

## WILLEM H. BUITER<sup>1</sup> AND CLEMENS GRAFE<sup>2</sup>: EMU OR OSTRICH?

February 2003

*HM Treasury invited Willem Buiter to revisit his 2000 paper 'Optimal Currency Areas: Why Does the Exchange Rate Regime Matter?'*<sup>3</sup>

### INTRODUCTION

1. 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.<sup>4</sup> 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.

2. 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.

3. 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.

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<sup>3</sup> Buiter, Willem H. (2000) 'Optimal Currency Areas: Why Does the Exchange Rate Regime Matter? With an Application to UK Membership in EMU', *Scottish Journal of Political Economy* Vol. 47, No 3, August, pp.213–250.

<sup>4</sup> 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.

4. 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.
5. 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 credible.<sup>5</sup> 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.
6. 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’.

### INDEPENDENT MONETARY POLICY NEED NOT IMPLY HIGHER SHORT–TERM EXCHANGE RATE VOLATILITY

7. 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.
8. 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.

<sup>5</sup>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.

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 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 technology boom of the second half of the 1990s).

9. 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.

10. 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 Euro area member countries and the three outsiders. The US is included as another reference point.

**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
<b>Average(In)</b>	<b>2.81</b>	<b>1.48</b>	<b>-1.32</b>
United Kingdom	8.85	1.92	-6.94
Sweden	4.47	4.53	0.05
Denmark	2.03	1.62	-0.42
<b>Average (Out)</b>	<b>5.12</b>	<b>2.69</b>	<b>-2.43</b>
<b>United States</b>	<b>6.20</b>	<b>5.19</b>	<b>-1.01</b>

Note: Averages are unweighted.

Source: IFS

II. 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 and Sweden, and moderately below that for the UK and Denmark.<sup>6</sup> 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.<sup>7</sup>

**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
<b>Average(In)</b>	<b>7.97</b>	<b>8.42</b>	<b>0.45</b>
United Kingdom	2.99	5.42	2.43
Sweden	6.48	9.85	3.37
Denmark	7.89	8.50	0.61
<b>Average (Out)</b>	<b>5.79</b>	<b>7.92</b>	<b>2.13</b>
<b>United States</b>			

Note: Averages are unweighted.

Source: IFS

12. 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.

<sup>6</sup> Germany’s volatility, on our measure, was actually slightly higher than the UK’s in 1999-2002.

<sup>7</sup> Let  $\bar{e}$  denote the global effective exchange rate of sterling,  $e_1$  the effective 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  $\alpha$ . Var denotes the variance and Cov the covariance.

Then:

$$\text{Var}(\bar{e}) = \alpha^2 \text{Var}(e_1) + (1-\alpha)^2 \text{Var}(e_2) + 2\alpha(1-\alpha) \text{Cov}(e_1, e_2).$$

If Sterling joins EMU,  $\text{Var}(e_1) = \text{Cov}(e_1, e_2) = 0$ .

Sterling’s global effective exchange rate will be more variable after joining EMU if and only if

$$-\text{Cov}(e_1, e_2) > \frac{(1-\alpha)^2}{2\alpha(1-\alpha)} \text{Var}(e_2).$$

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
<b>Average(In)</b>	<b>2.36</b>	<b>0.00</b>	<b>-2.36</b>
United Kingdom	9.24	3.63	-5.62
Sweden	4.60	4.15	-0.45
Denmark	1.32	0.15	-1.17
<b>Average (Out)</b>	<b>5.05</b>	<b>2.64</b>	<b>-2.41</b>
<b>United States</b>	<b>6.80</b>	<b>8.42</b>	<b>1.63</b>

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

Source: IFS

**13.** 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 than 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.

**14.** 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.

Table 4:

**Volatility of real effective exchange rates**  
(Standard Deviation normalised by the mean<sup>8</sup> 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
<b>Average(In)</b>	<b>4.03</b>	<b>1.95</b>	<b>-2.08</b>
United Kingdom	12.20	3.09	-9.11
Sweden	4.70	5.06	0.36
Denmark	2.66	1.45	-1.20
<b>Average (Out)</b>	<b>6.52</b>	<b>3.20</b>	<b>-3.32</b>
<b>United States</b>	<b>6.92</b>	<b>7.70</b>	<b>0.78</b>

Note: Averages are unweighted.

Source: IFS

## EMU MEMBERSHIP DOES NOT PRODUCE IMMEDIATE TRADE PERFORMANCE MIRACLES

15. 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.<sup>8</sup>

16. 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.<sup>9</sup> 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.

<sup>8</sup> 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?

<sup>9</sup> The trade share is calculated as (Imports + Exports)\*100/GDP.

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
<b>Euro Area</b>	<b>41.8</b>	<b>39.6</b>	<b>37.8</b>	<b>40.9</b>	<b>43.8</b>	<b>46.5</b>	<b>46.8</b>	<b>50.5</b>	<b>51.8</b>	<b>52.4</b>	<b>59.8</b>	<b>59.4</b>
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
<b>EU without EMU</b>	<b>43.1</b>	<b>40.1</b>	<b>40.1</b>	<b>42.3</b>	<b>44.2</b>	<b>48.0</b>	<b>48.7</b>	<b>47.7</b>	<b>45.3</b>	<b>44.3</b>	<b>47.5</b>	<b>45.7</b>
<b>Japan</b>	<b>17.1</b>	<b>15.8</b>	<b>15.1</b>	<b>13.8</b>	<b>14.0</b>	<b>14.7</b>	<b>16.2</b>	<b>17.6</b>	<b>17.0</b>	<b>16.2</b>	<b>18.0</b>	<b>18.1</b>
<b>United States</b>	<b>15.7</b>	<b>15.5</b>	<b>15.9</b>	<b>16.1</b>	<b>17.0</b>	<b>18.3</b>	<b>18.5</b>	<b>19.1</b>	<b>18.5</b>	<b>19.0</b>	<b>20.8</b>	<b>18.9</b>
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

17. 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:

## 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	0.9	1.0	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
<b>Euro Area</b>	<b>na</b>	<b>na</b>	<b>na</b>	<b>45.9</b>	<b>46.1</b>	<b>47.6</b>	<b>47.0</b>	<b>45.3</b>	<b>47.0</b>	<b>45.7</b>	<b>43.6</b>	<b>45.4</b>
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
<b>EU without EMU</b>	<b>11.7</b>	<b>11.2</b>	<b>11.1</b>	<b>10.6</b>	<b>10.6</b>	<b>10.8</b>	<b>11.2</b>	<b>11.4</b>	<b>11.3</b>	<b>10.8</b>	<b>10.4</b>	<b>10.2</b>
<b>Japan</b>	<b>10.4</b>	<b>10.8</b>	<b>10.7</b>	<b>11.7</b>	<b>11.6</b>	<b>11.3</b>	<b>10.7</b>	<b>10.4</b>	<b>9.0</b>	<b>9.5</b>	<b>10.3</b>	<b>9.4</b>
<b>United States</b>	<b>18.1</b>	<b>18.3</b>	<b>18.7</b>	<b>20.7</b>	<b>20.7</b>	<b>19.6</b>	<b>20.3</b>	<b>21.8</b>	<b>22.0</b>	<b>23.0</b>	<b>24.5</b>	<b>23.9</b>
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

18. 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.

