3   Other Issues: Currency, Regulation and Public Finance

In the past decade it has become apparent that most of our EU partners, led by France and Germany, are determined to establish a European Union involving far closer ties than the UK expected when it joined in 1973. In the 1990s began the drive to set up the euro, achieved in January 1999. At the same time pressures were exerted to harmonise regulations, taxes and social provisions both within the Single Market and more widely. Most recently the draft EU constitution, if enacted, would enable even faster and more complete integration both politically and economically. All this has occurred against the background of an alarming deterioration in the public finances of the major continental EU nations, France, Germany and Italy; the fact that their current budget deficits have breached the Stability and Growth Pact can be put down mainly to cyclical reasons – far more serious is the prospect of massive state pension deficits, rising to more than 5 per cent of GDP by around 2050. It is now rather plain, even to UK public opinion which has hitherto hoped that an integrationist agenda would be quietly forgotten, that the majority of our EU partners are set on rapid and considerable integration: the adoption of the euro has been followed by demands for policy coordination, harmonisation and burden-sharing. These demands are consistent with the generally interventionist and dirigiste ideas of EU policy makers discussed earlier. They pose serious potential risks for the UK.

We deal in turn with the euro, harmonisation and public finance problems.

3.1   THE EURO

The plan for the euro adopted by Kohl and Mitterrand was political in intent. When economic problems were referred to, these and other protagonists replied that they were secondary and indeed that they would act as a stimulus for further integration 'to make the euro work'. Such problems have become apparent since 1999; asymmetries between member countries have caused acute discomfort. For example, for Germany interest rates have been mostly too high while for Spain and Portugal on the other hand they have been mostly too low. There have been persistent and occasionally large inflation disparities implying equal disparities of real interest rates that have tended to reinforce the inappropriateness of nominal interest rates.

However, there is good reason to believe that these problems would be even more acute for the UK. Not only is the UK economic cycle very different from that of the euro-zone but also the UK's trade (including all-important services and other invisibles like overseas investment earnings) is less with the euro-zone than it is with the dollar area, that is – effectively – with the rest of the world. These two facts – themselves no doubt related – imply that for the UK to abandon its own interest rate and the floating pound would cause two main problems: first the euro interest rate would frequently be inappropriate for UK conditions and second the euro exchange rate would frequently imply an inappropriate dollar exchange rate for the UK, as the euro-dollar exchange rate has tended to fluctuate massively – Figure 3.1.

My colleagues and I have quantified these problems by using the method of stochastic simulations whereby a model of the economy is subjected repeatedly to historically-relevant shocks inside the euro on the one hand and on the other as now floating outside it. We found that under our central set of assumptions a general measure of UK economic variability ('boom and bust' as politicians sometimes call it) roughly doubled inside the euro compared with carrying on as now. We also found that under virtually no conceivable other set of assumptions, however favourable, would economic variability not increase materially. Table 3.1 shows some details of these calculations

What all this implies is that the UK would be worse off inside the euro: there would be greatly increased volatility and there

Table 3.1: The welfare losses (political cost) produced by EMU compared with floating (floating= 1.0)

ratio of variances (EMU/floating)	total[a]	output	unemployment	real interest rate	inflation[b]
The central case	2.21	1.24	1.18	4.32	20.17
No indexation	2.74	1.63	1.51	5.56	23.27
Low interest rate sensitivity	2.16	1.03	1.04	5.17	21.62
More labour market flexibility[c]	2.72	1.18	1.08	4.04	33.19
High unemployment	2.23	1.21	1.21	4.80	20.15
More exchange rate instability	2.04	1.23	1.18	3.27	17.48
Enhanced fiscal stabilisers[d]	2.29	1.20	1.12	5.50	21.64

Notes:

a. the weights used in the political cost are (all divided by the weights total of 2.2):1 for output and unemployment variance; 0.1 for inflation and real interest rate variances

b. under our Montecarlo sampling procedure with the number of draws at 12,078, the standard error of the floating regime's variance, VARF, is 0.013VARF (Wallis, 1995). Hence a ratio in excess of 1.026 indicates that the EMU regime's variance is higher than that of floating at the 95 per cent confidence level. Thus all the numbers in this table are statistically significant.

c. monetary policy response to inflation under floating raised by a third (to 1.3), to output lowered by a third (to 0.7), to counteract greater inflation volatility from greater wage volatility.

