real per capita income, have grown faster than the Euro area average and/or countries that had historically above-average inflation rates like Italy. In contrast, real interest rates have fallen less for the relatively rich countries that had a history of low inflation.

For both groups the change in short-term real interest rates is driven in part by the break in the monetary policy regime brought about by the coming of EMU: common nominal interest rates for all Euro area countries[8]. The fall in real interest rates for countries that traditionally had higher than average inflation rates is wholly expected as these countries are now able to borrow monetary credibility from the ECB. For them the fall in real rates was mainly due to the fall in nominal rates. For the richer countries with a history of low inflation (especially Germany and France), the small magnitude of decline in real interest rates reflects the absence of any decline in short nominal rates with the advent of EMU and lower inflation reflecting national cyclical developments.

The ECB faced the problem of every new kid in town: how to establish a reputation for being tough on inflation and on the causes of inflation. The inevitable consequence was a path of short nominal interest rates that was higher than would have been needed if the ECB had been able to start its life with a Bundesbank-like reputation. This upward bias in short-term nominal (and real) interest rates will disappear as the ECB reaps the returns to earlier reputational investment.

Divergence among national real interest rates under a common currency is one of the mechanisms through which nations adjust to asymmetric initial conditions, asymmetric shocks and asymmetric transmission of common shocks due to differences in economic structure. It is encouraging that differential national rates of

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safeguard creditor interests. The third explanation is that there has been no sovereign debt default by a current EMU member since 1948, when Germany (then West Germany) restructured its outstanding public debt. Consequently, market players with no sense of history, for whom the long run is the end of the trading day, simply cannot conceive of a sovereign default by an EMU member state. We fear that this uninformed myopia theory may well be part of the explanation.

[8] The ECB started operating on July 1, 1998 and most of the short nominal interest rate convergence occurred before the official start of EMU on January 1, 1999.

price and unit cost inflation can be observed to be at work in the Euro area while the ECB ensures a low average inflation rate for the Euro area as a whole.

Changes in real interest rates can be associated with significant swings in asset prices. So can changes in nominal interest rates if there is imperfect indexation or inflation illusion in financial markets (including housing and mortgage markets). The effect of short nominal interest rates on key asset prices, especially the exchange rate (when it floats), the stock market and the housing market is, however very hard to pin down with any degree of precision, even *ex-post*. During the three years that one of us served on the Monetary Policy Committee, the UK exchange rate behaved rather like a rogue elephant, going its own way regardless of the behaviour of nominal interest rates, empirical proxies for risk premia and other observable fundamentals.

Ireland's housing boom following EMU membership has been attributed to it joining at too competitive an exchange rate and experiencing low real interest rates, courtesy of the low EMU-side nominal rates and the relatively high Irish rate of inflation. No doubt these factors played a role, but it should be noted that the UK too experienced (and still experiences in January 2003) a housing boom (bubble) despite what until recently could only be described as a very strong (if not overvalued) currency and moderate short real interest rates.[9]

4. The Cost of Entering EMU at the Wrong Rate

It is hard to disagree with the proposition that several of the current EMU members locked into the Euro at the wrong parity/conversion rate – a value different from its fundamental equilibrium value. The D-Mark was almost surely overvalued and the Irish Punt undervalued on December 31, 1998, just to name the two most obvious examples. However, this is not the same as saying that we believe that the German exchange rate would have necessarily depreciated against, say, the Dutch Gulden if the two countries had not joined the EMU but floated instead. The fundamental equilibrium exchange rate need not be the market equilibrium exchange rate established by flawed international financial markets under a free float.

As we are all Keynesians now (if we were not, the nominal exchange rate would be a matter of supreme indifference), adjusting the terms of trade and/or the real exchange rate through differential national price or cost inflation rates rather than through adjustment in the nominal exchange rate can involve transitional costs, because of nominal rigidities in price and cost behaviour.

Against this, one should not underestimate the speed with which realistic differential national rates of price or cost inflation can change international competitive positions. Also, changes in real competitiveness achieved through variations in a market-

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[9] Whether cuts in short nominal interest rates can cause or contribute to irrational exuberance and whether increases in short nominal rates can puncture asset bubbles is an open and virtually unanswerable question. *A priori*, it is hard to see why a phenomenon that is, by definition, not driven by fundamentals could be managed (or at least killed) by changes in one of the fundamentals – the short nominal rate of interest. It may be that the monetary authorities only have open mouth operations as an instrument for addressing even obvious and extreme asset price bubbles and unsustainable credit booms.

determined (floating) nominal exchange rate may be ephemeral, especially when the degree of capital mobility is high, while those achieved at a fixed exchange rate are more likely to stick.

While Ireland joined EMU in 1999 at a parity that was, in our view, undervalued, the resulting boom in real economy activity and asset prices gradually eroded this competitive advantage. In a common currency area, this is precisely the way market forces are supposed to bring about an adjustment in international competitiveness. It is effective and need not be associated with asset bubbles and crashes.[10]

Only the foolhardy would attempt to estimate values for the fundamental equilibrium real exchange rate. It is, however, instructive to look at changes in external real exchange rates prior to the introduction of the Euro and after. We consider three different measures of the real exchange rate, one based on GDP deflators (GDP), one based on consumer prices (CPI) and one based on relative unit labour costs in the business sector, the economy without the public sector (ULC). Graphs 1, 2 and 3 show the cumulative real appreciation of 14 EU members against Germany (the D-Mark prior to 1999 and the Euro thereafter) in the four years prior to the introduction of the Euro and the four years thereafter, for the three measures.

