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Trying to make sense of Q4 2001

Puzzling divergence between UK demand and output

Remarkable contrasts between retail sales and manufacturing in late 2001,

The final quarter of 2001 was peculiar. Domestic demand recorded strong growth, while industrial output fell sharply. It will be several weeks before worthwhile national accounts data are available, but one point seems to be clear. The divergence between demand and output was exceptionally wide. The volume of retail sales in the quarter was 1.3% up on Q3 (i.e., it was growing at a 5.4% annualised rate) and 6.3% up on Q4 2000. By contrast, industrial production in October and November was almost 2.2% lower than the Q3 monthly average (i.e., it was falling at a 8.4% annualised rate), and was almost 5% less than in Q4 2000. (Industrial production figures are not yet ready for December.) In the long run demand and output move together. How was the gap between them bridged in Q4 2001? And what is the message for the economy in 2002?

with gap between them bridged either by widening trade gap or by falling inventories

If final domestic demand grows more than output, there are two main ways of covering the discrepancy - by increasing imports more than exports (i.e., reducing "net exports"), and by running down stocks. It seems certain that a reduction in net exports did occur in late 2001 and it must be likely that this will continue in early 2002. Even so the trade statistics do not argue that import growth has outpaced export growth by a wide margin. The average deficit on trade in goods and services was £1.6b. in October and November, exactly the same as in the first half of 2001 and not very different from in 2000. Indeed, the official statistical agency, National Statistics, even opined in the recent trade press release that, "The latest estimate of trend (based on data to November) suggest that the whole world goods deficit is narrowing." (Complete trade statistics are not yet published for December.)

Fall in inventories appears to be main consideration,

By implication, companies must be running down stocks. Some items of evidence support this interpretation. An example is the Purchasing Managers Index compiled by NTC Research. Respondents to the survey are asked to compare their stocks of finished goods with the situation a month earlier. Recent surveys indicate large falls in stock levels, as distributors meet still buoyant final demand from stocks. (The latest survey from the Confederation of British Industry may also have identified the beginnings of a stock shortage.) A fair conclusion seems to be that distributors read the newspapers and listen to economists, and have decided that early 2002 will see a decline in demand. If they are right, the cutback in stocks will be justified. But what happens if they are wrong? Won't they be caught in an unpleasant "inventory whiplash" if demand stays at its recent levels or even keeps on growing? There is at least a possibility that distributors will have to place orders heavily at some stage in the next few months both to meet on-going sales and orders, and to eliminate the shortfall of stocks caused by their excessive caution in late 2001. Lombard Street Research's leading indicator indices are in fact moving ahead nicely at the moment (see our *Portfolio Strategy* publication), partly because of a very robust housing market.

which implies a stronger UK economy in rest of 2002

Professor Tim Congdon

31st January 2002

Summary of paper on

“Does the Eurozone face 50 years of economic stagnation?”

Purpose of the paper

The introduction of euro notes and coin appears to complete the European single currency project. The paper reviews the long-term prospects for economic growth in the Eurozone, as these will largely determine whether the new currency can rival the US dollar.

Main points

- * **The growth of output can be analysed as the sum of three factors - the change in the population of working age (“demographics”), the change in the proportion of the working-age population in work (“the employment ratio”) and the growth in output per head (“productivity”).**
- * ***Demographics* - According to World Bank projections (which are broadly consistent with other authoritative estimates), the working-age population of the Eurozone will be stable until 2010, but will then start falling. The fall is mild in the 2010s (at almost 0.5% a year), but becomes marked (at between 1% and 1 1/2% a year) in the 2020s and 2030s. (See pp. 4 - 5.)**
- * ***The employment ratio* - Crucial to the prospects for the employment ratio are levels of tax, and particularly of tax on employment, in coming decades. As higher taxes are a likely response to the increase in the ratio of dependants to the working-age population, the employment ratio is - at best - likely to be stable. (See pp. 6 - 10.)**
- * ***Productivity* - Productivity growth slowed in the EU from extremely high annual rates (of over 4% in the 1950s and 1960s) to about 1% in the late 1990s. The future is impossible to predict exactly, but a Eurozone figure above 2% is unlikely. (See p. 10.)**
- * **Combining all the three factors, slow output growth will continue in the Eurozone until 2010, but will decelerate in the 2010s and virtually cease from 2020, as falling employment balances rising productivity. Without an upturn in productivity growth from the 1990s’ average, output could fall in significant nations - such as Germany and Italy - on a trend basis in the 2020s and 2030s. (See p. 10.)**
- * **Immigration and a higher retirement age might ease the constraints on growth, but neither can plausibly solve the problem of Eurozone economic stagnation. The only answer is for women to have more children, so that the Eurozone’s population once again replaces itself. However, for about 20 years the implied increase in the number of young dependants aggravates the dependency burden. (See pp. 8 - 9.)**

Does the Eurozone face 50 years of economic stagnation?

Assessing long-term growth in Europe's new single currency zone

Architects of the euro wanted it to supplant the dollar as world currency

Europe's new single currency is a spectacular achievement. Although many doubts must still be expressed about the eventual viability of a single currency shared by 12 nominally independent governments, the architects of the euro can feel proud that dream has become reality. The dream of a single European currency goes back to the 19th century, but in the post-war period it was first expressed seriously in the Werner Report of 1970. In the late 1970s the German Chancellor, Helmut Schmidt, said that, "It is in our interest that a European currency be created. It must have a weight on the world's markets equal to the American dollar." The then French President, Valéry Giscard d'Estaing, remarked in the same vein that the new currency would be "for business, the leading currency of the world". The message seems to be that rivalry between the dollar and the euro will be one theme of global geopolitics in the early 21st century.

Eurozone growth performance will be crucial

The early years of the European Economic Community (or "Common Market", as it was then called) saw rapid economic growth as companies reaped the economies of scale made possible by a large and increasingly integrated home market. If the Eurozone were to experience economic growth in the early decades of the 21st century at the same sort of speed, its gross domestic product would soon catch up with that of the USA and the euro might indeed supplant the dollar as the world's leading reserve currency. The prospects for economic growth in the Eurozone are also fundamental to the UK's decision on whether to adopt the new currency. Renewed economic dynamism in its neighbours would strengthen the euro's image in the British public debate, whereas slow growth or stagnation would further erode support.

But November 2001 issue of *Monthly Economic Review* argued that such performance will be poor

The November 2001 issue of this *Review* argued that the Eurozone's long-term growth prospects were poor, for a mixture of demographic and supply-side reasons. In essence, the contraction in the working-age population from 2010 onwards may interact with slow productivity growth to leave output unchanged for a period of at least a few decades, perhaps even longer. The conjecture was made explicit in the German case. Productivity growth appeared to be levelling out at 1% a year. "If German productivity growth between 2010 and 2030 were in line with this figure, and if employment were to decline at the same rate as the population of working age, Germany's GDP would stagnate for 20 years." There is no doubt that 20 years of stagnation in Europe's largest economy would blight the euro on the foreign exchange markets. The implied sharp decline in Germany's (and indeed the Eurozone's) weight in the world economy would condemn the euro to a subordinate role compared with the American dollar.

This issue of the *Review* considers the facts in more detail, following the introduction of euro notes and coin

The current issue of Lombard Street Research's *Monthly Economic Review* is therefore devoted to a more detailed examination of the evidence. The analytical framework is much the same as in both the November 2001 issue and in the December 1997 issue, which was an earlier statement of the same pessimism. The rate of change in national output is, of course, the sum of the rates of change in employment and output per person employed ("productivity"). Further, the rate of

change in employment can be viewed as the product of the rate of change in the population of working-age and the proportion of that working-age population actually in a job. The rate of change in the population of working age depends on demographics, while the proportion of the working-age population actually in a job (to be called “the employment ratio” here) is heavily influenced by labour market structure and taxes on employment as well as a variety of social norms (such as attitudes towards female participation in the workforce). So three variables have been identified as crucial to the long-term growth outlook - productivity, demographics and “the employment ratio”. The second of these, demographics, is the most certain (or, at any rate, the most easily predicted over the next few decades), and will be considered first. The employment ratio and productivity will then be discussed in turn.