19. 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.

## ONE NOMINAL INTEREST RATE – MANY REAL INTEREST RATES

20. 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.<sup>10</sup>

21. 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.

22. 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.

23. 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.<sup>11</sup> 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.

<sup>10</sup> 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 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.

<sup>11</sup> 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.

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 for the same year  
Source: OECD.

**24.** 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.

**25.** 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 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.

**26.** 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.<sup>12</sup>

**27.** 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-wide 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 February 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.

### THE COST OF ENTERING EMU AT THE WRONG RATE

**28.** 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 Guilder 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.

**29.** 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.

**30.** 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-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.

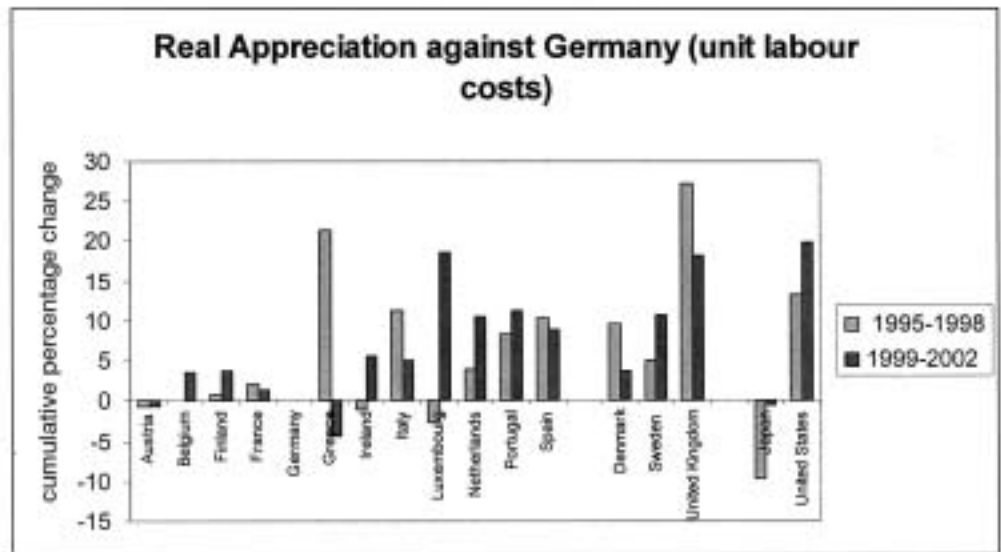
**31.** While Ireland joined EMU in 1999 at a parity that was, in our view, undervalued, the resulting boom in real economy activity and asset prices gradually eroded this competitive advantage. In a common currency area, this is precisely the way market forces are supposed to bring about an adjustment in international competitiveness. It is effective and need not be associated with asset bubbles and crashes.<sup>13</sup>

<sup>12</sup> 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 even 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.

<sup>13</sup> 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.

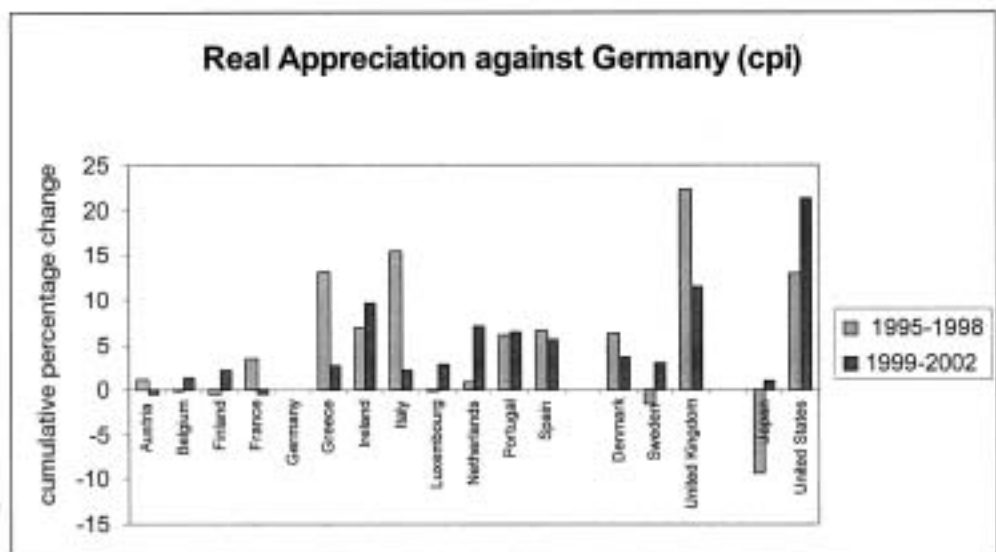
32. Only the foolhardy would attempt to estimate values for the fundamental equilibrium real exchange rate. It is, however, instructive to look at changes in external real exchange rates prior to the introduction of the Euro and after. We consider three different measures of the real exchange rate, one 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



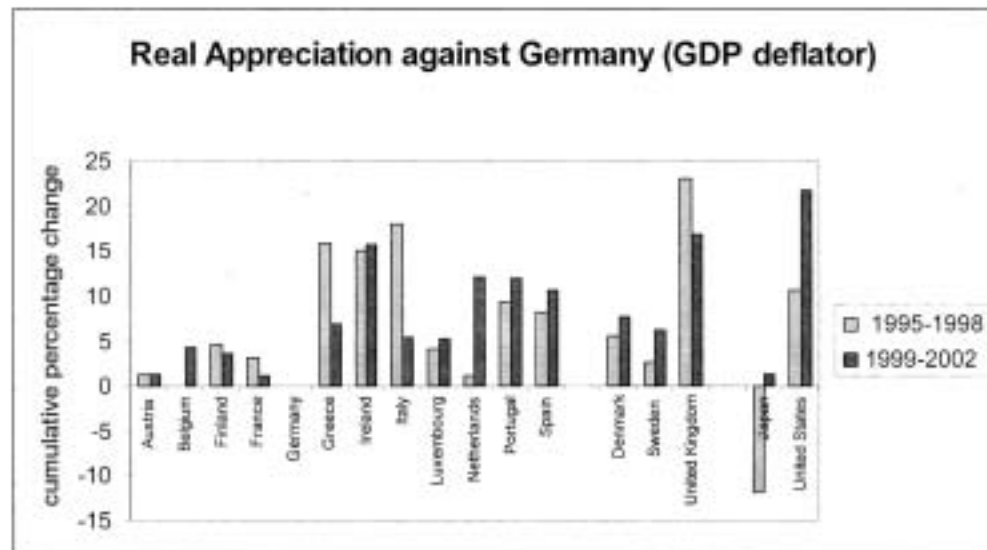
Source OECD

Graph 2



Source: OECD

Graph 3:



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	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	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 <sup>a</sup>	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 manufacturing 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.

