THE REPUBLIC OF IRELAND AFTER 2000: THE ICARUS COMPLEX

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1. Introduction[1]

When Lee wrote his history of Ireland less than a decade ago (Lee, 1989) one of the many interesting questions he addressed was why the Republic of Ireland was an economic failure. Now the question posed by outsiders looking in is why is it such a success. To those of us living through the experience there is a certain sense of bemusement at this rapid reversal of fortunes. However, it is now becoming clear that, whatever the causes, the economy of the Republic is undergoing something of a renaissance. In this paper I want to consider the possible reasons for this apparent change in fortunes. I will argue that it is not a flash in the pan but rather represents the fruits of a strategy that has been pursued for a number of decades with considerable consistency by successive Irish governments. The result may be no tiger but nor is it a tame pussycat.

In 1988 Lee was writing against the backdrop of an economy undergoing a severe recession and to some extent this may have coloured his writing. This highlights the danger for social scientists of being unduly influenced by current events and it is something we must keep in mind in looking at the future from the vantage point of to day. Even more than historians, economic forecasters have an inbuilt tendency to see tomorrow as being the same as to day. In our *Medium-Term Review,* first published in 1986, we have nearly always erred on the side of pessimism.[2] This has not stopped commentators viewing the ESRI as inveterate optimists. This pessimism highlights the poor self-image in the Republic that has persisted throughout much of the last decade influencing economists, historians and politicians alike. Even if the Republic were truly a tiger we would be the last to see it.

In this paper I first want to briefly discuss the record - what the data say and what they mean. I will then consider the demographic changes under way which underpin the transformation of not only the economy but also of society as a whole. In Section 4 I will discuss the underlying causes of the current prosperity. In the light of this analysis in Section 5 I will discuss the prospects for the economy over the next decade. Because of the importance of demographic changes already under way, which will continue to impact on the economy for many years to come, it is important to consider a longer time horizon than would be normal in such exercises. While many domestic commentators feel that, like Icarus, the current boom must come to a fiery end, I will argue that this view is too dependent on memory of the unpleasant experience of the 1980s. However, even if growth will continue at a rapid pace for some time to come this will bring its own strains, both social and economic. The final Section of this paper briefly discusses some of the policy implications of the coming of age process currently under way in the Republic.

2. The Record

In the early 1980s the true plight of the economy was to some extent masked by the presence of a "black hole" in the national accounts due to a serious under-estimation of profit repatriations by foreign multinationals. However, since the "black hole" was filled in in 1984[3] the accounts have portrayed a somewhat more accurate picture of growth. Further revisions have occurred since then and the early introduction[4] of the ESA95 based accounts in *National Income and Expenditure, 1995,* published last July, probably brings to an end this saga of misunderstanding. The most recent revisions include a new allowance for profits accruing to multinationals but not actually remitted, in addition to the standard treatment of actual repatriations. They also adjust GDP to take account of part of the profit repatriations (payment of royalties) leaving the remainder to be subtracted from GDP, as before, in arriving at GNP. The recent revisions in no way alter the long-standing practice of concentrating on GNP as the appropriate measure of economic growth but they do provide the promise that further accounting surprises from the multinationals are unlikely to significantly affect the overall picture.

The new ESA95 accounts in fact clearly underestimate the strength of the balance of payments as they exclude the bulk of the EU Regional Fund payments from the new measure of the current account balance. The

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[1] This paper was presented at a conference on "The Two Economies - North and South" organised by the Northern Ireland Department of Finance in Belfast, 28-2-1997

[2] In only one of the five *Reviews* published since 1986 was the 5 year forecast for growth in GNP overestimated.

[3] The first results of a major review of the accounts were published in a release by the CSO *Revisions to the Balance of Payments and the National Accounts in May 1984.*

[4] They are not due to be introduced in the EU until the end of the decade.

accounts as currently constituted are audited by EUROSTAT as they, like the accounts of all other EU members, provide the basis for levying each country's EU budgetary contribution. This provides a further guarantee that the data as published represent a reasonably realistic picture of what has been happening in the domestic economy in recent years. As a result, the rapid growth shown by the accounts for recent years is no mirage.[5]

Figure 1 shows the growth rate for GNP for each of the 5 year periods from 1960 to 1990. With the exception of the first half of the 1980s the Figure shows relatively little deviation from an apparent trend growth of 4% a year. For the more recent period 1990-95 the growth rate picks up to 4.6% and, as shown in Figure 2, the economy is currently growing at a rate well above its past trend.

Figure 1

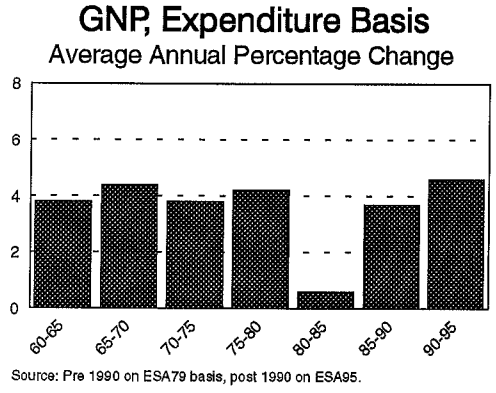
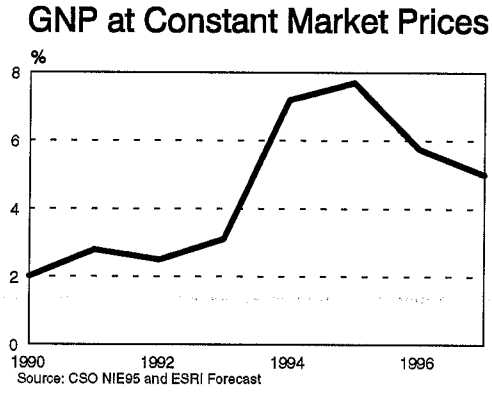


Figure 2



Probably more remarkable than the apparent pick up in the trend growth rate is the experience on employment growth. By contrast with a dismal performance in the 1980s, employment has grown and is growing at an unprecedented rate (Figure 3). The bulk of this employment growth is occurring in the private sector. However, as discussed later, there has been a somewhat smaller reduction in unemployment (Figure 4) reflecting a rapid rise in the labour force.