1. Demographics

Working-age populations to fall heavily in the Eurozone

The central facts on Western Europe’s working-age population are given in the chart and table on p.12, which is based on data in the World Bank website, and refers to both the European Union as a whole and the 12 countries that now constitute the Eurozone. The working-age population is defined for this purpose as being between the ages of 20 and 64. The main theme is easily summarised. The working-age population of both the EU and the Eurozone is stable over the next ten years, but thereafter starts to decline and keeps on declining. In the 2010s this decline runs in the Eurozone at almost 0.5% a year, in the 2020s at 1.1% a year, in the 2030s at nearly 1.3% a year and in the 2040s at just under 0.7% a year. The fall is similar for the EU as a whole, which is not surprising as the Eurozone accounts for the overwhelming majority of the EU’s members.

according to World Bank projections which assume that fertility returns to the replacement level by 2035

Of course, the reliability of the projections is less for the later decades than the earlier, as assumptions about immigration, fertility, mortality and so on start to make a difference 30 or 40 years from now. It needs to be emphasized that the World Bank assumes both that immigration continues at recent rates in the next few years and that by 2035 the “net reproduction rate” is back to one (i.e., the average woman is having two children and the population is reproducing itself). The assumption of a recovery in the net reproduction rate might be questioned, as it contrasts with a steady decline in fertility for several decades. (See the chart on p.19.) At present the average woman in the EU has 1.5 children and the net reproduction rate is therefore about 0.75. The World Bank assumes that the recovery in fertility is gradual, and is already affecting births in the 2020s and working-age population in the 2040s. If the World Bank had made the perhaps more neutral assumption that the average woman will have the same number of children in the 2020s as today, the fall in the working-age population in the 2040s would be similar to that in the 2020s and 2030s. In other words, without the significant benign change in child-bearing behaviour assumed by the World Bank, the Eurozone’s working-age population would fall indefinitely by 1% - 1 1/2% a year.

Falls in working-age population to be most severe in Italy, Germany and Spain

The severity of the decline in the working-age population varies between Europe's nations. The worst-affected nation is Italy, where the working-age population is projected to tumble 41.9% from 36.0m. in 2000 to 20.9m. in 2050, but not far behind are Spain (a fall of 38.6% over the same period) and Germany (a fall of 36.6%). In most countries the fall is between a fifth and a third. In Italy and Germany the speed of the contraction is sharpest in the 2020s and 2030s. The projections are for the Italian working-age population to go down by 1.4% in the 2020s and by 1.9% a year in the 2030s, and for the German working-age population to go down by 1.5% a year in both the 2020s and the 2030s. In both countries the decline moderates in the 2040s, reflecting the World Bank's assumption that women start to have more children from the 2020s. In Spain, which has had in the last 20 years both a rapid rise in the working-age population and a particularly marked decline in fertility, the pattern is different. The rate of fall in the 2040s (1.4% a year) is higher than in the the 2020s (1.1% a year).

Estimates by United Nations and national governments similar to World Bank's

These numbers are so drastic and the issues they raise so profound as to emphasize the need to check, re-check and cross-check their reliability. Of course, the World Bank is a supranational agency with no particular axe to grind, while its projections use well-established demographic methods and are accompanied by a clear statement of the main assumptions. So the numbers ought to be reliable. In fact, the United Nations has done separate calculations and reached similar answers, and even European governments and the European Commission have published work in much the same vein.

Eurostat data only slightly different from World Bank's

In 2000 Eurostat, the Luxembourg-based statistical office of the European Communities, published a book on *European Social Statistics; Demography*, which is based on information from national governments. It did not include projections to 2050, but it did have projections to 2020. The relevant tables of Eurostat's publication (Tables I-7 and I-8) say that in the 2010s Italy's, Spain's and Germany's working-age populations will drop by 0.5%, 0.4% and 0.3% respectively, whereas the World Bank's figures for the countries are 0.8%, 0.6% and 0.5% respectively. Evidently, Eurostat and the World Bank differ a little, but the expected population changes are in the same direction and of the same broad order of magnitude. The correctness of the World Bank's figures - in general terms - is indeed confirmed by comparing the number of people in different age cohorts. According to Eurostat, at the start of 2000 Germany had 7.2m. people between the ages of 35 and 39, and only 4.4m. between the ages of 20 and 24, and just 3.7m. between the ages of 0 and 4, while Italy had 4.7m. people between the ages of 30 and 34 and less than two-thirds that, 3.1m. people between the ages of 15 and 19, and only 2.7m. between the ages of 0 and 4.

Europe's demographic fragility is unprecedented

Europe's demographic fragility is a fact, not a conjecture. The population decline in prospect over the next 50 years (and perhaps longer) will have a major effect on Europe's economies and societies. Nothing like this has happened before. The last adverse demographic shock on a similar scale was the Black Death of the late 14th

century, but that was very different in character. Perhaps surprisingly, the two big wars in the first half of the 20th century did not stop population growth and so did not create a challenge comparable to that which now lies ahead. Between 1913 and 1950 the population of Western Europe advanced from 261.0m. to 305.1m., according to Maddison's *The World Economy: a Millennial Perspective*. Although Europe's population increase in the first half of the 20th century was less than in the second halves of both the 19th and 20th centuries, it was still an increase. The heavy decline of the early 21st century will be new and unprecedented.

2. The employment ratio

Employment ratio rising in USA in last 30 years,

What about "the employment ratio"? Will European countries be able to offset the fall in the working-age population by a rise in the proportion of that population actually in work? The November 2001 issue of this *Review* discussed some of the patterns in labour force participation and employment in recent decades, and highlighted one particularly important problem. Over the last 30 years employment has been rising faster than the working-age population in some industrial countries, such as the USA, although it has been generally stable in Europe. If Europe could now imitate the USA, the rise in the employment ratio would be encouraging for the future. Unfortunately, closer inspection of the determinants of Western Europe's employment ratio in the past undermines this hope.

Whereas in the EU a fall in the male employment ratio has been balanced by a rise in the female employment ratio, which probably will not continue

The aggregate employment ratio reflects the behaviour of male and female employment, both relative to their working-age populations. It turns out that in the EU the relatively satisfactory behaviour of the aggregate employment ratio has been entirely due to a sharp rise in the ratio of working women to women of working age. Arguably, this rise is a once-for-all change which is unlikely to persist in the next few decades. In all four of the big European countries (Germany, UK, France, Italy) the ratio of working men to men of working age has gone down heavily since the 1960s. (See pp. 11 - 13 of the November 2001 issue of Lombard Street Research's *Monthly Economic Review*.) If the female employment ratio were now to stabilize, a further decline in the male employment ratio would lead to a decline in the aggregate employment ratio. So the fall in employment would be larger than the fall in the working-age population, which - as discussed above - will be very disturbing in its own right.

Employment needs to be made more attractive, but rising taxation - due to increased numbers of dependants - may make this difficult

Precise forecasts are not possible in such a complex area of public policy, but it is obviously a priority for governments to make employment more attractive in the early decades of the 21st century. The charts on p. 18 demonstrates why this may be difficult. A common perception is that Europe's governments have been coping with adverse demographics for many years already and that future pressures will be an intensification of well-established trends. This is not so. Every nation has to look after two types of dependant, the old and the young. The chart on p. 18 shows that - relative to working-age population - the number of elderly dependants in the EU has been rising in recent decades. But the number of young dependants has been dropping, particularly since the mid-1970s. The fall in the number of young dependants is of course one of the first direct results of the decline in fertility. Indeed,

so pronounced has been the fall in the ratio of young dependants to the working-age population that - until now - it has outweighed the rise in the ratio of old dependents to the working-age population. (See the chart on p. 16.)

Government spending is disproportionately on the elderly (to pay for pensions and health care) and the young (to pay education), while tax revenues come disproportionately from the working-age population (for obvious reasons). The message from the chart on p.16 can therefore be characterised in only one way: it is extremely alarming for the EU's public finances. The ratios of government spending and tax to GDP in the EU are higher today than 20 years ago, and much higher than 30 or 40 years ago. (In the 1960s the ratio of tax to GDP in the EU 15 was under 30% and even in the 1970s it was under 35% of GDP. It is now well over 40% of GDP.) But crucial demographic influences on the burden of the state argue that the government spending/GDP ratio today should be at a relatively low point compared with other times. The chart on p.16 shows that demographic influences will be neutral over the next few years, but from 2010 will become hostile to expenditure control for several decades.