Graph 1 here
Real Appreciation Against Germany (CPI)

Graph 2 here
Real Appreciation Against Germany (GDP deflator)

Graph 3 here
Real Appreciation Against Germany (ULC)

Table 8 here
Competitive positions: relative unit labour costs

On the CPI and GDP deflator measures (Graphs 1 and 2), Germany has seen a real depreciation against almost all other Euro member countries in both time periods.[11] On average for the Euro area, the real appreciation vis-à-vis Germany on the CPI and GDP deflator measures was stronger prior to the introduction of the Euro than in the later period, supporting the view that the elimination of nominal exchange rate variability has slowed down real exchange rate adjustments; (it is also consistent with the view that actual rates had been close to their fundamental equilibrium rates just

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[10] In Ireland, there has been no collapse in house prices. House prices declined in the second half of 2001, but recovered quite briskly in 2002 and maintained their momentum into early 2003. Irish equity prices declined in line with stock markets elsewhere in Europe.
[11] The exceptions are France and Austria in the period since 1998 and Finland and Sweden in the period prior to 1998 if we use the CPI measure.

prior to 1999). The slowdown in the adjustment is smaller if we take the third measure, the real exchange rate based on unit labour costs in the business sector. All three measures considered so far tend to understate changes in international competitiveness since they include a large proportion of traded goods and services. Divergent relative unit labour costs can drive significant changes in the relative profitability of export-oriented and import-competing production even if these traded goods prices expressed in a common currency behave similarly.

That is why the behaviour of *effective* real exchanges rates based on relative unit labour costs in the manufacturing sector shown in Table 8 tells an interesting story. The 11.5 percent improvement in competitiveness of the Euro area as a whole between 1998 and 2000 is almost solely due to the weakening of the nominal effective exchange rate of the Euro. By 2002 the Euro area improvement in competitiveness since 1998 had been reduced to 5.8 percent. Over that same period, the percentage improvement in real competitiveness was 1.0 for Germany, 1.4 for Italy, 10.0 for France, 12.8 for Ireland and 14.7 for Austria. Belgium's competitiveness was constant, the Netherlands lost 3.6 percent, Spain 5.8 percent and Portugal 8.1 percent.

Given the big differences between some of these numbers we conclude that feasible price or cost inflation differentials among EMU members can generate appreciable changes in international competitiveness. Nominal rigidities do not appear to be insurmountable obstacles to the achievement of large and quite rapid changes in international relative costs with a common currency despite the low average price inflation rate pursued by the ECB (less than 2 percent per annum on the HICP index).

It is true that countries with floating exchange rates have seen the largest movements in competitiveness. The UK figures prominently among them. Among the 30 countries that the OECD provides relative unit labour costs data for, only the USA (during the 1980s) and Mexico (throughout the 80s and 90s) have seen swings in the real exchange rate comparable to those experienced by the UK.

We view these very large swings in the real exchange rate as a curse rather than a blessing. There are no conceivable developments in the fundamentals of the real economy that called for such huge swings in relative prices and costs. These episodes are evidence of the havoc financial asset markets can create when they go off on their periodic peregrinations into misplaced euphoria and unwarranted gloom. For the UK the exchange rate during the 1990s and until well into 2002 has been a source of competitive misalignment and persistent imbalances in the structures of production and demand.

5. EMU Membership is Compatible with Significant and Sustained Differences in National Real Growth Performance

The recent modest average real economic performance of the Euro area hides considerable differences in real economic performance among the individual EMU member states. Since the beginning of 1999, we have seen low growth in Germany and Italy, healthy growth in Spain and in Greece and reasonable growth in France. Opponents of UK participation in EMU observe these differences in real economic performance and question how a one-size-fits-all common monetary policy can

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accommodate such diverse real economic track records. For such statements to make any sense at all, two conditions must be satisfied. First, the differences in real economic performance in question must be cyclical rather than structural. Second, independent national monetary policies must be capable of effectively damping the national business cycle. The first of these conditions is only partly satisfied. The second is an illusion.

It is a positive finding for EMU that sustained differences in real economic growth can be accommodated within the framework of a common monetary policy. This is important because among the existing 12 EMU members (and the existing 15 EU members) there are at least three, Greece, Portugal and Spain, whose per capita incomes are still well below the EU average. Properly managed, these economies should, over time, converge to the per capita income levels of the leading EU members, through a process of catch-up growth.

Germany, on the other hand, is likely, without radical structural economic reform, to experience an extended period of growth at rates below the EMU average. This is partly due to the continuing burden of German unification. In addition, unresolved structural problems in the labour market, in product markets and in the banking sector will continue to be a drag on German economic performance.