Figure 3

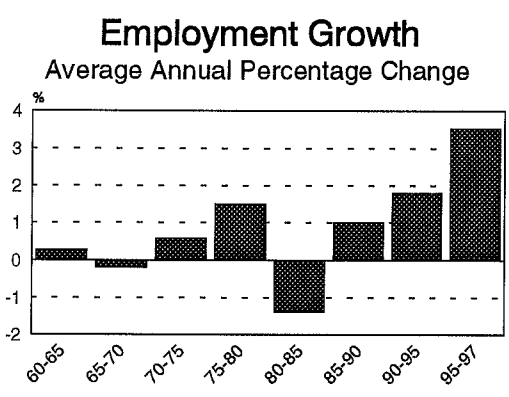
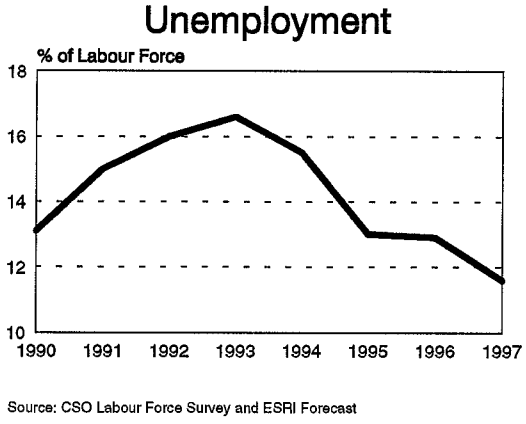


Figure 4



[5]However, caution should still be exercised in making cross-country comparisons with the existing published EUROSTAT data. In the case of the Irish data the early introduction of the ESA95 basis has been encouraged by the knowledge that it reduces the figures for GDP (strengthening any case for remaining an Objective 1 region). In addition, the latest Irish figures include a new treatment of imputed rent which may not have been implemented for other countries, such as the UK.

3. Demographic Change

The Educational Revolution

In the immediate post-war years all of Northern Europe, with the exception of the Republic of Ireland, made major changes in their educational systems. In Northern Ireland, as in the rest of the UK, there was a substantial programme of investment undertaken, upgrading the educational system and greatly increasing participation in both second and third level. In the Republic, by contrast, the immediate post-war years saw no recognition of the need for change in this area. It took approximately 20 years before the policy of educational neglect was reversed.

Figure 5

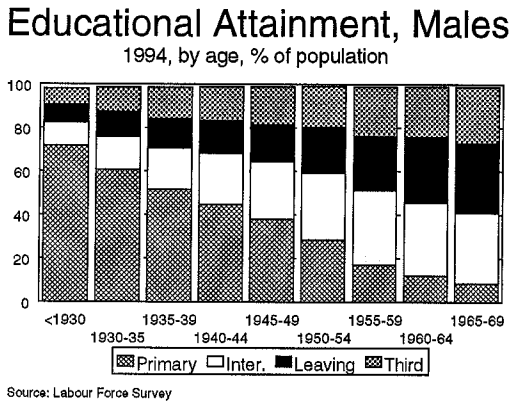


Figure 6

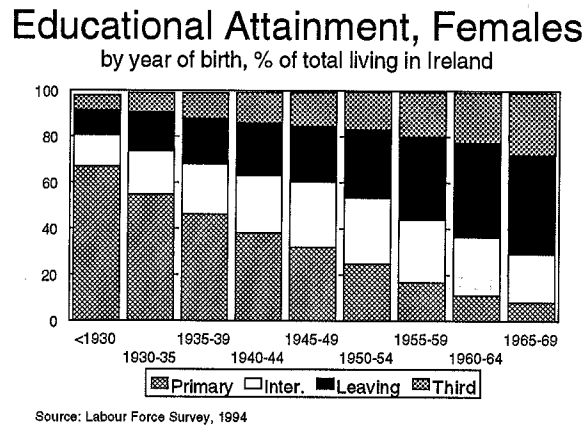
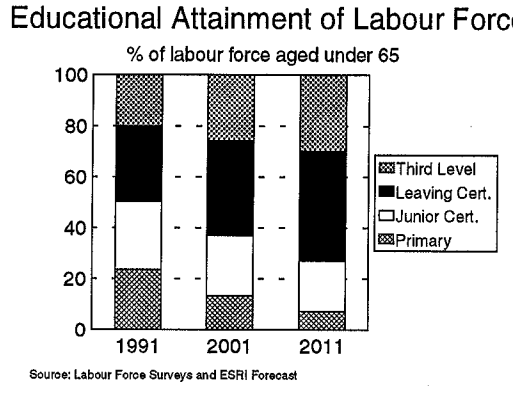


Figure 7



Following on the publication of *Investment in Education*[6] in 1966 free second level education was introduced in 1967. This development signalled the start of a strategy of investing in education which has been pursued with consistency by successive governments ever since that date. Even in the 1980s, when many other sectors suffered severe cut-backs, the education system survived reasonably intact. In fact the rise in participation rates since 1980 has been even greater than that which occurred under the first 15 years of the "free education" policy.