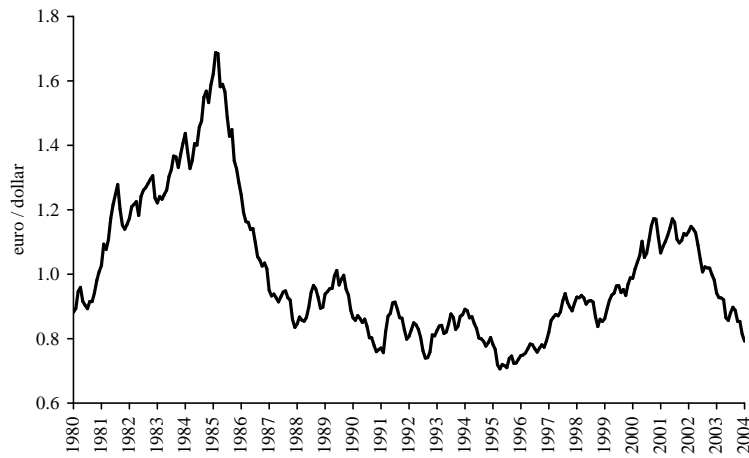d. assumes no enhanced fiscal activism under floating

Figure 3.1: Euro–dollar exchange rate

would be no compensating benefits. Hence the UK's opt-out will continue to be essential. As far as one can tell, the opt-out is not specifically threatened by the draft constitution; however, it is not easy to tell as a variety of clauses about 'policy coordination' could be interpreted as implying that all EU members should be in the euro.

3.2   HARMONISATION

Harmonisation refers to the general approach which aims to make taxes, regulations and social provisions the same throughout the EU. This process – strongly espoused by Germany – has started under the Single Market and the Social Chapter. Under the Single Market examples are common industrial standards agreed industry by industry and the Working Time Directive (introduced under health and safety aspects of the single market). Under the Social Chapter examples are the Transfer of Undertakings (Protection of Employment) Regulations 1981 (TUPE) and workers' consultation councils and procedures. Tax harmonisation has occurred for VAT where rates are limited to a range of 15–25 per cent, otherwise it is still subject to unanimity, though a proposal to impose an EU-wide interest-withholding tax is still being debated and has so far been

vetoed by the UK. The draft constitution, by incorporating the Charter of Fundamental Rights, appears to open the door wide to further harmonisation as well as rises in the general level of social provisions and hence of taxes

Harmonisation is a precise arrangement, in principle. It implies that taxes and regulative structures should become identical. Since the UK (with that other Anglo-Saxon outpost, Ireland) stands out within the EU as being subject to a generally lower level of taxation and a substantially lesser degree of regulation, harmonisation in effect means that UK levels will be raised to prevalent EU levels. This has already occurred with VAT where harmonisation became effective within a fairly tight range a decade or so ago. However the UK has used the opportunity of raising VAT to lower a variety of other taxes, including the local authority council tax and income tax.

In Table 3.2 we show where the UK stands relative to the EU average with respect to some major indicators of tax and regulation. This table is limited and illustrative only. But it does show how far out of line the UK is with current EU average practices. It is no wonder that there is such constant acrimony in relations between the UK and other EU members over these issues, whether it be the Social Charter, the Charter of Fundamental Rights (now written into the draft EU constitution), the level of social spending by the state or a host of other detailed areas of intervention. It should be stressed that the level of public spending as a percentage of GDP does not capture the full effects of state intervention; regulation is a form of concealed taxation and therefore adds substantially to the overt taxation required to pay for public expenditure. For example in the 'big 3' continental EU countries employers are forced to pay for their employees' numerous 'social entitlements' at the workplace, including pre-eminently their medical insurance; this does not show up as taxation since it is a regulated obligation of employers to transfer these benefits to their employees directly.

It must be conceded that prior to 1979 the UK was in many respects as regulated and as highly taxed as the EU average – even more so in some aspects (for example the top rate of income tax). When the UK joined the EU, these issues were not seen as problematic by officials since the EU appeared to be economically successful and the UK where different did not appear to have any economic advantage from it. However after 1979 this began to

Table 3.2: Indicators of tax and regulation

		UK	EU[a]
1	OECD index of regulation (0 least–5 most)		
	Product markets	1.0	3.5
	Labour markets	0.8	2.6
2	Unionisation (% of employees union members)	38	81[b]
3	Overall % of GDP devoted to public spending (= 'permanent' tax rate)	40	53
4	Employer social security contributions, 2003	9	24
5	All-in tax rate paid by employees, 2000 (income tax plus employee social security contribution)	32	36
6	Total tax take on labour, 2001[c]		
	Average income	22	40[d]
	Low paid	25	48[d]
7	Minimum wage (% of full-time median earnings)	40	48[e]
8	Unemployment benefit ratio to net labour income (replacement ratio), 1999	18	30[d]
9	Cost of establishing a business late 1990s		
	in euros	420	2333
	in weeks	1	11
10	Maximum working hours per week	48[f]	35[g]
11	Notice period (days) (for employees up to 4 years service)	28	50
12	Unemployment benefit duration (months)	6	4–60[g] 6–32[h]
13	Annual average holidays	28	33

