

EMU: a question of economics

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This Paper looks at the main economic arguments for and against membership of Economic and Monetary Union. Possible economic gains from lower inflation and exchange rate certainty may be offset by regional disparities in income and opportunity. The claims made by the European Commission are explained and commented upon by several leading economists. The direct financial implications of participation are also considered together with the impact that membership might have on inward investment and on the position of the City of London.

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Summary

The economic arguments for and against a single currency are complex. The advantages of lower inflation and less volatile exchange rate movements are highly dependent upon the success of an institution (the European Central Bank) that does not yet exist. The costs of EMU, by contrast, are not only the possibly exaggerated concerns for the future over loss of sovereignty and lack of flexibility but are already apparent now as candidate countries for EMU struggle to control their public finances. This Paper looks at four broad areas of economic interest and controversy and summarises a range of views from those of the Commission to the representatives of business and finance. Also considered in this Paper are the direct financial implications of membership. Recent studies suggest that membership may result in substantial direct public finance benefits to the UK. Information on other aspects of EMU is available on the Library's EMU website¹ and in a range of other Papers listed on the back cover of this one.

¹ <http://hcl1.hclibrary.parliament.uk/emu/contents.htm>

I The economics of monetary union

A. Introduction

One of the difficulties in assessing the arguments for and against monetary union is in first defining the status quo: with what economic arrangement is EMU being compared? At one extreme it could be with a loose, free trade area, with little or no formal economic or institutional linkages. Alternatively, it could be compared with an arrangement that stops just short of full EMU, i.e. a free trade, Single Market, fixed exchange rate federation, but with no trans-national authority or other pooling of economic sovereignty.

References to Treaty Articles will refer in the first instance to the Article number as set out in the Maastricht Treaty. In brackets following will be the number that would apply if the relevant article of the Amsterdam Treaty is brought into law. References to Articles in Protocols remain unchanged by the passing of the Amsterdam Treaty.

In its early analysis of the costs and benefits of EMU, the Commission stated that:

For the purpose of comparison with a future EMU...the point of departure is assumed to be a Community which has completed the Internal Market according to the 1992 programme, combined with the European Monetary System in which all Member States take part²

This is a reasonable 'departure point' in that it broadly reflects the actual development of the Community, although the legacy of the ERM crises of 1992 and 1993 is a rather different EMS than that envisaged by the Commission when it produced its report in 1990.

This Paper examines the economics of EMU by following the Commission's analysis under the four major headings, efficiency & growth, price stability, public finance, and adjustment to economic shocks. The other study that will be referred to frequently in this Section is a document called, 'The pros and cons of EMU' by Professor David Currie which was published in July 1997 by the Treasury. This is an updated summary of a report first published by the Economist Intelligence Unit. The views of other commentators appear in a separate Section.

²European Commission, *"One market, one money"*, European Economy No 44 1990 p 9

B. Efficiency & Growth

Many people assume that the greatest advantage of EMU would be the abolition of currency exchange costs and commissions. In fact the abolition of the costs associated with the existence of different currencies actually scores less well in studies on the benefits of EMU than do some other factors. Articles regularly appear in newspapers describing the journey of a traveller starting off in one EU country with, say £100, who then changes it into francs in Paris, then Dmarks when they get to Munich and so on. On return to London, having visited all Member States, but without spending any real money, the traveller is left with about £50, the rest having gone in commission charges and differential exchange rates. Although the costs of changing money are considerable to individuals they are less onerous to business because of the higher volume of their transactions; many large companies have internal treasury operations anyway. Indeed, the Governor of the Bank of England has argued that the costs to the individual had perhaps been overstated:

"Anyone who travels throughout the European Union exchanging all his currency as he goes deserves to pay for the privilege - particularly in the age of the plastic card!"³

The Commission estimated that transaction costs can amount to at least 0.4% of GDP per year. In its review of EMU, the Treasury's 'Panel of Independent Forecasters (the Wise Men)' comments that for a large trading nation like the UK with well developed and competitive financial markets, the actual saving could be considerably smaller than this.⁴ If this were the main benefit of EMU, it would hardly be worthwhile.

Another benefit of a single currency is improved transparency of prices. At its simplest, this says that it is easier to get value for money when buying abroad if you are familiar with the currency: tourists frequently pay too much for goods in foreign shops simply because they cannot divide by the exchange rate accurately in their head. This effect also takes place at an industrial level. Many industrialists see transparency of pricing as one of the main challenges to raised by EMU. Commonly, companies operating in more than one Member State charge different prices according to what the local market will bear. This is sustainable when there are variable exchange rates, exchange transaction costs and transport costs involved in buying abroad. Once EMU becomes established, the first two of these costs and uncertainties will be removed and hence cross border shopping, or shopping via such things as the internet, will increase dramatically. It is claimed, therefore, that single currency pricing will complement the provisions of the Single Market, increase competitive pressure and improve the economy.

³Speech at the Association of French Bankers, 31 January 1995

⁴"*Received Wisdom*", Treasury Occasional Paper No 6, p 23

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The biggest gains to come from EMU however, will be the reduction in exchange rate variability. Much of this is tied in with the expected benefits of lower inflation (see below), but it is clear that volatile exchange rates themselves can have a dampening effect upon investment and hence on growth. The Commission estimated that:

even a reduction in the risk premium of only 0.5 percentage points could raise income in the Community significantly, possibly up to 5-10% in the long run.⁵

Currie is more equivocal:

If it is true that exchange rates move to help macroeconomic adjustment, this [fixed exchange rates] may well represent a cost of EMU. But if exchange rates more often move erratically and unsystematically in response to arbitrary speculation, exchange-rate volatility imposes a macroeconomic cost, and its elimination represents an advantage. Both views capture an aspect of the truth: exchange rates do tend to play a useful adjustment role, but also incorporate a large arbitrary and disruptive element.⁶

C. Price Stability

The Commission repeats many of the well-known arguments that price stability brings with it welfare gains. At its most basic, these arguments are based on the assumption that if an economy functions through the price mechanism, any disruption of that mechanism will lead to sub-optimal economic outcomes. Inflation requires that management time and effort be expended in coping with expected levels of future inflation. Unanticipated levels of inflation hit different groups in society; pensioners see their savings reduced in value and workers their wages. Throughout the economy everyone is subjected to 'menu costs' as prices have to be regularly updated to reflect their underlying costs. The Commission asserted that the institutions to be introduced under EMU, based as they are on the German model of central bank control, would eliminate inflation as a factor in the determination of economic agents' decision making processes.