**Possible that
higher social
security
contributions will
reduce the EU's
employment ratio**

No doubt European governments will deal with the looming demographic challenge with different policies and different degrees of success. It would be foolish to make any grand generalisation at this stage. However, the rise in dependency from 2010 onwards will require either a cut in entitlements (particularly to pensions, but also to other types of welfare spending) or an increase in tax levels to finance continued entitlements at the current rate. The incidence of the extra taxes may be largely in the employment area, as a typical feature of the modern European welfare state is that social security contributions - assessed as a proportion of labour income and partly paid by the employer - are used to cover pension liabilities. Employers' social security contributions climbed from 3.5% of GDP in 1965 to 6.6% in 1985, and they remain at broadly this level today. If taxes on employment deter employers from taking on more staff (and also discourage potential employees from seeking work), the steep rise in dependency implies a decline in the EU's - and indeed the Eurozone's - employment ratio from 2010.

**Relationship
between tax and
employment a
matter of debate
among economists**

The relationship between tax and employment therefore has a crucial bearing on European growth prospects. Last year the London School of Economics' Centre for Economic Performance published an influential paper, by Stephen Nickell and others, on labour market behaviour in the member countries of the Organization of Economic Cooperation and Development.⁽¹⁾ The paper mentioned work by Mortensen and Pissarides in a separate 1999 paper which had found "enormous effects" from changes in payroll taxes on equilibrium unemployment. "In one simulation...a rise in the payroll tax rate from 15 to 25 per cent is enough to raise equilibrium unemployment by over 6 percentage points." However, Nickell and his colleagues questioned whether Mortensen and Pissarides had specified correctly the choice between leisure and work, and suggested that after an appropriate adjustment "the impact of payroll taxes on equilibrium unemployment disappears". Evidently, the subject is a matter of great debate among economists.

But tax plainly affects post- and pre-tax relativities, and it is hardly controversial that these impact on labour market decisions (such as the extent of self-employment)

At any rate, it is clear that taxes on employment as such are liable to distort the labour market. People have a choice between providing their labour services as themselves (i.e., as individual suppliers in “self-employment”) and as employees (where they are on a payroll). A system of payroll taxation has administrative difficulty dealing with self-employment which is therefore often exempt. As a result, high payroll taxes stimulate an expansion of self-employment at the expense of formal paid work “in employment”. A feature of the labour market in a number of industrial countries over the last 20 years is that the growth rate of self-employment has been markedly higher than that of total employment, perhaps because of this distortion of choice. In the words of the OECD’s *Employment Outlook*, “several countries...have seen growing numbers of self-employed people who work for just one company, and whose self-employment status may be little more than a device to reduce total taxes paid by the firms and workers involved - the phenomenon of so-called ‘false’ self-employment”.(2) If greater self-employment has been caused by payroll taxes in this way, employment decisions are plainly sensitive to relative prices, including the difference between pre- and post-tax labour costs. It ought to follow that payroll taxes affect the number of people employed.

Conclusion that - at best - the employment ratio will be stable is reasonable

On balance, the conclusion has to be that - without a significant change in institutions, involving a liberalisation of employment practices and a cut in payroll taxation - the employment ratio in the Eurozone (and the EU as a whole) is likely at best to be stable over the next few decades. The female employment ratio cannot rise as sharply in the next few decades as it has in the last 30 years, partly because there has to be a balance between women’s family responsibilities and their careers. Further, the apparent inconclusiveness of the academic debate over the employment effects of payroll taxes is far from compelling, as it defies economic logic to claim that price has no effect on quantity.

A return to replacement level of fertility the only long-run answer, but that aggravates dependency problem in a transitional period

One subsidiary point is worth developing here. If migration is put to one side for the moment, there is only way that European societies can escape from their demographic malaise. It is for women to have more children. A rise in the employment ratio would mitigate the problems, but the employment ratio could in no circumstances exceed 100% and realistically cannot go much above 80%. (Moreover, once it had reached its absolute maximum the boost to output would cease.) In fact, changes in government policy to encourage large families are inevitable in Europe over the next 20 or 30 years, however unpalatable that may be to some sections of public opinion. But - in the first 20 years when such policies are adopted and women again have two or more children each - the impact will be to aggravate the pressures on the working-age population.

Difficult questions of inter-generational equity

The explanation is of course that the number of young dependants, with their associated education and medical expenditure, will surge as European societies return to a demographically sustainable path. The correct long-run policy approach worsens the tax burden and the demographic strain in the short run. The chart on p.19 shows that in the EU fertility fell the replacement ratio in the mid-1970s. In other words, the

population of the EU has not been reproducing itself for an entire generation. This lucky generation has enjoyed exceptionally high living standards because of the fall in the young dependency ratio and the output rise associated with increased female participation in the workforce. (Whether one should describe this generation's choice as selfish or myopic is a matter of taste.) Unhappily, there will be another generation which will suffer compressed living standards as the net replacement ratio returns to one (or more) and the young dependency ratio rises to a more normal level. (It is not clear whether the increase in fertility will necessitate a decline in female labour force participation. The evidence on the subject is ambiguous, as well as being highly controversial.)

3. Productivity

Subject resists easy generalisations

Can faster productivity growth come to the rescue? The answer is that no one really knows, as economists have only a weak understanding of the causes of long-run productivity growth. The chart on p. 9 of the November 2001 issue of this *Monthly Economic Review* argued that productivity growth in the EU appeared to be levelling out at about 1% a year. It is possible that the downward trend in productivity growth since the 1960s may be reversed in the early decades of the 21st century, with the spread of the various "new technologies". But it is not ludicrous to suggest that the downward trend will persist and take productivity growth to 3/4% a year or less. Public policy in some European countries in the 1990s was frequently perverse, with governments promoting make-work schemes instead of favouring productivity enhancement. The introduction of the 35-hour week in France is perhaps the most prominent example. It is easy to find official policies in leading European economies which are plainly inefficient on economic grounds, even if they have a powerful environmental or strategic rationale. The heavy subsidisation of both wind power and coal mining in Germany could be cited here.

Claims about the boost from the single currency so far look unconvincing

Optimists may claim that the introduction of the euro ought itself to lead to substantial productivity gains, because it will intensify capital market integration, promote regional specialisation and facilitate economies of scale. This ought to be true, but - if so - the actual record of productivity gains in the last three years has been mediocre. Such financial services activities as banking and insurance ought to have benefited particularly from the new currency. But a strong impression remains that financial services businesses in the UK, which has not joined the Eurozone, are easier to manage and have achieved better productivity growth in the last 10 or 20 years than their counterparts in the Eurozone. Crucial here may have been less onerous labour market regulations and weaker trade unions in the UK than in the rest of the EU. At best productivity growth in the Eurozone may be 2% a year in the next few decades instead of the 1% a year seen in the late 1990s. A higher figure cannot be ruled out, but it would have to be described as visionary.

Conclusions

Three influences to be summarised

Prospects for the three influences on growth can now be summarised. The working-age population in the Eurozone will be stable until 2010, but will then fall. In the 2020s and 2030s the fall will be at a rate of about 1% - 1 1/4% a year across the Eurozone, with higher figures in Italy, Germany and Spain. The behaviour of the

employment ratio (i.e., the proportion of the working-age population in employment) is uncertain. It could increase if labour market policies change radically, but a more plausible outcome is that higher taxes will discourage employment. A reasonable view is that, at best, the employment ratio will be stable. No one knows precisely what will happen to productivity growth, but it is unlikely to exceed 2% a year and may be similar to the 1%-a-year figure seen in the late 1990s. (It might be even lower.)

Eurozone output growth of 1% a year or less over an extended period seems probable

What are the conclusions? The situation is not too bad until the late 2010s, when – compared with the norm in the late 20th century – it becomes desperate. With the working-age population falling from 2020 to 2040 by 1% - 1 ¼% a year and the employment ratio stable, employment in the Eurozone also falls by 1% - 1 ¼% a year. If productivity growth ran at the same rate as in the late 1990s (i.e., 1% a year), output would stagnate for 20 years. Even if the annual rate of productivity growth were to increase to 2%, output growth would be a mere 1% a year. In some countries – notably Italy and Germany – national output could be contracting on a trend basis over extended periods.