While much of the divergent real economic performances of the EMU member states is structural, divergent cyclical behaviour also plays a part. To recognise the reality of the business cycle is not, however, the same as accepting the proposition that national monetary policy is a highly effective tool for managing the national business cycle. This monetary 'fine tuning fallacy' [12] is dangerous, because by inflating expectations about what monetary policy can deliver, it risks undermining support for the more limited but still vital role that monetary policy is uniquely capable of playing. Because of pervasive uncertainty about both the timing and magnitude of the impact of monetary policy on the real economy, there are tight limits on what monetary policy can do to dampen normal business cycle fluctuations. It can deliver price stability, that is, low inflation, over the medium and long term, and it sets a floor under real economic activity, that is, it can prevent major crises and deep recessions. To a first approximation, the contribution of monetary policy to the stabilisation of the real economy is not something separate from its contribution to medium-term price stability, but is derived from it.

6. Should Germany Rue its Loss of Monetary Independence?

How does the interest rate history generated by the ECB since 1999 compare with the sequence of interest rates that would have been chosen by the Bundesbank had Germany not been part of EMU? How much difference would this have made for inflation and the real economy? To answer the first question one has to specify what the exchange rate regime would have been in the counterfactual scenario. Following the ERM crisis of 1992-93 and before EMU, Germany was the centre country of ERM II, maintaining a target zone with the other, peripheral ERM members. This is a long way from a free float. In addition to the counterfactual exchange rate regime, one has

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[12] See Buiter [2000].

to specify the short nominal interest rate rule that would have been adopted by an independent Bundesbank.

A possible approach is to use estimates of reaction curves for the Bundesbank based on historical data (see e.g. Clarida and Gertler [1996]).[13] A detailed analysis by the OECD of Taylor rules concludes that, based on the Bundesbank's estimated reaction function, the ECB set interest rates slightly higher than the Bundesbank would have in 1999/2000, while in 2001 and the first half of 2002, ECB interest rates were at the lower end of the spectrum of hypothetical Bundesbank rates.

Graph 4 here
Taylor Rates and Actual Interest Rates

Showing that the Bundesbank would have chosen a different path of interest rates from that chosen by the ECB tells us nothing about how the German economy would have behaved under the counterfactual monetary rule (and a floating D-MARK). It is beyond the scope of this note to estimate and simulate a model of the German economy, so we cannot proceed further with this line of enquiry.

7. Conclusion

For the UK, whether to join or not to join EMU is, from a strictly economic point of view, not a life or death issue. Both the current monetary regime and membership in EMU provide viable options for the future. While we believe that the UK is too small and too open to trade and financial transactions to be an optimal currency area, it is closer to being one than Denmark and Sweden, the two very small and even more open EU members that, like the UK, have not yet moved to the third and final phase of EMU.[14] We believe that monetary independence does not, in practice, make it

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[13] This clearly involves some hand waving since the monetary transmission mechanism during the sample period used for the estimation of the reaction function is bound to be different from the transmission mechanism with a floating D-MARK. In general, different transmission mechanisms generate different reaction functions. For these and other reasons, the exercise of looking at Taylor rules based on historical Bundesbank data should have a health warning attached to it.

[14] The proper metric for here is *market power*. A small open economy is defined as an economy without power to influence prices in the world markets for internationally traded goods and services, or global economic activity. There are two key sets of international prices: the terms of trade (the relative price of imports and exports), and world asset prices (or the world rate of interest). The UK is a large economy if and to the extent it can influence its international terms of trade, the world rate of interest and global economic activity. The fact that the UK is the world's fourth or fifth largest economy is irrelevant. Rank does not matter, relative size does. A country could be the world's largest economy and still have no appreciable market power. Market power is determined by size relative to the market, and by the speed and ease with which competitors can enter and exit the market. According to World Bank data, the UK was, in 2000, the world's fourth largest economy, behind the USA, Japan and Germany, as measured by GNI, converted at market exchange rates. When measured at purchasing power parity (PPP) exchange rates, the UK moves to seventh place, now also preceded by China, India and France. Using current exchange rates, the UK accounted for 4.8 percent of world GNI in 2000. Using PPP exchange rates, the UK accounted for 3.2 percent of world GNI in 2000. For practical purposes, that makes the UK a small open economy. The only large national economy in the world is the USA. Similar conclusions apply to the UK's smallness in international financial markets. This is fully consistent with London being the financial capital of the world. The capacity to intermediate

easier to maintain or regain a competitive real exchange rate. A market-determined exchange rate can be misaligned for many years. Significant and appropriate changes in international competitiveness can be and are being achieved within EMU.

Independent monetary policy did not provide the UK with a tool to prevent or mitigate the imbalances in the structure of production and demand created by the persistent overvaluation of Sterling before 2002, the stock market bubble of the late 1990's and its collapse since 2000, or the housing bubble that continues even now.

Should the UK decide to enter EMU, it is key that she go in at the right exchange rate. Thanks to the strengthening of the Euro that began in 2002, the current Sterling-Euro rate is not the obstacle to entry that it would have been during the 1997-2001 period.[15] It now also seems likely that the European Commission and the Council will not require the UK to spend two years in the monetary and exchange rate limbo of an ERMII arrangement. As the purgatory of ERMII is at best unhelpful and at worst a serious risk to macroeconomic and financial stability, this removes an important obstacle to UK membership in EMU.