This is justified by the assertion that monetary policy will be in the hands of the European Central Bank that will have in its constitution a "primary objective...to maintain price stability".⁷ A body with this priority, working independently of countries which have already, separately, achieved a high degree of price stability (i.e. those countries that have already passed the inflation convergence criterion) should be able to deliver low inflation in the euro-zone. Thus the benefits of monetary union are also the benefits of low inflation. The better functioning price

⁵Commission, op cit p 63

⁶ ibid p 6

⁷Treaty on European Union, Cm 1934, article 105 (future 105)

system might result in higher levels of investment since employers can assess the future prospects for their firm with greater certainty in a low inflation environment. Within EMU this is taken a step further. As the inflation rates of separate members of EMU converge individual producers, when considering the site of new factories etc, can concentrate on 'real' variables, labour productivity, location of markets, appropriateness of infrastructure etc, rather than monetary variables such as the wage inflation differential between say, German car workers and their Spanish counterparts. Thus the quality of investment and its quantity might rise within the EMU area thus raising productivity levels and growth in Europe.

The main expected benefit to growth of a lower rate of inflation in the EMU is that the creation of the EMU will affect inflation expectations. If wage bargainers in the EMU expect future inflation to be lower they may respond by lowering their own demands, and thus contribute to the achievement of even lower inflation levels. In a speech in 1995, the Governor of the Bank of England accepted this view of the likely effects of EMU:

With monetary union..... persistent relative inflationary pressure in one part of the single currency region would then be punished by falling economic activity and rising unemployment. That realisation ought to make inflationary behaviour less likely - that is to say that the external discipline looked for from the ERM would be much more powerful [in the EMU]. The single monetary policy would anyway be beyond the reach of national governments, which would also logically have to accept constraints imposed by treaty on their overall fiscal policies. And the private sector would be stuck with the inevitable consequences of inflationary price or wage behaviour.⁸

When, in this changed inflationary environment, governments - which remain in charge of fiscal policy - find out that inflation expectations are lower, the economy could run at higher levels of growth of output, and hence employment, than could have been allowed previously without fear of accelerating inflation. Sometimes economists describe this as a shift in the non-accelerating inflation rate of unemployment (NAIRU), where NAIRU is that rate of unemployment where the *rate* of inflation is stationary. Clearly there are material gains if the economy can grow at 3% a year with inflation at 2%, than if it can only grow at 2½% with inflation at 2%. Even a very small shift in NAIRU will have huge cumulative benefits after a number of years.

The Commission estimated that the direct benefits to the Community of lower inflation would be of the order of 0.3% of GDP⁹, in addition to the much larger gains mentioned above with respect to higher growth of incomes.

⁸Source: Paris 31 January 1995

⁹Source: op cit p 87

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Currie too accepted that low inflation is the most likely outcome of an ECB controlled monetary area. However, he points out that there is already a de-facto DMark area consisting of Germany, the Netherlands, France and Austria that is unlikely to improve its inflation record under the ECB, particularly since that institution will be 'diluted' with membership from countries with, traditionally, higher rates of inflation, namely Ireland, Portugal, Spain and, possibly, the UK. Furthermore, Currie points out the possible problems that will face the new ECB:

EMU will be a profound economic change which may well alter the workings of the joint monetary economy in significant and unpredictable ways. All central banks have to cope with such changes from time to time: examples include the shift in demand for money after financial markets were liberalised in the 1980s. At such times, policymakers can lose their bearings, and the conduct of monetary policy can become volatile. The ECB will enjoy the monetary equivalent of a baptism of fire.¹⁰

D. Public Finance

Even within the generally pro-EMU account given by the Commission in its study, it accepted that there were major implications for public finances in the move to EMU, which would not all be either beneficial or painless in the short term.

According to a Commission spokesman, the two parts of the convergence criterion which deal with public finance, the borrowing and debt criteria, were deliberately set at levels below what was then the then Community average. The reason for this was to reinforce the anti-inflationary goal of the Union by setting a broadly anti-inflationary macro-economic climate. The depth of the subsequent economic recession, which affected all the Member States, and the specific problems encountered by Germany following reunification, turned a mildly deflationary aim into a severe test of fiscal commitment. The Commission's analysis was written before this became clear. Apart from meeting the criteria, however, the main problem in this area is that EMU would impose two contradictory impulses on the public finances of Member States.

First, in the absence of a nationally determined monetary policy, i.e. no national interest rate or exchange rate, the need for discretionary fiscal policy to meet national conditions increases. However, the need for fiscal discipline increases inside a monetary union, when the national authorities are no longer able to monetise their debts and finance their borrowings by encouraging inflation: governments can no longer print money to pay for their debts.

"Unsustainable budgetary positions in a Member State, ultimately leading to either default or debt monetization, would be a major threat to overall monetary

¹⁰ *ibid* p 7

stability. High and growing public debt ratios would lead to pressures on [the ECB] to soften its policy stance and more generally on the Community as a whole to provide financial relief."¹¹

The Commission also pointed out that the benefit of the lower average levels of inflation to be expected within the EMU would put a corresponding burden on governments. For governments, inflation is an effective means of raising revenue. Revenue from taxes such as VAT automatically rises as domestic prices increase. The value of income tax allowances fall and, under a graduated tax system, as incomes rise taxpayers move into higher tax brackets and hence revenue increases. All this is accomplished without the government being seen to raise taxes. On the other side of the public finance equation, the value of government debt is eroded by inflation. According to the Commission, the revenue loss which would result from lower inflation might be in excess of 1% of GDP in some Member States.

Currie too acknowledges the benefit that the lax control of inflation has been for governments, however, he turns the new reality of EMU as a positive argument in favour:

With a single currency, governments know that they will be unable to reduce the burden of their debts by letting inflation rise. In the end, they will have to finance their borrowing through explicit taxes, not through the hidden tax of inflation.¹²

E. Adjustment without an external exchange rate

The loss of an exchange rate as a policy instrument has important implications for macroeconomic policy. The UK's experience after it left the ERM shows that under certain conditions a devaluation of the domestic currency can have a beneficial impact. A single currency would deprive Member States of the ability to alter their competitive position against what would be their main trading partners. With respect to countries outside the Union, Member States would be in a semi-flexible position since the external value of the common currency would be determined by the ECB in consultation with the Council of Ministers, which will consider factors affecting all Member States.

