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Ireland's experience of independence in the 20th century has been eventful. Although its post-independence relationship with its former imperial power – Britain – was not always comfortable initially, it was certainly much easier than that of many other countries which achieved their independence around the same time, such as Finland and Estonia. Membership of the European Union (EU) has been the culminating act of Ireland's economic independence, providing a legal framework within which it has the same rights (and responsibilities) as the United Kingdom (UK) and all its other EU neighbours. The benefits of such a protective legal regime has proved important for all small nations within the EU, helping to explain why Finland and Ireland, for example, have approached EU membership with somewhat greater enthusiasm than the UK or Sweden.

When a major history of 20th century Ireland was first published a decade ago (Lee, 1989), one of the many interesting questions addressed was the reasons for Ireland's economic failure. Now the question posed by outsiders is : why is Ireland such an economic success? To those experiencing it, there is a certain sense of bemusement at this rapid reversal of fortunes, but it is now becoming clear that, whatever the causes, the Irish economy is indeed undergoing something of a renaissance. This paper argues that it is not a temporary phenomenon, but rather represents the fruits of a strategy 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 the late 1980s, Lee was writing against the backdrop of an economy undergoing a severe recession, and this may have coloured his writing to some extent. This highlights the danger for social scientists of being unduly influenced by current events, and it is something to be kept in mind when looking at the future from the vantage point of today. Economic forecasters, even more than historians, have an inbuilt tendency to see tomorrow as being the same as today. The pessimism about the Irish economy which prevailed in Ireland until very recently highlights the poor self-image that persisted throughout the post-war years, influencing economists, historians and politicians alike. Even if Ireland were an economic tiger, its citizens would be the last to see it.

Economics alone is insufficient to explain the process of economic development. The cultural and social environment in which an economy is set plays such a vital role in determining the relative success or failure of economic policy that to ignore the background is to miss the picture itself. Ireland's economic successes and failures since independence have been chronicled and reflected in the social and cultural development of the past 75 years. This paper focuses first on a number of underlying social, economic and political factors which have contributed to Ireland's economic coming of age. It then examines Ireland's recent economic record and the economic mechanisms which explain the current rapid convergence in Irish living standards to the EU average. The final section discusses some of the problems and challenges which the new, more successful, Ireland faces over the next decade.

COMING OF AGE

The process of coming of age is always difficult, and now that Ireland has, in a sense, done so, there may be some in the country who still hark back to the earlier days when the state existed in a protected environment. However, most adults living in Ireland today have witnessed profound changes in four main spheres :

– change in the phenomenon of emigration, which has been central to the Irish consciousness for over two centuries ;

– membership of the EU, which has played a vital role in the coming of age process ;

– the changing educational attainment of the population, following accelerated investment in education over the past 25 years ;

– the demographic structure of Ireland, which still sets it apart from many of its EU neighbours.

Emigration

The history of emigration has been central to the Irish experience. Since the 18th century, the tradition of emigration has been a continuing feature of the lives of all of the population, rich and poor, young and old. It had a particularly important impact on the economy in the 19th century (O'Rourke and Williamson, 1995), and the despair and tragedy it symbolised is still deeply ingrained in the population. However, it is the gradual change in the nature of that experience which is both a symptom and a cause of the new Ireland.

Up to the 1950s, the 'American wake'[1] was a central feature of Irish life ; the family mourned the emigration to America of one of its children, who would probably never be seen again. Even by the 1950s, however, the nature of the grief expressed at the 'wake' was changing, as the emigrants went to England and Scotland, and even if they would never live in Ireland again, they would certainly be seen again on occasional holidays. The attitude of the emigrants was also changing. The contrast in the 1950s between the burgeoning economies of the UK, Germany and France and the economic depression of an Ireland where they could not find jobs left emigrants bewildered and angry. This attitude is reflected in the literary writings of Edna O'Brien and Brendan Behan, who were part of the exodus to Britain in the post-war years.

[1] In Ireland, a 'wake' is a party held after a funeral, where the family and friends of the deceased commemorate his or her life.

From the end of the 1950s onwards, however, there was a gradual change in circumstances, which has greatly altered the current experience of emigration. This change was symbolised in former President Robinson’s gesture, on the day she took office, of lighting a candle in the window of her official residence (it remained lighting throughout her term of office) ; it served to welcome the returning emigrant as well as recognising the importance of the Irish diaspora. Today, emigration is still part of the experience of up to a quarter of each generation (and of every family) in Ireland, but the difference is that the emigrants of today are viewed as homing pigeons. The ‘best and the brightest’ may still emigrate, but the expectation is, and experience suggests, that the bulk of them will return.

In the post-war years, the single most important factor driving emigration was the difference between unemployment rates in Ireland and in other labour markets to which the Irish had access, most notably the UK. Figures 1 and 2[2] contain an analysis of net emigration classified by the educational attainment of the emigrants. They show a fairly similar pattern in the late 1960s and the late 1980s 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 these emigrants, about a third of whom had a third-level education compared to under 20 per cent in the 1960s. 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, which was almost non-existent in 1960, had grown to be 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 pertained in the past, when the Irish unemployment rate was about four percentage points above the UK rate in equilibrium (Kearney, 1998). Figure 3 compares Irish and UK unemployment rates for 1994 by educational attainment. It shows that, for those with at least a Leaving Certificate (roughly equivalent to the French *Baccalauréat*, and taken at age 17 or 18 on leaving the second-level system), the gap in unemployment rates was less than four percentage points, and unemployment rates were lower in Ireland for graduates. Given that the proportion of the population who have attained at least Leaving Certificate standard of education is continuing to rise, the result may be a reduction in the potential gap between unemployment rates in Ireland and the UK.

While those with a secondary or higher education are now more likely to emigrate than those with only a primary education, they are also more likely to return. In 1991, as Figure 4 shows, over a quarter of all males and females in the country with a third-level education had lived abroad for at least a year. For all other educational categories, the proportion was ten or fifteen per cent. 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. It means that, even in the face of continuing substantial gross outflows, the fact that individuals return from working abroad with additional experience may actually enhance the return from education.

Over the period 1991-96 there was a return (first seen in the 1970s) to small net immigration, reflecting the boom in the domestic labour market, so that by 1996 nearly 20 per cent of the 30-34 age group were returned emigrants. Today, there is substantial net immigration. Over half of those coming to work in Ireland are returning emigrants, but in the past three or four years between 40 and 50 percent of them have not been Irish citizens. The vast majority of immigrants, whether Irish or not, have third-level education (Barrett and Trace, 1998), and have played an important role in helping the economy to

[2] All the figures alluded to in the text are grouped together at the end of this paper.

grow at such a rapid pace. The high level of education of immigrants contrasts with the experience of other EU countries.

From an economic point of view, this high degree of mobility, especially for skilled labour, greatly increases the elasticity of the labour supply. As discussed later, this has tended to keep Irish skilled labour costs from rising rapidly, and makes the Irish labour market closer to that of an American state than that of other EU national labour markets. What is also interesting is the extent to which the mobility now involves skilled individuals who are citizens of other EU countries – the UK, Germany, France, Sweden, Finland and the Netherlands. While a significant number of these immigrants are spouses or partners of returning Irish emigrants (Kinneran and Punch, 1999), many of them have no traditional association with the country.

For a society which is exceptionally homogeneous in terms of race, religion and culture, the returning emigrants have played an important role in introducing new experience, new ways of doing business, new expectations and a new vitality to Ireland. In the 1950s, the traffic was all one way – outwards – and Ireland was a rather claustrophobic insular society, symbolised by the rather heavy censorship which was still exercised on literary works, although it went much deeper than that. This insularity is reflected in the literature and cinematic representations of the period.

