

BRITAIN, THE EURO, AND THE FIVE TESTS

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In this article, I consider the alleged economic benefits and potential costs to Britain of joining the European Monetary Union and adopting the euro. While Her Majesty's Treasury (2003) organized and reported on the issues in the form of the well-known Five Tests set out by the Chancellor, I have found it helpful to my own thinking to organize them in the form of key arguments for and against Britain joining the euro. I have therefore set them out in that way here, on the assumption that others too could find this helpful.

Fortunately, economics has developed fairly robust means of testing arguments and evidence. There is a body of economic theory within which the logic of arguments can be evaluated. Furthermore, we have increasingly good access to data and econometric tools, so that evidence can be brought to bear. This means that, much as some participants in the debate would like the economics to be vague and impressionistic so that political preferences could easily be dressed up as economic arguments, modern economics does not easily oblige.

My aim is to set out in as clear a way as I can what the economic arguments are on both sides, and then to discuss what theory and evidence we can bring to bear on them so as to evaluate the gains and losses to the U.K. economy if Britain were to join the eurozone.

Economics is a quantitative subject; therefore what is true for Britain may not be true for other countries. We will see that there are both gains and losses. For Britain the calculation will depend on its particular characteristics. For other countries with other characteristics the calculation may well be different.

Alleged Benefits of Joining the Eurozone

The economic benefits put forward for joining the EMU consist of three main elements: (1) the reduction in transactions costs of

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changing currency; (2) the reduction of exchange risk leading to greater trade and foreign investment with the rest of Europe, and to a lower risk-premium embodied in the cost of raising capital; and (3) increased transparency in price comparison.

Transactions Costs

Joining the EMU would mean that currency exchange between pounds and euros would no longer occur; this would save resources (reflected in the margins of currency dealers in a competitive market). The European Commission (1990) did a study of the savings and found that on average across the EMU members there would be savings in dealers' margins of 0.4 percent of GDP. However, for countries with advanced banking systems, such as Britain, it found the saving to be much smaller, at around 0.1 percent of GDP. The reason was that the vast proportion of currency exchanges between pounds and euros take place via the banking system (as for example in inter-firm trade payments or credit card payments). These transactions, whatever margins may be marked up on them, are costless in resources since in a computerized banking transaction conversion of a payment into another currency requires the computer merely to perform one extra operation, at essentially zero marginal cost. So the cost only arises when people change hand-to-hand currency, basically small tourist transactions.

For Britain, 0.1 percent of GDP is about £1 billion per year—a fairly small sum though of course it is a gain that in principle continues indefinitely, at a level depending on the share of such currency exchanges in GDP. It seems rather likely in fact that these exchanges will steadily diminish in importance as credit card and other banking payment mechanisms penetrate ever deeper into tourist practice. A reasonable practical assumption might be that it remains about constant in absolute terms at £1 billion in today's prices.

The transactions cost argument does not end there. In order to join the EMU there must be a large one-off transactions cost in the form of changing the pound into euros—including changing over the vending machines, the accounting systems, and the banks' high street machines. There has been a range of estimates of this, which were usefully reviewed recently by the House of Commons Trade and Industry Committee (House of Commons 2000), together with its own work. The Committee concluded that a reasonable central estimate of the changeover cost was £30 billion.

To reach an overall assessment of the net transactions cost, one must either turn this last one-off cost into an annual charge or convert

the ongoing gain into an equivalent present value. This is easily done. If we take the real rate of interest as around 4 percent, then the annualized charge on £30 billion is £1.2 billion, slightly more than the £1 billion annual gain. Or equivalently the present value of £1 billion is £25 billion ($\text{£1 billion}/0.04$), rather less than the one-off cost. By playing with the real rate assumed, one can push the comparison either way; and in any case both sets of estimates must be regarded as of doubtful accuracy. In other words, the transactions cost argument for joining the eurozone turns out to be on balance of little weight.