Most of the academic discussion in this area has been conducted by considering shocks to the Union. How would the Union react, for example, to an increase in commodity (oil) prices? In the literature, shocks are divided into two types, symmetric and asymmetric: shocks that affect all Member States equally, and shocks that affect them differently, either in scale or direction. If

¹¹Commission: op cit p122

¹²Currie p 9

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the shock is symmetrical, then there should be no need for exchange rate adjustments between Member States. Thus, it is the treatment of asymmetric shocks which has occupied most attention. This is often discussed with reference to how things work in another large monetary union, the United States of America.

For example, take two states, California and Texas. Assume that California earns all its money from making computers and Texas from drilling for oil. Both pay Federal taxes, some of which are recycled back to their residents in the form of unemployment benefits, sickness benefits and the like. Imagine now that the price of oil doubles. Texan companies get richer, output increases and they employ more workers. Both corporate and individual tax payments increase. In California, computer companies have to pay more for their fuel, car drivers pay more too and buy less at local shops to economise. Both corporate and individual taxes fall, some people lose their jobs and start to claim benefits. At this point the role of the Federal government becomes obvious. Net budget contributions from Texas will rise and those from California will fall. In this way, it is estimated that about 40% of the relative changes in income between the two states will be evened out.¹³

Similar events could happen in a European monetary union but with the resources of the EC budget limited to 1.2% (rising to 1.27% after 1999) of GDP, and most of this being spent on agricultural support, the opportunity for significant income redistribution within the monetary union is very limited. Thus, the consequences of a shock that benefited the northern rim of Europe but adversely affected the Mediterranean area could not easily be moderated in the absence of relative exchange rate changes between Member States.

In the absence of an interventionist central body, responses to change will manifest themselves either in changes in real output and supply, or in changes to the price level, depending upon the degree to which factors of production are mobile within the Union. In a comparative study of the US and the EU the evidence suggested that factor mobility is much lower in the EU than in the US. The implications of this for a proposed EMU are described below:

By adopting a single currency the EU is likely to reduce the short run flexibility of relative prices, making it more difficult and costly to adjust to underlying disturbances. Given the very steep estimated supply curve [i.e., unresponsive] this will be particularly important in response to demand disturbances. Indeed, the exchange rate turmoil in 1992 and 1993 can be seen as an example of this, with the ERM of the EMS making it difficult for relative prices in the EU to respond sufficiently quickly to the rise in demand for West German products caused by German unification.

In the longer term, increasing integration of EU goods and factor markets should reduce the need for large movements in relative prices. Institutional changes,

¹³Source: Barry Eichengreen, *Economic Policy*, April 1990

such as the recent completion of the single market in the EU are important in promoting this integration. Having said this, it does not appear likely that the EU will achieve anything like the levels of integration of US regions in the immediate future. In the shorter run, disruptive relative price adjustments can best be avoided by reducing the size of underlying disturbances in demand for regional products. Co-ordination of domestic aggregate demand policies across EU countries, such as the fiscal restraints incorporated in the Maastricht Treaty, can be seen as one method of moderating the problems likely to be associated with EMU.¹⁴

The Governor of the Bank of England expressed similar views when he said of the proposed monetary union:

But there could also be important disadvantages. [Some] people are less sanguine that monetary union will bring about the behavioural changes necessary to ensure the balanced economic development of the separate member countries.

There is particular concern about both the conjunctural and the structural differences between the member countries that might exist at the time that the single currency came into effect....some of those risks are captured by the convergence criteria in the Maastricht Treaty, which seek to ensure that sustainable conjunctural convergence has been achieved before any move to a single currency. And it is why many people insist that the convergence criteria must be very strictly applied when the time comes. I agree with them.

But the Maastricht convergence criteria do not address the deep-seated structural differences within Europe reflected in the generally high levels of unemployment - which differ substantially from one country to another - and which seem unlikely to be substantially eroded by the present cyclical upturn. This problem, which is generally recognised as much the most urgent economic problem facing Europe, needs to be addressed through structural policies such as those being explored by the Commission and debated by the European Council. But it seems quite possible that a part of the answer to the widely differing levels of structural unemployment will need to be relative wage adjustment. It is hard to imagine that this could be brought about through a reduction in nominal wages in the high unemployment countries; and, without that, it is possible that there would be a need for exchange rate adjustment to help bring about a real wage adjustment.¹⁵

The Commission's answer to concerns about the absence of an exchange rate policy tool is the familiar one that exchange rate movements only provide a temporary relief:

¹⁴Bayoumi & Thomas, *Relative Prices & Economic Adjustment in the US and the EU: a Real Story About European Monetary Union*, IMF Working Paper 94/65, p 17

¹⁵Speech in Paris 31 January 1995, quoted in Bank of England Quarterly Bulletin May 1995

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Since wages and prices are rigid in the short run, nominal exchange rate changes may affect real exchange rates for a while. This may dampen output fluctuations, but may increase inflation fluctuations. Over a longer period, nominal exchange rates tend at best to accommodate inflation differentials without having a lasting impact on real exchange rates.

Real exchange rate changes are still possible through relative price movements within EMU, as the examples of existing federations and the experience of the EMS clearly show.¹⁶

The Commission argues that if a country responds to an adverse shock by devaluing it will improve its position initially but, as workers demand higher wages in response to higher import prices, domestic inflation will rise and export prices will revert to their previous uncompetitive levels, albeit with a higher general level of domestic prices. This is a standard argument against all devaluations: they don't work in the long run, and the short run is very short indeed. Against this, however, if the costs of adjustment are to be met entirely by changes in the nominal level of prices and wages, it has to be accepted that adjustment might well not be a painless process. This is particularly the case if the economy has low inflation. Then, maintaining nominal values and allowing inflation to reduce their value cannot easily bring about reductions in real wage costs. An historical illustration of the problems of the adjustment process with fixed exchange rates is the experience of the UK following the return to the gold standard in 1925.

The reasons why the UK reverted to the gold standard have been debated at length. Many commentators have stressed that the attraction was the prospect of 'sound money' which could be achieved less painfully on 'gold' than outside the system. Whatever the reason, return to gold did not achieve the goals set out for it; trade did not recover and the economy remained weak. One consequence of this was the appallingly high level of unemployment that persisted in some areas until the outbreak of World War II.