Need for radical changes in public policy,

This outlook is so bleak that – when set out with full supporting statistical detail – it prompts questions about radical changes to public policy. Two changes need particular attention, the encouragement of immigration and the postponement of retirement. Some steps in these directions are likely in the next few decades, but it would be unwise to overstate the potential advantages. First, immigration is unpopular in many European countries, partly because of the increased competition in the labour market and a perceived threat to living standards, and partly because of problems of assimilation. The difficulty of integrating people from Islamic countries has been widely discussed since the events of 11th September. It is therefore worth noting that an appeal to a very wide concept of Europe – encompassing Eastern Europe and the countries of the former Soviet Union – as a recruitment ground for new labour is unconvincing. The demographic profile of Eastern Europe and the former Soviet Union is similar to that of Western Europe. Heavy migration from these areas may occur, but it would lead to very severe depopulation within them. Most of the Islamic world – including Turkey and the Middle East – has more favourable demographics, but large-scale migration to the Christian nations of Western Europe would be problematic.

but i. immigration is not a convincing answer, and

ii. an increase in the retirement age gives only a once-for-all boost

Secondly, an increase in the retirement age delivers a once-for-all benefit to output as people in their late sixties are added to the workforce. However, the output gain should not be exaggerated, as people late in life typically have lower productivity than those in middle age. (This remark may be criticised as “age-ist”. But all studies of the lifetime income pattern show that incomes peak at ages earlier than 65. Assuming that output and incomes are related, output must be lower as people approach their 70th birthday than when they are in their thirties, forties and fifties. The point is just common sense.) Further, the result would be a permanent and welcome boost to output, but it would not lead to a sustained increase in output growth. As long as

women have fewer than two children, the population keeps on falling. The working-age population may be redefined, but – even if it consists of people between the ages of 20 and 69 rather than between 20 and 64 – the number of people between the ages of 20 and 69 must sooner or later decline in broadly the same way as the total population. The conclusion remains inescapable. In the final analysis the only way that Europe can restore demographic sustainability is for women to have more children. (But, as noted above, that aggravates dependency for a transitional period because of the increased requirement for spending on child care and education. A painful adjustment period is in prospect under almost any reasonable assumption.)

The UK is relatively well-placed

What about the UK? Like its neighbours, it will face an increased fiscal burden in the next few decades because of population age-ing; like them, it will also have problems adjusting to a world of labour scarcity. However, the UK is in a relatively favourable position. In the 1970s and 1980s fertility did not fall so sharply in the UK as in the Eurozone, while immigration in the late 1990s was higher in relation to the population. The UK's working-age population will continue to rise until 2020 and will not fall thereafter at a particularly noticeable rate. Moreover, recent rates of productivity growth in the UK have been better than in the Eurozone, although they have hardly been impressive by historical standards. (Productivity growth since 1997 has in fact been slower than in the previous 18 years of Conservative rule.) A fair surmise is that the UK's trend rate of economic growth in the next 20 or 30 years will be between 2% and 2½%, much in line with the very long-run norm.

The demographic blight on the euro will prevent it replacing the dollar as the world's leading currency in the early 21st century

The analysis in this research paper casts a long shadow over the euro. The punchline is that the Eurozone's long-run growth prospects are blighted by adverse demographic trends of an unprecedented kind. Unlike the USA, where the population is expected to grow indefinitely into the future, it is virtually certain that the Eurozone's population will be declining in the early 21st century. Crucially, its working-age population and so employment will be contracting in the 2020s and 2030s at a rate not dissimilar to that of productivity growth in the late 1990s. Some European nations – including Germany and Italy – may even struggle to prevent national output falling over extended periods. The UK has its economic problems, but they are not as bad as those of its continental neighbours. The case for the UK's adoption of the euro will seem less compelling as the performance of the Eurozone economy deteriorates and the importance of the Eurozone in the world economy diminishes. Against this background, Schmidt's and d'Estaing's ambition that the new European currency would replace the dollar will remain unfulfilled.

Notes

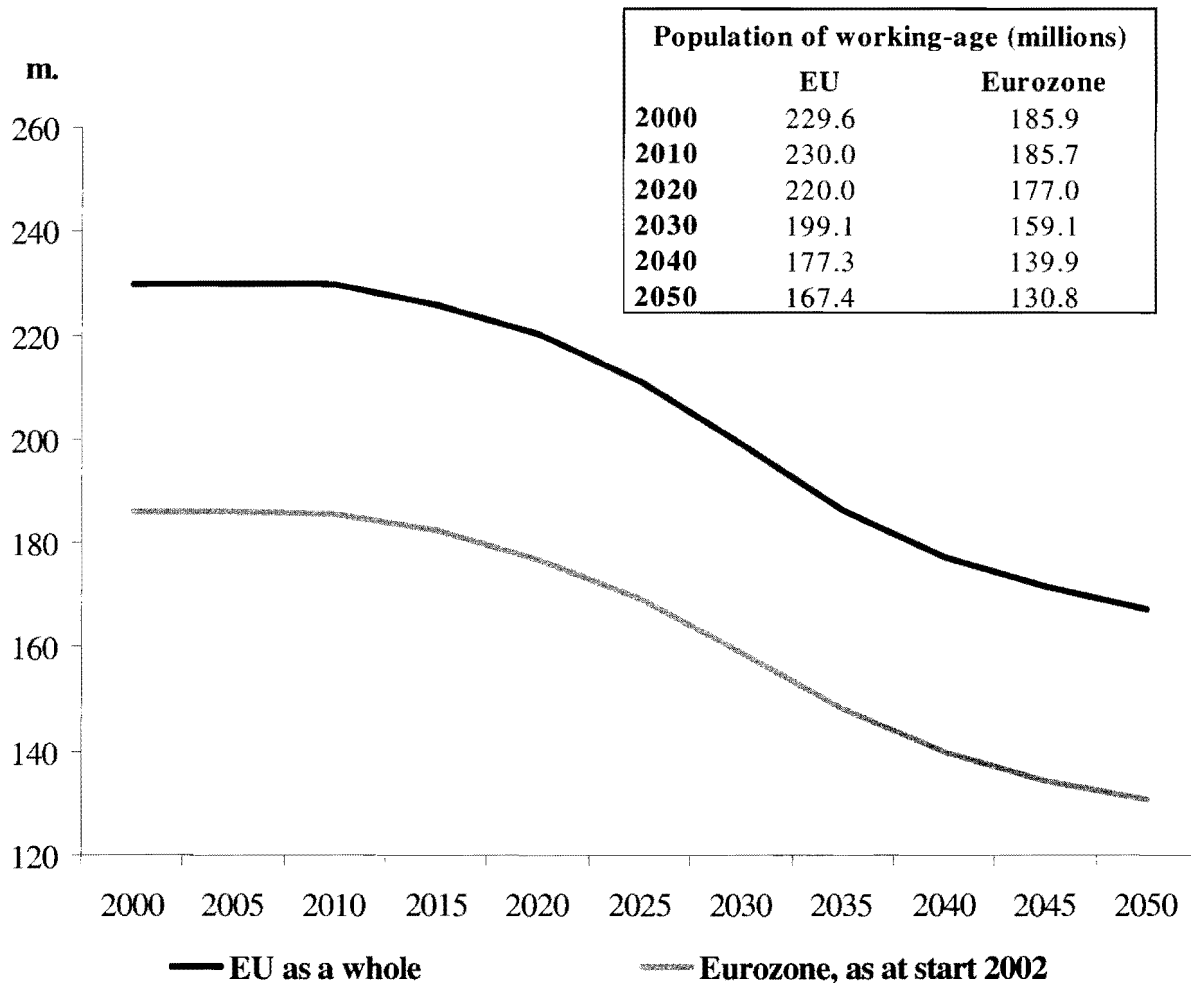
(1) S. Nickell, L. Nunziata, W. Ochel and G. Quintini 'The Beveridge Curve, Unemployment and Wages in the OECD from the 1960s to the 1990s', paper produced by the Centre for Economic Performance, preliminary version, June 2001.

2) OECD *Employment Outlook* (Paris: OECD, June 2000), p. 155.

Europe's demographic problem

A long-term blight on the new currency?

Chart shows the population of working-age in the EU and the Eurozone, as projected by the World Bank.