In the early 1920s, immediately after independence, there was a substantial outflow of Protestant citizens who found the new state unappealing, in spite of well-developed safeguards for their religious and civil rights. This loss of diversity was no doubt serious for the future development of the country, both culturally and economically. It is only today that returning emigrants coupled with some immigration has begun to provide a more diverse culture and a more exciting environment, suitable to rapid economic growth. Part of the recent transformation of Ireland’s society and economy must be attributed to this influx of additional skilled labour, bringing with it new ideas, skills and approaches to the many problems facing the country.

European Integration

One vital feature of the changing Ireland is the opening up of the economy and society as a whole to the wider European experience. In 1922, Ireland was the first of the British colonies since the United States of America (USA) in 1776 to break away, and as such had to write its own rules. In the first few years of independence a learning process took place, during which new patterns of behaviour and new ways of thinking had to be developed. In the 1920s and 1930s, Ireland took the road of protection and self-sufficiency, thereby closing off the influence of the outside world. The fact that two of Ireland’s greatest writers of the period (James Joyce and Samuel Beckett) chose to live in Paris was symptomatic of this process. Its economic manifestation was the erection of very high tariff barriers against the outside world, and its prime political manifestation was the decision to remain neutral in the second world war. Reading the speeches of the *Taoiseach* (Prime Minister) of the time, Eamonn de Valera, one gets the impression of a country that did not much like the outside world – and reading some of the speeches of the then British Prime Minister, Winston Churchill, it appears that the feeling was mutual! This period of isolation left a serious economic and political legacy after the war.

The atmosphere in Ireland in the 1950s seems to have proved stultifying for writers, artists and business people alike. The introduction of free trade from the beginning of the 1960s onwards was only one (and probably not the most important) aspect of the opening up of the country to outside influences and ideas. The advent of television to Ireland also played an important role in the process. From the 1950s onwards, the ready access to British television on the east coast of Ireland helped keep people in touch with the rapidly changing post-war world. It also helped raise expectations in terms of living standards and the level of provision of public services. However, probably the most important force for change in the economy and domestic politics was entry into the then European Communities[3], along with the UK, in 1973.

Ireland is not unique in 20th century Western Europe in having experienced independence from a much larger and dominant neighbour ; Finland, Norway, and Latvia, for example, also shared this experience. In the case of both Ireland and Finland, their experience of the first 25 years of independence has coloured their response to the EU and European institutions. Public opinion in Ireland and Finland is much more favourable to the institutions of the EU than is the case, for example, in Sweden or the UK. In the initial years of their independence, Ireland, and even more so Finland, suffered from the absence of a supranational framework of law to regulate their relations with their former respective imperial powers. In the case of Ireland, the relative generosity of successive British governments eased the problem. However, up to the time of Ireland's membership of the European Communities in 1973, its external economic relations were characterised by dependency on Britain. For Finland, relations with the Soviet Union proved much more traumatic, culminating in the experience of the second world war. As a result, membership of the EU is, in a way, the culmination of a long path to independence for Ireland and Finland. Although certain powers and rights may be limited as a result of EU membership, this is more than offset by the fact that each country is legally equal to its much more powerful neighbours, and that a legal framework exists to enforce their right to protect their national economic and political interests.

This new liberating experience of EU membership took many different forms. In 1972, for example, the Irish Department of Finance sent all its files on external economic relations – with Britain – to the basement. They were never again looked at again after Ireland joined the EU ; instead, the focus of attention shifted to a new multilateral world where Ireland was both legally and *de facto* equal to all other members. It took some time to realise that the UK was not always the opposition, but often a friend and ally in furthering our common interests. Where the UK was an opponent, it was only one of many, and our allies frequently included France and Germany. In the sphere of agriculture, which was still of vital importance to the economy in 1973, Ireland has hidden under a French umbrella protecting the Common Agricultural Policy (CAP) for 25 years.

This changed environment within the EU not only strengthened Ireland's economic independence, but also provided new ideas, a stimulus to look at a wider world and a knowledge that there were many different ways of achieving desired social and economic objectives. The cultural impact of EU membership has spread much wider than the civil service ; in the field of industrial relations, for example, it has also been an important factor introducing change. Since the mid-1980s, while the UK pursued a rather contentious and legalistic approach to reform, Irish trade unions, employers and successive governments drew on the experience of their colleagues in Germany, the Netherlands and Denmark to develop a 'partnership approach' (Sexton and O'Connell, 1997). This has involved regular negotiations between the social partners, resulting in a series of agreements covering not only pay rates, but also taxation policy and policy on publicly provided services. While this approach may have some draw-backs, it has contributed to a major change in wage

[3] For the sake of simplicity, although not strictly correct, the term European Union is sometimes used in place of the European Communities in this paper.

formation and a period of relative peace in industrial relations over more than a decade[4]. The rate of increase in real wage rates has been much lower than economic models (based on the experience of the 1970s) would have suggested, but employees have benefited instead from a substantial reduction in the tax burden and a massive increase in numbers employed (Fitz Gerald, 1999).

In the field of monetary policy, Ireland's experience is also rather different from that of larger EU member states. Since its independence, Ireland has had little experience of attempting to implement an independent monetary policy[5]. Even since 1979, when monetary policy was nominally determined by the Central Bank of Ireland, in practice it was the *Bundesbank* which played the crucial role in determining turning points in policy. As a result, there is a feeling that no loss of sovereignty is entailed in ceding the right to determine monetary policy to the European Central Bank, given that that sovereignty never really existed (Baker *et al.*, 1996).

The reduction in tariff barriers from 1960 onwards, thereby opening up the Irish economy to the outside world, was thus part of a wider process of change, cemented by entry into the European Communities in 1973. However, the adjustment to changing circumstances had costs as well as benefits, the former manifesting themselves in the closure of many businesses as the economy adjusted – a process which Central Europe understands very well today. This process of adjustment continued into the 1980s, but it is now largely complete for the manufacturing sector, and any problems which remain affect the services sector. A corollary of this process of adjustment by existing industry was the introduction of new foreign-owned businesses across a wide range of sectors, but especially in certain key areas of manufacturing industry. New multinational industry came to Ireland because it offered access to the EU market, without which Ireland would have been of little interest as a location for investment from the early 1970s onwards.

Membership of the EU was particularly important for the access it gave to the wider EU market for agricultural produce under the CAP. Even before membership in 1973, the impact of the impending CAP had already begun to change Irish agriculture. While the CAP and the agricultural sector were crucial to the economy at the time of membership, their significance has fallen steadily. Nonetheless, Ireland's EU receipts under the CAP remain larger than all its receipts under the Structural Funds, and CAP reform will remain a key issue for future Irish governments.

In the long run, access to the single market is more important than any other economic feature of EU membership. The single market reforms were expected to bring significantly greater benefits to Ireland than was the related increase in Structural Funds (Bradley *et al.*, 1992). Given the extent of the integration of the Irish economy into the wider EU economy, Ireland's economic interests are now inextricably tied up with those of our EU neighbours. In the early 1990s, for example, Ireland carried part of the costs of German unification, since high interest rates temporarily cost up to three or four percent of total employment (Bradley *et al.*, 1991), but this was a small price to pay in terms of the wider benefits of EU membership.

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[4] It is interesting to note that a number of the trade unions involved in this process were actually branches of British unions.

[5] Given the one-for-one parity between the Irish and British pounds up until 1979 (Irish pound and sterling banknotes circulated side by side with no penalty for conversion), Irish monetary policy was effectively determined by the Bank of England. Between 1979 and 1998, the *Bundesbank* had the major role in determining policy. Since January 1999, Ireland has been a member of the EU's Economic and Monetary Union (EMU).