Notes: a. Average of 3 large EU economies; b. Collective Bargaining Coverage, 2000 (% of wage contracts by collective bargaining process; 32.5% in UK). Union membership (23% in these 3 countries) does not represent union powers of control because of laws governing collective bargaining under which union settlements are generalised across the parts of the rest of the economy covered by collective bargaining which is therefore a better measure; c. difference between the total wage cost paid by business/production price and the net wage received by worker/consumption price; d. euro-zone average; e. average of Spain/ Portugal/ Netherlands/ Luxembourg/ Belgium/ Greece/ Ireland/ France; f. subject to voluntary abrogation; g. France; h. Germany

Sources: 1 – Nicoletti et al. (1999), 2, 8, 10, 11, 12 – OECD (2004a); 3, 4, 5, 6 – Forbes Global (2004c); 7 – OECD (2004b); 9 – OECD (2000a); 13 – TUC (2002a);

change and by the late 1990s the UK's level of tax and regulation had dropped markedly while that of the rest of the EU had if anything increased. At the same time it has become apparent that the UK's economy is markedly more successful at creating jobs and growth both relative to its own past and relative to the main continental EU economies; and that this is essentially due to its more laissez-faire environment.

In Table 3.3 we consider the extent of the damage to this success that could be done by various degrees of harmonisation; we use the Liverpool Model of the UK (which being estimated over the 1970s to 1990s has been able to capture the effects of deregulation). In practice of course harmonisation occurs by degrees, which is why it has proved so hard for the UK to resist within the EU to date. Examples of EU intrusion have included the Working Time Directive, TUPE, the Part-Time Workers Directive, as well as the whole gamut of worker consultation directives emanating from the Social Charter. On each occasion the UK has been forced to concede, usually because of qualified majority voting under the Single European Act and more recently the Maastricht Treaty (within which our opt-out from the Social Chapter was – short-sightedly – deleted by Labour). The draft EU constitution in effect however provides implicitly for the possibility of complete harmonisation, since the Charter of Fundamental Rights gives the European Court in Luxembourg the ultimate power as the final constitutional court to bring the UK structures into line with EU norms – via statute law.

We show two levels of harmonisation – 'partial' and 'total' – based on the four key supply-side variables of the Liverpool Model: the unionisation rate (UNR), the average direct tax rate on workers (LO), the tax and contribution rate paid by employers (BO), and the unemployment benefit rate (UB). In the case of full harmonisation we use the figures from the table of indicators (Table 3.2) for the three largest EU economies as the one the UK will be forced to adopt. There is just one exception; for UNR we use an upper ceiling of 57 per cent, which is where it peaked in the UK in 1980. We are therefore simulating a return to the worst period of UK union power in the late 1970s which would seem qualitatively on a par with the worst the EU could inflict on the UK in the way of union power.

These numbers are, to be blunt, nothing short of horrifying. Of

Table 3.3: Degrees of harmonisation and their long-run effects on output and unemployment

Partial	Unemployment (%)	Output (%)
UNR + 0.05	2.5	3.0
LO + 0.04	0.7	0.8
BO +0.05	1.0	1.2
UB +5%	1.0	1.3
Total combined*	5.7	6.4

Total	Unemployment (%)	Output (%)
UNR +0.19	30.0	10.9
LO +0.04	0.7	0.8
BO +0.15	3.8	3.4
UB +66%	46.0	12.4
Total combined*	‡	25.2

Notes:

The combined total effect is greater than the sum of individual effects because of the model's non-linearity.

‡The combined effect is explosively larger.

course British business opinion has become increasingly aware of the costs being loaded onto the UK economy by EU regulation. But these costs still only scratch the surface of harmonisation. The EU economy groans under a weight of intrusive intervention that is scarcely imaginable to modern British businessmen. Hence the extraordinary damage of even 'partial harmonisation' – under which UK unemployment would rise by 5.7 per cent, equivalent to 1.8 million people.

Supposing that the progress to total harmonisation took two decades, then these figures suggest that growth would decline by 1 per cent per annum over that period, while unemployment would rise by 0.75 per cent per annum (continental experience suggests that much of it would be concealed by devices such as early retirement, sickness and disability pensions, longer university training, and barriers to female participation).