The medium and longer-terms costs to the UK of membership in EMU depend significantly on the way the rules of the Stability and Growth Pact and their implementation evolve. The current British fiscal framework, based on a cyclically adjusted Golden Rule for the general government deficit and a ceiling on the net general government debt to annual GDP ratio of 40 percent, while capable of improvement, is superior to that of the Pact as currently written and interpreted. Reform of the Pact towards greater flexibility, more consistent application and less politicised implementation is therefore a key element in the determination of the balance of pros and cons of Britain's adoption of the Euro.[16]

Long-run productivity growth and material well-being in the UK will continue to be 'made at home', regardless of whether the UK chooses to go in or stay out. There will be microeconomic efficiency gains if the UK adopts the Euro, gains that will dwarf the one-off 'vending machine costs' of switching to the Euro, but it is not obvious that these will take the form of a permanent growth rate effect on UK GDP rather than just a permanent level effect.[17]

Managing asymmetric shocks should not pose a serious problem, provided the Stability and Growth Pact is reformed appropriately. Changes in international relative prices and costs can be achieved through differential cost and price inflation rates. Such adjustments will be more gradual than might have been possible with a perfectly managed flexible nominal exchange rate. Since there is no such thing as a perfectly managed flexible nominal exchange rate, this is not a great loss in practice. Indeed, should the UK decide to join EMU, it is likely to be a net plus that the nominal

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huge volumes of financial transactions is not the same as the ability to exercise significant influence on the prices at which these transactions occur.

[15] On 29 January 2003, 1 Euro = 0.66 £.

[16] See e.g. Buiter [2003a,b] and Buiter and Grafe [2003a,b].

[17] It is not difficult to come up with endogenous growth models in which returns to augmentable capital are non-decreasing, or in which a higher rate of investment in R&D can have a permanent effect on total factor productivity growth and thus on GDP growth. The authors disagree on the real world relevance of such models, but agree that 4 years of data will not settle the issue.

exchange rate vis-a-vis a region that accounts for well over half her foreign trade will be firmly locked in place. With a high degree of international capital mobility and foreign exchange markets that are both technically highly efficient and often informationally and allocatively inefficient, the best exchange rate is a dead exchange rate[18].

When international competitiveness is driven mainly by an asset price sandwiched between two sticky national nominal price or cost indices for real goods and services, economic stability is likely to suffer. The relative price of real goods and services is too important to be driven largely by an asset price.[19] From this perspective it is regrettable that the non-European OECD countries, especially the US and Japan, will continue to float with respect to the Euro. Economic logic points towards a common currency for all countries linked by a high degree of cross-border capital mobility. Political logic points to the unsustainability of a common currency in the absence of common, supranational political institutions. This makes EMU a feasible currency union, but not a wider currency union involving EMU, the US and Japan. EMU is the best feasible approximation to an economically desirable but politically impossible monetary union among all advanced industrial countries.

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[18] A technically efficient financial market is one in which very large transactions can be conducted at very short notice and very low cost without moving the market price very much. It carries no implication that the market is informationally efficient in the strong, semi-strong or weak sense, let alone that the market provides the right signals for resource allocation decisions.

[19] The exchange rate is the key exception to the rule of thumb that *"the prices that move don't matter and the prices that matter don't move"*. Under a floating rate the exchange rate matters and moves a lot.

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Tables

Table 1:

Volatility of nominal effective exchange rates
(Standard Deviation normalised by the mean of monthly exchange rate

	Jul.1994-Apr. 98	Jan. 1999-Sept. 2002	Change
Austria	1.69	1.00	-0.70
Belgium	2.80	1.37	-1.43
Spain	2.51	1.32	-1.19
France	1.79	1.59	-0.20
Germany	3.27	1.97	-1.30
Italy	4.57	1.57	-3.00
Netherlands	3.01	1.58	-1.43
Average(In)	**2.81**	**1.48**	**-1.32**
United Kingdom	8.85	1.92	-6.94
Sweden	4.47	4.53	0.05
Denmark	2.03	1.62	-0.42
Average (Out)	**5.12**	**2.69**	**-2.43**
United States	**6.20**	**5.19**	**-1.01**

Note: Averages are unweighted.

Source: IFS

Table 2:

Volatility of USD exchange rates
(Standard Deviation normalised by the mean of monthly exchange rate

	Jul.1994-Apr. 98	Jan. 1999-Sept. 2002	Change
Austria	8.75	8.42	-0.33
Belgium	8.59	8.42	-0.17
Spain	8.08	8.42	0.34
France	7.52	8.42	0.90
Germany	8.74	8.42	-0.32
Italy	5.18	8.42	3.24
Netherlands	8.95	8.42	-0.52
Average(In)	**7.97**	**8.42**	**0.45**
United Kingdom	2.99	5.42	2.43
Sweden	6.48	9.85	3.37
Denmark	7.89	8.50	0.61
Average (Out)	**5.79**	**7.92**	**2.13**
United States			

Note: Averages are unweighted.