Source: World Bank, *HNP Stats*

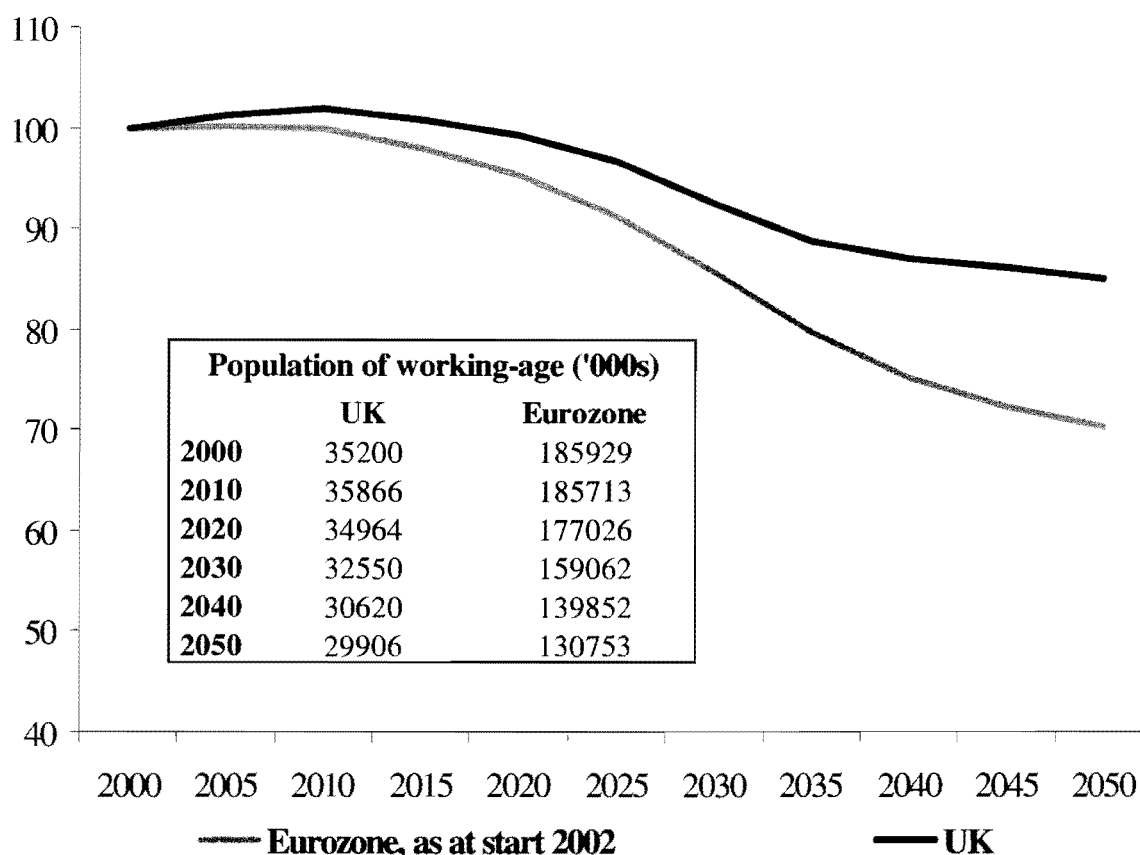
Only three members of the European Union have stayed out of the Eurozone - the UK, Sweden and Denmark. The working-age population of the Eurozone therefore dominates that of the European Union, accounting for over 80% of the total. Nevertheless, because the UK's demographics are somewhat different from the Eurozone average (see p.13), the decline in the EU working-age population over the next 50 years ought to be less drastic than that of the Eurozone by itself. The World Bank projects that over the 50 years to 2050 the Eurozone's working-age population will fall by almost 30%, whereas the EU's will decline by 27%. Despite the radical effect of these changes on Western Europe's economies and societies, there has been surprisingly little discussion (at least in the UK) of the long-run implications for economic growth and investment returns. A population fall of this sort has not affected any continent in the last two hundred years.

UK not too badly affected

UK's working-age population holds up to 2020

Chart shows the population of working-age for the Eurozone and UK, as projected by the World Bank.

2000=100



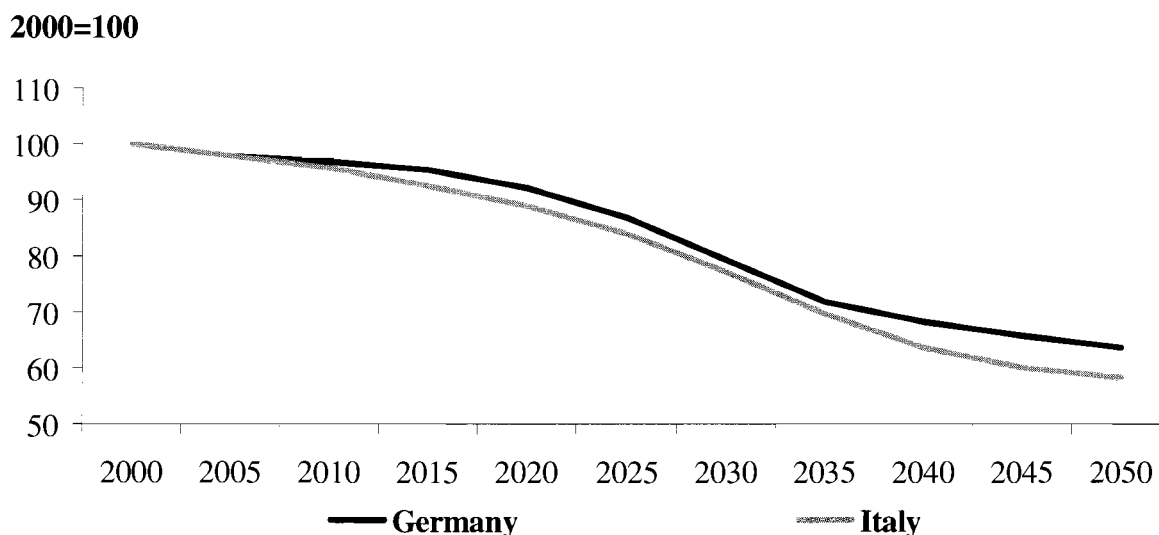
Source: World Bank, *HNP Stats*

According to the World Bank, the UK's working-age population will rise slightly over the next ten years and then fall only gradually. From 2010 to 2050 its working-age population drops by 16.6%, whereas the Eurozone's goes down by 29.6%. But the official UK agency, National Statistics, takes a more optimistic view of the UK's prospects. It expects the total population to rise by over 5m. between 2000 and 2025, with two-thirds of the gain attributable to net immigration. As most immigrants are in the early working-age cohorts (i.e., between the ages of 20 and 45), the effect is to boost the working-age population. Largely as a result, National Statistics estimates that the UK's working-age population in 2021 will be 40.8m., markedly higher than the World Bank's projection of 35.0m. at 2020. (Note that the UK has increased the age at which women receive the basic state pension to 65 and so expanded "the working-age population". The numbers above relate to the 20 to 64 group throughout.)

Europe's most vulnerable nations

Can Germany and Italy avoid trouble?

Chart shows the population of working-age in Germany and Italy, as projected by the World Bank.



Population of working-age ('000s)		
	Italy	Germany
2000	36024	51675
2010	34535	50075
2020	32024	47652
2030	27768	40974
2040	22865	35205
2050	20944	32768

Source: World Bank, *HNP Stats*

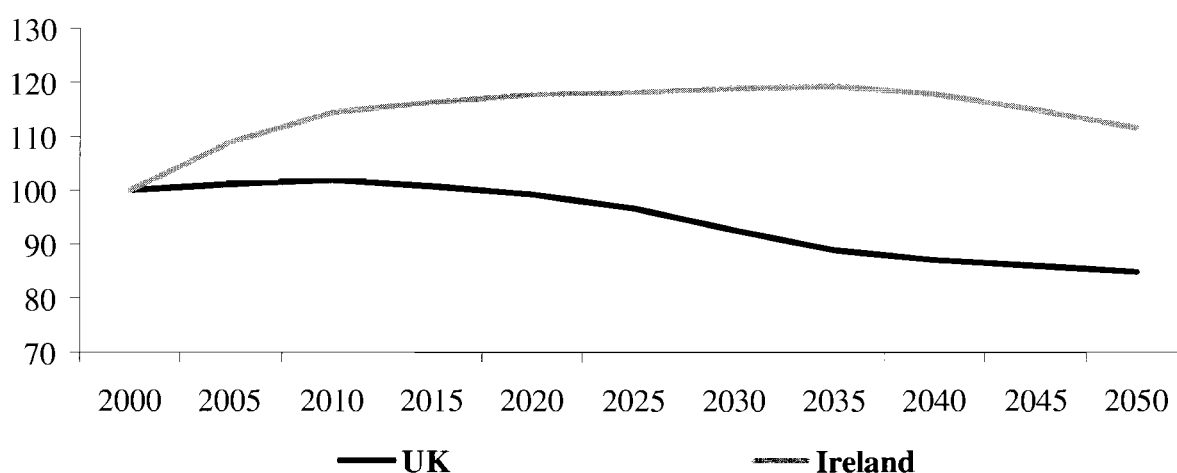
The prospective collapse in the working-age populations in Italy, Germany and Spain imply wrenching social and economic adjustments, and it is puzzling that they have not received more comment in the UK and other English-speaking countries. Italy is already on the threshold of an awkward period, as its working-age population is projected to fall significantly (by 4.1%) between 2000 and 2010. But in both Italy and Germany the real difficulties begin about a decade from now, when the working-age population goes down by about 1/2% a year, and the traumatic period is from about 2020, when it declines by over 1% a year. (Spain's position is rather different, with the difficulties coming later, particularly in the 2030s and 2040s.). Awareness of these trends, and the implied constraint on output, may largely explain the scale of the capital outflows from Europe in the late 1990s and - at a further remove - the weakness of the euro against the dollar.