3.3 PUBLIC FINANCES

A central concern of the Maastricht Treaty setting up the euro was to solve the 'bail-out' problem. Implicit in a single currency is the sharing of monetary risks, including those coming from the public finances. Should a government whose debts are denominated in the euro threaten a default, this would create a dilemma for other member governments. To allow the default would create spillover problems to other members' economies; confidence in the debts of other governments would inevitably be shaken. Yet to provide bail-out funds would be costly in itself. Prevention of the default threat is therefore highly desirable. The Maastricht Treaty laid down that bail-out would not occur; it also set out the Stability and Growth Pact whose aim was to prevent budget deficits from emerging.

Unfortunately this pact was at once highly rigid and yet ineffective in providing long-term discipline. The rigidity lay in not allowing deficits to exceed 3 per cent of GDP, though business cycle effects alone could produce deficits well in excess of this for a government pursuing responsible fiscal policy. The lack of long-term discipline came from neglecting 'off-budget' items, especially state pension commitments. Because these commitments and the taxes which finance them refer to the future, they escape the pact entirely. Yet they are likely to be more intractable than current taxes and spending since pension commitments are made to the powerful 'grey lobby'; while taxes must be raised mainly from the active working population which also constitutes a powerful voting coalition. The difficulty that arises is: how exactly will any elected government dare alienate either set of voters? If so, how can this problem be resolved?

In 1996 the OECD made projections of the state pension deficits implied by then-current policies – Figure 3.2.

There have been two recent attempts to update these OECD 1996 projections of Roseveare et al. (1996). In Dang et al. (2001), the OECD's Economic Committee reported on the whole range of age-related programmes involving government spending, a far broader concept than merely pension spending.

In another recent study, Rother et al. (2003) consider the prospects for pension spending in the whole euro-zone, with particular attention to the largest four countries, Germany, France,
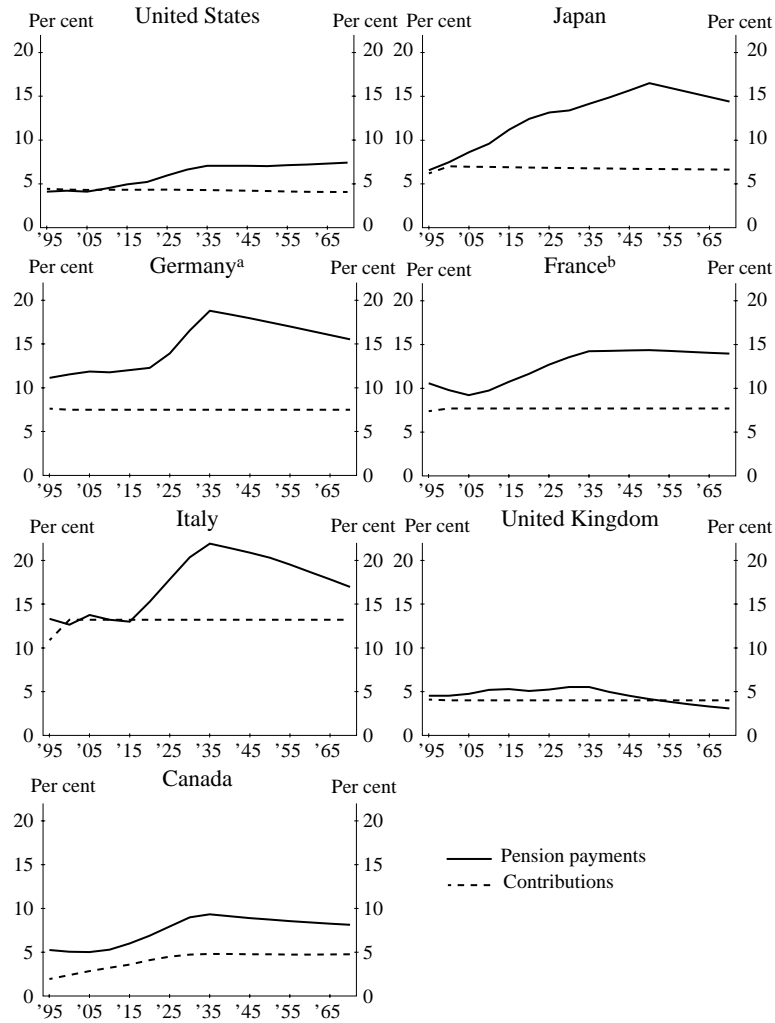
Notes:

a   Excluding statutory transfers from the federal government amounting to an average of 3.5% per year.

b   Excluding fictive contributions amounting to 1.7% of GDP per year.