**33.** 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.<sup>14</sup> 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 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.

**34.** 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.

**35.** 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).

**36.** 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.

**37.** 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.

<sup>14</sup> 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.

## EMU MEMBERSHIP IS COMPATIBLE WITH SIGNIFICANT AND SUSTAINED DIFFERENCES IN NATIONAL REAL GROWTH PERFORMANCE

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**38.** 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 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.

**39.** 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.

**40.** 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.

**41.** 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'<sup>15</sup> 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.

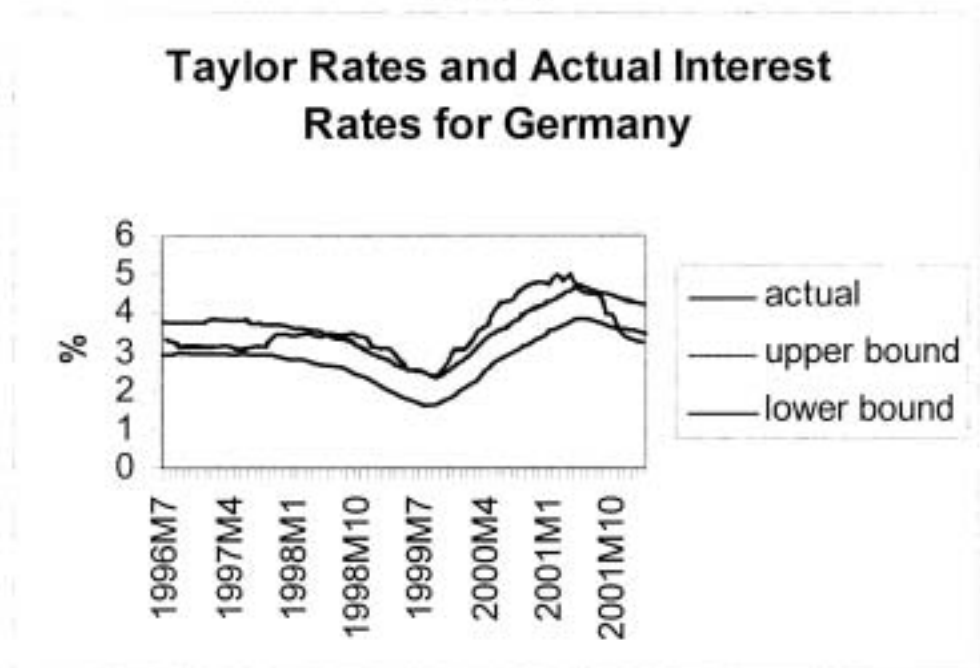
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<sup>15</sup> See Buiter [2000].

## SHOULD GERMANY RUE ITS LOSS OF MONETARY INDEPENDENCE?

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

Graph 4:



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

Source: OECD

43. A possible approach is to use estimates of reaction curves for the Bundesbank based on historical data (see e.g. Clarida and Gertler [1996]).<sup>16</sup> 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.

44. 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.

<sup>16</sup> 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.

## CONCLUSION

**45.** 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.<sup>17</sup> We believe that monetary independence does not, in practice, make it 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.

**46.** 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.

**47.** 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.<sup>18</sup> 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.

**48.** 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.<sup>19</sup>

<sup>17</sup> The proper metric 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 gross national income (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 huge volumes of financial transactions is not the same as the ability to exercise significant influence on the prices at which these transactions occur.

<sup>18</sup> On 29 January 2003, 1 Euro = 0.66 £.

<sup>19</sup> See e.g. Buiter [2003a,b] and Buiter and Grafe [2003a,b].

**49.** 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.<sup>20</sup>

**50.** 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 exchange rate vis-à-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.<sup>21</sup>

**51.** 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.<sup>22</sup> 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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<sup>20</sup> 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 four years of data will not settle the issue.

<sup>21</sup> 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.

<sup>22</sup> 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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## LARS CALMFORS: NOMINAL WAGE FLEXIBILITY AND FISCAL POLICY – HOW MUCH CAN THEY REDUCE MACROECONOMIC VARIABILITY IN THE EMU?

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*HM Treasury invited Lars Calmfors to revisit his 1998 paper 'Macroeconomic Policy, Wage Setting and Employment – What Difference Does the EMU Make?'<sup>1</sup> with particular reference to his conclusions: "(i) Although an inflation-target regime will constrain monetary policy of a non-participant in the EMU, it still leaves considerable scope for exchange-rate changes in the case of country-specific demand shocks, provided that there is some nominal price and wage flexibility. (ii) Variations in payroll taxes can be used as a substitute for exchange rate changes in the EMU, but it will be an imperfect substitute. (iii) Money-wage flexibility is likely to be larger inside than outside EMU, but probably not by much. (iv) There are various mechanisms through which the EMU may affect the incentives for labour market reform to reduce equilibrium unemployment, but the net impact is highly uncertain." (p. 125).*

### SUMMARY

1. If EMU membership causes a tendency to larger macroeconomic variability, the incentives for nominal wage flexibility are enhanced. It is improbable, however, that an increased degree of nominal wage flexibility can offset this tendency more than to a small extent. The most problematic outcome would be if upward wage flexibility increased significantly, but there is only a limited (or no) increase in downward flexibility, as this would lead to a larger risk that a country-specific boom triggers a rise in real labour costs and a real exchange rate appreciation that take a long time to unwind. As a consequence, EMU membership is likely to increase the demands on fiscal policy as a stabilisation tool. For political-economy reasons, one cannot, however, expect an increased use of fiscal policy to compensate fully for the loss of national monetary policy in the EMU. But the effectiveness of fiscal policy for macroeconomic stabilisation can probably be increased substantially through various institutional reforms establishing a more well-defined and transparent policy framework similar to what has been done in the field of monetary policy.

### 1. INTRODUCTION

2. EMU membership means giving up monetary policy as a national stabilisation policy tool. Neither the short-term interest rate nor the exchange rate can then adjust to domestic macroeconomic conditions. This is likely to make it more difficult to stabilise the economy when domestic cyclical developments deviate from those in other euro countries. To judge the consequences of this for macroeconomic variability requires an analysis of alternative ways of stabilising the economy. This note focuses on two issues:

- (1) To what extent may the need for stabilisation policy be reduced by an endogenous response of wage-setting practices, involving more flexibility of nominal wages?

<sup>1</sup> Calmfors, L. (1998), 'Macroeconomic Policy, Wage Setting and Employment – What Difference Does the EMU Make?', *Oxford Review of Economic Policy* 14 (3), pp. 125-151.