Exchange Risk, Trade, Foreign Investment, and the Cost of Capital

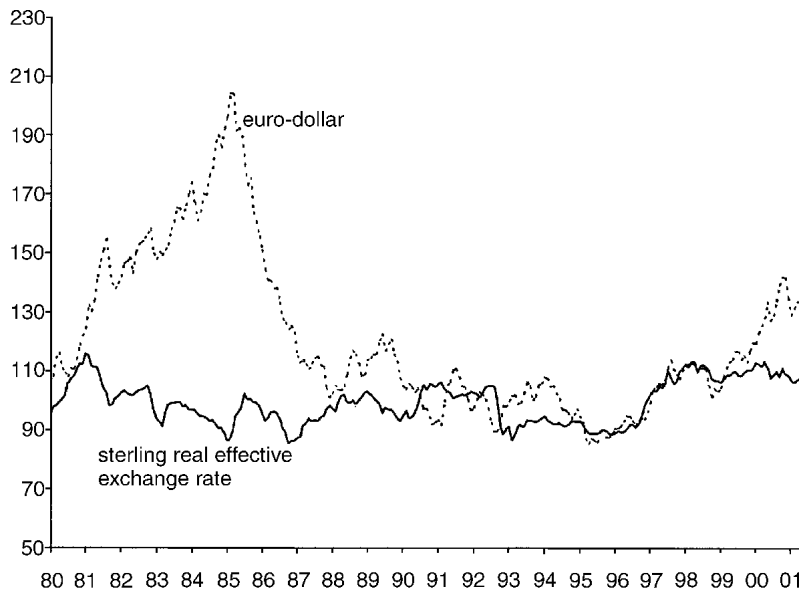
The core argument for entering the EMU is the elimination of exchange risk against the euro. It is argued—for example, in *The Case for the Euro* (Britain in Europe 2000)—that this elimination is like the removal of a trade barrier and will promote much more trade with Europe, increase foreign investment in Britain, and reduce the cost of capital by merging the rather risky and limited sterling capital market into the bigger and less risky euro capital market.

Let us examine this argument in two stages. First, let us assume that exchange risk is an important influence on trade, foreign investment, and the cost of capital. Second, we will consider this assumption critically.

So, assuming exchange risk is a big factor, consider whether adopting the euro will actually reduce that risk and, if so, by how much. Here we immediately trip over the key point that joining the EMU is not to join a world currency but a regional one. Unfortunately for our exchange risk we trade very heavily with the dollar area. Let us not get tied up in the vexed question of the exact shares of our trade with Europe and the United States, and what sorts of trade should be counted (goods? goods and services? or all cross-border transactions including foreign investment and earnings on them?). The point is that if we regard exchange risk as a sort of tax on transactions involving exchanging currency, then it is plain that the broadest definition should be used for the ‘trade’ affected by this tax. Most of the world outside Europe either uses the dollar or is tied to it in some formal or informal way. We might then say, in a rough and ready way, that we trade and invest half with the euro area and half with the dollar area. (This, by the way, is not the same issue as the currency in which trade is denominated or invoiced, in which the dollar heavily preponderates; invoicing is about how the risk is shared between buyers and sellers, not about the total risk involved.)

It so happens that the euro-dollar exchange rate has been highly variable for a very long time. Figure 1, shows the deutsche mark-dollar rate up to January 1999 and thereafter links on the euro-dollar rate (this linkage assumes that the DM would have been the dominating element in the behavior of the euro had it existed before); side by side it shows the sterling real effective exchange rate.

FIGURE 1
 THE EURO-DOLLAR AND THE STERLING REAL
 EFFECTIVE EXCHANGE RATE
 (1990 = 100)



The problem then for Britain is that if we join the euro we thereby increase our exchange risk against the dollar as the euro swings around against it. If we remain outside, the pound can as these swings occur “go between” the two, rather like someone sitting on the middle of a seesaw. Our own effective (or average) exchange rate juxtaposed against the euro/dollar exchange rate in Figure 1 shows rather clearly that we have been able to enjoy less volatility in our overall exchange rate by tying to neither of these two big regional currencies.

So what we find is that there is no necessary gain in exchange risk reduction in joining the euro and that it is even possible that our overall exchange risk would rise. This message is confirmed by

stochastic simulations on the Liverpool Model of Britain, reported in Minford (2001), where we find that the variability of the real exchange rate actually rises slightly under monetary union compared with floating. The standard deviation of the U.K. real exchange rate is slightly less than 11 percent under floating and just over 11 percent under monetary unification, given standard assumptions (and hardly different as these are varied).

Let us now turn to the second leg of the argument and ask just how important exchange risk is as a factor determining trade, foreign investment, and the cost of capital—both in general and specifically for Britain. This concerns the extent to which modern financial markets can diversify this risk away; the more they can, the cheaper the “hedging” deal they can offer a trader—that is, a trader who is exposed to foreign exchange risk can insure it by covering his exposed position by buying or selling foreign currency for future delivery from a financier, usually a bank, that then carries the risk. Without going into the rather involved theory, the risk can be diversified away to the extent that a currency gyrates independently of general trends or fluctuations—by pooling a lot of independent risks in a large portfolio a bank can largely eliminate these sources of risk at the portfolio level. In addition, big enough financial intermediaries can ignore moderate amounts of risk, acting as a “risk-neutral” insurer. Nor is this assessment altered by the argument, made much of in *The Case for the Euro* (Britain in Europe 2000), that a country’s exchange rate is vulnerable to “bubbles”—that is, irrational movements based on pure sentiment rather than fundamentals. Minford and Peel (2002) review this theory carefully and suggest that in the end it relies on systematic irrationality among market participants.