In recent years, the EU Structural Fund process has caught the public imagination (outside as much as inside Ireland) as a manifestation of the effects of EU membership. While Ireland benefited from receipts from the Social and Regional Funds from the mid 1970s onwards, the reforms introduced as part of the single market process resulted in a significant increase in receipts. These were further increased as a result of the Maastricht Treaty. Figure 5 shows how the receipts rose rapidly at the beginning of the 1990s. Since 1993 they have tended to fall, and while they will continue into the next decade, they will not again attain the high level of 1992-93.

The growth in EU transfers to Ireland from the Structural Funds from the late 1980s onwards made a significant direct contribution to growth at an important time of economic change. On the demand side, as shown in Figure 6, the first Community Support Framework (CSF)[6] from 1989-93 had raised the level of gross national product (GNP) by three and a half per cent above where it would have been if there had been no CSF (Fitz Gerald and Keegan, 1993). If the EU transfers had been cut off after 1993, Irish GNP would, in the long run, have been up to one per cent above its base level due to the continuing supply effects of the CSF-funded investment (e.g. in roads and education). Because of the decline in the significance of the CSF transfers in recent years, the demand side stimulus from the second round (1994-99) is somewhat lower (Fitz Gerald, 1998). Of course, the supply side benefits of the new capital stock (both human and physical) which is continually being put in place, funded under the CSF, is building up the economy's productive potential. Over the course of the 1990s, transfers as part of the Structural Funds process probably added something under a half of one per cent a year to the growth rate, or a cumulative four per cent by 1999. If all transfers were to end after 1999 (they will, in fact, be phased out over the next decade), the level of GNP would be permanently something over two per cent above what it would have been without the aid.

At least as important as the actual investment is the way the Structural Fund process has affected Ireland's administrative and political systems. The increase in GNP occasioned by the first CSF encouraged the government to raise public investment from its extremely low level in the late 1980s. Without such a stimulus, Ireland could have found itself suffering from under-investment in the face of rapid growth in recent years.

The CSF process has forced the introduction of long-term planning. In the past, investment projects stopped and started in line with short-term economic pressures on governments - a very wasteful process. Now, an investment plan is formulated and subsequently implemented without major interruption. In addition, the need to reassure the ghost of Mrs Thatcher and the more substantial one of Chancellor Kohl that their money was well spent resulted in the introduction of a fairly rigorous set of evaluation procedures, which has helped change the way the administration approaches public expenditure. In the past, once money had been voted, the only question raised was whether it had been spent in accordance with regulations ; now there is increasing interest in assessing how effective the expenditure has been.

In summary, the EU's Structural Funds have played an important role in developing Ireland's economy at a crucial point in its economic history. However, their significance is declining, and their contribution has been much more limited than that of the other driving forces discussed in this paper. It is also important to note that Ireland, unlike many underdeveloped regions in receipt of aid, has not become dependent on the transfers. For example, the *Mezzogiorno* region in Italy has for decades received huge transfers from the rest of Italy, which continue to be essential for maintaining its standard of living. By investing its transfers Ireland, on the other hand, has ensured that, when they decline in the

[6] This is the name given to the EU programme covering Structural Fund transfers.

next decade, their legacy will still be visible in the enhanced education of the work-force and the country's improved transport infrastructure.

The Educational Revolution

In the immediate post-war years, all the countries of Northern Europe, with the exception of Ireland, made major changes to their educational systems. In the rest of what is now the EU, a substantial programme of investment was undertaken, upgrading the educational system and greatly increasing participation in both second and third-level education. In Ireland, 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 in 1967.

Following the publication in 1966 of a report supported by the OECD (the Organisation for Economic Cooperation and Development) entitled *Investment in Education*[7], free second-level education was introduced in Ireland in 1967. This development signalled the start of a strategy of investing in education which has been pursued consistently by successive governments ever since. 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 yet to be seen, with participation rates continuing to rise rapidly in recent years. The impact on the labour market has been complex, 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, an issue which is discussed later.

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 (Koman and Marin, 1997).

The effects of the change in participation on the educational attainment of the population are shown in Figures 7 and 8. Approximately two thirds of those born 65 years ago and now reaching retirement age left school with only primary education (at age 14 or under). On average, women have been slightly better educated than men in the Republic of Ireland throughout the last two generations, but until recently the gap has been relatively small. Of those born in the late 1960s and aged 25 to 30 in 1994, early school leavers were down to only ten per cent of the cohort, with around sixty per cent having at least a Leaving Certificate, and around a quarter having some form of third-level education. This increase in participation rates has continued apace, with around 80 per cent of the 1995 school-leaving cohort having a Leaving Certificate, and over 50 per cent continuing on to some form of third-level education[8]. The forecasts for the educational attainment of the

[7] 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 University College Dublin (UCD) and Professor M. O'Donoghue of Trinity College Dublin (TCD).

[8] The figures for participation are significantly higher for women than for men.

labour force up to the year 2011 are shown in Figure 9, which 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 to come.

Demographic Change

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, as Figure 10 shows. 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 (represented by the Total Fertility Rate - TFR) is now close to that in the UK. This paradox of a high birth rate coinciding with relatively low fertility is explained by the fact that a relatively high proportion of the female population is, to use the demographers phrase, 'at risk' (in the age group capable of having children). Figure 11 shows the implications for Ireland in 2006 of the continuing decline in fertility. As can be seen from these data, on the basis of current trends Ireland is heading for a relatively low fertility rate, closer to that in Southern Europe than to the higher Scandinavian norm.

The future path of the fertility rate is still uncertain. Increasing prosperity and greater opportunities for skilled work will probably tend to reduce it further. The rising educational attainment of the female population is particularly important, as it enhances their earning power and is a very important factor in increasing labour force participation. What is particularly interesting is the fact that, for women aged 25-34, the labour force participation decision is now affected by marriage to only a limited degree. It is the decision to have children, whether or not the parents are married, which is associated with a change in participation (Walsh, 1993). Thus, marriage is proving to be a diminishing factor in explaining fertility in Ireland, with over one third of all first pregnancies occurring to single mothers. 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 illustrated here could prove low.

The effects of the 'baby boom' of the 1970s can be seen in the cohort which will be aged 30-39 in 2011 (see Figure 12). This cohort is currently aged 15-24, and has benefited from the high birth rate of the 1970s and the low rate of emigration of families in the intervening years. The size of this cohort relative to all others will continue to influence the Irish population profile for decades to come.

The very rapid fall-off in the population aged over 70 in 2011 (currently aged over 55) reflects not only expected mortality in the intervening years but also, and more importantly, the continuing effects of the very high level of emigration in the 1950s. This means that the number of people in the retired age group (over 65) will remain relatively low for another 20 years.

The increased participation of women has been a crucial factor in the growth in the labour force in the last decade. In 1980, female participation was very low by European standards, and 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, and also by changing circumstances in the labour market. The participation rate for women with a minimal education is still very low, reflecting the fact that the costs of working (in terms of childcare) are high, and also that the potential gains have been low. It is likely that a significant number of these women in the younger age groups have children, and that this is affecting participation. The participation rate of women with a third-level education has traditionally been significantly higher, reflecting much greater financial incentives (Fahey and Fitz Gerald, 1997 and Fahey *et. al.*1998). Between 1988 and 1997, participation rates for those who had completed second-level education rose particularly strongly (see Figure 13).

The rapid rise in participation in education has had the effect of greatly reducing participation rates in the labour force 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. Generally speaking, 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 the supply of labour will rise by up to one and a half per cent a year over the next decade.

Much of the concern about a demographic ‘crisis’ in western countries has arisen from worsening dependency trends. Ireland is in the unusual position of having dependency levels which are improving, and which are likely to be lower in 30 years time than they were at various points in the past 30 years. The proportion of young people in the population, which had remained fairly constant between 1960 and the mid-1980s, has begun to fall rapidly over the past decade, and will continue to fall over the coming 15 years. The proportion of elderly people in the population, which has remained very stable since 1960, will not show a major change until after 2010. When taken together, these trends mean that, having had a high percentage of the population in the inactive age groups for 30 years, this position is now changing quite rapidly in a favourable direction.