Source: Roseveare et al (1996)

Figure 3.2: Pensions contributions and payments (% of GDP)

Table 3.4: Projected deficits 2050 (% of GDP)

	Roseveare et al. (1996)	Dang et al. (2001)	Rother et al. (2003)	Memo item Dang et al. incl. Other age-related
Germany	7.0	2,2	na	7.3[a]
France	6.0	(3.9)[b]	na	(9.0)[ab]
Italy	7.0	−0.2	na	4.9[a]
Spain	na	8.0	na	13.1[a]
EC 4	7.0	3.5	Baseline 4.8 Realistic 5.9	8.6[ab]
EC 9			Baseline 4.5	

Notes:

[a]   Assuming other age-related spending is the same as for the Netherlands.

[b]   Spending only.

EC 4:   Germany, France, Italy, Spain.

EC 9:   EC 4 + Belgium, Netherlands, Ireland, Austria, Finland.

Italy and Spain.

Both Dang et al. (2001) and Rother et al. (2003) (Table 3.4) deal with relevant pension revenues and total state pension spending, as well as taking account of recent reforms. The OECD study, as we have seen, additionally takes account of age-related spending. Both, as has become customary, leave out other revenues (basically all revenue other than National Insurance style contributions or taxes) and other state expenditures. Implicitly therefore they are assuming that other revenues and expenditures would (net) not significantly affect deficits over time, on the grounds that both sides can be relatively simply adjusted to the prevailing budgetary situation. Pensions and other age-related expenditure and associated contributions are by contrast assumed to be politically sensitive and difficult to adjust. As we will argue below, the problems of adjustment may be fundamental, affecting the whole gamut of taxes and spending, as well as the overall behaviour of the economy. Nevertheless it is plain that the pensions and age area of spending and the associated contributions burden on the young is

indeed one of particular sensitivity.

The two recent studies differ in other ways. Dang et al. (2001) reflects the views of country officials and makes its calculations country by country. This leads it towards some rather surprising conclusions for three of the major EU countries. Thus Germany's 2050 deficit is projected at a mere 2.2 per cent of GDP even though its pension-related spending is projected to rise by 5 per cent of GDP. Italy is projected as being in balance by 2050 on the basis of recent reforms that supposedly commit the country to a system where benefits are based solely on contributions, indexed to prices and actuarially adjusted (downwards) to allow for increasing life expectancy; yet at this stage it is quite unclear whether these stated intentions are politically viable. France's 2050 spending is projected as rising by 3.9 per cent of GDP from 2000, but there is no revenue projection. Only Spain's 2050 deficit is projected at a substantial 8 per cent of GDP.

Thus, while the OECD 2001 study is an official document and contains an impressive amount of detail, its conclusions for this reason need to be treated cautiously. Roseveare et al. (1996) was not an official OECD study but a working paper, as is also Rother et al. (2003) at the World Bank. The judgements of officials are bound to be kinder to the member countries of the OECD than are those of independent economists. It is symptomatic of this official weakness that when it comes to other age-related spending the big four EU countries refused to report any results for the OECD 2001 study. Yet the smaller countries' results for this aspect make gloomy reading. The Netherlands for example projects an additional 5.2 per cent of GDP from this source. In the last column of Table 3.4 we show what the official projections for 2050 would look like for the big four EU countries if they too, as seems entirely likely, faced the Netherlands prospect. As a percentage of GDP, instead of the 3.5 per cent deficit in 2050 they face an 8.6 per cent deficit on pensions alone. Nevertheless adding in age-related spending appears to violate the general assumption of these studies that non-pensions spending and revenues would be reasonably adjustable. We are left with the relative optimism of the OECD 2001 official study on the pensions prospects themselves.

Yet this optimism is substantially undermined by the Rother et al. study. On 'baseline' assumptions they project that the big four EU countries' deficits will worsen by 4.8 per cent of GDP

by 2050. On 'realistic' assumptions (especially in respect of the labour market, where they assume constant unemployment and participation, and thus a constant employment ratio as against the rising one of the baseline) it worsens by 5.9 per cent of GDP. The present value of future deficits is 47 per cent of GDP under the baseline, rising to 87 per cent under the realistic, scenario.

Rother et al. (2003) usefully also looks at more optimistic possibilities:

1. Increase of the retirement age by one year (from the assumed age of 63). This reduces the 2050 projected deficit by 0.3 per cent of GDP and the present value of deficits by 12 per cent of GDP.

2. Doubling of net immigration; this reduces the 2050 projected deficit by 1 per cent and the present value of deficits by 13 per cent (all of GDP).

3. A rise of 0.5 per cent per annum in productivity growth: the 2050 deficit falls by 0.8 per cent, the present value by 2 per cent.