- (2) To what extent may national fiscal policy make up for the loss of national monetary policy?
3. The two questions are interrelated, as adjustments in the wage-setting process reduce the demands on fiscal policy, and a larger role of fiscal policy in macroeconomic stabilisation reduces the demands for nominal wage flexibility.
4. Although most macro economists seem to subscribe to the view that EMU membership tends to increase cyclical variability, this view is not uncontested. One could therefore read my analysis as a conditional one: *if* EMU membership tends to give more macroeconomic variability, to what extent can this tendency be counteracted through adjustments in the wage-setting process and through more activist fiscal policy?

## 2. EMU MEMBERSHIP AND NOMINAL WAGE FLEXIBILITY

5. According to a common view, nominal wage rigidity is a key cause of why temporary macroeconomic shocks may give rise to large fluctuations in output and employment. With demand shocks, variations in nominal wage growth (or in the nominal wage level) can help stabilise the real wage and thus also output and employment. With supply shocks, such as variations in the rate of productivity growth, nominal wage rigidity may imply less flexibility in the real wage level than is desirable for employment stabilisation.
6. A central issue when analysing the effects of EMU membership is to what extent the degree of nominal wage flexibility might increase and counteract tendencies to increased macroeconomic variability. A problem for such an analysis is the lack of a generally accepted theory of wage stickiness. Instead, one has to make judgements on the basis of various types of reasoning, as in Calmfors (1998).
7. A first approach views the degree of nominal wage flexibility as the consequence of the *length of wage contracts* (Gray, 1978; Ball, 1987). The optimal contract length for wage setters depends on a trade-off between on the one hand trying to keep down the number of bargaining occasions, and thus bargaining costs, and on the other hand maintaining the capacity to adjust wages quickly to unanticipated macroeconomic developments in new contracts. To the extent that EMU membership tends to increase variability in employment, real wages and profits, the incentives for short contract periods in order to achieve nominal wage flexibility are enhanced. Unfortunately, there is not much empirical basis for assessing how strong these effects could be. Calmfors and Johansson (2002) have made an attempt at quantification by solving numerically a simple model for the choice of optimal contract length, assuming that wage setters try to avoid variability in both employment and the path of real wages. Under the assumptions made, EMU membership creates an incentive for large reductions of contract length (to about one half or one third of the length without membership), but still leads to a large increase in employment variability (it approximately doubles). According to the model computations, the combination of EMU membership and an endogenous shortening of contract length causes a huge increase in the variability of the rate of price change (it increases fivefold or more).<sup>2</sup>

<sup>2</sup> The model calculations do not take into account that the increased variability in the rate of price change may reinforce destabilising movements in the real interest rate (the so-called Walters effect): for example, if the reduction in inflation in a demand-driven recession is reinforced by nominal wage flexibility, the real interest rate increases more than would otherwise be the case. Taking this effect into account might reduce the stabilising effects of increased nominal wage flexibility on output and employment. The overall outcome for output and employment stability is not clear, however, as increased nominal wage flexibility would also reinforce stabilising variations in the real interest rate in the case of temporary supply shocks: the real interest rate would, for example, fall more in the case of a negative supply shock that reduces output and raises inflation.

8. Another approach focuses instead on the prevalence of *contingency clauses* in existing wage contracts, which make it possible to adjust already agreed wage changes in response to prespecified events (Gray, 1976; Blanchard, 1979; Walsh, 1995; and Heinemann, 1999). One example is indexation clauses, linking wage changes to consumer price increases, as used to be common in many European countries, and still exist in Belgium, Finland, Luxembourg and Spain. Calmfors and Johansson (2002) found that the incentives for such contingency clauses are likely to be enhanced by EMU membership in a similar way as the incentives for shorter contract length.<sup>3</sup> But another finding was that the increase in macroeconomic variability associated with EMU entry might very well be too small to trigger the introduction of such clauses if they did not exist before. Profit-related pay is another type of contingent wage contract. One could hypothesise that the incentives for such pay arrangements would also be enhanced by EMU membership, although I am not aware of any formal modelling of this.<sup>4</sup>

9. A third approach stresses *co-ordination failures* as the main cause of nominal wage stickiness (Ball and Romer, 1991). Unless macroeconomic disturbances are very large, the incentives to adjust wages in individual bargaining areas may be small in the absence of co-ordination with other bargaining areas. This aspect may be particularly relevant to the UK economy in view of the decentralised and overlapping character of wage setting, which rules out co-ordinated wage responses to macroeconomic disturbances of the social-pact type that has occurred in several EMU countries (the most outstanding examples are Ireland, the Netherlands and Finland; see Calmfors *et al.*, 2001). The analysis of Holden (1994, 2001), which builds on the idea that the *fall-back option* for wage bargainers if they cannot agree on a new wage contract is to continue with the earlier wage contract, also suggests that larger macroeconomic shocks in the EMU may not lead to more nominal wage flexibility unless shocks are very large. If shocks are limited in size, it will pay no party to wage bargaining to initiate a labour market conflict to change the *status quo*.

10. A last approach, finally, focuses on how strong social norms about fairness may cause *downward* nominal wage rigidity. This may not only imply that nominal wage levels are difficult to cut, but also that wage earners feel entitled to at least some nominal wage increases, which form a reference point when individuals evaluate their utility along the lines of Kahneman and Tversky (1979). There exists ample evidence from various survey studies of the importance of social norms against nominal wage reductions except in very extreme situations, such as when the survival of a firm is at stake (see, for example, Bewley, 1999). This again raises the possibility that increased macroeconomic variability associated with EMU membership may not be enough to change the degree of nominal wage rigidity significantly. This hypothesis receives some support from two Swedish studies. Agell and Lundborg (1995) examined how a number of personnel managers in 1991 judged the possibility of nominal wage cuts. Agell and Lundborg (1999) reported on a similar survey made in 1998. The authors found as negative attitudes towards nominal wage cuts in the second survey as in the first, even though there had been a dramatic increase in unemployment and an equally dramatic reduction in inflation between the two surveys. This suggests that it may be very difficult to change social norms on nominal wage reductions.

<sup>3</sup> Leichter (1998) arrives at a similar conclusion.

<sup>4</sup> Note, however, that simple profit sharing à la Weitzmann (1985), according to which the employee is paid the sum of a fixed nominal base wage and a fixed share of the firm's profit per employee, instead of just a fixed ordinary nominal wage, would not help stabilise output and employment. The profit-maximising condition is then that the value of the marginal product of labour should equal the base wage. If the base wage is set lower than the ordinary wage, equilibrium output and employment increase, but the variations around the equilibrium in the case of unanticipated price and productivity shocks are not affected (Calmfors, 2002).