Since the 1960s, Ireland has had economic dependency levels (defined as the numbers not working in the population compared to the numbers actually in paid employment) that were extraordinarily high by the standards of other western countries (see Figure 14). In the early part of that period, Ireland's high dependency was caused mainly by the contraction in the active population as a result of young adult emigration in the 1950s, coupled with a moderately high fertility rate and an elderly population that was large by the standards of the time (Fahey *et al.*, 1998). By the 1980s, the active population had recovered in size (partly due to return migration by some of those who had left in earlier decades), even though the child population had also grown rapidly. However, apart from a brief favourable period in the 1970s, economic dependency remained exceptionally high because of a combination of high unemployment and low labour force participation rates within the population in the active age groups.

The mid-1980s witnessed peak levels of economic dependency, which contributed significantly to the economic problems of the time. A small work-force was supporting a very large child population, a substantial number of unemployed, a reasonably large elderly population and a very large number of women in home duties. As regards the latter group, the majority of women in home duties should be counted as economically productive rather than dependent, and as important providers of support within families. However, as an informal economic activity, housework is untaxed and does not contribute directly to public revenues. In addition, it is likely that a certain proportion of women in home duties were underemployed or ‘hidden’ unemployed.

The trend in the economic dependency ratio began to turn in a positive direction in the mid to late 1980s. The numbers in the dependent age groups began to fall and, at the same time, the numbers at work began to grow, so that the dependency balance improved considerably. This positive trend is likely to continue, especially over the next 10 to 15 years, so that economic dependency will be markedly lower in the next decade than at any time since the 1960s. At the peak of economic dependency in the mid-1980s, there were nearly 230 dependants for every 100 workers. According to the latest forecasts, this ratio will have fallen to 125 dependants per 100 workers by the year 2010, well below the current

EU average. Even though a certain degree of population ageing is likely to have occurred over that period, labour force growth will also mean a slight decline in the number of *elderly* dependants per 100 workers – from 35 in 1986 to 28 in 2010.

The combination of unfavourable conditions which created the extreme dependency levels of the 1960s through to the 1980s are now passing away and are unlikely to recur in as extreme a form at any point over the next three decades. Ireland is thus moving into a new era of easing dependency burdens, no matter how they are defined or measured. This again reinforces the view that, even in the long term, the outlook as far as dependency is concerned is a great deal more favourable than the record has been over recent decades.

A CLOCKWORK MOUSE ?

While Ireland's current economic performance has all the appearance of being a 'Celtic tiger', this image clouds the reality of the country's economic performance over the past 30 years. When viewed within this wider context, the performance still looks striking, but the wider backdrop of the mistakes of the late 1970s and the painful adjustment of the 1980s, makes it clear that this is not an economic 'miracle'. To some extent, the real surprise was the poor performance of the economy in previous decades, which left major room for improvement in the 1990s (Bradley *et al.*, 1997).

Ireland's record on output and employment growth is outlined below, but in order to understand it, the role of labour supply is discussed first. Factors affecting labour demand are then considered, and the evidence is brought together at the end of this section to explain the key economic mechanisms underlying the rapid convergence of Irish living standards with the EU average[9]. In a sense, Ireland is like a clockwork mouse which is fully wound up ; over the next decade, as it moves forward, the clockwork motor can be expected to run down.

The Record

In the late 1970s, the then Irish government pursued a 'dash for growth' policy which involved a huge fiscal injection. Even at the time, economists warned that this was unsustainable and, in the early 1980s, when the storm of world recession hit, it almost wrecked the Irish economy. The result was a period of almost ten years of fiscal retrenchment, as successive governments tried to put the economy together again. The process was extremely painful, involving both major increases in taxation and a massive cut-back in state expenditure. In the period 1987-88, public sector employment was cut by

[9] A wide range of factors have contributed to this success; see Bradley et al. (1997) and Barry (1999) for a fuller discussion of the different factors.

ten per cent, a figure that no other OECD country has managed since the war. As shown in Figure 15, eight out of ten budgets over the course of the period 1980-89 were deflationary. This was necessary in order to correct the huge imbalance in the public finances, and it represented a strongly pro-cyclical fiscal stance at a time of very low growth. Over those ten years, the cumulative deflationary impetus imparted by fiscal policy amounted to just eight per cent of GNP. It is not surprising that the Irish economy did not shine over that period.

Figure 16 shows the growth rate for GNP for each of the five-year periods from 1960 to 1990. With the exception of the first half of the 1980s, when fiscal retrenchment knocked the economy way off course, there was relatively little deviation from an apparent trend growth rate of four per cent a year. For the more recent period 1990-95, the growth rate picked up to five per cent, and the economy is currently growing at a rate well above its past trend. It looks as if the average growth rate over the five years 1995-2000 will be over six per cent a year.

Perhaps more remarkable than the apparent improvement in the trend growth rate is the experience regarding employment growth. In contrast to a dismal performance in the 1980s, employment has grown and is continuing to grow at an unprecedented rate in the 1990s (see Figure 17), with the bulk of this employment growth occurring in the private sector. However, there has been a somewhat smaller reduction in unemployment (see Figure 18), reflecting a rapid rise in the labour force.

The Labour Market - Supply

Over the past 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. These policies resulted in changes in the education and social welfare systems, which have had the dual 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 EU economies have 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 between these different forces has determined the rates of return for different kinds of labour and the numbers employed.

In the 1950s, the UK had developed a sophisticated social welfare safety net, but no such protection was available in Ireland. As a result, unskilled labour in Ireland faced a choice between emigration to Britain (usually to take up employment there), or employment at any price in Ireland. Figure 19 illustrates this position for unskilled labour (L), where the supply of unskilled labour is vertical at full employment and horizontal at the floor provided by social welfare payments. 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 Britain. The evidence suggests that, in equilibrium, the Irish unemployment rate was four percentage points above the British 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 (see Figure 20). 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. This in turn tended to reduce the labour force as people emigrated to Britain, keeping the unemployment rate four percentage points above the British 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 still 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 in the UK. In addition, there was a rapid rise in unemployment in the UK, especially among the 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. One example of this is the relative rates of pay for the textile sector in Ireland compared to the UK, as shown in Figure 21. Since the textile sector has one of the highest percentages of unskilled labour of any manufacturing sector, the data in Figure 21 provide a reasonable proxy for relative movements in unskilled pay rates in the two economies.

At the same time as these changes in the supply of unskilled labour were occurring, a fall in demand also took place. The opening up of the economy to competition meant that those companies operating in the tradeable sector, which depended on unskilled labour, faced increasing competition. Corcoran *et al.* (1993) document the effect of this competition on the employment of unskilled labour. Since the early 1970s, the absolute number of unskilled labourers has been cut by almost 50 per cent, with smaller declines in other categories of unskilled labour.

The effect of the increased investment in education was also to reduce the supply of unskilled labour, as shown in Figures 22 and 23. In the market for skilled labour (see Figure 22), 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^1, leaving H^1-H^2 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 more skilled people employed, but the increase is less than the increase in supply.

In the market for unskilled labour (see Figure 23), 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^a to H^0, with H^b-H^0 skilled workers competing on the unskilled market. The result is a reduction in total supply on that market, and a corresponding reduction in unemployment. All of this assumes zero migration. This picture, while greatly oversimplified, characterises the situation in 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, as in the second half of the 1980s. While the majority of the skilled workers will find employment in positions that require their skills, there will also be some increase in the number of skilled workers in jobs that 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 not only of the change in employment, but also of the resulting change in wage rates.