4. A fall in real interest rates by 1 per cent (to 3 per cent per annum): this increases the present value of deficits by 18 per cent of GDP.

What these variants reveal is that there is scope for reforms to get rid of the problem. For example, just increasing the retirement age by 5 years (to 68) would make a very large impact on it.

However, the difficulty with this 'solution' is the lack of employment in the EU context. To implement later retirement one has to create equivalent jobs. Yet this presupposes a flexible labour market capable of this job creation.

Here one trips over the fundamental difficulty of solving eurozone problems generally. Mostly these problems relate precisely to the inflexibility of the labour market and the general presence of obstructive regulation. These factors are there because of the interests of unions and other strong pressure groups – such as the Church and the social democratic party support groups – with active 'social agendas'. If one inspects the list of changes above, one sees that they all involve material incursions into these agendas. The retirement age increase requires job creation and therefore the

permitting of large-scale entry into the labour market of older people. Net immigration requires the permitting of large-scale entry by immigrants. Productivity growth requires changes in working practices.

It is hard therefore to avoid a sense of the impossibility of genuine reform on the continent. Hence the concern from the UK's viewpoint in getting too closely involved in a potential fiscal disaster. In the end if we compare Roseveare et al. (1996) with Rother et al. (2003) we see that on the latter's realistic assumptions there is little difference in the projected 2050 deficits; the former projects them at 6–8 per cent of GDP, the latter at 5.6 per cent of GDP. Such pensions-related deficits loom uneasily over the EU fiscal horizon from the viewpoint of the UK.

It follows that unless unemployment is lowered and participation increased, the official projections will prove highly optimistic.

The problem for the UK can therefore be simply put. On the one hand, projections of overall state finances are for large deficits associated with state pensions provision. On the other there is no mechanism to prevent bail-out; on the contrary the draft constitution puts an explicit obligation on member countries to assist a country 'in difficulties'. The reality of the implied pooling of resources to deal with potential state deficits is mirrored in the virtual absence of differential risk-premia on government debt yields across different EU Member States in spite of apparently quite different fiscal outlooks (which has in the case of Italy recently led to the downgrading of Italian government debt to AA−). In other words, markets assume that bail-out will take place.

To give a crude illustration of what this could mean for the UK, assume that the state budget deficits of the big four continental EU countries each reached 6 per cent of GDP in 2030; this would imply a total deficit across them equal to some 24 per cent of UK GDP. Were the UK to be asked to share this according to its 20 per cent share of EU GDP, the annual cost to the UK would be around 5 per cent of its GDP by 2050.

Plainly such a massive cost cannot be considered at all likely since there would be pressures both to reduce such deficits and from the UK resistance to such sharing. Nevertheless, there is a risk of significant sums being eventually payable.

3.4 CONCLUSIONS

The problems discussed in this chapter are not new: for example, similar discussions can be found in Minford (1998 and 2002) and references were widely made to them in the course of the UK debate on joining the euro. It is probably true to say that increasing public awareness of them has caused the deterioration in UK public opinion polls of enthusiasm for membership of the EU. Nevertheless this has been against a background assumption that the UK's trading interests required membership. We have seen in the trade chapters of this book that this assumption is wrong and that the UK loses significantly from its EU trade relationships. When added to this loss, the problems in this chapter – economic volatility inside the euro, the loss of output from imposed harmonisation and the loss of income due to sharing in other countries' fiscal deficits – take on a more sinister shape.

APPENDIX A   OTHER STUDIES – GENERAL

There are not many quantitative studies of Britain's economic relationship with the EU (apart from estimates of particular aspects which we cite in the relevant sections below).

A predecessor of this volume by Brian Hindley and Martin Howe *Better Off Out? The Benefits or Costs of EU Membership* paved the way for a cost/benefit analysis but stopped short of doing one. A few months ago Ian Milne published a study for Civitas whose main findings we summarise in Table 3.A.1.

In 2000 the NIESR published an analysis based on a projection of the NIESR model of the UK economy.[1] On 'a worst case scenario' it concluded that there would be a net loss from leaving the EU of some 2–3 per cent of GDP. The basis for this lay in an assumed loss of foreign inward investment, and of the associated increase of productivity and the capital stock.