English-speaking Europe

Are they winners? Do they take all?

Chart shows the population of working-age in the UK and Ireland, as projected by the World Bank.

2000=100



Population of working-age ('000s)		
	UK	Ireland
2000	35200	2212
2010	35866	2529
2020	34964	2603
2030	32550	2633
2040	30620	2605
2050	29906	2470

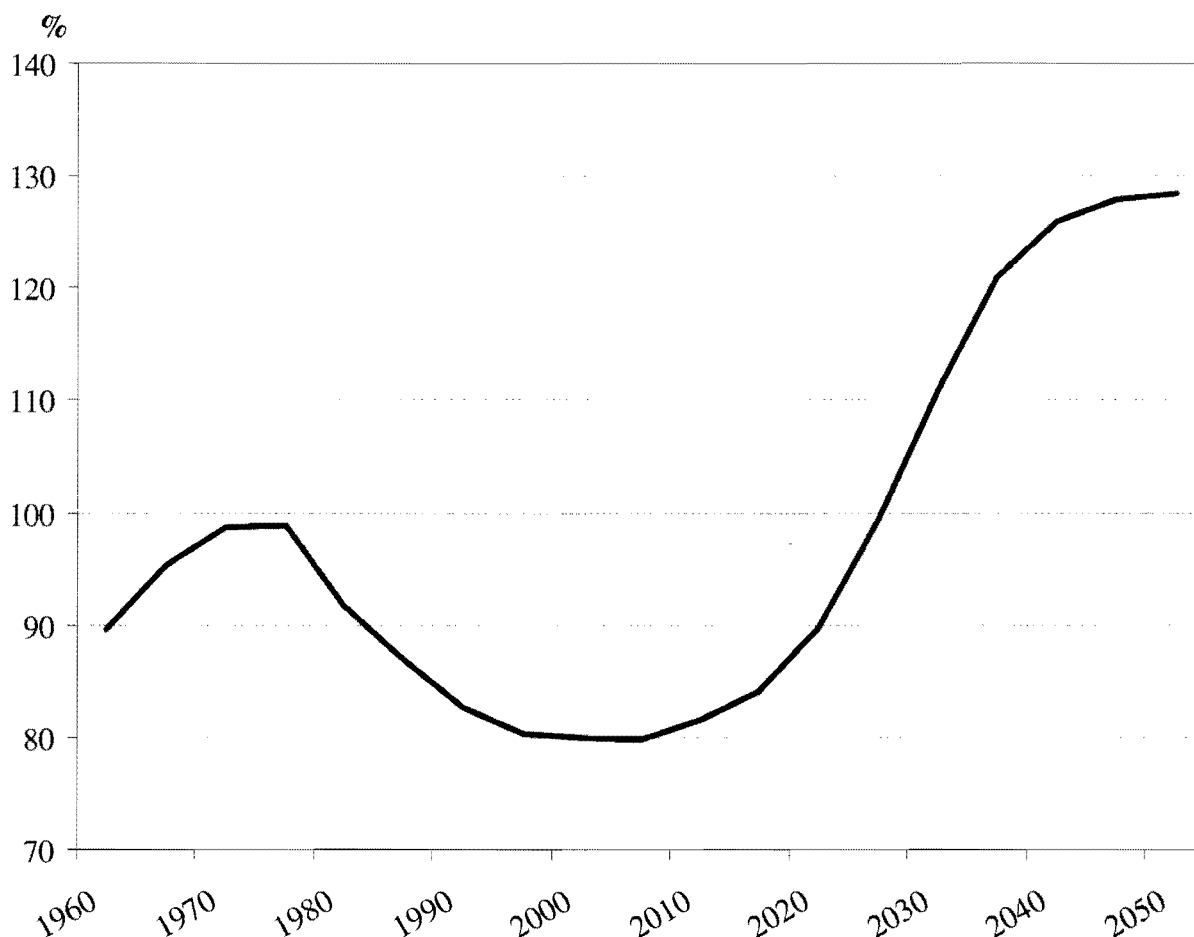
Source: World Bank, *HNP Stats*

The British Isles have a rather different demographic profile from the other parts of Western Europe. Ireland is unique, with the World Bank expecting the working-age population to rise until 2030 and to be significantly higher in 2050 than in 2000. These trends reflect two forces - first, the special nature of Ireland's Catholic and still largely rural society, and, secondly, recent and prospective net immigration. The UK is less well-placed than Ireland, but its women have more children than their continental counterparts while significant net immigration began in 1998 and may continue. These two English-speaking countries had lower taxes than the rest of Europe in the 1990s, which may account for their predominance in capturing inward investment. The inward investment has boosted output and the tax base, particularly in the Irish case, allowing cuts in tax rates which further enhance their attractions to foreign investors.

The over-burdened European state

Taxes to rise sharply, as dependency soars in early 21st century

Chart shows the percentage ratio of people aged 19 and under, and 60 and over, to people of working age (i.e. 20 to 59) for the EU.



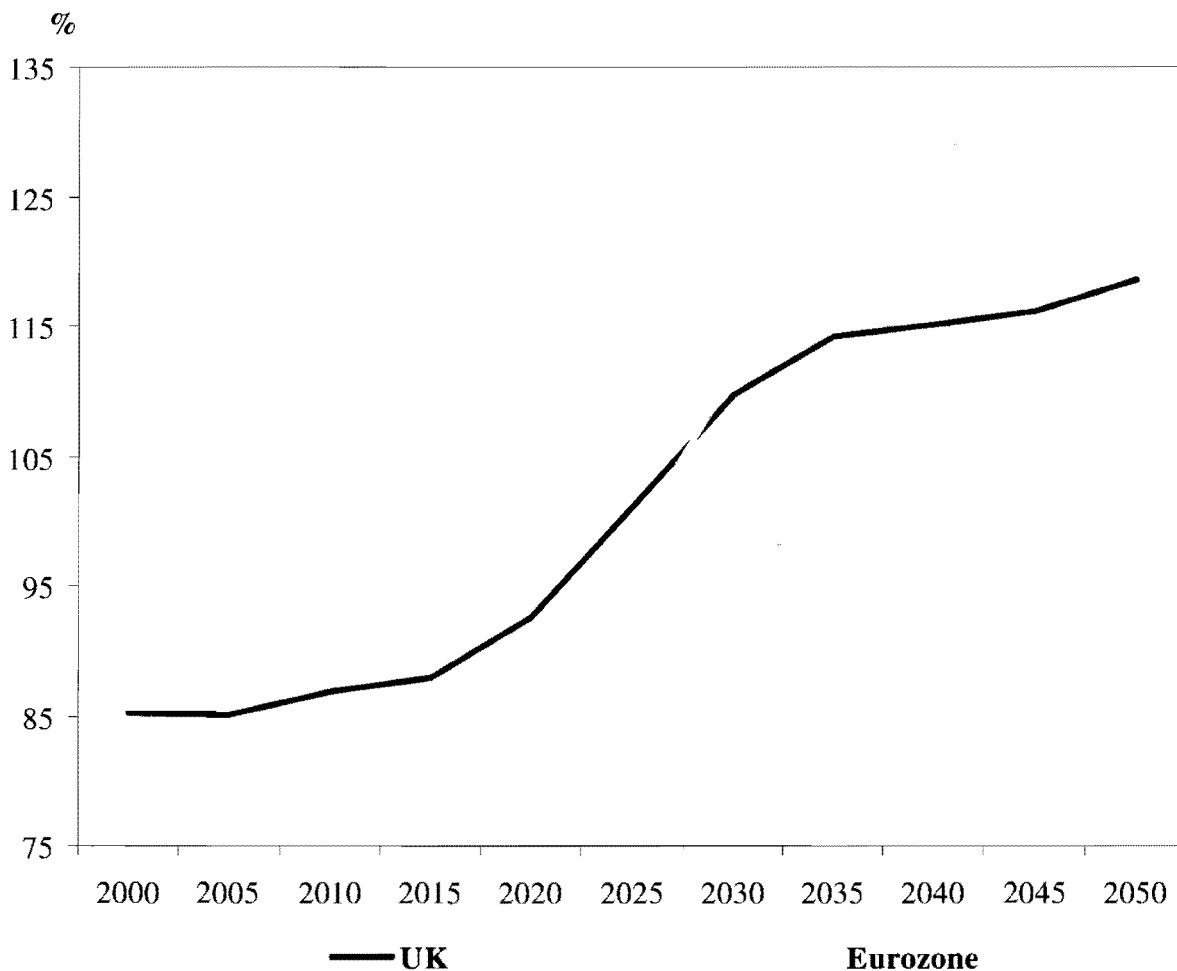
Source: Data until 1995 taken from Eurostat, *European social statistics: Demography*
Data thereafter from the World Bank, with Lombard Street Research estimates