This change in policy has had a profound effect on the Irish economy and society and its full impact is far from complete with participation rates continuing to rise rapidly in recent years. The impact on the labour market has been complex but profound and this factor is vital in explaining the current rapid growth in employment. The fruits of a consistent policy of investment are only becoming clear in the 1990s. This issue is discussed in the next section.

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[6]This study was undertaken with the help of the OECD. It was commissioned in 1962 and published in 1966. Among its authors were Professor P. Lynch of UCD and Professor M. O'Donoghue of TCD.

This long-tailed impact of the change in educational policy is not surprising. Many of the other countries of Northern Europe, which invested heavily in education in the immediate post-war years, saw rapid rates of growth up to and including the 1970s. Ireland began 20 years late and is seeing the benefits of the investment 20 years after its Northern European counterparts.

The effects of the change in participation on the educational attainment of the population are shown in Figure 5. For those borne 65 years ago, who are now reaching retirement age, approximately two thirds of the cohort left school with only primary education. On average women have been slightly better educated than men in the Republic throughout the last two generations but, as can be seen from Figures 5 and 6, the gap has been relatively small.

For those borne in the late 1960s, aged 25 to 30 in 1994, early school leavers were down to only 10% of the cohort with around 60% having at least a leaving cert.[7] and around a quarter having some form of third level education. This increase in participation rates has continued apace with around 80% of the 1995 school-leaving cohort having a leaving cert. and approximately 50% continuing on to some form of third level education.

In forecasting future trends in educational attainment it is assumed that there is a small additional increase in participation at third level with a small reduction in numbers with only a junior cert. It is also assumed that the proportion leaving with no qualifications remains constant at its current low level. The resulting forecasts to the year 2011 are shown in Figure 7. (The assumptions on migration, which also affect the picture, are discussed later.) This Figure illustrates how, even after a number of decades of investment in education, the impact of the continuing change in the level of human capital will affect the economy and society for some considerable time.

Marriage

The changing educational profile of the population casts a wide shadow over social and economic behaviour. In the past, the proportion of women who were married was affected by the level of education which they had attained. (This also holds true for males.) Women with third level education were less likely to be married than other women and they also tended to marry at a later age (Figure 8). The changing educational profile of the young population is thus one of the factors which has resulted in a decline in the marriage rate but it is much less important than other factors affecting attitudes to marriage among the generation now aged between 20 and 40. As a result of these factors, in spite of a rapid increase in the number of men and women in the "marriageable" age groups, the marriage rate has continued to fall (Figure 9).

Figure 8

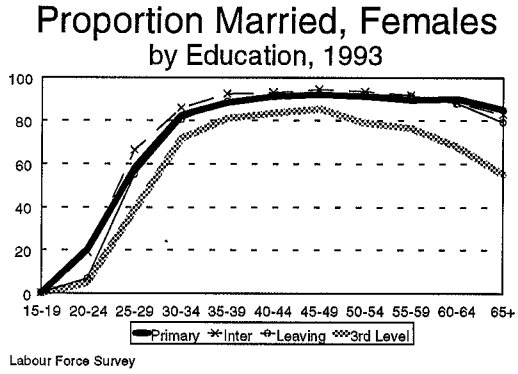
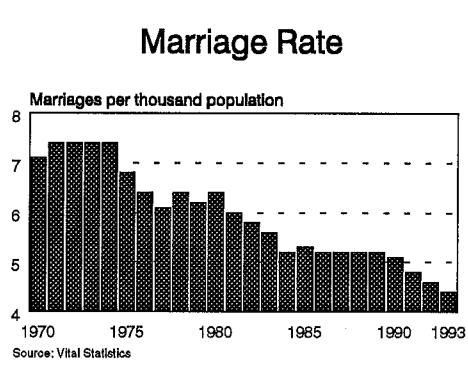


Figure 9



Fertility

The birth rate in Ireland in the period up to 1980 was well above the norm for most of Western Europe. Since then it has fallen fairly steadily (Figure 10). Even after 15 years of decline it is still above the rates common in other Western European countries. However, as shown in Figure 11, completed family size, (proxied by the Total Fertility Rate - TFR) is now close to that in the UK. This paradox of a high birth rate coinciding with

[7]Broadly equivalent to the Scottish "Highers".

relatively low fertility is explained by the fact that a relatively high proportion of the female population is "at risk" (in the age group which potentially has babies). Figure 11 shows the implications of the continuing decline in fertility for Ireland in 2006. As can be seen from these data, on present trends Ireland is heading for a relatively low fertility rate, closer to that in Southern Europe than to the higher Scandinavian norm. This would be lower than the expected fertility rate for Northern Ireland (Compton, 1995).