Source: IFS

Table 3

Volatility of exchange rates against Ecu/Euro

(Standard Deviation normalised by the mean of monthly exchange rate

	Jul.1994-Apr. 98	Jan. 1999-Sept. 2002	Change
Austria	2.09	0.00	-2.09
Belgium	2.74	0.00	-2.74
Spain	1.93	0.00	-1.93
France	0.91	0.00	-0.91
Germany	2.07	0.00	-2.07
Italy	4.51	0.00	-4.51
Netherlands	2.28	0.00	-2.28
Average(In)	**2.36**	**0.00**	**-2.36**
United Kingdom	9.24	3.63	-5.62
Sweden	4.60	4.15	-0.45
Denmark	1.32	0.15	-1.17
Average (Out)	**5.05**	**2.64**	**-2.41**
United States	**6.80**	**8.42**	**1.63**

Note: Averages are unweighted. The bilateral exchange rates against
the ECU are used for the earlier period.
Source: IFS

Table 4

Volatility of real effective exchange rates

(Standard Deviation normalised by the mean of monthly exchange rate

	Jul.1994-Apr. 98	Jan. 1999-Sept. 2002	Change
Austria	5.05	1.07	-3.98
Belgium	2.94	1.53	-1.41
Spain	1.58	1.71	0.14
France	3.18	2.25	-0.93
Germany	4.95	3.34	-1.61
Italy	6.01	2.01	-4.00
Netherlands	4.49	1.75	-2.74
Average(In)	**4.03**	**1.95**	**-2.08**
United Kingdom	12.20	3.09	-9.11
Sweden	4.70	5.06	0.36
Denmark	2.66	1.45	-1.20
Average (Out)	**6.52**	**3.20**	**-3.32**
United States	**6.92**	**7.70**	**0.78**

Note: Averages are unweighted.
Source: IFS

Table 5

Share of Trade in GDP (Percentage)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Austria	55.7	54.2	51.7	47.8	50.3	52.7	54.1	59.9	61.9	63.7	70.4	72.7
Belgium	na	na	na	111.2	116.1	121.1	125.5	134.1	135.2	136.7	159.0	160.1
Finland	39.1	36.2	41.4	48.1	52.7	52.3	53.1	56.4	58.3	57.1	65.5	61.9
France	37.0	36.6	35.3	32.4	34.7	36.4	36.6	39.9	40.9	41.2	46.4	44.8
Germany	50.2	44.6	40.7	37.2	38.9	40.2	41.2	45.3	47.3	48.2	55.8	57.0
Greece	33.6	33.8	32.7	31.7	30.5	32.1	33.5	32.1	32.8	31.1	35.2	33.7
Ireland	93.7	93.8	94.5	100.1	109.2	115.5	115.5	115.7	119.2	124.7	134.5	129.9
Italy	31.9	30.2	29.6	31.9	35.1	40.1	37.3	38.6	38.7	38.5	44.4	43.6
Luxembourg	129.0	124.9	112.8	103.7	101.0	96.6	92.9	92.8	96.1	95.0	97.5	97.8
Netherlands	87.2	86.0	81.9	80.9	84.3	89.9	91.8	98.8	98.8	97.8	109.3	106.9
Portugal	60.2	54.4	51.4	47.2	51.3	52.7	52.9	55.4	55.9	56.1	57.8	56.4
Spain	28.0	27.5	27.4	28.0	32.7	35.0	36.7	40.4	41.2	42.2	47.3	46.0
Euro Area	**41.8**	**39.6**	**37.8**	**40.9**	**43.8**	**46.5**	**46.8**	**50.5**	**51.8**	**52.4**	**59.8**	**59.4**
Denmark	50.5	51.0	51.8	48.8	50.3	52.6	51.7	54.3	53.9	53.3	58.1	58.1
Sweden	47.0	42.4	41.4	48.1	54.7	60.2	58.0	62.2	64.1	63.2	69.7	65.7
United Kingdom	41.2	38.1	38.2	40.2	41.2	44.7	46.2	44.2	41.2	40.1	42.7	41.4
EU without EMU	**43.1**	**40.1**	**40.1**	**42.3**	**44.2**	**48.0**	**48.7**	**47.7**	**45.3**	**44.3**	**47.5**	**45.7**
Japan	**17.1**	**15.8**	**15.1**	**13.8**	**14.0**	**14.7**	**16.2**	**17.6**	**17.0**	**16.2**	**18.0**	**18.1**
United States	**15.7**	**15.5**	**15.9**	**16.1**	**17.0**	**18.3**	**18.5**	**19.1**	**18.5**	**19.0**	**20.8**	**18.9**
Memorandum Item												
DM/$ exchange rate	1.49	1.52	1.61	1.73	1.55	1.43	1.55	1.79	1.67	1.95	2.1	2.22

Note: Trade for the Euro area is defined as the sum of imports and exports of individual countries, thus includes intra Euro area trade. Greece is included with the EMU area since 1999.
The DM/$ exchange rate is the Euro/$ exchange rate after 1999, multiplied by the Euro conversion rate of the DM.
Source: WEO