II. My overall conclusion is the same as in Calmfors (1998), namely that tendencies to increased macroeconomic variability in association with EMU membership would create incentives for more wage flexibility, but that this is likely to counteract these tendencies only to a limited degree. One should be especially concerned about the risk of downward money wage rigidity, the macroeconomic consequences of which are more problematic the lower the inflation target of the ECB, as low inflation reduces the room for achieving real wage cuts and real exchange rate depreciations (reductions of wage costs relative to other euro countries) without cutting nominal wages.<sup>5</sup>

12. In addition, I want to point to a risk with EMU membership that has not been much discussed before. The risk derives from a possible interaction between increased *upward* nominal wage flexibility and unchanged (or only slightly increased) *downward* flexibility. The explanation for such an outcome would be that the forces reducing downward wage flexibility (social norms) are much stronger than the forces working against more upward wage flexibility, which might imply that EMU membership could change the degree of wage flexibility in an asymmetric way. (A case in point would be that trade union fears that real wages will be eroded by inflation have recently motivated indexation clauses, according to which higher than expected inflation triggers higher wage increases, whereas lower inflation does not trigger lower increases, in Spain and Finland.<sup>6</sup>)

13. The consequence of such an asymmetric change in the degree of nominal wage flexibility would be an increased risk that temporary demand increases in an individual country cause wage increases, which because of downward money wage rigidity are hard later to reverse and therefore “lock in” a higher real wage level and an appreciation of the real exchange rate. This way increased upward nominal wage flexibility in the case of EMU membership could indeed make it more difficult to stabilise the domestic economy in the next downswing, which would be entered with too high real labour costs and an overvalued real exchange rate (see EEAG, 2002 and 2003).

### 3. THE ROLE OF FISCAL POLICY

14. If increased nominal wage flexibility cannot work as a good substitute for national monetary policy in the EMU, the remaining option to handle country-specific cyclical developments is through an increased use of fiscal policy. When assessing the scope for this, one has to evaluate: (1) the technical effectiveness of fiscal policy as a countercyclical stabilisation tool; and (2) the political-economy possibilities of using fiscal policy for this purpose in an effective way.

<sup>5</sup> Indeed, there might be a harmful interaction between downward nominal wage rigidity in general in the euro countries and the price stability target of the ECB. Downward nominal wage rigidity might create an incentive for the ECB to choose a low target, which could reinforce nominal rigidity. The argument is that the ECB may want primarily to maintain a stable rate of inflation. At low inflation, the restriction that nominal wage levels cannot be cut binds more often. Hence, the rate of wage change will vary less, which makes it easier for the ECB to stabilise the rate of inflation. Downward nominal wage rigidity in the euro area could also increase the risk of differential cyclical developments among the member countries. If booms in some countries drive up the average rate of inflation in the euro area, the ECB will tighten monetary policy. The more downward wage rigidity there is in the countries not experiencing booms, the larger output and employment reductions must occur there to compensate for the inflation in the booming economies (Holden, 2001).

<sup>6</sup> See Economic Survey of Spain, OECD (2001) and Inkomstpolitiskt avtal för åren 2001-02 (2002).

### 3.1 The technical effectiveness of fiscal demand management policy

**15.** As to the technical effectiveness of fiscal demand management policy, there exists a large literature questioning its impact based on the notion of Ricardian equivalence (see Elmendorf and Mankiw, 1999). The argument is that deficit-financed tax reductions, raising the disposable incomes of households, will fail to increase private consumption and thus to stimulate aggregate demand: households will realise that their life-cycle incomes have not increased, as they will have to pay for the deficits through higher taxes in the future. However, it is well-known that the Ricardian equivalence results hold only under very restrictive assumptions. Empirical analysis seems also to indicate positive tax multipliers, although they may be smaller than believed earlier (around one or slightly below; see, for example, Blanchard and Perotti, 1999).

**16.** Still, the Ricardian equivalence debate points to the importance of finding fiscal policy instruments that are as effective as possible. One would, of course, always expect tax and transfer changes targeted on low-income groups, which to a large extent are credit-constrained, to be more effective than measures targeted on high-income groups with better access to capital markets (Wren-Lewis, 2000). Also, temporary changes in government consumption should be more effective in affecting aggregate demand than general income tax changes. This is obvious if an increase in current government consumption is financed through a reduction in future government consumption, as this does not involve any changes in the taxes paid by households and hence no changes in private consumption if that is based on life-time income. But a similar conclusion holds also if a temporary increase in government consumption is financed through future taxes. The explanation is that the short-run direct demand effects are larger than the short-run changes in private consumption due to perceived future tax changes: this is so because the changes in private consumption resulting from the changes in life-time incomes will be spread over the whole future, as households want to smooth consumption over time, whereas the whole change in government consumption occurs in the short run (EEAG, 2003).

**17.** According to the textbook Mundell-Fleming model, fiscal policy becomes more effective as a stabilisation tool for an individual country with membership in a monetary union than with an own currency and a flexible exchange rate, because the demand effects in the latter case tend to be offset by exchange rate movements (see, for example, Krugman and Obstfeld, 2002, Chs 16-17). This is sometimes taken to imply that there would be no stabilisation policy cost of EMU membership. This argument is incorrect. The reason is that it is in principle always possible to achieve the same mix of monetary and fiscal policy with non-membership as with membership. The only reasonable interpretation of the fact that most countries with a flexible exchange rate have chosen to use monetary, and not fiscal, policy as the primary stabilisation tool is that this assignment has been judged to be superior (Commission on Stabilisation Policy, 2002).`

### 3.2. Fiscal stabilisation policy to affect relative prices

**18.** In my view, one type of fiscal policy that has received too little attention is measures that work by changing *relative prices*. A first such policy is temporary changes in the VAT, which affect private consumption in a similar way as changes in the real interest rate: by changing the relative price between consumption in different time periods, households are induced to re-allocate spending intertemporally (Commission on Stabilisation Policy, 2002). An alternative way of changing the (after-tax) intertemporal terms of trade for households might be to vary the rate of capital income taxation over the business cycle.<sup>7</sup> One could also conceive of a similar use of investment taxes or subsidies to affect the timing of private investment. The possibility of cross-border trade is usually seen as a limitation on the possibilities to set VAT rates according to national priorities in the long term. But this does not apply in the same way to temporary VAT changes as a stabilisation tool in the case of country-specific cyclical developments. On the contrary, if a temporary rise in the national VAT in a boom shifts consumption purchases abroad, this, too, tends to reduce demand domestically.

**19.** Another possibility, which has also been overlooked in much of the international discussion, is to use temporary variations in the payroll taxes levied on employers as a stabilisation tool. By changing domestic wage costs, such a policy directly affects the real labour cost and the real exchange rate vis-à-vis other euro countries. It is not only temporary reductions in payroll taxes in downswings that may be of interest. In fact, temporary rises in employers' payroll taxes may be an appropriate policy if an individual euro country experiences a boom. The reason is that higher payroll taxes for employers raise domestic wage costs and output prices, but not domestic wages. On the contrary, wage increases are likely to be held back to the extent that the demand for domestic output falls and the tax is shifted backward on to employees because "the room for wage increases" is reduced.<sup>8</sup> A temporary increase in payroll taxes may therefore be a desirable way of dampening a boom, because wage costs are raised temporarily at the same time as the risk that wages are bid up more permanently (see the discussion on asymmetric nominal wage rigidity in Section 2) is reduced.