The situation since the 1990s has been rather different. While the supply of skilled labour has continued to shift outwards, so too has demand. This rapid increase in the demand for skilled labour is taking place throughout the developed world. In the UK and the USA, the effect since the beginning of the 1980s has been to increase the wage differential between skilled and unskilled workers (Nickell and Bell, 1995). This reflects the fact that the supply of skilled labour has not grown very rapidly in these countries. Their big investment in education occurred much earlier than in Ireland, and the post-war baby boom generation are already all in the labour force.

In Ireland, by contrast, the increase in demand as the demand curve shifts out to D_H^1 (see Figure 22) has coincided with the rapid rise in supply. The net result has been that the wage rate for skilled labour has not shown anything like the change evident in the UK and the USA. Nonetheless, it has meant that the full benefits of the investment in education have been felt in increased employment and productivity as the additional skilled workers have found employment suitable to their skills. Figure 24 shows the average earnings of women employed in 1987 and 1994, classified by their level of education (Callan, 1993 and Callan and Wrenn, 1994)[10]. It shows that the premium (in terms of wages) which university education commanded in 1987[11] changed little over that period. Later work by Barrett *et al.* (1999), indicates that, if anything, the returns to education actually increased over that period of rapidly increasing supply.

Under certain assumptions (Durkan *et al.*, 1999)[12] the results from 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. To the extent that the returns to education may have fallen between 1970 and 1987, the index will tend to ove-restimate the impact of human capital on the economy over that period. However, for the period 1987-94, the apparent stability of the returns to education suggests that the index may provide a reasonably reliable guide to the impact of investment in human capital.

Figure 25 shows this index of human capital for the adult population. For the purposes of comparison, indices of human capital for Austria and Germany are also shown. These latter indices are constructed on a slightly different basis[13] in Koman and Marin (1997), but the results are likely to be broadly comparable to our own index. They tend to confirm our earlier assertion that the benefits from investment in human capital are occurring later in Ireland than in other Northern European EU member countries. Figure 26 shows the rate of growth in the index for Ireland. The movement in the index of human capital reflects the

[10] The picture for males is rather similar to that for females.

[11] Roughly double that of women with Leaving Certificates.

[12] Among other things, it is assumed that there is perfect competition so that the wage rates of the different types of labour are equal to their marginal products. Perfect competition in the labour market is also assumed, so that the wage rates of the different types of labour are equal to their marginal products.

[13] Instead of weighting by the average earnings of each category of labour, the weights are the total wages of the different categories.

fact that, as each person retires, generally with only a primary education, they are replaced by a person with a good Leaving Certificate or a third-level education. As a result of this switch, output will rise, as reflected in the increase in average earnings. The growth in the index was quite slow in the 1960s, at around a third of a percentage point a year. From 1970 onwards, it averaged around a half a percentage point a year, and its growth reached a peak in the first half of the 1990s, suggesting that investment in human capital was contributing around one percentage point a year to the growth in that period. While the rate of growth in the index is expected to slow over time as the average educational attainment of the labour force rises, the index will still be rising at around a half a percentage point a year at the end of the next decade. It would suggest that, currently, around one percentage point of the growth rate may be attributable to the rising educational attainment of the labour force through the effects on rising productivity. However, the full implications of this rise in human capital can only be assessed within the context of a wider model of the economy.

The elasticity of supply of labour in Ireland has been greatly increased by the extent of migration. Whenever the labour market has tightened in Ireland, firms have been able to attract workers from abroad without any great difficulty. This reflects the big (though diminishing) stock of Irish emigrants (Fahey *et al.*, 1998). When the labour market was weak in Ireland, and unemployment tended upwards, Irish people sought better opportunities abroad (Kearney, 1998). I have argued elsewhere (Fitz Gerald, 1999) that this link through the labour market has played an important role in the gradual convergence of Irish labour costs to the UK level over the period 1960-80.

Labour Market – Demand

As discussed earlier in this paper, there was significant emigration of skilled labour from Ireland in the past, especially in the late 1980s. Why is the rise in skilled labour supply now translating into increased employment rather than emigration? The answer lies in factors affecting the demand for labour in Ireland.

The Irish economy over the past 70 years has provided a very interesting test-bed for the effects of economic integration. Having been an integral part of the UK until independence in 1922, a series of changes occurred over the following ten years which introduced major restrictions on trade[14]. In the early 1930s, very high tariffs encouraged the development of local industry to supply the domestic market, resulting in a substantial rise in industrial employment. However, the new firms were very small, with low productivity.

With the progressive dismantling of tariffs from the late 1950s onwards, the Irish economy, including the protected industrial sector, was opened up to major new forces through the subsequent growth in trade. Two landmarks in this process were the Anglo-Irish Free Trade Agreement of 1965, freeing trade with the UK, and entry into the then European Communities in 1973, which abolished all remaining barriers to trade with the other members.

The most obvious economic manifestation of the gradual opening up of the economy from 1960 onwards was the growth in the importance of foreign trade, and the

[14] There was free movement of funds within the sterling area until Irish entry into the European Monetary System (EMS) in 1979. However, until the mid-1950s, there were extensive controls on direct foreign investment in Ireland.

diversification of the markets where that trade took place. Since 1960, as Figure 27 shows, the proportion of Irish output which is exported has more than doubled. Initially, the process of opening up the economy to free trade began with a unilateral dismantling of extremely high tariff barriers. The opening up of the economy to the rest of Europe also began in the 1960s, and this is reflected in the diversification of trade which has taken place since that date. Membership of the European Communities, which occurred at the beginning of 1973, was thus part of a longer-term process of integration.

The growing importance of direct foreign investment, in particular in the manufacturing sector, has been a key feature of the changing structure of the Irish economy from the end of the 1950s onwards. In 1960, the Irish economy was heavily dependent on agriculture, and the concentration on this sector was much greater than was the case in other neighbouring countries. It was necessary to shift attention to the industrial sector so that industrial growth would counter-balance the inevitable decline in the importance of agriculture. This was reflected in a change in industrial policy in the late 1950s to favour foreign investment in manufacturing. It is now clear that this process has played a very important role in transforming the economy. The strategy, which depended originally on tax breaks, now relies heavily on the availability of skilled labour to attract foreign firms. The concentration on certain sub-sectors of manufacturing, such as computers and electronics, also appears to have been beneficial.

It is important to recognise the consistency with which industrial policy has been pursued by all governments over the past 40 years. Such a strategic approach to economic policy mirrors that of some Asian countries in more recent times, and it highlights the importance of creating an environment of certainty for foreign investors. While the extent of the concentration on developing the multinational sector at the expense of attention to existing domestic firms has frequently been called into question, some of the promised fruits of that policy are currently to be seen in the rapid growth in the manufacturing sector.

While the low rate of corporation tax has long been the key incentive for locating investment in Ireland, the availability of skilled labour at a reasonable cost has grown in importance in the past decade (Barry and Bradley, 1997). The location decision of multinational firms is a function of the relative cost of production in a range of different possible competing locations (Bradley and Fitz Gerald, 1988). The cost of production itself is affected by the tax regime, labour costs, the cost of capital and the cost of other services bought in locally.

As well as bringing a demand for skilled labour, the advent of multinational firms also brought new management skills and access to a range of technologies which were not available locally. In recent years, there have been some signs of a transfer of these skills to local firms. In addition, the growth in the critical mass of firms operating in the high technology sectors has seen a growth in the local labour market's supply of necessary skills.

The high proportion of foreign direct investment in the Irish manufacturing sector and its export-oriented development makes the Irish economy quite unique among the EU's peripheral members. Currently, foreign-owned firms account for over half of all output in manufacturing, and almost half of all employment in that sector (Barry *et al.*, 1999). Foreign-owned manufacturing firms export almost 90 per cent of their output, whereas Irish-owned manufacturing firms only export around 36 per cent. Thus, the influx of foreign-owned firms over four decades has played a vital role in opening up the economy.