In its study the NIESR looked at none of the issues we have raised here: viz., protectionism of food and manufactures, the euro, the harmonisation agenda, and the bail-out problem arising from state deficits on pensions. Notice that in our work we have con-

---

[1]This study has been recently published as Pain and Young, 2004

Table 3.A.1: Range of estimates for current direct net cost (% of GDP)

	Lower end of the estimate	Most Likely	Upper end of the estimate
Regulation	1.0	2.0	3.0
CAP	1.2	1.5	1.7
EU Budget	0.5	0.5	0.5
Single Market	0.0	0.0	More than zero
Inward Investment	0.0	0.0	0.0
Total	2.7	4.0	5.2+

Source: Milne (2004)

sidered 'general equilibrium' effects, that is effects after allowing for full adjustment in the economy; we have noted 'partial equilibrium' estimates (that only allow for effects in a given sector, before adjustment by the whole economy) but have not used them in our final calculations. Thus the NIESR has not provided any alternative estimates to ours in these areas.

What the NIESR has done is first to identify as a key factor the amount of inward investment and secondly to assume that it must be associated with the size of our manufacturing sector. Both elements in their argument must be questioned. Inward investment is simply *one* source of investment, that is of capital stock provision. However what matters is the level of output per (fully employed labour force) person which is arithmetically equal to the capital stock per person times its productivity. Home investment using state-of-the-art technology is by definition equivalent to foreign investment using the same technology. If the UK were to leave the EU customs union and go to free trade, then manufacturing and its capital stock would contract while services and its capital stock would expand: this would as we have already seen raise UK output and welfare since the UK is a world leader and large-scale net exporter of services. The rise in the capital stock and associated technology might well be provided by UK-based firms; but matters

would be none the worse for that, given that UK firms are generally of high efficiency. On the other hand it is also possible that some of the required capital stock (in some service sectors) would come from foreign firms, as they sought to gain a further share of rising UK production. We actually do not know which; and it does not matter which. In sum, there is simply no basis in theory or evidence for saying either that inward investment would decline (compared with the current flow, some of it in manufacturing) or that, if it did, there would be an effect in lowering productivity. The NIESR's assumptions in its 'scenario' were simply ad hoc assertions.

Our point can be put succinctly another way: that FDI flows reflect rather than cause comparative advantage and growth. The UK's growth depends, via a 'production function', on its stocks of capital and labour and on their technological efficiency. What our analysis finds is that the UK has a comparative advantage in services and hi-technology manufacturing industries; this advantage is determined by the UK's stocks of skilled and unskilled labour operating with technology available to UK producers. Capital then flows into these industries as dictated by these stocks of labour.

Where then does the technological efficiency come from? Plainly it comes from knowledge available around the world as transmitted to the UK – often via multi-national companies investing but also via licensing agreements (such as Macdonald's and Best Western hotels). In different industries the UK both transmits and receives this knowledge and in a free market knowledge will flow both ways. The key point is that we do not impede this flow to and from the UK that both raises our knowledge and that of others. It is the existence, not the directions, of this flow that forces our knowledge to be the same as that of other developed countries.

It is then plain that foreign direct investment in different industries is simply a symptom of this free market working – as one of the ways knowledge is being transferred. What the free market does is to make the UK enjoy the best levels of knowledge available in each industry. It is probable that in industries where we are 'backward' (such as manufacturing of certain types) FDI will be inward reflecting inward knowledge transfer; whereas in others where we are 'forward' (such as services of the City type) FDI may be mainly outward. Thus given the pattern of best-practice technology that with our labour stocks determine our compara-

tive advantage, the flows of FDI may well change as we move from a protected-manufacturing economy to one of free trade which favours services.

Hence the causal process is as follows: the free flow of knowledge ensures that the UK's is the same as that of other developed countries. The shared knowledge determines the UK's efficiency and, with its labour stocks, comparative advantage. Home prices as set by protection then fix the sizes of industries and their home demands. Finally actual FDI flows reflect this industrial pattern, as well as the UK's overall capital needs compared with its savings. Thus actual FDI reflects and does not cause growth.

APPENDIX B   OTHER STUDIES: THE EFFECTS OF THE SINGLE MARKET – THE CECCHINI REPORT, COMPETITION AND SCALE ECONOMIES

Traditional arguments for the formation of a regional trading block are based on trade creation and trade diversion effects, which assume perfect competition and constant returns to scale. In the 1970s and 1980s another mechanism through which the member states of a customs union may benefit was put forward. It relies on the idea that production at a large scale reduces average costs per unit and hence, access to a larger market via regional integration would increase production, restructure the industry into a smaller number of plants and make surviving firms bigger and more efficient (Smith and Venables, 1988). The presence of scale economies would encourage firms to choose one location and the presence of transport costs would encourage them to locate in the country that has a relatively large market for their goods (Krugman, 1980). According to this argument any barriers between the member states that limit cross border trade would prevent scale economies from being achieved.