There are therefore good theoretical reasons for doubting the importance of exchange risk as a factor affecting Britain. Such risk as there is should be readily diversifiable in financial markets, resulting in little cost to insure and so having little impact on the real economy. The empirical studies available tend to support this judgment. A wide range of studies surveyed and in many cases commissioned by the International Monetary Fund found little, if any, impact of exchange rate volatility on trade (a typical example is Bailey, Tavlas, and Ulan 1987). In a recent theoretical study of this issue, Bacchetta and van Winkoop (2000) note that “the substantial empirical literature examining the link between exchange-rate uncertainty and trade has not found a consistent relationship,” adding that “in papers that find a negative relationship, it is generally weak”; the theoretical general equilibrium benchmark model they consider implies no relationship at all between trade and the exchange rate regime.

The factors moving foreign investment have also been widely studied, and foreign exchange risk is generally found to be a minor consideration (recent evidence bearing on Britain is examined, for example, in Leach 2001). As for the cost of capital, an exchange risk premium is found for countries that have poor domestic policies; Britain has suffered from this problem—one has only to go back to the 1970s and the early 1980s, during the battle for reforms, to see this in the data. But in the last decade, once the exit from the Exchange Rate Mechanism had been digested and a new monetary consensus against inflation forged, we have seen the emergence of a minimal risk-premium over world capital costs. For example, U.K. gilts now sell on yield similar to both German bunds and U.S. Treasuries.

We should mention two studies that appear to point the opposite way, both of them cited as important evidence in *The Case for the Euro* (Britain in Europe 2000): one by Andrew Rose of Berkeley (1999), the other by John McCallum of the Royal Bank of Canada (1995).¹ In short, the problem is that it is usually impossible to distinguish the effect of monetary union from that of general political closeness; where distinguishing is possible (as in Ireland since 1979) the evidence points to virtually no effect.

In conclusion, the major argument adduced for entry—reducing exchange rate volatility—does not appear to be of much quantitative significance. It might even go the wrong way. One can agree that having a common *global* currency would bring some gains of market integration—even if modest—while disagreeing that adopting a regional currency like the euro will bring even modest gains.

Transparency of Price Comparison

Prices, it is said, will be easier to compare in a foreign currency; hence, the consumer will gain from greater competition bringing enhanced price similarity (adjusted for quality differences). For countries with populated land borders, such as Belgium or The Netherlands, the argument has some force as border people are constantly involved in price comparisons that could be costly in terms of time. However, Britain has no land borders with the eurozone (other than the mainly rural one between Northern Ireland and Eire). So the argument in our case is of little importance.

¹See also Aristotelous (2001), Flandreau (2001), Nitsch (2001), Persson (2001), and Thom and Walsh (2002). I discuss this literature at more length in Minford (2002).

Potential Costs to Britain of Entering the EMU

There are three main economic costs that have been identified in joining the EMU: (1) the difficulty of dealing with shocks without the use of independent interest rate and exchange rate movements; (2) the effects of “harmonization” initiatives associated with the EMU; and (3) the concerns that we could be involved in the bailing-out of continental countries with financial problems particularly associated with state pension deficits.

Our focus here is on these economic arguments. But we should point out in passing that the nature of the political union implicit in the monetary union is relevant to the last two economic arguments. Both harmonization and bailout concerns are directly related to the strength of the desire for political union. The stronger the push for political union the more of a constituency there is for harmonization as well as for mutual cross-country support. Britain in Europe (2000) argues that harmonization is a strictly separate matter from the EMU and that bailout is explicitly ruled out by the Maastricht Treaty. This argument, however, fails to recognize the way that EU institutions have been deliberately used to advance the cause of political union—for example, the expectation of the European Court that its judgments should advance unification; the use of the Single Market Act with its qualified majority voting to force the limitation of working hours on Britain as a health and safety measure; and the series of summits organized by the European Commission under successive country presidencies to further union in foreign and defense policy. The EMU creates a further set of institutions through which arrangements can be made to increase unification between EMU members. Linkages can be set up that get around notional “separateness” or the vetoing of bailout—“support” after all can be “voluntary” or “common taxes” can be “redistributed.” Joining the EMU means that Britain is subject to its extra set of arrangements. It is like being caught in a double spider’s web when you are lightly entangled in a single one from which you can still disentangle yourself.