This development is a result of a deliberate strategy pursued by policy-makers. Since the late 1950s, Irish industrial policy has offered significant tax incentives and financial packages to foreign companies to locate production here. This became particularly attractive to foreign investment after Ireland's accession to the European Communities in 1973. The policy was outward-oriented, with more generous tax advantages being offered to exporting firms in the 1970s. Policy gradually became concentrated on selected sectors, notably the electronics (including software), health care and pharmaceutical sectors.

The result of this outward-oriented strategy was a significant restructuring of the manufacturing sector, especially in the 1970s and 1980s. Production in manufacturing shifted from dominance by a largely indigenous, low-technology group of 'traditional' industries with strong links to the domestic and British markets, to the current dominance by a group of 'high-technology' industries, concentrated in electronics and pharmaceuticals. This group is largely foreign-owned and export-oriented.

During the 1980s, this restructuring resulted in a sharp decline in employment in manufacturing, and led many commentators to question the wisdom of deliberately courting foreign firms. It was argued that the relatively low labour-intensity of production in the foreign-owned sector and its low linkages with the domestic economy signalled a danger that the indigenous sector was being crowded out. and that the economy was becoming increasingly reliant on foot-loose foreign multinationals.

However, the restructuring within the traditional group of industries was an inevitable consequence of the progressive opening up of the economy to international trade. External pressures from low-wage competing countries forced many inefficient industries out of production. Similar adjustments occurred in the manufacturing sector of most developed countries. Viewed in this context, the pro-active industrial strategy pursued by Irish policy-makers was central to the long-term development of a strong industrial base. Indeed, Irish employment in manufacturing between 1975 and 1991 grew more strongly than the EU average despite its poor performance in absolute terms. The long-term downward trend in EU manufacturing employment can be seen in Figure 28.

In more recent years, employment in manufacturing has picked up strongly. Between 1985 and 1997, employment in manufacturing increased by 62,000, an increase of almost 30 per cent. Significantly, there has also been positive employment growth within the indigenous sector. The shift towards high-technology production has also led to a significant increase in the skill intensity of employment.

The concentration on a small group of sectors means that Ireland is emerging as a major location for specific industries. This leads to spill-over effects into the indigenous sector, both in terms of received expertise and technological know-how and also direct links with the domestic economy and local labour market. In the software sector, for example, recent evidence suggests that many small, indigenously-owned firms have established niche activities within this sector.

In summary, the benefits of a prolonged and consistent policy of targeting foreign investment has helped to establish a modern, internationally competitive industrial base in Ireland. In particular, it has meant that Ireland has experienced a major increase in demand for skilled labour. When taken together with the rapid growth in the private services sector in areas which also require skilled employees, the combined effect on the demand for skilled labour has been very great indeed.

Figure 29 shows labour cost per hour for the textiles and clothing sector and for computers for a range of EU countries[15]. These data suggest that labour costs in Ireland in the computer sector were lower in the late 1980s than in most other EU countries, including the UK. By contrast, costs in the clothing sector were way above those in Portugal, and also above those in the UK. These data would suggest that skilled labour was relatively cheap in Ireland in the late 1980s, and that this has been a factor in attracting major investment in the high technology sector to Ireland.

[15] These data include all the costs to employers, including social insurance contributions.

Over the past five years, the supply of new entrants to the unskilled labour market has been greatly reduced by the increased participation in education. While firms employing unskilled labour in the tradeable sector have continued to experience pressures from manufacturers outside the EU, the demand for unskilled labour in certain parts of the services sector (i.e. retailing and catering) has risen swiftly in the face of the rapid growth in domestic demand. Anecdotal evidence suggests that the going rate for unskilled labour in the services sector has risen from £2.50 an hour to over £4 an hour over the past four years. While still not attractive to all those eligible for social welfare[16], these rates are continuing to rise and are having an impact on the numbers of unemployed today.

Adding the increase in labour supply to the growth in human capital suggests a rise in the effective supply of labour of 3 per cent a year over the decade. This contrasts with the situation in many other EU countries, where the labour force is growing quite slowly, and the major benefits of the post-war investment in human capital have already been reaped. This factor, when taken together with the range of social and economic factors described earlier, explains why the Irish economy is growing more rapidly than those of other EU countries. However, it is also clear that the benefits of the key supply side factors currently boosting growth will fall gradually over the next 15 years, bringing the Irish economic experience back into line with that of its neighbours – in other words, the clockwork mouse will have run down. By then, the task of bringing the Irish standard of living up to that of its neighbours will have been completed.

The Result

The result of this relatively rapid period of growth will be that Ireland, which in 1990 had a Gross Domestic Product (GDP) per head of around 74 per cent of the EU average will, by the year 2000, be well over 100 per cent of the EU average. A more appropriate measure is GNP per head (which excludes profit repatriations by foreign multinationals) ; on this measure, Ireland can also be seen to have narrowed the gap in living standards compared to the EU as a whole, from 67 per cent in 1990 to an expected 95 per cent in 1999. On the basis of this forecast, using GNP, Ireland should achieve the average standard of living in the EU between 2000 and 2005.

The pattern of development discussed above suggests a marked change in gear around 1990 in that, between 1960 and 1990, there was little change in Ireland's position within the EU, measured in terms of GNP per head (see Figure 30). However, it now seems possible that, over the next 15 years, Ireland may achieve a standard of living among the highest within the EU.

While this may appear to be an exceptional rate of convergence in living standards measured as GNP per head, the situation looks rather different when considered in terms of output per person employed – national productivity, broadly defined. On this measure, and as Figure 30 shows, the Irish economy has been converging towards EU standards of productivity fairly steadily since the 1970s. While we are currently seeing some acceleration in the rate of convergence, this is not out of character with the past 30 years. The explanation for the contrast between the two measures (GNP per head and GNP per person employed) lies in the movement in the economic dependency ratio – the ratio of

[16] Much of the supply of labour at these rates has come from women or students working part-time, who may not be eligible for social welfare payments.

the population not in paid employment to those who are in work. As discussed earlier, while Ireland still has an economic dependency ratio well above the EU level, it will actually fall below the EU average some time in the next decade. This contrast, and its related effects on living standards represented by the movement in GNP per head, reflects the window of opportunity which Ireland faces over the next 20 years. At a time when the dependency ratio is rising elsewhere in the EU, the declining Irish ratio will make a rapid rise in living standards possible.

CONCLUSIONS

The Irish Agenda

The story of the Irish economic renaissance is not yet finished and, if it is to have a happy ending, there is much that remains to be done. The falling dependency ratio represents a window of opportunity which will last for 15 or 20 years only ; after that, the ageing process will change the character of the economy and of society, just as it has changed Germany and Japan. From the middle of the next decade, the driving factors behind the rapid growth will begin to slow, and the rate of growth in output will gradually decelerate towards the EU average. The first priority for future Irish governments must be to ensure that the potential for further growth is realised. There is then the issue of how best to use the fruits of success. Finally, there is a range of long-term strategic issues arising from Ireland's changing economic and social structure ; what does this imply for its future role in Europe?

Making it Happen

The development of a political consensus in the 1980s on tackling Ireland's critical fiscal problems was very important in the ultimate success of the Irish economic recovery. It is vital that this partnership approach to income determination be sustained and reinforced. so that it survives the pressures from rising expectations. In the 1950s and 1960s, Ireland decided it wanted a British standard of living before it had British levels of productivity, with serious consequences for employment. For the future, Ireland must not aspire to a German or French standard of living before it has earned it. Unfortunately, talk of the 'Celtic Tiger' whets expectations, making them ever more difficult to realise in practice.