Figure 10

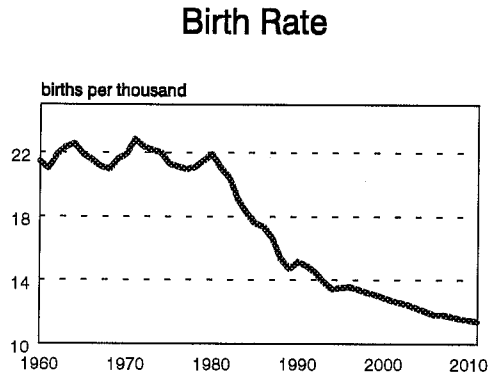
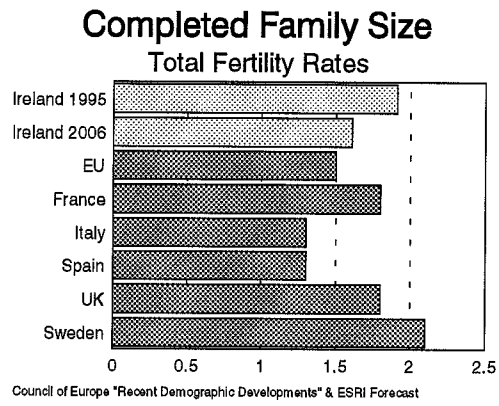


Figure 11



The future path of the fertility rate still remains very uncertain. The increasing prosperity and opportunities for skilled work will probably tend to reduce it further. What is particularly interesting is the fact that for women aged 25 to 34 the labour force participation decision is now little affected by marriage. It is the decision to have children, whether the parents are married or not, which is associated with a change in participation.[8] Marriage is proving to be a diminishing factor in explaining fertility in Ireland with one third of all first pregnancies occurring to single mothers. Unravelling the precise relationship between the decision to have children and the decision on labour force participation is not something this paper can attempt. It is possible that the recent rapid fall in the birth rate may only represent a decision to postpone having children and that the forecast for fertility, shown here, could prove low.

Migration

In the past the single most important factor rendering demographic projections for Ireland obsolete has been errors in forecasting migration. While a model which explains the Irish unemployment rate as a function of the UK unemployment rate (the Irish rate being 4% above the UK rate in equilibrium, Honohan, 1992), worked in the past it may not hold good in the changed circumstances of the next decade.

Set out below in Figures 12 and 13 is an analysis of net emigration classified by the educational attainment of the migrants. These figures are, perforce, estimates based on some interpolation of past Census data. They show a fairly similar pattern in the late 1980s to the late 1960s in terms of the proportion of the cohort of 15 to 29 year olds emigrating. However, the second half of the 1980s saw a big change in the educational attainment of the emigrants. Around a third of the emigrants had a third level education in the late 1980s compared to under 20% in the 1960s and in the late 1980s there was very little emigration by people with only a primary education whereas they accounted for the bulk of emigrants in the 1960s. This latter change reflects the fact that the Irish welfare system was more generous than that of the UK by the late 1980s.

Looking to the future there must be some doubt about the stability of the relationship which held in the past where the Irish unemployment rate was about 4 percentage points above the UK rate in equilibrium. Figure 14 compares Irish and UK unemployment rates for 1994 by educational attainment. It shows that for those with at least a leaving cert. (or its equivalent) the gap in unemployment rates in 1994 was less than 4 percentage points and unemployment rates were lower in Ireland for graduates. With the proportion of the population who have reached at least leaving cert. standard of education continuing to rise, the result may be a reduction in the potential gap between unemployment rates in Ireland and the UK.

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[8]See Walsh, B. M., 1993. "Labour Force Participation and the Growth of Women's Employment, Ireland 1971-1991", *The Economic and Social Review*, Volume 24 No. 4.

Figure 12

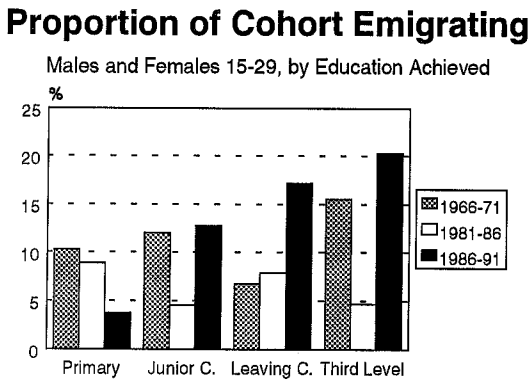


Figure 13

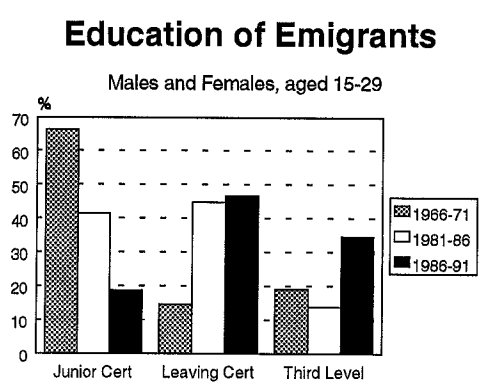
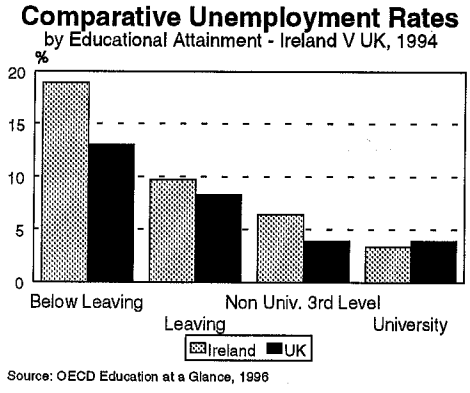
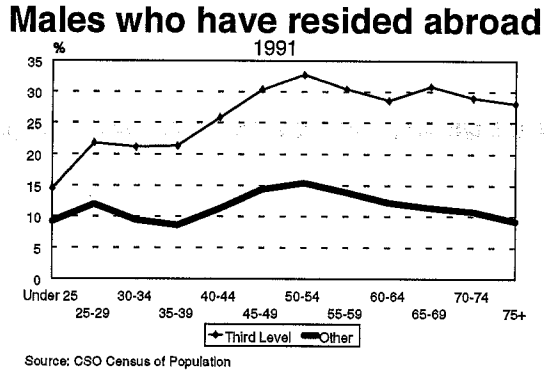