**20.** The idea of using cyclical variations in employers' payroll taxes as a countercyclical tool has large similarities with the system of so-called *buffer funds* that was set up in Finland in connection with the entry into the EMU. According to this system, funds have been built up through temporary increases in employer contributions to the social security system and the intention is to use these funds to hold down contributions in downswings (Holm *et al.*, 1999).

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<sup>7</sup> This has been suggested by Boije and Shahnazarian (2002), who note that a given change in the after-tax interest rate can be achieved either through a change in the pre-tax interest rate or a change in the tax rate. However, there are several differences in effects between the two policies. A change in the rate of capital income taxation affects the whole spectrum of after-tax interest rates, whereas a change in the central bank's repo rate only affects short-term interest rates. This difference tends to make changes in capital income taxation a more powerful stabilisation tool than central bank interest rate changes. A side effect of variations in the capital income tax rate is that they may affect the incentives to reclassify labour incomes as capital incomes in order to exploit tax arbitrage possibilities.

<sup>8</sup> This latter tax-shifting effect has been shown empirically to be strong in the Nordic countries (Nymoen and Rødseth, 1999; Calmfors and Uddén Sonnégård, 2001). The wage-reducing effects mentioned in the text would be counteracted to the extent that compensating wage claims are triggered by the CPI rises associated with higher output prices when pay-roll taxes are raised, but this effect is likely to be small compared to the other effects.

**21.** Fiscal policies working through changes in relative prices do not have to involve variations in the budget balance. One example is to combine a reduction of payroll taxes with an increase of other taxes falling on employees (income taxes, employee contributions to the social security system or the VAT) or reductions in government transfers to households. This policy measure is often labelled *an internal exchange rate change*, because it can be shown to have short-run effects that are equivalent to those of a nominal exchange rate change, as discussed in Calmfors (1998). Such internal devaluations were made in Denmark in the late 1980s and in Sweden in the early 1990s. There are, however, some problems with this measure. One is that it requires complex decisions on several fiscal policy parameters, which is likely to result in a slow decision process. Another problem is that real exchange rate changes are known to affect trade volumes with substantial lags. This is an argument for using an internal devaluation mainly as a measure of last resort in situations when there is no scope for increasing budget deficits and when a recession is likely to be drawn-out. A good example of such a situation is the present German one, where a budget deficit in excess of the three-percent-of-GDP ceiling in the Stability and Growth Pact necessitates fiscal restraint, at the same time as there may be a persistent misalignment of the real exchange rate (because the D-mark was converted to the euro at an overvalued nominal exchange rate).

### 3.3. The political economy of fiscal stabilisation policy measures

**22.** The most fundamental problems of using fiscal policy as a stabilisation policy tool are political-economy ones. There are a number of reasons why discretionary fiscal policy is likely in practice to be used in a less effective way than monetary policy.

- Decision lags are long, as tax and government expenditure changes have to go through a lengthy parliamentary decision-making process.
- The political character of fiscal policy decisions makes it hard to reverse decisions when circumstances change (Taylor, 2000).
- Fiscal policy has also other central objectives than stabilisation, viz. income distribution and an efficient resource allocation. In addition, the timing of fiscal policy measures is often influenced by attempts of incumbent governments to enhance their re-election chances. Hence, there is a serious risk that stabilisation policy aspects will carry a low weight (Commission on Stabilisation Policy, 2002).
- A voluminous political-economy literature has highlighted the risk of a systematic *deficit bias* for fiscal policy, because it is run by policy-makers engaged in day-to-day politics where a short-run perspective tends to dominate (see, for example, Alesina and Perotti, 1995; or von Hagen *et al.*, 2002).

**23.** Considerations of this type have led many economists to the conclusion that discretionary fiscal stabilisation measures are likely to be badly timed and conducive to fiscal laxity in general. The prevailing conventional wisdom is that fiscal policy should mainly be confined to let the automatic stabilisers, that is the automatic cyclical variations in tax receipts and some government expenditures, dampen output and employment fluctuations (see, for example, Taylor, 2000; or European Commission, 2002). This is, however, a problematic conclusion as automatic stabilisers can by their very nature only cushion macroeconomic shocks, but not fully offset them. Moreover, there is no reason to believe that the automatic stabilisers give the optimal degree of stabilisation, as their size is a by-product of decisions that have nothing to do with macroeconomic stabilisation (mainly the ratio of

overall government expenditures to GDP). This raises the question whether it might be possible to improve the workings of fiscal policy through institutional reforms that mitigate the political-economy problems.

**24.** A natural question is whether some lessons for the fiscal policy decision-making process can be learnt from the institutional set-up adopted in the field of monetary policy in many countries, for example the UK and Sweden. This set-up involves a well-defined policy framework with the setting of clear objectives, a transparent decision-making process, and delegation of decisions to an independent central bank. In my view, there exist several more or less radical options for improving the decision-making process for fiscal stabilisation policy measures along such lines.

**25.** The most conventional approach would be to build on the recent reforms in many countries that have introduced more fiscal discipline through procedural changes in the budget process strengthening the position of the Ministry of Finance (see von Hagen *et al.*, 2002) and greater transparency (like with the *Code for Fiscal Stability* in the UK and the *Fiscal Responsibility Act* in New Zealand). One aim would then be to increase the importance attached to stabilisation objectives and avoid them being confounded with income distribution, social-efficiency and re-election objectives. Another aim would be to shorten decision lags. One way of doing this could be to adopt a *Fiscal Stabilisation Policy Act*, which complements long-run budget balance (or debt) objectives for fiscal policy with clear stabilisation objectives. In the case of EMU membership, when the long-run national inflation rate is tied down by the common euro area inflation rate, the natural primary stabilisation objective for national fiscal policy is to stabilise output around its equilibrium (potential) level. Since the output level cannot be affected in the short term without excessive variability in the fiscal parameters, the objective should be forward-looking and apply to the medium term (Commission on Stabilisation Policy, 2002).<sup>9</sup>

**26.** A Fiscal Stabilisation Policy Act could also give guidelines for under which circumstances one should rely only on the automatic stabilisers and under which circumstances one should resort to discretionary action (for example, when predicted output gaps are judged to exceed some critical levels). Like in the Australian *Charter of Budget Honesty*, the government could be obliged to indicate which tax and expenditure changes are temporary (because they are undertaken for stabilisation purposes) and “the process for their reversal” (Business Council of Australia, 1999). To shorten decision lags and reduce the risk that income distribution or re-election considerations come to dominate stabilisation considerations in concrete situations, a *Fiscal Stabilisation Policy Act* could also specify in advance a small number of fiscal policy instruments to choose from if the need for discretionary action would arise (Commission on Stabilisation Policy, 2002).