There has been a good deal of speculation about why unemployment remained so high after the return to gold. It is generally thought that the actual exchange rate chosen was about 10% too high. However, attention has also been paid to the rigidities which then existed in the labour market such as the high levels of unionisation of the workforce; a phenomenon which was common to both Germany and the UK. These rigidities may explain why most of the expected benefits of the return to gold standard between 1925 and 1931 were not realised. The expected automatic wage and price decreases consistent with the new exchange rate never materialised. What reductions there were, were offset by similar, and in some cases larger, reductions by competitors. Between 1925 and 1929, although nominal earnings fell, the fact that retail prices fell even faster meant that real earnings rose (by 5.8%) and employment failed to recover. The real effect of the overvalued exchange rate was felt in the traded sectors of the economy where a

¹⁶op cit p 137

drop in the share of world trade contributed to a rise in unemployment of over 1 million in 1930. The UK left the gold standard in 1931.¹⁷

When the Commission looked at the question of factor price adjustment, it specifically examined real wage rigidities. It argued that the greater credibility of inflation control in the euro-zone, plus the controls on 'fiscal bail-outs' implied in Maastricht would increase labour market 'realism'.¹⁸ However, it accepted that to the extent that there was a social dimension to the Union's policies, unrestrained income differentials were unlikely to be acceptable (a factor mentioned again in the Commission's White Paper on Competitiveness published in 1994) and legislation covering minimum wages could create a wage norm and institutionalise wage rigidity in some countries. The alternative to direct real wage changes, regional mobility of labour, is accepted by the Commission as being "neither feasible, at least not across language barriers, nor perhaps desirable".¹⁹

Currie too is not optimistic about the area's ability to adjust to shocks. He points out that currently most European labour markets are inflexible and respond quickly to changes in domestic price levels "so that any real impact of exchange rate movements is quickly eroded".²⁰

Not specifically addressed by the Commission in their study was the argument that under the new union a country surrenders a key element of its economic sovereignty to an unelected, unrepresentative body: the ECB.

F. Economic sovereignty

The argument about sovereignty is usually dealt with on one of two levels. First, can an institution set up by a Treaty agreed by Member States really be described as being unrepresentative? In a sense it is like the judiciary in the UK. They are non-elected but their authority is accepted no less for that. Since many Member States already had independent or quasi-independent central banks before Maastricht, concerns about the constitutional problem are less common on the continent than here.

Secondly, one could question how much economic sovereignty a nation actually has in today's world. It is clear that in a world without controls on capital movements, no single government can sustain a monetary policy that is at odds with what the markets think is credible. As was

¹⁷ More information on the operation of the gold standard in the inter war period can be found in '*Golden Fetters: the gold standard & the great depression*' by Barry Eichengreen

¹⁸ op cit p 149

¹⁹ op cit p 151

²⁰ op cit p 11

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pointed out as early as the 1960s by two IMF economists, Mundell and Flemming, it is clear that a government can do only two of the following things at any one time:

- control international capital movements
- fix the exchange rate
- fix the interest rate

What it cannot do is control all three.

The UK abolished capital controls progressively from 1979, so even outside of the ERM its economic policy options were already limited. If, for example, the market exchange rate is fixed, several other policy options fall into place. Compatible with any given exchange rate there is probably a fairly narrow range, or combination, of policies that would gain market credibility. An 'independent' country could choose from a policy mix of loose fiscal policy and tight monetary policy (like the policy of the US in some periods of the 1980s - although there was no obvious exchange rate target) or the other way around. Clearly, if monetary policy is fixed by the ECB, then the fiscal choices remaining for a country in the monetary union are correspondingly reduced too. This limitation is given expression in the Maastricht Treaty, which limits government fiscal policy until monetary union and prohibits central government 'bail outs' or rescues of bankrupt public undertakings, broadly defined.²¹

One other way of looking at the limitations of the sovereign power of nations is with respect to the following table.

Central Banks v FOREX

	A	B	
	Central Bank reserves \$ billions	Foreign exchange daily market t'over \$ billions	A' as a % of 'B'
1983	116	39	298%
1989	268	410	65%
1995	422	870	48%

Source: Morgan Stanley:GEF 25/7/97

²¹Cm 1934, Articles 104 & 104c (future articles 101, 104)

Only fifteen years ago the foreign exchange reserves of the major financial centres were almost three times the size of the world's daily foreign exchange turnover.²² Now they are less than half which indicates quite clearly the declining ability of the world's monetary authorities to influence the exchange rate. The article from which this table was drawn continues with some of the themes expressed in other commentaries on EMU to the effect that there is no sovereignty to give up anyway. It states:

The combination of declining global capital controls and the utilisation of new technology has turned the global financial markets into one of the most potent variables of the world economy. Trading is now done around the clock. Execution periods are swift. Massive amounts of capital move in nanoseconds. All of this appears just too much for governments, including those in the developed nations.

Central banks, to be sure, still have at their control many measures to influence currency movements. But it seems that the best defense against traders and speculators begins with the right monetary and fiscal policies, an educated workforce, a flexible exchange rate, political stability, etc. These nations are rewarded with investment capital. Those nations, notably those in the developing nations, who do not have their financial house in order appear to be increasingly at risk.

It is not clear, however, whether such conclusions actually take one further forward in the EMU debate. In the long run the ECB will be no more able to influence the level of the euro than Member States can currently manipulate their own currencies. Thus to say that a Member State has surrendered control to an outside authority is misleading: in the sphere of exchange rate determination that control has largely gone already.

G. Financial consequences of membership

An aspect of the debate that has yet to receive much comment is the possible direct financial cost or benefit of membership. This is a surprise in one respect since a good deal of attention is given to the UK's financial contribution to the EC Budget in debates on the benefit or otherwise of the UK's membership of the European Community. The principal financial costs of joining the EMU are the costs involved in establishing and running the European Central Bank [ECB].