Figure 14



Source: OECD Education at a Glance, 1996

Figure 15



Source: CSO Census of Population

While those with a good education are more likely to emigrate than those with only a primary education, they are also more likely to come back. As shown in Figure 15, in 1991 over a quarter of all those in the country (males and females) with a third level education had lived abroad for at least a year. For all other educational categories the proportion was 10 or 15%. While the latter figure is exceptionally high by the standards of other EU countries, it still suggests a much lower return rate than for those with third level education. This has important implications in terms of calculating the return on investment in education. It means that even in the face of continuing substantial gross outflows, the fact that individuals return with additional experience from working abroad may actually enhance the return from education. As discussed later, the experience of work in a different culture also has a wider impact on society.

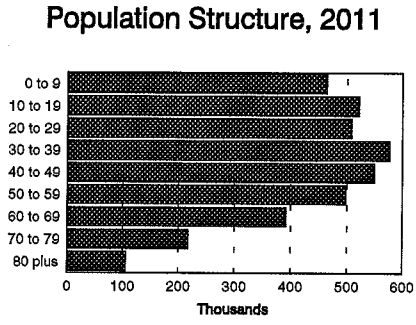
Over the period 1991-96 there was a return to small net immigration reflecting the boom in the domestic labour market. For the future, as discussed later, it seems likely that there will not be a return to net emigration. There is even the possibility that there could be significant net immigration, including immigration non-Irish citizens. Even with zero net migration there are still likely to be considerable gross flows in and out of Ireland in the future as in the past. It is assumed that there continues to be a continued immigration of children (with their parents) over the period. These would be families formed abroad by former emigrants in an earlier period. While this has been an important feature of Irish migration experience in the past, it could prove different in the next decade as the stock of former emigrants, still resident abroad, falls.

Population

The assumptions set out above provide the backdrop to our forecast which sees the population rising to 3.835 million in 2011 if there is no net migration over the intervening period. While this is within the range foreseen in the CSO's projections, published 2 years ago, the structure of the forecast population is rather different. The biggest single difference between these figures and the CSO forecast arises from the changed assumptions on migration. The CSO figures assumed a lower bound for net emigration of 7,500 out to 2006 where we are assuming zero net migration over the period. On this basis Figure 16 shows how the population structure will

look in 2011. The assumption concerning immigration by children explains the fact that, even with a substantial fall in fertility and a reduction in the number of births, the numbers of children in Ireland may not show as rapid a decline in the future as they have over the last decade.

Figure 16



Labour Force Participation

A crucial factor in the growth in the labour force in the last decade has been the increased participation of women. Participation by women in the labour force was very low by European standards in 1980. Even today it is well below the EU norm. The pattern of participation by women is strongly affected in the long run by their educational attainment. It is also affected by changing circumstances in the labour market (Walsh, 1992). For women with a minimal education their participation rate is still very low, reflecting the fact that the costs of working (in terms of child care) are high and the potential gains have been low (Figure 17). While there has been some rise in participation among this group in recent years it still remains very much below average. In addition, as with men, women with only a primary education are much more likely to be unemployed. In fact the proportion of women with a primary education in the younger age groups who are employed is not that different from that for men; women with only a primary education show a lower unemployment rate than men which cancels out their lower participation rate. In the younger age groups it seems likely that a significant number of these women have children and that this is affecting participation.

For those women with a third level education the participation rate was traditionally much higher reflecting much greater financial incentives (Figure 18). Between 1988 and 1994 participation rates rose particularly strongly for those with leaving certificates.

Figure 17

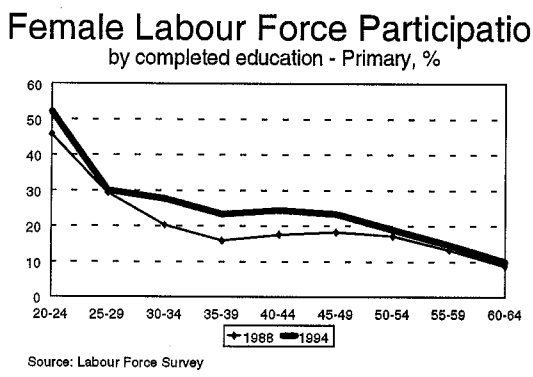
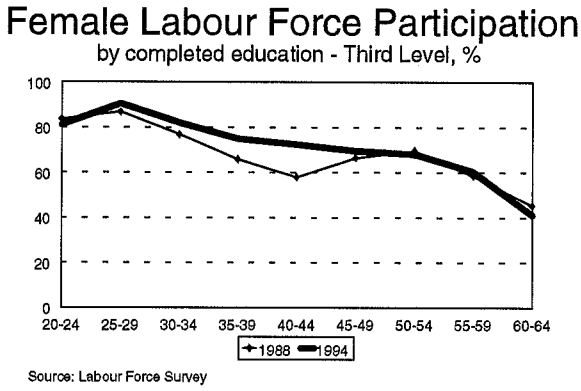


Figure 18



In the past a woman's marital status played an important role in determining whether she remained in the labour force. However, this no longer appears to be the dominant factor for women under 40. Figure 19 shows that whether or not a woman has a child is a much more important factor than marriage in determining participation. Where women have children there is a higher participation rate for married than for single mothers.