Adequate investment must be undertaken to provide the infrastructure essential to future growth. There is a serious need for additional investment in public transport, as well as in other forms of public infrastructure (Fitz Gerald *et al.*, 1999). While Ireland may be approaching an EU level of income, its physical infrastructure – part of the national wealth – still lags behind. Without new investment in transport, housing and related infrastructure, Ireland will not remain an attractive place to live, and this would adversely affect growth prospects.

The rapid rate of economic growth cannot but have noticeable effects on the environment. The extent to which these effects will add to or detract from the quality of life – the fundamental aim of growth – will depend on the choice and balance of policies for environmental protection. In addition to the need for properly functioning protective laws, where appropriate, economic instruments will need to be centre stage if successive governments are not to burden the economy with unnecessary costs of protection. The pressures on the environment will have to be controlled if economic growth is to produce a real improvement in welfare.

While investment in education is paying handsome dividends, it still continues to fail up to 20 per cent of the population. Finding an effective means of dealing with this problem is of crucial importance, if the growth of an ever more excluded permanent minority of unemployed is to be prevented.

The Fruits of Growth

The opportunity will arise over the next decade to make an impact on major social problems. For example, there is a pressing need for measures aimed specifically at improving the skill levels of the long-term unemployed.

The ‘demographic dividend’ should be invested to provide for long-term needs in 20 years’ time, when Ireland will begin to ‘grey’.

The changing educational composition of the population has important implications for regional policy ; future regional success will depend as much on where people want to live as on where the jobs are. The changing expectations of the population affect the types of job they are prepared to accept, and the type of lifestyle they will seek. In the past, the principal instrument of regional policy has been government intervention through different kinds of subsidies, to encourage firms to relocate to less desirable or less sought-after locations. This is likely to be less successful in the future. Instead, one of the factors determining where economic activity prospers will be where the young labour market entrants of tomorrow wish to live. The promotion of balanced regional development must rely more on policies which enhance a region’s attractiveness to young adults ; for example, the provision of affordable housing, entertainment for the increasingly varied tastes of that cohort, and satisfactory infrastructure, ranging from transport systems to child-minding facilities.

Future Strategy

Ireland’s ‘coming of age’ will require a reorientation of a number of key features of the strategy that has produced the current renaissance :

– The price of success is the prospect that Ireland may become a net contributor to the EU by the end of the next decade. Adulthood brings new responsibilities within the EU, both to future new members in Central Europe, and also to third world countries. This change in circumstances requires a re-examination of Ireland’s policies within the EU. It is likely that the need to further radically reform the CAP to allow an expansion of EU membership and to meet the needs of future World Trade Organisation (WTO) rounds will be more painful for Ireland than the process of being weaned off the EU’s Structural Funds. However, EU membership and the completion of the single market have been much more important to Ireland than the transfers it has received, because they have provided the platform for the construction of a modern economy. Access to new markets in Central Europe will also provide new opportunities.

– The consistency with which industrial policy has been pursued over the past 40 years is now bearing fruit. However, it must be remembered that Scotland got 100 good years out of shipbuilding, and Northern Ireland got 100 good years out of linen. One cannot expect the current high technology industries, which have been so important for Ireland’s success, to survive as long. It is therefore important not to over-emphasise one or two sectors. This need to maintain balance in economic success may prove difficult to achieve. The role of the education system should remain that of preparing citizens for a lifetime that will see them working in a number of different jobs and various sectors.

– Finally, for two centuries the Irish have sought – and gained – access to the best labour markets in the world. Changing circumstances may now see Ireland appearing as just such a labour market to many in the rest of Europe and elsewhere. The need to approach this issue with generosity and to ensure that future population movement brings cultural stimulation rather than social tension is another challenge for the new century.

Lessons for the Periphery

Ireland achieved its independence in 1922 on the basis of a *Sinn Fein* ('ourselves alone'[17]) programme. The relative failure of that strategy, especially in the post-war years, contributed to the depression of the 1950s which permeated Irish society. The current success owes much to the enthusiasm with which Ireland has subsequently approached the globalisation of its economy and the opening up of its society to outside influences. In viewing EU membership as essentially liberating, it has created a positive outward-looking attitude which affects business, the educational system and politics. In the past, there was some concern that Ireland might lose its identity, either within the English-speaking world or, more recently, within the EU, but such concerns are much less frequently expressed today, as a new self-confidence takes over.

– It is this cultural change which is probably the single most important factor underlying the current Irish economic renaissance. The factors which brought it about are clearly very specific to Irish society, and do not translate to other countries or regions. However, the importance of the process embracing the outside world probably does have relevance for other Central European nations.

– A second feature of the Irish experience is the importance of following a consistent strategy over a long period of time. The broad social and political consensus behind the industrial and educational policies followed over the past 30 years has ensured a high level of continuity. This is one aspect of Ireland's experience which should be stressed when considering the future for countries aspiring to EU membership. Ireland's current success is built on investment over 30-40 years, and also on the pain of a major restructuring of the economy in the 1980s. There is no quick fix for problems of underdevelopment, although there is every reason to believe that the process can be accomplished more efficiently, with less pain and in a shorter time-scale than has been the Irish experience.

– The proven importance of educational investment for the process of economic growth is relevant for other countries. The changing nature of the world economy appears to favour those with very high levels of education over the least educated, and those regions of Europe which ride the crest of this wave may reap the major benefits. Over the past 30 years, the strength of the economies of countries such as Germany and the Netherlands have owed much to this factor.

– In the case of industrial policy, pursued consistently over 40 years, there have been failures as well as successes. The concentration on tax incentives in the past has probably unduly favoured foreign firms over domestic ones. The policy of targeting particular

[17] This is the literal English translation of Sinn Fein.

sectors, begun in the late 1970s, also carried significant risks. However, we are now seeing the benefits of critical mass in certain key sectors where the investment has succeeded. The presence of a very active labour market of people with information technology skills makes it possible to attract more and more investment into this area. A second aspect of industrial policy has been its focus on sectors which are in the ascendant, and the very limited attention given to attracting investment to, or protecting existing firms in, what are essentially declining sectors – the moral being, don't throw good money after bad.

– Ireland has had two advantages which may not be available to all peripheral regions : first, the English language, and second, the existence of a core of employment in sophisticated services sectors which are in the ascendant internationally, and which require skilled labour. In the case of the English language, all Irish people find that, when travelling abroad, it is a great advantage to speak English, but not to be English or American! It is no accident that the information technology (IT) sector, which is dominated by the English language, has been a sector in which Ireland has done well. In the case of tradeable services, Ireland has the advantage of having a core of employment in sophisticated legal services and in the financial sector. Being a separate country, albeit small, confers certain advantages in this regard over regions of larger countries[18]. It has provided a foot-hold in an area of economic activity which is growing rapidly internationally.

In considering the lessons to be drawn from the Irish experience, what is striking is the importance of opening up to the world economy, with free movement in goods, firms (foreign direct investment), and people playing an important role in transforming the economy and society generally. Diversity of experience and culture within the country can be a positive advantage. In the case of Ireland, past failures and current successes owe something to changing attitudes to investment in education. Finally, consistency in industrial policy (only possible with some national consensus) over long periods has played an important role in its success.

It is clear that an important ingredient of the current Irish success story is luck. In so far as countries make their own successes, each country has to find its own path. It is this diversity of experience which is both a stimulus and a challenge.

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[18] It also has additional costs, as there are definitely increasing returns in the case of many of the services needed to run a modern state.