Table 6

Share of Trade in Total Trade among Industrial Countries (Percentage)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Austria	1.8	1.8	1.8	1.7	1.7	1.8	1.8	1.7	1.8	1.7	1.6	1.7
Belgium	na	na	na	4.7	4.7	4.9	4.8	4.5	4.6	4.5	4.4	4.6
Finland	1.1	0.9	0.8	0.8	0.9	1.0	1.0	0.9	1.0	1.0	1.0	0.9
France	9.0	8.8	8.9	8.0	8.1	8.2	8.0	7.7	8.0	7.8	7.3	7.3
Germany	15.0	15.6	15.4	14.1	14.0	14.3	13.8	13.2	13.7	13.2	12.6	13.2
Greece	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.5	0.5	0.5	0.5	0.5
Ireland	0.9	0.9	0.9	1.0	1.0	1.1	1.2	1.3	1.4	1.5	1.5	1.7
Italy	7.0	6.9	6.8	6.2	6.2	6.4	6.5	6.2	6.3	5.9	5.7	5.9
Luxembourg	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Netherlands	5.1	5.1	5.1	5.1	5.1	5.4	5.3	5.1	5.3	5.1	4.9	5.1
Portugal	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.7	0.8
Spain	2.8	3.0	3.1	2.7	2.8	3.0	3.1	3.1	3.3	3.3	3.2	3.4
Euro Area	**na**	**na**	**na**	**45.9**	**46.1**	**47.6**	**47.0**	**45.3**	**47.0**	**45.7**	**43.6**	**45.4**
Denmark	1.3	1.3	1.4	1.3	1.3	1.4	1.3	1.3	1.3	1.2	1.1	1.2
Sweden	2.2	2.1	2.0	1.8	1.9	2.1	2.1	2.0	2.1	2.0	1.9	1.7
United Kingdom	8.1	7.8	7.7	7.5	7.4	7.3	7.7	8.1	7.9	7.6	7.4	7.3
EU without EMU	**11.7**	**11.2**	**11.1**	**10.6**	**10.6**	**10.8**	**11.2**	**11.4**	**11.3**	**10.8**	**10.4**	**10.2**
Japan	**10.4**	**10.8**	**10.7**	**11.7**	**11.6**	**11.3**	**10.7**	**10.4**	**9.0**	**9.5**	**10.3**	**9.4**
United States	**18.1**	**18.3**	**18.7**	**20.7**	**20.7**	**19.6**	**20.3**	**21.8**	**22.0**	**23.0**	**24.5**	**23.9**
Memorandum Item												
DM/$ exchange rate	1.49	1.52	1.61	1.73	1.55	1.43	1.55	1.79	1.67	1.95	2.1	2.22

Note: Trade for the Euro area is defined as the sum of imports and exports of individual countries, thus includes intra Euro area trade. Greece is included in the Euro Area since 1999.
The DM/$ exchange rate is the Euro/$ exchange rate after 1999, multiplied by the Euro conversion rate of the DM.
Source: WEO

Table 7

Short term real interest rates			
annual percentage	Average 1995-1998	Average 1999-2002	Change
Austria	2.4	2.1	-0.3
Belgium	2.4	1.7	-0.6
Finland	3.0	1.5	-1.5
France	2.9	2.1	-0.7
Germany	2.4	2.0	-0.4
Greece	5.5	2.4	-3.1
Ireland	3.7	-0.4	-4.1
Italy	4.3	1.4	-2.9
Luxembourg	2.4	1.4	-1.0
Netherlands	1.8	0.3	-1.5
Portugal	3.9	0.5	-3.4
Spain	3.6	0.7	-2.9
Average (In)	3.2	1.3	-1.9
Denmark	2.3	1.5	-0.8
Sweden	4.8	2.3	-2.5
United Kingdom	3.8	3.0	-0.9
Average (Out)	3.7	2.2	-1.4
Japan	0.2	0.9	0.7
United States	3.2	1.8	-1.4

Note: Three-month money market rates where available,

or rates on proximately similar financial instruments.

Interest rates are deflated by the cpi inflation fo r the same year

Source: OECD.