Figure 19

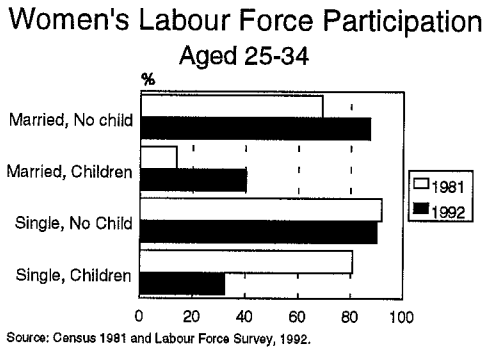
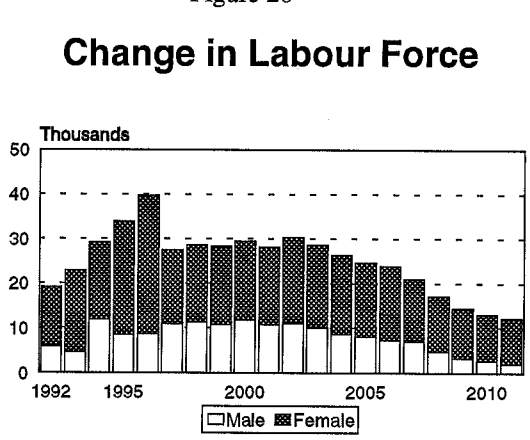


Figure 20



The rapid rise in participation in education has had the effect of greatly reducing participation rates for men and women under 25. However, the rising educational attainment of successive cohorts of young men and women entering the labour force will tend to boost participation in older age groups. We do not have sufficient information on fertility cross-classified by educational attainment to allow us to use it as a basis for forecasting. Instead we have based our forecasts for participation on the expected breakdown of the female population by level of education. The result of this analysis suggests that participation rates for women will continue to rise over the next decade. When taken together with the baby-boom bulge moving through the educational system, it means that labour supply will rise by more than 2% a year over the next decade (Figure 20).

4. Who Put the Tiger in the Tank?

I will not attempt to provide a comprehensive account of the recent economic history of the Republic. Instead I want to concentrate on 4 key areas where important changes in the structure of the economy have had, and are continuing to have a major impact on economic performance:

- Human Capital and the Labour Market
- The rate of dependency
- Openness and the EU
- Domestic Policy Reforms.

Human Capital and the Labour Market

Over the last 30 years the Irish labour market has been profoundly affected by a number of different policies pursued domestically which have altered the supply of labour: changes in the education system and changes in the social welfare system. These have had the effect of increasing the supply of skilled labour and gradually reducing the supply of unskilled labour.

Changes in the world economy have affected the demand for labour in Ireland. In 1960, with a high level of protection, the demand for unskilled labour in the economy was high. There was little competition from suppliers in the Far East who faced much lower labour costs. However, over the past 30 years labour costs have risen in Ireland at the same time as the Irish and the EU economy has opened up to world-wide competition resulting in a fall in demand for unskilled labour in Ireland. By contrast, the demand for skilled labour has risen world-wide. In Ireland the interaction of these different forces has determined the rates of return for different kinds of labour and the numbers employed.

In the 1950s, at a time when the UK had developed a sophisticated social welfare safety net, no such protection was available in Ireland. As a result, unskilled labour in Ireland faced a choice between emigration to the UK, generally to take up employment there, or employment at any price in Ireland. Figure 21 illustrates this position for unskilled labour (L). Initially the going wage rate in Ireland W_L^0 was above the rate of social welfare payments W_s^0 leaving unskilled employment at L^0. The shape of the supply curve for unskilled labour was greatly influenced by the propensity of unskilled labour to emigrate to the UK. The evidence suggests that in equilibrium the Irish unemployment rate was 4 percentage points above the UK rate fixing labour supply at

L^*. Irish unemployment then settled at U^0. However, over the period from 1960 to the early 1980s there were substantial improvements in the rates of social welfare payments (Figure 22). By the early 1980s the rate of social welfare payments W_s^1 effectively set a minimum wage pulling up the market wage rate W_L^1 so that the supply curve for unskilled labour became horizontal at the rate of social welfare payments. The result was a fall in employment to L^1. In turn this tended to reduce the labour force as people emigrated to the UK keeping the unemployment rate 4 percentage points above the UK rate.

Thus the impact of improvements in the social welfare system was to reduce the supply of unskilled labour. The ultimate effect on numbers unemployed in the 1970s was probably small; the social welfare system in the UK was more attractive than that in Ireland and rates of pay for unskilled labour in the UK exceeded those in Ireland making emigration a feasible option. However, over the course of the 1980s, as the Irish social welfare system was improved, it became more attractive to be unemployed in Ireland than unemployed in the UK. In addition, there was a rapid rise in unemployment in the UK, especially among unskilled, which had a knock on effect in Ireland. Finally, the rates of pay for unskilled labour in Ireland approached, and in some cases exceeded, those in the UK. An example of this is the relative rates of pay for the textile sector in Ireland compared to the UK shown in Figure 23. As the textile sector has one of the highest percentages of unskilled labour of any manufacturing sector, the data in Figure 23 provide a reasonable proxy for relative movements in unskilled pay rates in the two economies.