**27.** A somewhat more radical approach would be to establish an independent advisory Fiscal Policy Committee, which could be entrusted with the task of providing a regular input into the budget process, serving as a basis for fiscal policy decisions with the aim of stabilising the economy (Wren-Lewis, 1996; Commission on Stabilisation Policy, 2002). The Committee could be required to publish regular stabilisation reports (corresponding to the present inflation reports of, for example, the Bank of England and the Riksbank in Sweden) assessing the state of the economy. The Committee could also give recommendations to the government and the parliament on how much the budget target in a given year should deviate from the budget target over the cycle and on specific tax and expenditure changes to

<sup>9</sup> The argument is similar to the one for monetary policy. Note also that an output stabilisation goal for fiscal policy does not mean that an inflation differential vis-à-vis other euro countries should be neglected. On the contrary, for example a higher inflation rate than in the rest of the euro area could mean an erosion of international competitiveness, which would make it harder to stabilise output in the future. Hence, the relative rate of inflation is likely to be a key intermediate target in a fiscal regime aiming at output stabilisation in the medium term (EEAG, 2002 and 2003).

stabilise aggregate demand (Commission on Stabilisation Policy, 2002). The idea is then to increase the reputational costs for the government of attaching a low weight to considerations about stabilisation and long-run fiscal sustainability. Such a *Fiscal Policy Committee* could be given more teeth by requiring the government to give a formal explanation to the parliament if it chooses not to heed the recommendations. One might also require the government to base its budget calculations on the Committee's estimates of output gaps as well as of tax and expenditure developments

**28.** A more far-reaching reform would be to *delegate the actual decisions* on fiscal policy measures to stabilise the economy to an independent *Fiscal Policy Committee* in much the same way as monetary policy has been delegated to independent central banks.<sup>10</sup> One option, which has been proposed by, for example, Ball (1997) is to delegate the power to vary certain tax rates (and/or possibly government expenditure levels) around some base values within predetermined margins.<sup>11</sup> Another possibility, which has been advocated by Wyplosz (2002), is to let the Committee decide how much the annual budget target should be allowed to deviate from the budget target over the cycle, which would continue to be determined by the parliament. According to this model, the parliament would also decide through which tax and expenditure changes the annual budget target in a given situation should be achieved. The underlying idea behind the delegation proposals is that stabilisation of the business cycle is a commonly shared objective, which requires more of technical expertise, but less of political value judgements, than other fiscal policy decisions, such as those on the size and structure of government expenditures and taxes and on long-run government debt accumulation.

**29.** Most people probably view the idea of delegation of fiscal stabilisation policy decisions as unrealistic, because it would seem to interfere with traditional principles of parliamentary control over taxes and government expenditures, which are often regarded as a centrepiece of democratic governance. Provided that fiscal policy decisions with the aim of stabilisation can be delineated from other fiscal policy decisions, it is, however, difficult on a purely intellectual level to see why there should be weaker arguments for delegation in this case than for monetary policy (which has become generally accepted).<sup>12</sup> Such delegation would also conform to more general trends in many other areas of economic policy, such as competition policy and regulation of financial markets, where politicians have chosen to focus on setting general priorities and to delegate the operational policy making to professional bodies. Successful delegation of this type does, however, require well thought-through mechanisms to hold decision makers accountable. This could include ex-post public evaluation of policies, possibilities of dismissal in the case of significant deviations from targets and possibilities of overriding the decisions (the last two possibilities preferably requiring a qualified majority in the parliament to protect against misuse) (see, for example, EEAG, 2003).

<sup>10</sup> This possibility has been analysed by, for example, Ball (1997), Business Council of Australia (1999), Seidman (2001), Wyplosz (2002) and EEAG (2003).

<sup>11</sup> One way of doing this could be to give the Committee control over a "rainy-day stabilisation fund" for this purpose. The Finnish buffer funds (see Section 3.2) play such a role, although they are controlled jointly by the government and the central labour-market organisations in a corporatist fashion.

<sup>12</sup> A relevant counterargument might, however, be that one regards delegation of both monetary policy and some fiscal policy decisions to "technocrats" as giving too much delegation in total. An alternative, which has been proposed by Sveriges Riksbank (2002), is that the parliament should instead delegate some fiscal policy decisions of a stabilisation character to the government. This might mitigate the problem of long decision lags, but might on the other hand exacerbate political-economy problems relating to the risk of procyclical policies pursued by governments in order to secure re-election or favour their own constituencies.

## 4. OVERALL CONCLUSIONS

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**30.** One cannot expect increased nominal wage flexibility in the EMU to act as a good substitute for the loss of national monetary policy in the event of country-specific cyclical developments. This puts a heavy burden on national fiscal policy. The technical potential of fiscal policy to work as an effective stabilisation policy tool has probably been underestimated in recent years: especially policies that change relative prices (such as temporary VAT changes affecting the intertemporal terms of trade or temporary changes in payroll taxes affecting real labour costs and real exchange rates) are likely to have substantial effects.

**31.** The main obstacle to efficient fiscal stabilisation policy is problems of political economy: long decision lags, irreversibility of decisions, deficit bias, confounding of stabilisation policy objectives with income distribution and resource allocation objectives, and the use of fiscal policy to secure the re-election of incumbent governments. This makes it unlikely that an increased use of fiscal policy can compensate for the loss of national monetary policy in the case of EMU membership. But the effectiveness of fiscal policy as a stabilisation tool can probably be raised significantly through various institutional reforms establishing a more well-defined and transparent policy framework that borrows from the experiences of monetary policy making.

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## WENDY CARLIN AND ANDREW GLYN: BRITISH EXPORTS, COST COMPETITIVENESS AND EXCHANGE RATE ARRANGEMENTS

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*HM Treasury invited Wendy Carlin and Andrew Glyn to revisit their 2001 paper 'Export Market Performance of OECD countries: an Empirical Examination of the Role of Cost Competitiveness' co-authored with John Van Reenan, with particular reference to the quotation: "The existence of underlying trends in export performance combined with an important role for cost competitiveness has implications for the debate about exchange rate arrangements in Europe." (p.156).*

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1. This note summarises the implications of our work (Carlin, Glyn and van Reenen 2001 updated for the Treasury in Carlin, Glyn and Manning 2002) for the discussion about UK adoption of the Euro.
2. The fundamental purpose of our work was to examine the determinants of manufacturing exports, using a large data set covering major manufacturing industries in a dozen or more OECD countries for the period since 1970. Our focus was on the role of labour cost competitiveness – had it become less important as exports were increasingly dominated by products where quality was paramount or more important as competition on world markets had grown. Did its importance differ across industries depending upon their technological sophistication, were factors like investment or research and development important for exports directly over and above indirect effects on labour productivity and thus costs? We wanted to see whether UK exports were more or less sensitive to labour cost differences than other (especially European) countries and whether there were consistent adverse trends in UK exports, which would imply export market shares could only be maintained if relative unit labour costs grew more slowly than in other countries.
3. Our conclusions (from the 2002 paper, which extended the period of analysis to 1999) were that:
  - (a) The notion that relative unit labour costs are becoming less relevant for the exports from OECD countries is wrong. If anything, cost sensitivity of export market shares seems to have edged up in the 1990s;
  - (b) The full effects of changes in cost competitiveness on exports take a long time to feed through, as long as six years, particularly when they are initiated by exchange rate changes;
  - (c) There is evidence for some additional direct effect for R&D and fixed investment on export performance over and above indirect effects via relative costs;
  - (d) UK exports are relatively sensitive to unit costs and, if anything, have become more sensitive since the 1970s and 1980s. The UK is different from EMU members on this count: in the other large countries, exports are not sensitive