Table 8

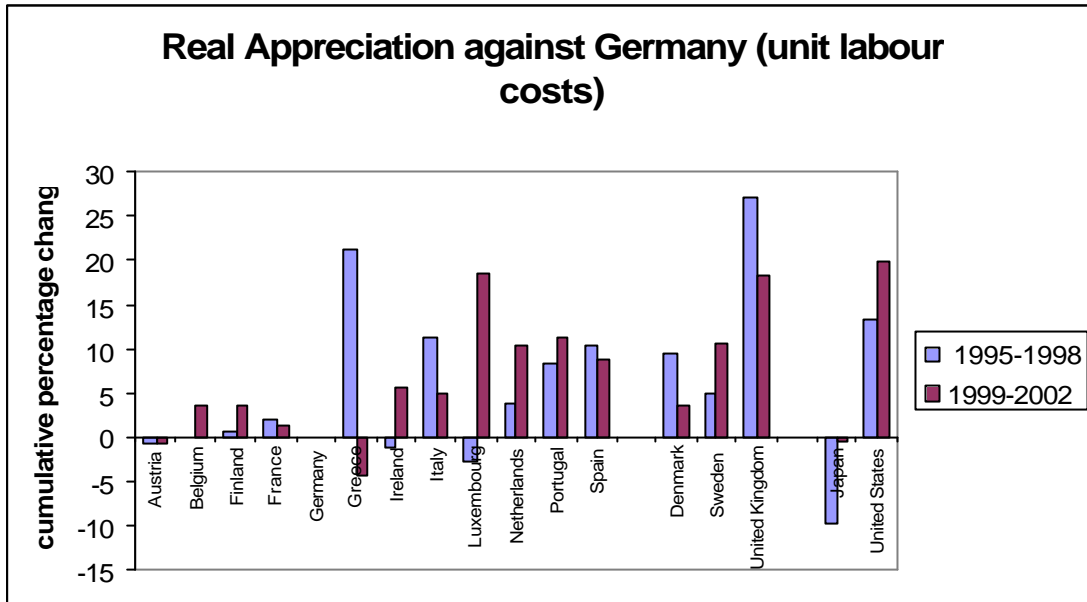| Competitive positions: relative unit labour costs Indices, 1995 = 100 | | | | | | | | | | | |
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Austria [a]	104.2	102.1	103.6	105.8	98.9	100.0	102.0	92.0	81.9	78.9	72.0	70.4
Belgium	97.4	97.2	97.3	96.4	96.9	100.0	94.6	87.9	89.0	89.1	85.4	87.0
Finland [b]	145.5	139.2	108.2	82.3	87.2	100.0	93.8	88.1	88.9	87.0	77.3	80.7
France	105.6	100.9	99.0	101.5	100.4	100.0	99.6	90.8	87.1	84.3	77.8	77.8
Germany	82.9	83.6	89.8	91.5	92.6	100.0	97.3	92.9	94.7	95.9	93.1	92.6
Greece	106.3	97.8	94.3	88.2	92.1	100.0	102.6	105.9	101.1	102.7	98.2	98.3
Ireland [c]	133.0	126.8	123.0	113.0	109.0	100.0	99.0	91.9	85.2	80.8	73.7	71.5
Italy	129.9	133.1	131.3	120.0	114.1	100.0	111.8	114.1	120.2	120.9	113.4	114.9
Luxembourg	104.4	102.1	102.0	100.9	99.4	100.0	94.8	94.1	92.5	88.0	87.1	88.7
Netherlands	102.6	99.4	102.6	101.6	97.6	100.0	96.6	93.9	97.8	96.7	93.2	96.8
Portugal	89.8	91.8	100.7	91.5	95.0	100.0	91.3	92.9	94.6	96.9	97.8	100.3
Spain	108.7	109.7	112.6	102.4	99.2	100.0	104.3	103.8	106.4	106.3	106.9	110.4
Euro area	101.1	98.7	103.2	99.3	96.8	100.0	100.3	90.7	92.1	90.5	81.5	83.2
Denmark	97.8	93.8	96.3	101.2	96.9	100.0	104.0	98.5	101.8	103.5	102.8	104.8
Sweden	145.8	148.3	145.5	103.9	97.2	100.0	113.1	108.7	105.8	104.0	102.1	93.7
United Kingdom	116.7	120.0	111.2	98.3	100.6	100.0	103.1	125.4	137.8	142.2	144.4	142.6
United States	115.0	112.3	108.2	106.6	105.6	100.0	101.1	106.5	114.8	111.1	115.5	118.0
Japan	60.9	66.2	73.4	89.1	98.6	100.0	84.5	80.6	87.5	98.1	101.2	97.4

Source: OECD.