Figure 21: Market for Unskilled Labour

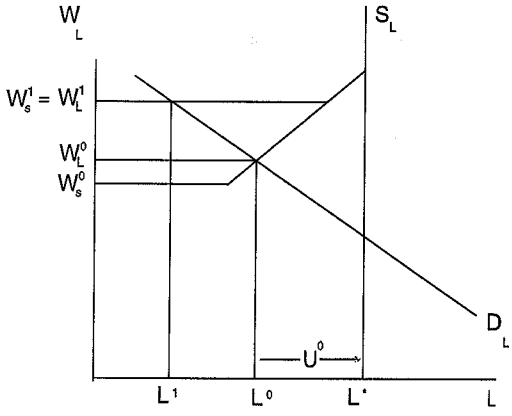


Figure 22: Estimated Replacement Rates

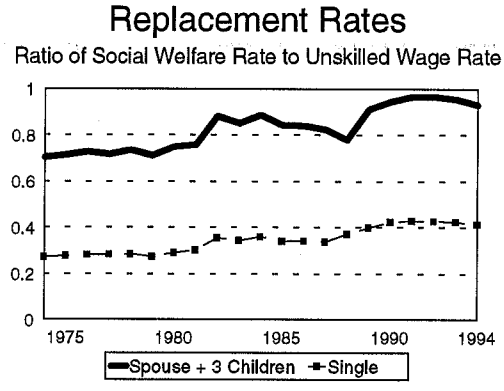


Figure 23

Simultaneously with these changes in the supply of unskilled labour there was a fall in demand. The opening up of the economy to competition meant that those companies operating in the tradable sector which depended on unskilled labour faced increasing competition. Corcoran, Hughes, and Sexton, 1993 document the effect of this on employment of unskilled labour. Since the early 1970s the absolute number of unskilled labourers has been cut by almost 50%, with smaller declines in other categories of unskilled labour.

The impact of the investment in education was also to reduce the supply of unskilled labour. Figures 24 and 25 illustrate the impact of increased educational investment. In the market for skilled labour (Figure 24) potential supply was increased by educating a proportion of the supply of unskilled labour, H^a - H^b. This shifted the intercept of the supply curve for skilled labour outwards. However, faced with a downward sloping demand

curve, employment of skilled labour increased from H^0 to H' leaving H^b-H^0 of the newly educated labour supply without skilled jobs. It is assumed that they then get first choice of unskilled jobs (if they do not emigrate). The result is H+ more skilled people employed.

Figure 24: Market for Skilled Labour

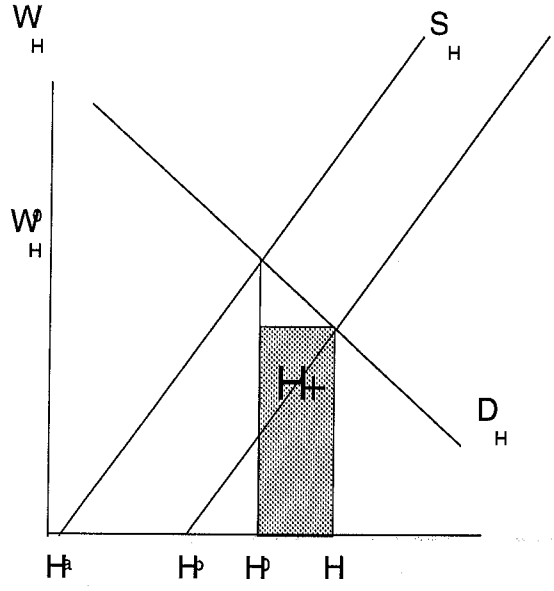
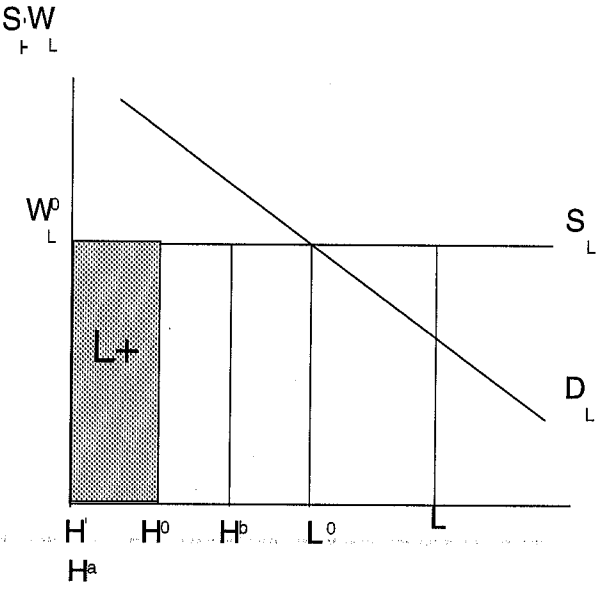


Figure 25: Market for Unskilled Labour



In the market for unskilled labour the wage rate is, by assumption, set by the prevailing rate of social welfare so that the supply curve is horizontal over a considerable range. Total potential supply of unskilled labour before investment in education is L. While H^a - H^b unskilled labour was educated to become skilled labour not all of them found skilled employment. The reduction in the supply of labour on the unskilled market is H^0 to H' with H^b-H^0 skilled workers competing on the unskilled market. The result is a reduction in total supply on that market of L+ and a corresponding reduction in unemployment. All of this assumes zero emigration. This picture, while greatly oversimplified, characterises the situation on the domestic labour market in the late 1980s.

The implications of this analysis are that when faced with a fixed downward sloping demand for skilled labour any increase in supply will not be fully matched by an increase in employment. However, unless the supply of skilled labour is infinitely elastic there will be some increase in total employment in the economy. While the majority of the skilled workers will find employment in positions which require their skills, there will also be some increase in the number of skilled workers in jobs which do not require their full talents. In the case of skilled labour, an increase in supply will tend to reduce wage rates (provided that the supply curve is not infinitely elastic). However, the corresponding reduction in supply of unskilled labour need not affect the going wage rate if the social welfare rates already set a floor to wages in that market. In assessing the full impact of the investment in education it is necessary to take account of not only the change in employment, but also of the resulting change in wage rates.