There are two distinct calls for money by the ECB which will be made on the central banks [CBs] of those countries participating in Stage 3 of EMU. The first of these is a call to establish the initial share capital of the ECB. Participating Member States will together own the ECB and

²² combined reserves for US, UK, Japan, Germany and Switzerland

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will subscribe for shares in that organisation according to a formula set out in the Treaty. The share capital has been established at 5 billion ecus.²³ Each CB's share will be determined according to a weighting composed of:

- 50% of the share of its respective member state in the gross domestic product at market prices of the community as recorded in the last five years preceding the penultimate year before the establishment of the ESCB
- 50% of the share of its respective member state in the population of the community in the penultimate year preceding the establishment of the ESCB

The second call for money by the ECB to be made on the CBs is to provide the ECB with sufficient exchange reserves to enable it both to manage the monetary policy within the EMU area and to operate on the foreign exchange markets to manage the external value of the euro. Strictly speaking, the first of these implies a mutual transfer of assets, whereas the second is a net transfer from CBs to the ECB.

In the first case, once EMU is established exchange rates between the currencies of the participating states are irrevocably fixed amongst themselves and as between themselves and the new currency the euro: the old currencies disappear. Hence, what will happen is that the CBs will have balances of euros created at the ECB equivalent to the sum of their total asset balances of participating currencies. In a sense euros will be swapped for DMarks, Francs, Lira etc held at the Bank of England and the Bank (assuming the UK participates) will have a euro account at the ECB. Similar conditions will apply for the other participants.

Secondly, because monetary policy in the euro-zone, including managing the external value of the euro, will be the responsibility of the ECB, the ECB will also have need of asset balances of non-participating currencies. Under Article 30 of the Protocol on the ESCB in the Treaty, Member States have to provide the ECB with foreign exchange of non-participating currencies *up to* 50 billion ecus. Each CB is liable for a share of this sum; the size of that share will be the same as its share in the ECB's share capital.

The number and composition of the participating countries will determine the actual size of the contribution. If not all Member States joined, the total requirement will be reduced, however, it is not possible to say by how much since that would depend on which countries were left out. Furthermore, because the total requirement was reduced it would not necessarily mean that individual Member States' contributions would be reduced, again it would depend on who was left out.

²³ Protocol on the Statute of the European System of Central Banks and of the European Central Bank, Article 28

The following table tries to provide a rough estimate, according to the Treaty, of the respective contributions to both the capital of the ECB and its foreign exchange reserve requirements expressed as a percentage of national gold and foreign exchange reserves.²⁴ It is done on the basis of 1996 data, and on the assumption that all countries participate and the ECB calls for the maximum allowed in the first wave.

European Central Bank: contribution estimates
1996 Data

	'A'	'B'	'A' as a	Notional
	Estimated	Gold & foreign	percentage	shareholding
	contribution to	currency reserves	of "B"	in ECB
	ECB capital	held by national		
	& reserves	Central Bank		
	US \$ billions	US \$ billions		
Belgium	1.8	23.2	8%	3%
Denmark	1.1	15.2	7%	2%
Germany	15.7	94.0	17%	25%
Greece	1.3	13.0	10%	2%
Spain	5.5	53.9	10%	9%
France	10.7	58.6	18%	17%
Ireland	0.6	7.8	7%	1%
Italy	9.4	75.2	12%	15%
Luxembourg	0.1	0.1	109%	0%
Netherlands	2.8	39.4	7%	4%
Austria	1.5	23.1	7%	2%
Portugal	1.2	20.7	6%	2%
Finland	0.9	6.8	13%	1%
Sweden	1.7	21.5	8%	3%
United Kingdom	9.2	45.4	20%	14%

Source: Maastricht Treaty;
 International Financial Statistics, June 1996 data
 EC Commission, Annual Economic Report 1997

The left-hand column indicates the likely contribution under the assumptions made above, the central column shows levels of central bank reserve holdings as at June 1996, the adjacent column expresses the former as a percentage of the latter. It should be stressed that the contribution calculation is a rough estimate. According to officials at the Bank of England, as well as the imponderables mentioned above (not knowing who will join etc) arguments continue between Member States over the correct interpretation of the Treaty definitions to be used in the calculation of contributions.

According to this exercise, however, the UK is the fourth largest contributor (\$9.2 billion) behind Italy (\$9.4 billion), France (\$10.7 billion) and Germany (\$15.7 billion). These contributions can be compared with the level of Member States' existing gold and currency reserves to establish a sense of the burden of contributions. Clearly the calculations are not very

²⁴Articles 28 -30

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realistic for Luxembourg which is currently in a monetary union with Belgium. Although nothing has yet been published it would seem likely that the two countries reserves will be combined and one contribution will be made covering them both. Aside from this result the UK, at 20%, has the largest contribution as a proportion of its reserves followed by France (18%) and Germany (17%).

The right hand column is a calculation of the potential shareholding in the ECB that would occur if all Member States participated. This figure is of great importance in the distribution of the profits that will be made by the ECB.

These then are the main direct costs of EMU membership. What of the benefits?

The first benefit is that central banks are likely to enjoy certain economies of scale with respect to their reserves. It should prove possible for central banks to be able to dispose of some of their remaining currency and gold reserves since the amounts needed to defend one currency are likely to be proportionately less than the cumulative amount required to manage fifteen currencies. In the case of gold the benefit may be small or even unrealisable except in the long run. Should all central banks simultaneously try to sell gold onto the world market the effect would be seriously to depress the price that they could realise. Already the world gold market has been hit by the activities of central banks as the following article makes clear.

the Dutch central bank revealed it had disposed of around 9.6m ounces. This cut its gold reserves by about a fifth, an amount equal to last year's output from all the gold mines in the US.

Both the Netherlands and Belgium - which has sold almost 15m ounces since the end of 1991 - have justified their actions on the grounds that they hold too much of their reserves in gold rather than in foreign exchange. But the profits from gold sales can also reduce public sector debt. This may be attractive to those governments which are trying to reduce their debts to the 60 per cent of gross domestic product laid down as a target for participation in a single European currency by the Maastricht treaty.....

The sellers in recent years have been countries with smaller reserves which can run down their holdings without causing too much disruption to the market. Countries with large reserves such as the US, Germany, Switzerland, France and Italy find it harder to follow suit. They are trapped in a 'prisoners' dilemma', each unable to sell in significant amounts without torpedoing the gold price and incurring the wrath of the others.²⁵

²⁵Financial Times, 21 Jan 1997

Potential gold and currency sales can be best seen as one-off efficiency gains. A continuing source of income for EMU participants will be the profits earned by the ECB. Of these by far the largest are the seignorage profits.