Empirical evidence on the existence of the scale effect in the EU context was first put forward in the 'Costs of a Non-Europe' study (The Cecchini Report, 1988). It suggested that competition linked to the Single Market and establishment of single currency

would trigger a restructuring effect leading to economies of scale, greater efficiency and employment creation. The study predicted that the gains from the completion of the single market to be in the range of €174–258 billion which at the time of the report represented around 4 to 7 per cent of EU GDP. Around two-thirds of the total was a gain due to scale economies and due to an increase in competition. Given the mixed evidence on the existence of increasing returns to scale in services industries the Cecchini Report disregarded such gains in these sectors.

Since the 1980s various studies have investigated the scale economies effect in the context of regional trading blocks. Cox and Harris (1984) and Roland-Holst et al. (1994) examined economic integration in North America, while Venables and Smith (1986) and Pratten (1988), among others examined the European case. Recent studies analysing multilateral liberalisation include Haaland and Tollefsen (1994) and Francois et al (1995). According to Pratten (1988) potential gains from increased scale economies appear to be important in European industries such as transport equipment, chemicals, machinery and instrument manufacturing. Gasiorek et al. (2002) calculate that membership of the EU increased UK GDP between 1973 and 1985 by 3 per cent, about two-thirds of which came from increased competition and scale economies. Based on the partial equilibrium methodology Emerson et al. (1988) estimate the direct costs of barriers to be 2.2 to 2.7 per cent of GDP and indirect cost (due to unutilised scale economies and lack of competition) to be another 2.1 to 3.7 per cent. Similar results have been found in more recent studies, which use a CGE framework (Burniaux and Waelbroeck, 1992 and Mercenier, 1993).

Empirical studies such as those noted above suffer from several deficiencies, notably the various ways in which scale economies are estimated (Peridy, 2004) and it is no surprise, therefore, that existing studies find conflicting results. Whereas Caballero and Lyons (1990, 1991, 1992) find evidence of external economies of scale in four EU countries, Basu and Fernald (1995) report little findings of externalities and strong evidence of internal economies being constant. Henriksen et al. (2001) suggest that external economies of scale arising from international intra-industry effects are less prevalent in European manufacturing than are internal economies of scale arising from increasing returns at the level of

the national industry. Further most studies do not account for the fact that scale economies, if they exist, may alter the pattern of specialisation and the studies also do not take into account inter-country differences in scale economies. Peridy (2004) finds only a small degree of increasing return and the small-scale elasticities, which imply the positive effect of scale economies on exports of EU countries, are likely to be limited.

Apart from empirical issues the theoretical scenarios are numerous once we depart from perfect competition and the precise assumptions adopted in any imperfect competition modelling exercise bear heavily on the results. The gains depend on the type of product under consideration, the relative size of national market when compared to the union market, existing industry structure and product variety. Partial equilibrium simulation exercises by Smith and Venables (1988) for 10 industrial sectors using a variety of different assumptions result in a wide variation in quantitative results: for the same initial shock, welfare gains (including scale economies) are between 0.5 and 4 per cent. Larger gains often imply a large relocation of production among member countries.

It has also been suggested that ever-increasing mergers and acquisitions (M&A) within several European industries point to a restructuring as a result of potential scale economies. M&A however, could also be equally attributed to processes of globalisation and technology and industry level factors. Further, mergers leading to a monopoly position are traditionally viewed as uncompetitive by the European Commission and some are indeed blocked, resulting in squandered scale economies if any. More generally, if scale economies are significant it must be true that free trade with the world economy and not just with the member states would maximise gains from this effect.

In the particular case of the UK, the main thing emerging from the studies above, whether one considers the theory or the empirical results, is that there should have been an effect of greater competition on the UK within the single market. These studies do not support much of an effect of scale economies, largely because UK manufacturing during the period since EU entry has contracted sharply, especially in those areas of manufacturing where large-scale operation is prevalent; essentially UK manufacturing has become concentrated in areas known as 'niche manufacturing' for the most part.

In our study we assume no contribution from scale economies, rather in line with these studies. As far as competition is concerned we assume in our benchmark case that maximum gains from competition have been achieved under the status quo. Our study is concerned with how far free trade would create still greater benefits from the lower prices forced on the UK by international competition. Of course what we find is that whatever the Cecchini-style competitive process may have generated within the UK, world competition can deliver a lot more on top. As we have seen, what happens is that a new industrial structure consistent with comparative advantage creates large benefits for the UK economy; competition under free trade largely eliminates manufacturing in favour of traded services. In short therefore Cecchini effects are fully incorporated implicitly in the benchmark case of our study and make no difference to our estimates.