In effect joining the eurozone is a process that is designed to produce a high degree of economic and political integration. In joining it, a country is unable to avoid signing up to that process; staying outside, it can remain part of the existing Maastricht Treaty that deals with trade, movements of productive factors, and the Single Market. Clearly, an EMU designed solely to share a common money, with member countries remaining independent countries, cooperating merely in the enforcement of good competitive norms and the freest

possible trade, would be a different proposition—and the arguments that follow would need important modification. Indeed, were the EU and its EMU branch to be intended as a sort of early 20th century gold standard world writ large—with free trade, untrammelled labor mobility, competition, and flexible labor markets—it would offer some definite attractions to be put in the balance (and clearly affecting the balance of arguments on the five tests). However, it is plain to see that this is not the EMU on offer. The EMU we are assessing here is the one that is on offer.

Shocks without an Independent Currency

A single currency implies a single interest rate unless there are such barriers to the movement of money as exchange controls or differential taxes on interest rates—all of which are explicitly forbidden under the Maastricht Treaty, with no conceivable loophole.

At the heart of the case against joining the EMU is the consequence of abandoning a separate interest rate for Britain, which comes with a separate exchange rate or currency. In effect, a flexible exchange rate allows one country's interest rate to be different from another's. There has been much discussion of the conditions under which a country might not suffer unduly from giving up its independent monetary policy—described as the “optimal currency area” conditions. In the end, it is an empirical matter, to be assessed in the light of evidence on Britain's likely behavior in the face of likely shocks. It is this issue that I address in Minford (2001). The method (known as “stochastic simulation”) is described in detail there. In short, it is to pepper a well-tried model of the British economy with a large number of typical shocks drawn from past experience, and then to see what the variability of the economy is under the two alternative monetary regimes: the EMU versus policy as now set by the Bank of England under floating exchange rates.

We can summarize our findings as follows (for details see Minford 2001). Joining the EMU would increase the variability of the U.K. economy—the “boom-and-bust” factor—by about 75 percent. This is also a widely used measure of the cost involved, as experienced by politicians facing popular pressures. This increased cost is largely insensitive to the sort of ameliorative changes that euro advocates have put forward. Greater U.K. labor market flexibility helps a bit; so does smaller U.K. responsiveness to interest rates. But the extent is small, the big difference remains. The reason is that Britain is both unable to respond to shocks optimally with its own interest rate and

also is destabilized by euro shocks (especially against the dollar), given that we trade so heavily with the rest of the world. This is the case even though we freely allow fiscal stabilizers full play, not merely the automatic ones but also extra discretionary public spending in response to the cycle. Were unemployment to reach the double-digit rates of the early 1980s and early 1990s, the difference of variability would be even larger, and it would be more serious too, as the absolute variation in unemployment would rise more than proportionately with this higher baseline unemployment. Euro advocates claim that outside the EMU the pound would suffer enhanced volatility; our estimates allow for the volatility in the pound's risk premium experienced in the past decade, but we checked what would happen to the comparison if we allowed for a tripling of it. Again, the difference is reduced but not much, basically because the economy's built-in monetary shock absorbers work pretty well.

The key point remains: running a modern economy with popular consent requires efficient shock absorbers and joining the EMU not merely removes them but provides an additional source of shocks from the euro itself. (See Minford 2002, for a discussion of Barrell and Dury 2000 and Barrell 2002 who find higher output instability under the euro but reduced inflation instability.)

Harmonization

What is needed to make the EMU work better—that is, to avoid undue instability in the economy as a result of losing control of monetary policy—is greater wage flexibility, in the absence of the large federal budgets and the labor mobility that the EU does not have. However, there is little sign of the emergence of this flexibility. Instead, it is being suggested on the continent that what is needed is “harmonization” of taxes and other institutions. The argument appears to be that this will reduce the extent of differences in response to shocks and even increase the similarity of shocks by somehow creating a similarity of industrial structure. The basis for such arguments is extremely tenuous. It is possible that responses to shocks could become marginally more similar, but even this is not clear since the dissimilarities could have been partially offsetting, and certainly there is no reason to suppose it would create a similarity of structure. More seriously, what protagonists of harmonization probably have in mind is the aim of building up central federal institutions that would ultimately have revenues and the power, like any state, to make transfers to and from regions with asymmetric shocks. Harmonization does

not in itself provide any help for the EMU, but it is a stepping stone to state powers that would.