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<sup>1</sup> Carlin, W., Glyn, A. and Van Reenen, J. (2001) 'Export Market Performance of OECD Countries: An Empirical Examination of the Role of Cost Competitiveness', *Economic Journal* 111 (468) (January), pp. 128-162.

to costs (Italy) or cost sensitivity has fallen and is well below Britain's in the 1990s (France and Germany). The causes of cross-country variation in the cost-sensitivity of exports are not well understood. Without a firm understanding of the determinants, the safe assumption to make is that it would not change on entry to EMU; and

- (e) Once labour costs are taken into account there has not been a significant tendency for UK export market shares to fall.

4. The simple conclusion is that *an adequate export performance requires that the trend in unit labour costs in the UK should not diverge significantly from that in other major competitors.*<sup>2</sup>

5. Conversely a progressive deterioration in relative unit labour costs (RULC) would, over the medium term, bring a significant decline in export performance. Within EMU, such a development would not bring the threat of a balance of payments or currency crisis. However the country would still suffer the impact of weak exports on jobs and ultimately living standards.

6. There are three components to the trend in RULC – relative wage trends, relative productivity trends and changes in the (effective) exchange rate. Our work has confirmed that in the long run each of these variables has the same effect on exports, which in turn justifies the use of RULC as a synthetic variable encapsulating the various determinants of exports. When examining the question of the UK's membership of EMU, it is instructive to consider each component separately.

7. Joining EMU in effect brings stability of the nominal exchange rate against the other countries within the Eurozone. Given the importance of these markets we could say that the effective exchange rate would be “half-stable” as compared to the present situation. Being even half-stable would be *beneficial* to the extent that it would reduce the extent that RULC was shifted from its appropriate level by movements in the nominal exchange rate. It would have *adverse* effects to the extent that the exchange rate could not move to compensate any adverse trends in the other components of RULC – wages or productivity.

8. From the data in our 2002 paper it can be seen that over the period 1970-89 the trend depreciation in the nominal exchange rate offset most of the impact on RULC of the considerably faster rise in money wages in the UK than in its competitors. Conversely over the period 1990-99 the trend appreciation exacerbated the impact on RULC of a relatively poor cost performance reflecting mainly slow labour productivity growth. As a member of EMU, the exchange rate should play a lessened destabilising role (assuming less medium-term volatility of the Euro as compared to sterling) but conversely it would be unavailable to substantially offset adverse cost trends should these develop in the UK.

9. Thus, *as a member of EMU it would be essential for the UK to achieve a trend in nominal labour costs per unit of output similar to those in the rest of the zone.* Labour costs per unit of output in turn depend on labour productivity growth and money wage growth.

10. The UK's moderate relative productivity performance raises issues beyond the scope of this note. The following points are most relevant in the present context:

<sup>2</sup> In our 2001 paper, we suggested that the UK might have to achieve a lower rate of labour cost increase than its competitors, or improve its relative investment rates to offset an adverse underlying trend in exports. In our later work we put most weight on the individual country regressions (Table 8) which do not show significant adverse trends for UK exports once cost competitiveness is allowed for. Any such adverse trends would tighten the pressures on UK cost performance in that a better than average trend in costs would be necessary to offset them.

- (a) It is the growth rate of productivity and not its level that is relevant to the determination of the change in RULC;
- (b) It is productivity growth in the traded goods sector that is relevant here (our analysis and most data on RULC is confined to manufacturing);
- (c) It is productivity growth in the traded goods sector relative to other EMU countries that is of key importance, because it is such divergence that could no longer be offset by exchange rate trends; and
- (d) There is no obvious reason why joining EMU would have a marked effect on medium-run UK productivity trends *relative* to other EMU countries.<sup>3</sup>

II. The recent data show that recent UK productivity growth in manufacturing is towards the lower end of the European league (the table below is updated from Table 9 in our 2002 paper). If the baseline assumption is that this will continue, the implication is that money wages in the UK would certainly have to rise no faster than the average for the Eurozone and perhaps somewhat slower to compensate for weaker productivity growth. The data for wage growth over the past decade in manufacturing shows that the recent trend has been for distinctly higher wage growth in the UK. Thus, *a necessary condition for maintaining UK competitiveness within the Eurozone would be considerable moderation of money wage growth as compared with that achieved over recent years.*

**Table I. Comparative productivity, wage and unit labour cost growth in EU countries, 1990-2001, Manufacturing**

Average annual percentage changes	Hourly Labour Productivity	Hourly employee Compensation	Unit Labour Costs	Hourly Labour Productivity	Hourly employee Compensation	Unit Labour Costs
	1990-2001	1990-2001	1990-2001	1995-2001	1995-2001	1995-2001
UK	2.7	4.9	2.2	2.3	4.5	2.2
Belgium	3.0	3.1	0.1	2.8	2.4	-0.4
France	4.2	3.1	-1.0	4.3	2.4	-1.8
Germany	2.8	4.4	1.6	2.3	2.7	0.3
Italy	1.7	3.8	2.1	1.0	3.0	1.9
Netherlands	3.1	3.7	0.6	2.5	3.4	0.9
Sweden	4.9	4.1	-0.7	4.7	4.3	-0.3

Source: BLS website: data for Germany 1990-1991 is for West Germany only; Netherlands data ends in 2000.

<sup>3</sup> This point should be kept separate from the possibility that membership of EMU could affect the productivity growth of all members.

**12.** Would joining the Eurozone generate more moderate wage increases through the operation of market forces? As we noted in our 2002 paper:

“the relatively rapid rise in UK unit wage costs since the mid 1990s (compared to other EU members, not UK historical experience) took place in the context of a highly overvalued exchange rate which brought great pressure on traded goods sector prices and profits, and therefore on wage setting. If the pound entered the Euro at a more realistic rate this downward pressure from the high exchange rate would be relaxed. All this emphasises that the long-standing issue of UK wage setting has not disappeared and would indeed take on heightened importance after membership of the euro-zone.”

**13.** Wage setting is much less co-ordinated, across unions and across employers, in the UK than in most European countries (as noted for example in Chapter 8 of HM Treasury (2002)). If the UK joined EMU at a realistic exchange rate, wages would have to be set consistently with the old “Scandinavian Model” – money wages can rise by productivity growth in the UK traded goods sector plus average unit labour cost increases in other EMU countries. It is hard to see that this would happen without either a major rise in unemployment to force down inflation and wage increases or a successful attempt to co-ordinate down money wage increases so that they were consistent with maintenance of export cost competitiveness.

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