The proportion of old people to the EU's population has been rising for over 40 years, but it is important to remember that societies have two types of dependant - the old and the young. Young dependency has fallen since the 1970s, as a by-product of the decline in fertility. (See p.19) As the chart shows, the total number of dependants has been falling relative to the working-age population and will remain low until 2010. In principle, a low dependency ratio ought to be associated with a low ratio of government spending and tax to GDP, but - as noted on p. 6 - the EU's tax-to-GDP ratio is much higher today than for most of the post-war period. An article in the June 2000 issue of the OECD's *Economic Outlook* considered the "Fiscal implications of ageing". On various assumptions it projected over the 2000 - 2050 period a rise in the ratio of old-age pension spending to GDP of 8.0% in Spain, 5.0% in Germany and 3.8% in France.

UK to confront rising dependency

But its problems less severe than its neighbours'

Chart shows the percentage ratio of people aged 19 and under, and 60 and over, to people of working age (i.e., 20 to 59) for the UK and Eurozone.



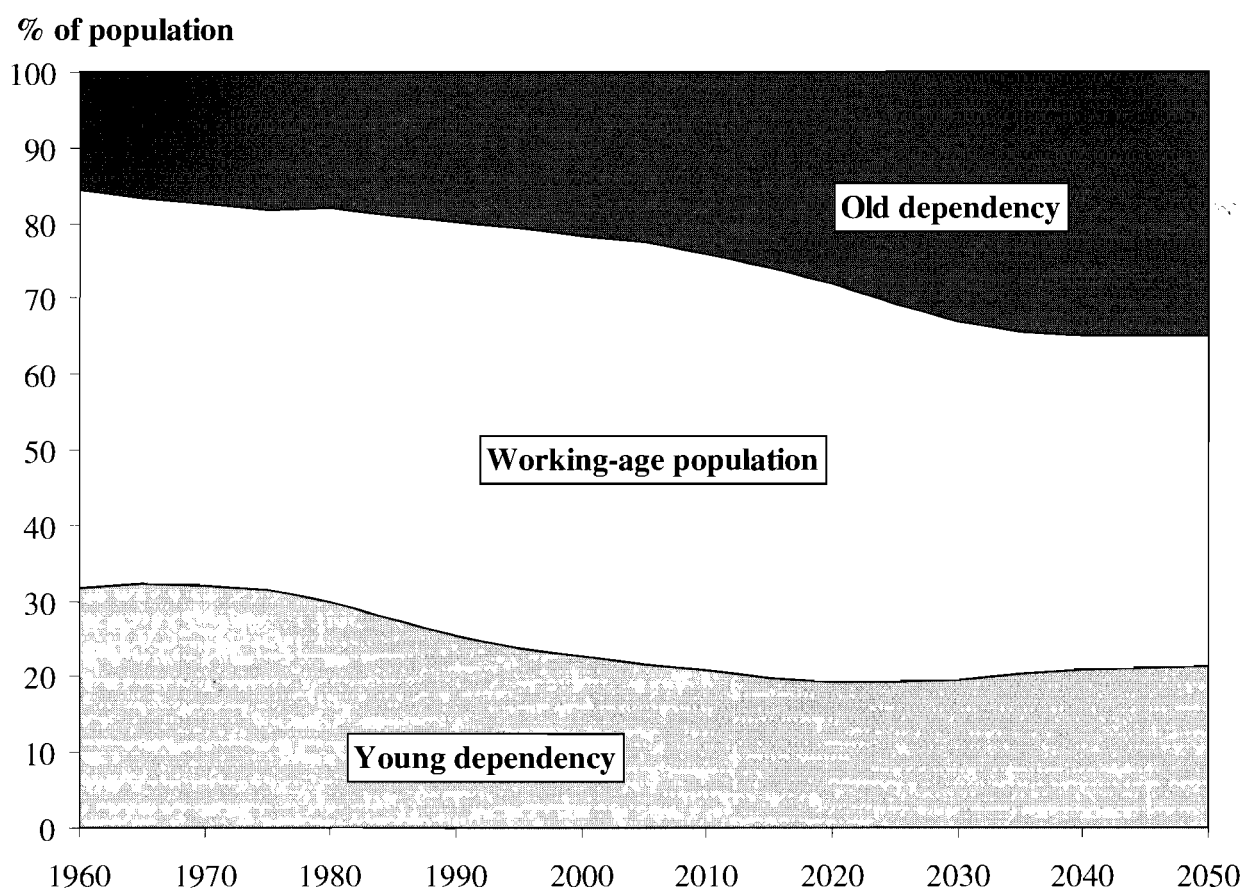
Source: World Bank, with Lombard Street Research estimates

The chart highlights the UK's relatively favourable position. Because today the UK has a higher ratio of young people to the working-age population than the Eurozone average, over coming decades its dependency ratio rises less. The UK's advantage is further demonstrated by its current low ratio of tax to GDP. The explanation for the low tax ratio is that the UK has extensive private pension provision. Its government old-age pension spending can be beneath European levels. In 2000 such spending was 4.3% of GDP, compared with 11.8% in Germany, 12.1% in France and 14.2% in Italy. The origin for the contrast between the UK and the rest of Europe lies in decisions taken in the early 1980s by the Thatcher Government, to freeze the basic state pension in real terms and encourage private pension arrangements. However, the present Labour Government has jeopardized this advantage by introducing a "minimum income guarantee" for pensioners and then offsetting the adverse incentives on saving by proposing "pension credits".

Two types of dependant

Old and young depend on working-age population

Chart shows the numbers in three age-groups, 0-19, 20-59, and 60 and over, as % of total population. 0-19 are "young dependants" and 60 and over are "old dependants". Numbers relate to the EU-15.