Given the preferences of the majority of states in the eurozone, this harmonization would be around a rate of taxation, social support, and regulation well above that currently prevailing in Britain. It is a matter of speculation what exact level of harmonization would be aimed at, but we calculated the effects of different levels of labor market intervention within the Liverpool Model (details of which can be found in Minford 1998), to illustrate the problem for Britain of finding itself pressured one way or another into adopting such levels. We found unsurprisingly that there are large costs involved in this involuntary adoption of such increased regulation.

Bailout and the Emerging State Pension Crisis

The three largest nations in the eurozone—Germany, France, and Italy—have serious projected state pension deficits. In 1996, an OECD paper (Roseveare et al. 1996) projected them to reach, respectively, about 10 percent, 8 percent, and 11 percent of GDP by 2030. Since then Germany and Italy have taken some steps to reduce their prospective deficits; France has taken none. The OECD work has not been updated but various factors have become worse since that study and they may have wiped out the contribution of those policy changes. Notably unemployment is turning out to be higher and growth slower than expected. The politics of cutting pension benefits is speculative given that aging populations will increasingly be dominated by older voters. Yet, the effects of raising taxation further would be lower growth and higher unemployment. Hence, it must be a matter of concern to Britain that the cost of meeting potentially explosive state financial liabilities might somehow fall in part on the British taxpayer.

The more integrated the EMU becomes the greater both the political pressures for concerted action and the economic fallout from letting a fellow-EMU member-state default partially on its debts. This fallout includes the risk of contamination of one's own debt status as well as indirect losses of trade, public procurement business, and any other joint activities.

It is worth recalling that the prospective state pension deficits of the big three EMU members in 2030 quoted earlier are projected as equal to more than one third of the U.K.'s GDP—that is, nearly as much as the existing 40 percent tax share of GDP. The risk of even part of this winding up as a charge on the U.K. taxpayer is a serious worry about entering the EMU.

Conclusion

We examined the alleged benefits of joining the EMU and found that—

1. The reduction of transactions costs of currency exchange would be small and would be roughly offset by the one-off cost of currency conversion.
2. There would be some gain from eliminating exchange risk against the euro but this could well be largely, or even more than, offset by increased volatility against the dollar with around half our trade broadly defined with countries either on or closely linked to the dollar. We also found that in any case exchange risk does not appear to have an important effect on trade or foreign investment, and in the U.K. case, on the cost of capital.
3. There are potential benefits from increased price transparency in border areas but this is of no real relevance to Britain. For large traded items this transparency would amount to the trivial saving on use of a calculator.

We then looked at the potential costs of joining the EMU, and we found that—

1. The loss of independent monetary policy (interest-rate-setting powers) on joining the EMU would raise the economy's cyclical instability substantially.
2. The harmonization agenda, motivated by the centralizing aim, could inflict serious damage on U.K. employment and output by reducing labor competitiveness.
3. There is a risk, in the emerging state pension crisis of the three major EMU members, that under a centralized eurozone the U.K. taxpayer could find himself contributing to their state pension deficits, which by 2030 could be worth more than one third of the U.K.'s GDP.

We have considered the political aspects of joining the EMU only in terms of their relevance to these economic issues (though clearly they are of the utmost importance in the wide public debate). That relevance lies in the political aims of the project—namely, to centralize power in a political federal union, without abandoning the main social democratic tenets of the major states such as France and Germany that currently dominate the EMU membership. It is those aims that dictate the harmonization agenda and those tenets that explain the slowness and unwillingness to cut pension entitlements as a way of curing pension deficits.

Plainly, it would be welcome if these political aspects were replaced by a free market approach within a treaty of cooperating nation-states. This approach would reduce the costs under 2 and 3 above, and if wage flexibility and labor mobility were promoted as part of that approach, it would also reduce the costs under 1 above. The increasing competitiveness of the eurozone could lead to a stronger euro, more stable against the dollar, which would improve the assessment of the benefit under 2 above.

Yet, we have to assess the EMU project as it is currently planned by the dominant states within the eurozone. That is how we have done it, in a spirit of realism and honesty. It would be nice to pretend the EMU was something else that we would like better; but it is not and it would be wrong for us to assess it as if it were. One can bear in mind the possibility that it could become a different project; but the likelihood of that possibility is extremely small. The final conclusion must be that it would be strongly against British interests to join the EMU.

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