Seignorage profits are earned by all central banks where the note (and to a lesser extent coin) issue are backed by government securities rather than by a precious metal such as gold or by another currency as is the case with a currency board. When a central bank issues a banknote it receives from the banking system the face value of that note. The cost of producing the note is of course a few pence and the difference between this and the note's face value is called seignorage and in most countries is remitted back to the national Exchequer. The sums involved are substantial and vary according to such factors as the rate of inflation, interest rates (on the government securities issued to back the note issue) and the public's desire to hold cash balances. Recent years' profits earned by the Bank of England are shown in the table below.

Bank of England

Issue Dept profits

Year ending Feb	£millions	Inflation rate in 12 months to Feb
1990	1,905.1	7.5%
1991	2,545.8	8.9%
1992	1,874.7	4.1%
1993	1,555.5	1.8%
1994	1,117.0	2.4%
1995	967.2	3.4%
1996	1,349.8	2.7%
1997	1,280.5	2.7%

Source: Bank of England Annual Report & Accounts

The profits are typically equivalent to one penny off the basic rate of income tax. The relationship with the rate of inflation (albeit a lagged relationship) has important public finance implications if, as it is claimed, EMU leads to significantly lower levels of inflation.

In EMU it will be the European Central Bank that will earn these profits; profits which will eventually be paid out in the form of dividends to its shareholders: EMU participants. Other sources of profit will come from administrative economies of scale. It is very likely that there will be net job losses when the ECB takes over monetary operations within the euro zone. One source noted that:

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Central banks in Europe look like they have some fat to shed: in 1995 the Federal Reserve in the United States had 23,727 employees, while the EU central banks have 64,753.²⁶

The evolving position with respect to assessing the size of the seignorage profits in the first place, together with the final distribution of these profits is covered in a series of articles from ‘*Central Banking*’, extracts from which are shown below:

[On the calculations of profitability] Calculations by *Central Banking* show that the central banks of Germany, Sweden, Denmark, Austria, Netherlands, Belgium and Ireland will lose income from joining EMU; while the central banks and governments of France, Italy, the UK, Portugal, Greece, Spain, Finland and Luxembourg will gain income, assuming for this purpose that all join. The Bundesbank will be hard hit, losing \$3 billion a year...while the Banque de France will be the biggest winners, benefiting by nearly \$3.5 billion. It is as if every German citizen promised to pay every French citizen \$38 a year for eternity. The Bank of England would [make] a gain of £1,065 million.²⁷

Although the calculation of the total level of profits are sensitive to the underlying assumptions on which they are based, the authors made very conservative assumptions with respect to the growth of reserve money (none) and interest rates (choosing the lowest, the German repo rate). Furthermore, even allowing for a degree of inaccuracy in their compilation the distributional system is bound to produce winners and losers. It continues:

This issue has been a headache for the central bankers trying to finalise the details of stage three. Perhaps the German government finds it hard to give up both the security of its beloved D-Mark and a large part of the yearly seignorage transfer it receives from the Bundesbank- DM 10 billion in 1995/96. The problem for Germany is stark: they have 42% of Europe’s monetary base, but only a 22.5% shareholding in the ECB. No matter how the technicians try to refine their models the Bundesbank must eventually lose out.²⁸

Negotiations designed to rectify this situation have taken place under the authority of a five year transitional period allowed under the Treaty which permits other methods of calculation to be employed and, in cases where the income distribution “results in significant changes in national central banks’ relative income positions” a simultaneous five year transitional period of relief payments are envisaged by the Treaty.²⁹

²⁶ *Central Banking*, Autumn 1996, p8

²⁷ op cit p9

²⁸ *Capital Banking*, Spring 1997 p 10

²⁹ Protocol on the Statute of the European System of Central Banks, Article 51

The institutional-political manoeuvrings currently taking place in order to implement the central bank system are described below:

There is however an obstacle in the way of the Bundesbank securing this transitional relief. The Governing Council of the ECB decides issues concerning profits by qualified majority vote according to each nation's shareholding in the ECB. To earn their relief the Germans will need on their side two thirds of the voting capital and half the voting members. In a governing council of twelve [excludes Greece, Italy and Denmark but includes the UK] Britain and France, the biggest winners of the system, could block this relief with their combined voting power of over 40% [according to the calculations this would benefit the UK to the tune of over \$2 billion]. In a small scale union (comprising France, Benelux, Ireland, Austria and Germany) the situation is worse for the Bundesbank: France with 33% of the voting shares exercises a virtual veto.

At a time when the French are lobbying hard for one of their countrymen to chair the ECB it will surely not go unnoticed that they will have the power to reduce [or increase] the Bundesbank's losses by \$1 billion in the first year.³⁰

This position gives the French a powerful lever over the Germans. The French government recently announced that it was rejecting the German-brokered candidature for the head of the ECB Wim Duisenberg, head of the Dutch Central Bank, and has put forward instead its own candidate, Jean-Claude Trichet head of the French Central Bank.³¹

H. Other comments & perspectives

The Commission's analysis generally portrays EMU in a good light. Some leading UK economists, including at least two of the six 'wise men' who used to advise the Chancellor of the Exchequer, have, however, expressed doubts about the Commission's claims.

Tim Congdon, one of the two, points out that the claims for lower inflation under EMU are as yet untested. How do we know that inflation will be lower? At the very least one might expect the central authorities to be less than perfect in their monetary management, at least in the early years. Furthermore:

³⁰ op cit, Spring 1997 p 10

³¹ Financial Times 5th 1997

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the French and Italian governments' enthusiasm for EMU arises partly from a wish to dilute German influence in the EMS, not to entrench it. The political will to control inflation is likely to be weaker in the EMU than it is at present.³²

Congdon also finds that the benefits of transaction cost savings are by and large ascribable not to the existence of one currency but would arise anyway if financial markets were fully deregulated and integrated. At the time that the Commission was writing, most of the cost of sending money abroad was the actual transfer cost, rather than the cost of changing it into another currency. Similarly, he found the alleged benefits arising from the improved flow of investment funds unconvincing. Since the UK was then the largest recipient of inward investment and was not a member of the ERM, he concluded that factors other than exchange rate stability determined major investment decisions. He concluded that:

In the transition to a single currency, there would be costs and no benefits...On the other hand, when the single currency is established, there would be mainly benefits. But these benefits tend to be exaggerated....Against these benefits some economists would emphasise the dangers of increased unemployment because of the loss of the devaluation option now available to European governments.