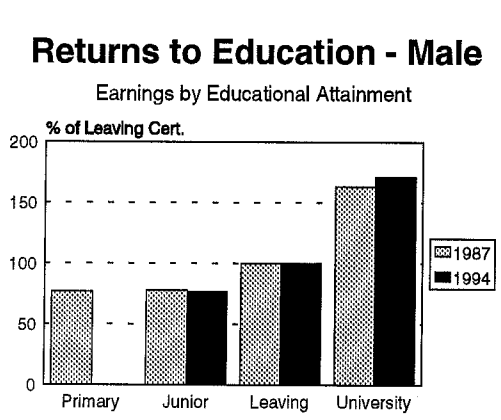
The increase in the supply of skilled labour in Ireland over the last 30 years has been documented in the previous Section. The fact that the vast bulk of new labour force entrants now have at least a leaving certificate, compared to the 1960s when only a minority did so, indicates that there have been major changes in the shape of the supply curves for both kinds of labour. However, the ultimate impact of this major investment in human capital also depends on the demand for both kinds of labour.

If the demand curves for the two kinds of labour had remained unchanged over time, the wages of skilled employees relative to unskilled would have fallen. This fall would have been particularly acute if many of the skilled were unable to find skilled employment and were forced to work in unskilled jobs. Figure 26 shows the average earnings of those employed in 1987 and 1994 classified by their level of education (Callan, 1993 and Callan and Wrenn, 1994).[9] These data suggest that there was little change in the differential over that seven-

[9] These data are the average earnings of those with the different education levels. It is possible that changes in other variables, such as the average experience of the labour force, could have distorted the results. A full analysis such as that carried out by Callan, 1993, for the 1987 data is required for the 1994 sample before we

year period. Given the very substantial increase in supply of skilled labour over the same period this would indicate that the demand curve for skilled labour must also have shifted outwards, offsetting any tendency for the increase in supply to reduce the return to the investment.

Figure 26: Average Earnings by Level of Education



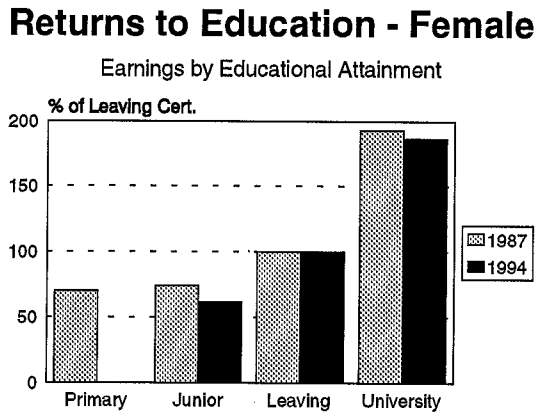
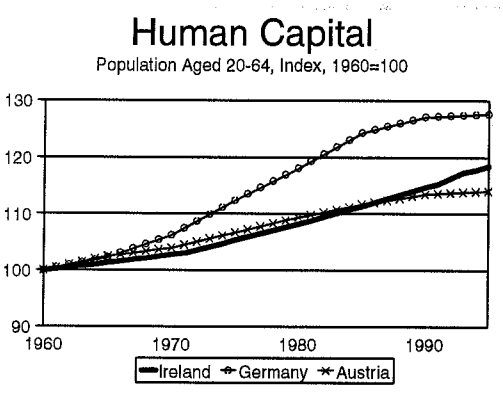
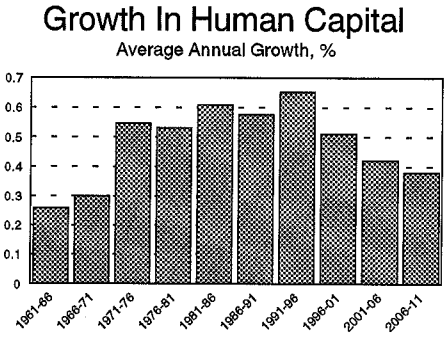


Figure 27: Index of Human Capital

Figure 28: Growth in Human Capital





Unfortunately we do not have data on average earnings by level of education for the 1970s which would allow us to understand the impact of investment in human capital over the longer time period. The results in Callan, 1993, do indicate that the returns to education for older workers in 1987 were higher than for younger workers. This would be consistent with some fall in the returns to education as the supply of skilled labour was increased after 1970, though it is also open to other explanations. In any event, on the basis of this evidence it seems most unlikely that the returns to education rose over the period 1970 to 1987.

Under certain assumptions[10] the results form Callan, 1993, and Callan and Wrenn, 1994, can be used to form a composite index of the supply of human capital in the Irish economy. These studies estimated a series of equations where average earnings were regressed on educational attainment and other explanatory variables. The coefficients on the different levels of educational attainment in the equations can then be used as weights to aggregate the different types of labour to form a composite human capital index. To the extent that the returns to education fell between 1970 and 1987 the index will tend to overestimate the impact of human capital on the economy over that period. However, for the 1987-94 period the apparent stability of the returns to education suggest that the index may provide a reasonably reliable guide to the impact of investment in human capital.

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can be sure that the rates of return to education did not change over the period.

[10] Among other things, it is assumed the weak homothetic separability of labour from other factors of production holds (Pindyck, 1979). It also assumes perfect competition in the labour market so that the wage rates of the different types of labour are equal to their marginal products.