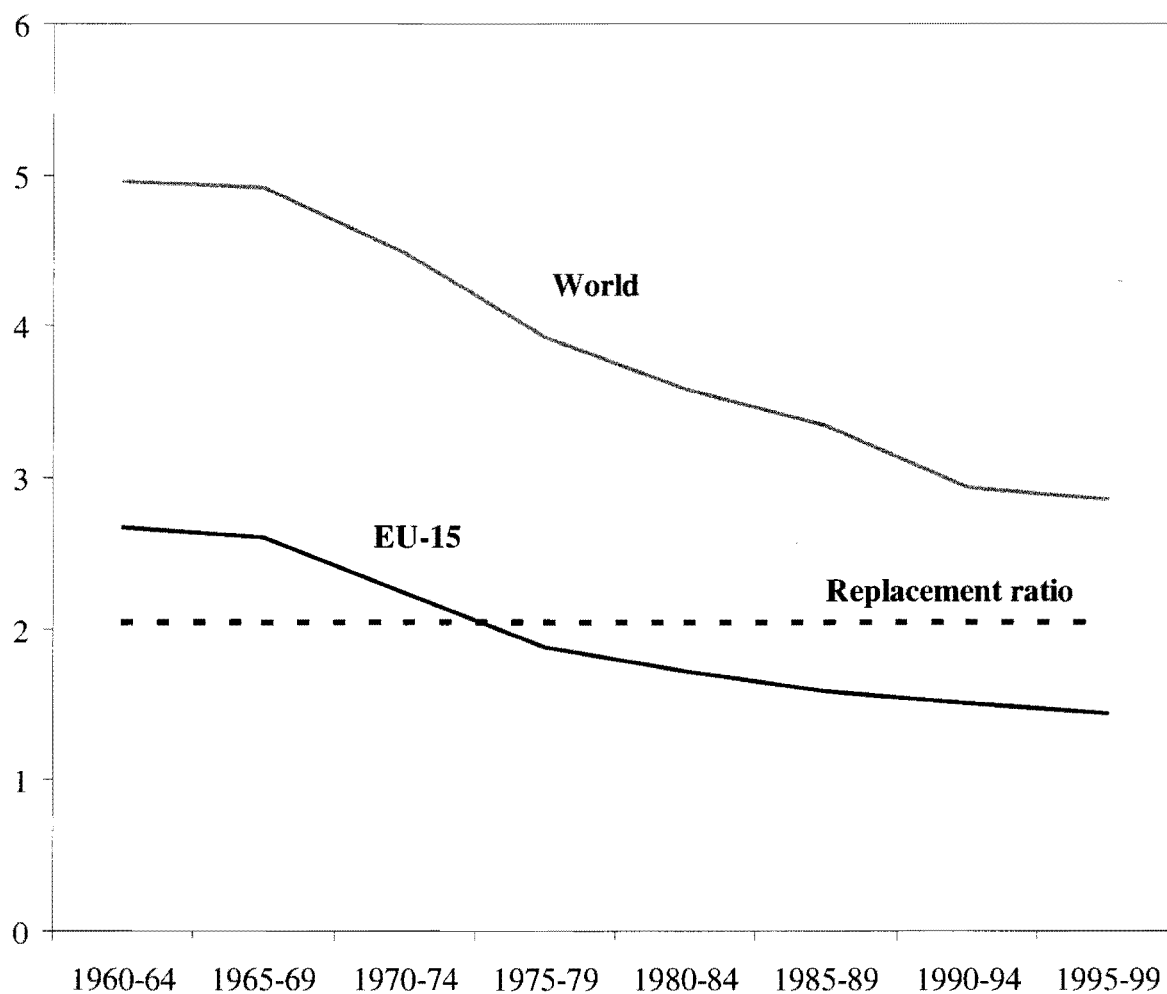
Source: Eurostat, *European social statistics: Demography* and World Bank, *HNP Stats*

The chart is derived from two data sources - Eurostat until 2000 and the World Bank's projections from 2000. As explained on p. 4, the World Bank assumes a gradual rise in fertility in Western Europe so that by 2035 women are again having two children each and long-run demographic sustainability has been restored. The argument in the research paper is that - sooner or later - this must happen, as other possible responses to Europe's demographic weakness (immigration, raising the retirement age) are only palliatives. However, the chart here and on the previous page demonstrates that the effect in the 2020s and 2030s is an alarming rise in dependency, as both types of dependant (the old and the young) increase in number relative to the working-age population. It should be conceded that government spending per young person (on education, mostly) is much less than per old person (on pensions and health).

Explosion vs. implosion

Europe falls below replacement ratio

Chart shows the number of births per woman, on average. Replacement ratio is usually given as 2.0-2.1.



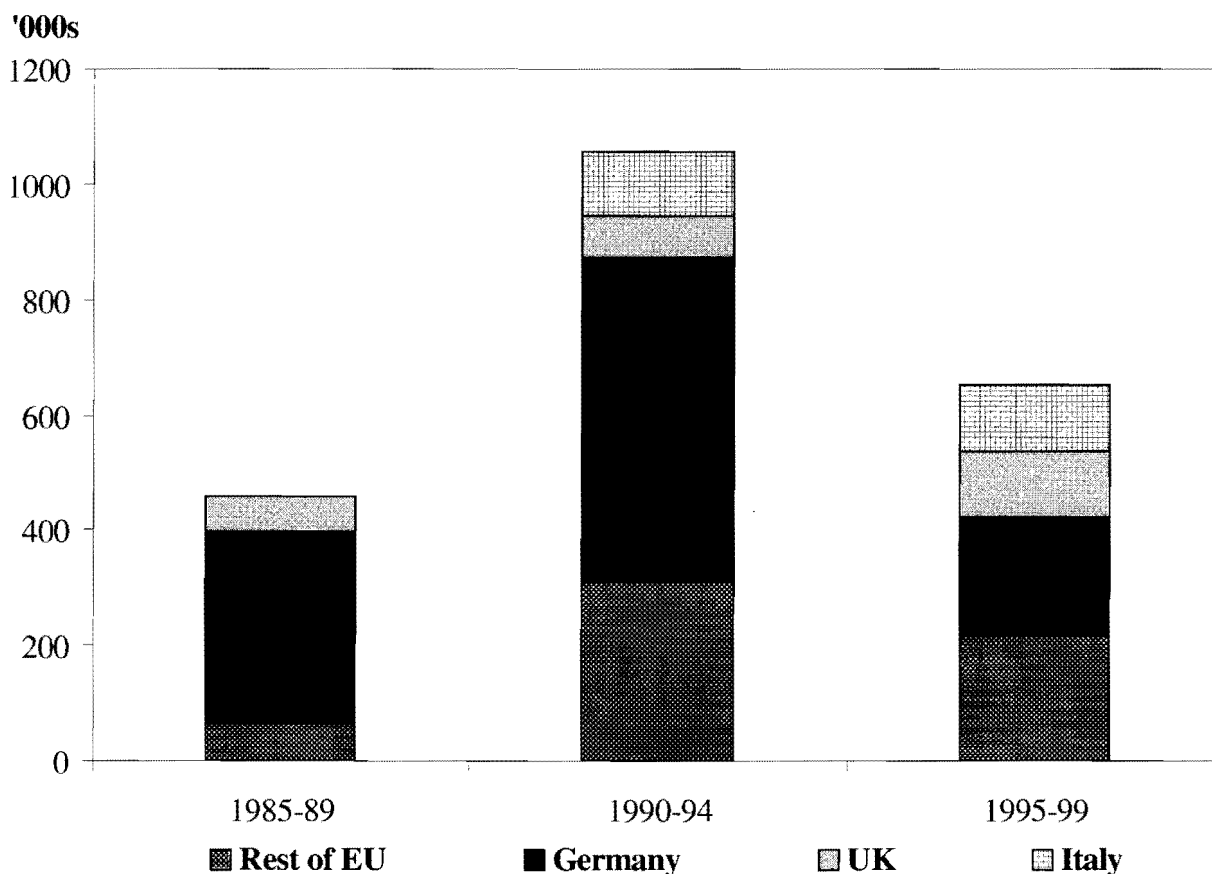
Source: Eurostat, *European social statistics: Demography*

In the 1960s much public concern was expressed about the global population explosion. As the chart shows, the number of children per women at the world level was then over 4. If this had continued, there would indeed have been very serious demographic pressures on limited natural resources within a few generations. If women have four children each, instead of the two required for replacement, the number of people under the average age at which women give birth doubles in a generation and so goes up 16 times in about a century. The implied population of the world in the late 21st century would have been 50 billion, which even the most extreme environmental optimist would have to regard as unacceptable. In the event fertility has fallen steadily and in Europe's case is now well beneath the replacement ratio. Some international understanding on this question, with governments trying to stabilise fertility at the replacement level by fiscal means, may be inevitable in the long run.

Is immigration the answer?

Germany and Italy have already absorbed immigrants

Bar charts show total number of net immigrants into the European Union and composition by country.



Source: Eurostat, *European social statistics: Demography*

Note that the small negative value (of 2,500) for Italy (i.e. out migration) during 1985-89 has been taken as zero.

When the hugely difficult issues raised by Europe's demographics are discussed, one glib answer is always mentioned. Immigration is said to be the obvious cure-all. In fact, mass immigration would raise as many problems as it would solve. Part of the trouble is that the only areas near Europe with substantial excess population in the next few decades will be North Africa and the Middle East, and serious problems of cultural integration would arise because the countries are mostly Islamic. (The demographic structure of Eastern Europe, including Russia, is not markedly different from that of Western Europe. Large flows of people to Western Europe would therefore lead to intense [and surely unacceptable] depopulation in Eastern Europe.) As the chart shows, net immigration into the EU was lower in the late 1990s than in the early 1990s, perhaps because the social tensions stemming from immigration caused governments to become more restrictive about whom they would let in.