Readers must make up their own minds whether this analysis justifies British participation in future moves to a single European Currency. But it is clear that the benefits do not overwhelm the costs. On economic grounds alone the decision is not clear-cut. The question must therefore be resolved by other considerations, particularly the political implications.³³

Another review of the case for joining or abstaining from membership concluded that:

It should be evident from the above discussion that the calculus of economic gains and costs from EMU is still very uncertain. There could be substantial gains in prospect for the UK from participation, but there are also significant risks. The risks arise partly because the UK economy is not as closely integrated with the core economies as it should be for permanent locking of exchange rates and pooling of monetary policy; partly because the European economies exhibit structural imbalances, especially labour market divergences, which do not seem on the way to correction, and may even be widening; and partly because there is a possibility that the new policy regime will not work well. The latter doubts stem partly from institutional deficiencies in the Maastricht model and partly from the possibility that EMU will be joined in time by states that have not securely converged, or that wish to pursue conflicting economic objectives. The consequences for the UK of participating in an EMU that functions badly could be worse than those of not participating in an EMU that works well.

³²"*EMU now?, the leap to European money assessed*", Centre for Policy Studies pamphlet, p 18

³³op cit p22

In the circumstances there is a case for keeping an open mind on early participation in EMU, but with certain crucial provisos. There would be some point in suspending judgement only if there is a prospect that in the meantime the vital issues will become clearer. That may not apply to the purely political issues at stake, which are comparatively timeless, and if joining EMU were solely a matter of political choice..there would be little to gain from hesitation. But if the economic consequences are an important ingredient in the political choice, as they must surely be, more time for consideration should help. For that reason the Government was wise at Maastricht not to commit this country to participation in 1999 regardless of circumstances.

Among the issues that should become clearer in due course are:

- whether the UK economy has genuinely converged with the core group, in real as well as nominal terms, and whether other candidate states with doubtful convergence records have also done so;
- whether unemployment in the core states is on a downward trend, without producing large payments imbalances that require correction through exchange-rate adjustment; whether the ECB will formulate and conduct monetary policy on lines acceptable to the UK;
- how much flexibility EMU governments propose to allow for fiscal policy in Stage 3; how relations between 'ins' and 'outs' are to be conducted, including exchange-rate arrangements, macroeconomic policy consultation, and access to the payments and settlement system of EMU;
- and whether modifications could be introduced in the Maastricht blueprint to attenuate the fiscal limits, strengthen the accountability of monetary policy, and provide regular consultation between ministers and the ECB on the monetary-fiscal policy mix in EMU.³⁴

³⁴John Arrowsmith & Christopher Taylor, "Moving Towards EMU: The challenges ahead" *National Institute Economic Review*, October 1996, p87

II. Other Issues: the City & investment

One way of looking at the advantages and disadvantages to the UK of EMU participation is to focus on its possible impact on specific issues or sectors that are important to the UK. Two identifiable areas are considered below, the City and foreign direct investment.

A. What will EMU mean for the City?

Of course there is an immediate problem with this question, the City is made up of a variety of professions and activities that are both interrelated and yet may have distinct interests. This section tries to look at the responses and problems faced by these separate groups and starts by looking at the co-ordinating role being played by the Bank of England.

1. Co-ordination work by the Bank of England

Away from the economic and political arguments about the merits and extent of a single currency, the Bank of England has taken a lead role in co-ordinating practical preparations. This work is designed to ensure that the UK's financial and corporate sectors are able to operate should the single currency go ahead, whether or not the UK is a participant. The Bank is issuing progress reports on its work in this area on a roughly quarterly basis. Its third report, *Practical issues arising from the introduction of the Euro*, was published in December 1996. The discussions, which have involved a wide range of market participants and representative organisations, concentrate on such issues as the need to secure the continuity of contracts, providing where necessary for settlement in or convertibility into the Euro, and ensuring that systems and machinery could cope with dual currencies during a transition period. In general, the wholesale markets and international markets will be affected to a greater degree and sooner by the Euro than will markets which are chiefly domestic, whether or not the UK is 'in'. Apart from the securities sector, the implications for personal finance and the retail sector would depend on whether and when Euro notes and coins were introduced into the UK.

2. Gilts

The Bank of England has already taken steps to alter its operations in the money markets, from March 1997, by including gilt (short dated government securities) sales and repurchases (repos) among its instruments. It will also deal with a wider range of participants rather than acting through the discount houses alone. These changes are both compatible with the system of monetary control which the ECB will operate. The Working Group on the Gilt Market after EMU has reported on other technical issues including the mechanism for the conversion of gilts

into euros if the UK joins, and the benefits of greater harmonisation of market practices in Europe.

3. Futures Exchanges

There is fierce competition between the main futures exchanges to retain and expand their shares in the new market. The London market LIFFE, has already introduced new products designed to ensure preparedness if monetary union goes ahead. This is necessary whether the UK joins or not. However, the competitor exchanges in Frankfurt (DTB) and Paris (Matif) are also introducing products tailored for EMU. Competition is expected to be fiercest in the short term interest rate derivatives market where several currencies are currently actively traded but which will shrink to just the euro. LIFFE's 3 month Deutsch Mark contract is very strong but the DTB has a strengthening position in long term German government bonds. There is expected to be room for only one product in the liquid short term market which means that whichever exchange is able to attract the new business in euro futures may squeeze out the other two.³⁵ The continental alliance, whose volumes are increasing, uses a screen-based trading system which provides lower transaction costs, but which is currently less liquid than London's open-outcry trading floor.

4. Foreign Exchange

The City of London is currently the world's largest foreign exchange market with a daily turnover in excess of \$450 billion. Trading volumes are expected to fall if a single currency is introduced but supporters point to the relatively small proportion of business which transactions involving European currencies represent. Press reports suggest that markets have become less volatile and that there has been a contraction of employment already, but some expect a significant increase in volatility to return before 1999.³⁶ Any uncertainty about the participation and timing of countries' entry into monetary union, and the sustainability of the union, would probably increase volumes and volatility. Even after monetary union, traders will want to exploit the relationship between the euro and the major world currencies, and between the euro and non-participating European currencies, including those of Eastern European countries which hope to become members in the future.