Note: Competitiveness-weighted relative unit labour costs in the manufactoring sector in dollar terms.
 Competitiveness weights take into account the structure of competition in both export and import markets of the
 manufacturing sector of 42 countries. An increase in the index indicates a real effective appreciation and a corresponding
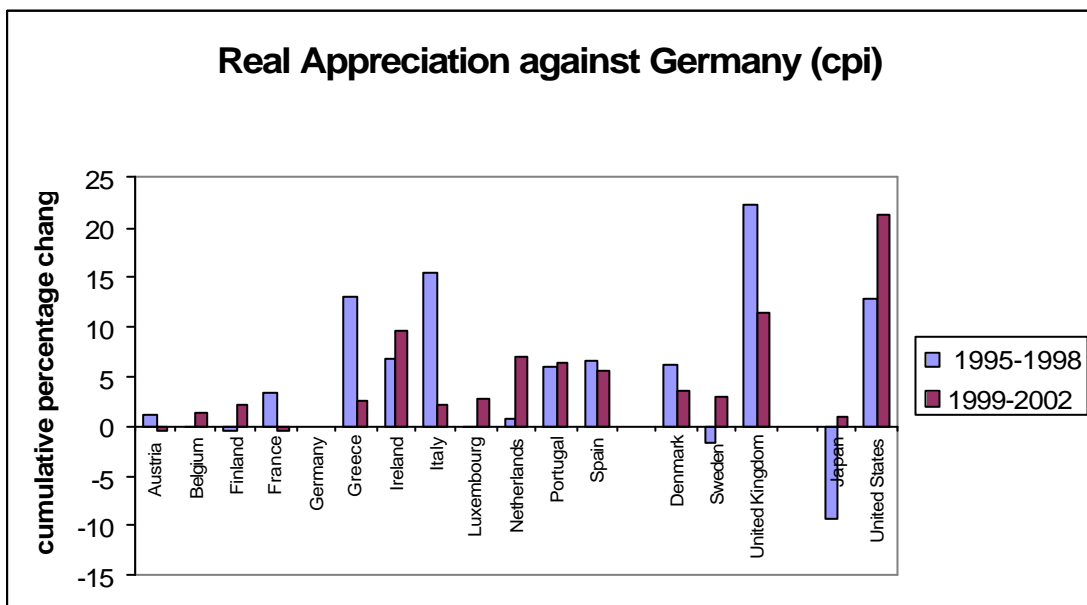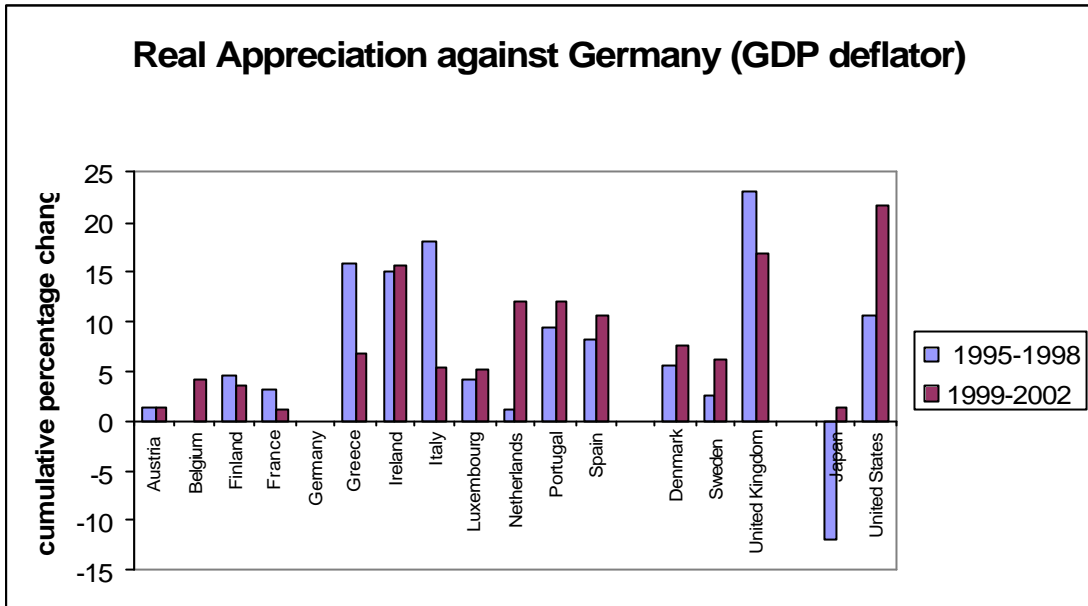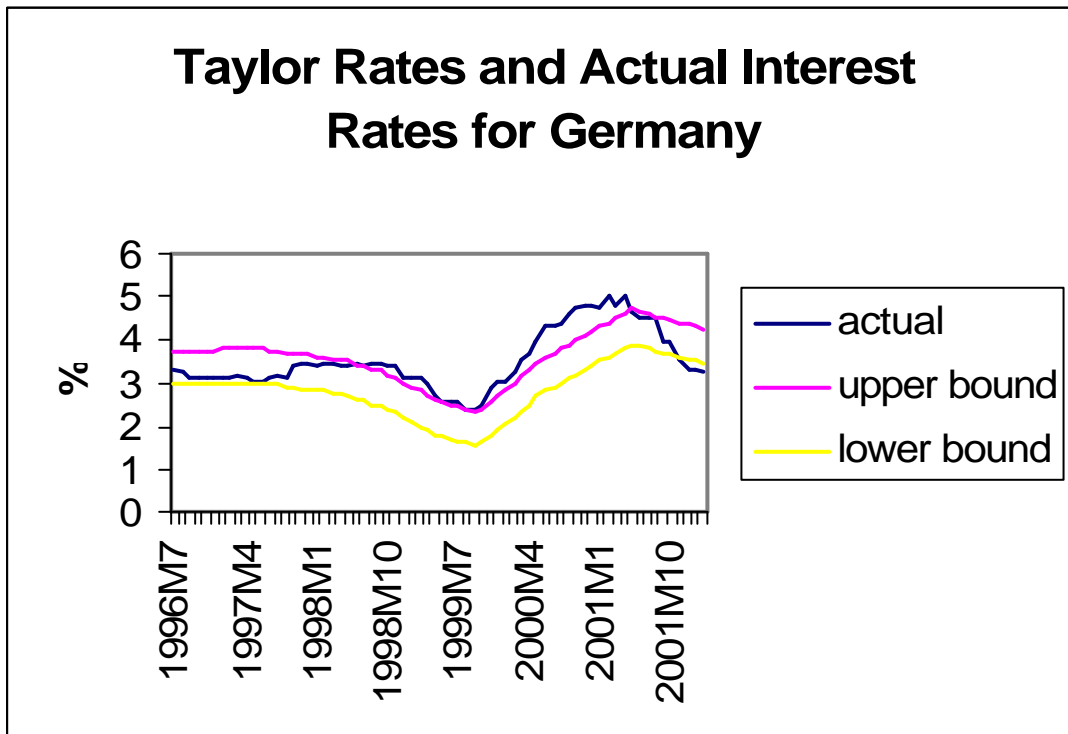 deterioration of the competitive position.

Graphs

Graph1

Real Appreciation against Germany (unit labour costs)

Source OECD

Graph 2

Real Appreciation against Germany (cpi)

Source: OECD

Graph3:

Real Appreciation against Germany (GDP deflator)

Source: OECD

Graph 4:

Taylor Rates and Actual Interest Rates for Germany

Note: The bounds show the maximum and minimum of estimated Taylor rates according to different specifications (see OECD Economic Survey 2002)

Source: OECD