5. Banking

A 1995 estimate by the British Bankers Association and the Association for Payment Clearing Services which put conversion costs for the UK banking sector at around £1 billion is now thought to understate the costs. In July 1996 the deputy governor of the Bank of England, Howard Davies, was talking of initial costs of about 3 per cent of annual operating costs, or £1.5

³⁵ Sources: 'Post-EMU: credit risk will replace currency risk in the EMU bloc', Bronwyn Curtis, Nomura Research Institute in *Bond Review*, LIFFE, Q4 1996; 'Exchanges square up for a fight', *Financial Times*, 17 December 1996

³⁶ 'Forex houses sanguine despite possibility of single currency', *Financial Times*, 6 December 1996; 'Banks to struggle as EMU stokes currency volatility', *Reuters News Service UK*, 17 February 1997

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billion for the sector as a whole.³⁷ Barclays has reportedly produced estimates of £300m for its own costs.³⁸ A large proportion of the costs for banks will relate to IT and to cash handling machines such as ATMs. Costs for non-retail banks are likely to be of a much lower order. A report carried out for the International Securities Market Association suggested that investment banks were already adept at using different currencies in their business, and that their conversion costs would be 'negligible'.³⁹

6. Insurance

Research by the Association of British Insurers suggests that the advantages and disadvantages of monetary union for insurers in the UK are finely balanced, although the net effect is expected to be positive. They would be more certain if the market for European insurance expands, which might be expected if monetary union leads to economic growth in Europe, although there are concerns on the investment side should interest rates and investment returns fall.⁴⁰ The costs for the insurance sector of monetary union is estimated by the ABI at around £1 billion, with IT costs a significant proportion.⁴¹ The ABI has also cited conversion costs prepared by a relatively small German insurer, specialising in commercial lines, of £20 million for the company. The costs are spread over five years.⁴²

7. Stock Exchange

The Stock Exchange is able to trade in multiple currencies already, but the use of two main currencies raises a number of practical issues, especially during the transition period. These include the need to retain sterling facilities for private investors until euro notes and coins are introduced and an obligation to calculate consistent market indices. Whilst shares could in theory trade in both euro and sterling denominations during the transition period, that would have an obvious effect on each stock's liquidity. If the UK became a full participant, companies would need to redenominate their capital into euros.

B. Will EMU non-participation affect inward investment intentions?

On the face of it this is an important question for the UK to resolve and it is one of the five tests set out by Chancellor Brown to determine UK fitness to join EMU.⁴³ The UK has been one of

³⁷ 'BoE's Davies sees change to EMU costing UK banks £1.5 bn', AFX News, 20 June 1996

³⁸ 'Banks' early confidence on EMU starts to erode', *Financial Times*, 3 December 1996

³⁹ 'Euro conversion costs "negligible"', *Financial Times*, 7 February 1997

⁴⁰ 'The implications of European Monetary Union for UK insurance', *Insurance Trends*, January 1996

⁴¹ 'Offices may face £1bn in admin costs over EMU', *Money Marketing*, 6 February 1997

⁴² 'Be prepared', *Post Magazine*, 5 December 1996

⁴³ "would joining EMU create better conditions for firms making long term decisions to invest in Britain?", HM Treasury document, 'UK Membership of the Single Currency: An assessment of the Five Economic Tests', p25

the major recipients of inward investment in the EU over the last fifteen years. Whether one looks at the effect upon the industrial sectors that have acted as hosts, e.g. car manufacturing, or whether one looks at the regions where it has been most concentrated, the positive and beneficial impact of inward investment cannot be easily overstated.

There is another reason for looking at this topic. The statistical evidence is that, despite a good performance last year, in recent years the UK has already lost some of the projects that might have been expected to come to this country. The reasons why one country is chosen by another as a host for its outward investment are complex and vary between projects. The reasons generally given for the UK are:

- high labour quality and flexibility
- low overall costs
- deregulated business environment
- low tax rates
- the English language and ease of communication
- market proximity (inside the EC Single Market)⁴⁴

None of these advantages have suffered any obvious diminution and yet the trend in the proportion of projects coming to the UK is less clear than it once was as the table below demonstrates:

Foreign direct investment			
	<i>millions of \$</i>		
	fdi flows into:		
	EU	UK	UK as a % of EU
Ann av'ge			
1985/90	52,685	19,023	36.1%
1991	78,777	16,210	20.6%
1992	83,793	16,140	19.3%
1993	81,029	15,540	19.2%
1994	72,395	10,300	14.2%
1995	110,884	22,030	19.9%
1996	99,416	30,053	30.2%

Source: World Investment Report 1997, table B1

⁴⁴Competitiveness, *Helping Business to Win*, Cm 2563

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The figures demonstrate that for some reason the UK received a much lower share of fdi in the five years after 1989 than it did in the five years leading up to it. Support for the view that membership of EMU was a crucial factor in the locational decisions made by business investors was heightened by comments made by the President of Toyota, Hiroshi Okuda. Mr Okuda is reported to have said that the company's future strategy towards the UK would change if the UK stayed outside EMU. This did not mean decreasing the level of investment, but that Toyota would "leave investments as they are now". It would prefer to make any new investments in continental Europe than in the UK.⁴⁵ The views of one industrialist, however, important, is not proof positive of any particular proposition, and it was noticeable that other industrialists in a similar position, Honda and Nissan for example, did not wish to be associated with Toyota's comments. A recent study by economists from the National Institute, however, has reinforced the doubts about the potential negative impact of non-participation.⁴⁶ The authors conclude that:

Membership of the EU and access to the EU market are important factors behind the high level of inward investment. Labour costs and tax competitiveness does matter, but only if a firm wishes to locate within the EU. However, if these were the sole factors in investment decisions it would be difficult to account for the continued level of high outward investment from the UK.

There is plenty of empirical evidence that exchange rate volatility affects investment decisions. Investors may seek to minimise foreign exchange risks by locating close to their final market so that their costs and revenues are denominated in the same currency. If the UK remains outside any eventual monetary union, foreign investors whose primary markets are in continental Europe have an incentive to choose to locate there rather than in the UK.

Outside the EMU, the UK would have to compete for inward investment with other countries on the periphery of the EU, notably those in central Europe, with lower labour costs and closer proximity to some of the key national markets within Europe.⁴⁷

⁴⁵Reported *Financial Times* 30 January 1997

⁴⁶'*EU: an attractive investment*', Ray Barrel & Nigel Pain, *New Economy*, Spring 1997

⁴⁷op cit pp54-5

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