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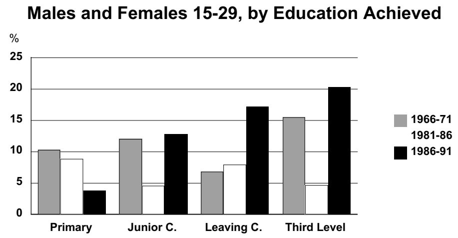
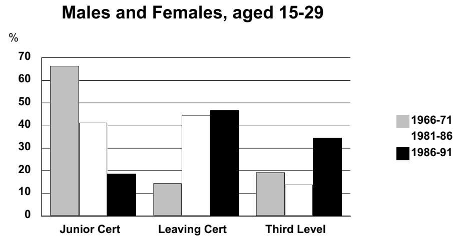
F i g u r e s

Figure 1
Proportion of Cohort Emigrating



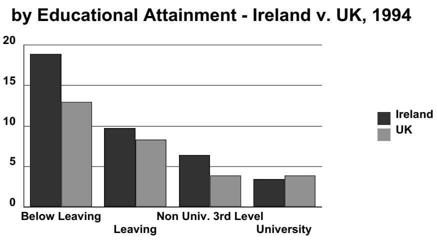
Source: Fahey, Fitz Gerald and Maître, 1998

Figure 2
Education of Emigrants



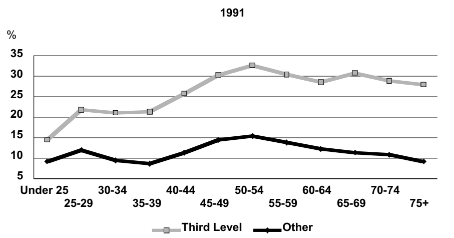
Source: Fahey, Fitz Gerald and Maître, 1998

Figure 3
Comparative Unemployment Rates



Source: OECD Education at a Glance, 1996

Figure 4
Males who have resided abroad



Source: CSO Census of Population

Figure 5
Irish Structural Fund Receipts as % of GNP

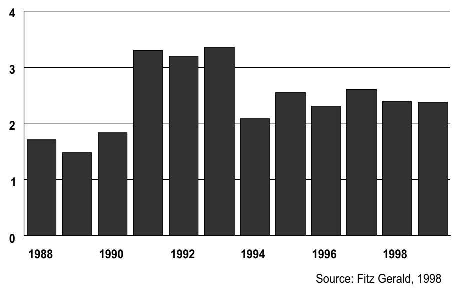


Figure 6
The Impact of the CSF

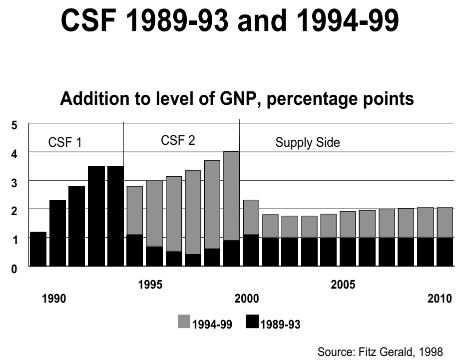


Figure 7
Educational Attainment, Males

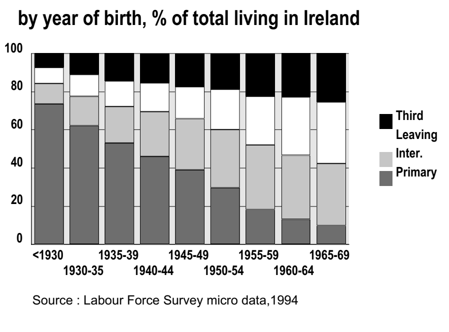


Figure 8
Education Attainment, Females

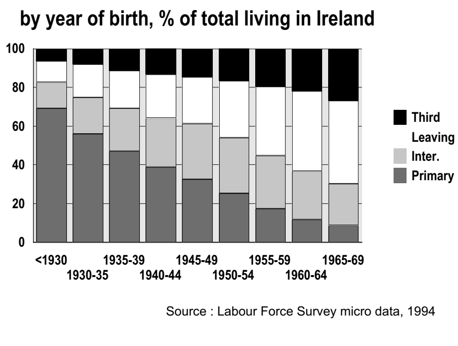
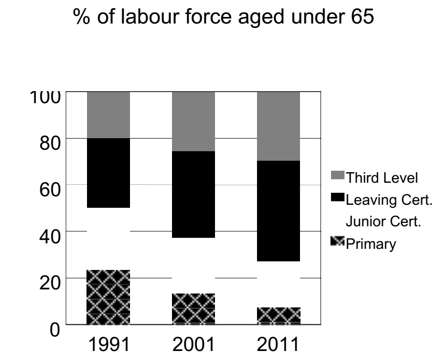
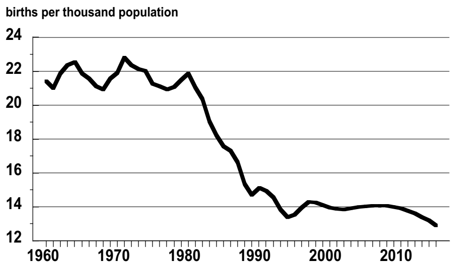


Figure 9
Educational Attainment of Labour Force



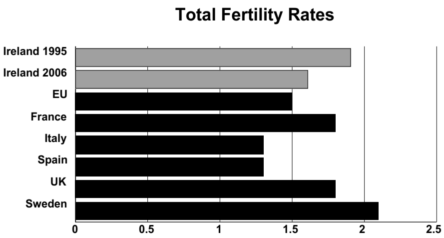
Source: Labour Force Surveys and ESRI Forecast

Figure 10
Birth Rate, 1960-2010



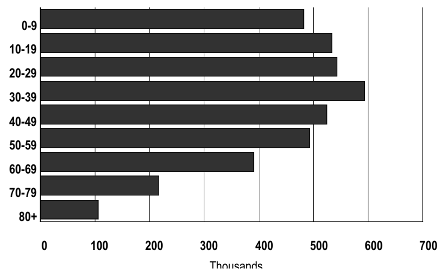
Source: Central Statistics Office, Vital Statistics

Figure 11
Completed Family Size



Source : Council of Europe « Recent Demographic Development » & ESRI Forecast

Figure 12
Projected Population Structure by age, 2011



Source : Duffy, Futz Gerald, Kearney and Shortall, 1997

Figure 13
Female Labour Force Participation

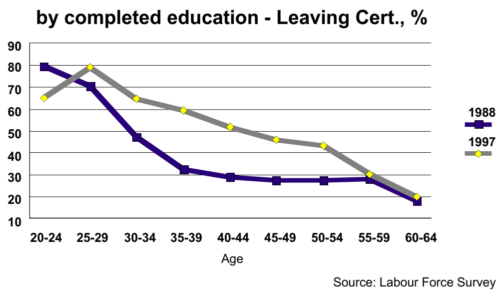


Figure 14
Economic Depedency

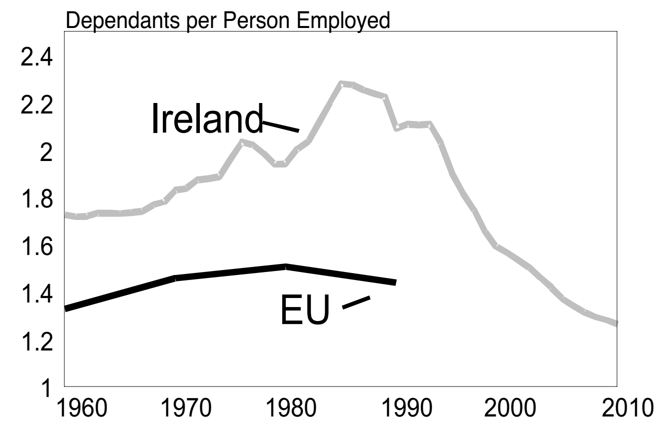


Figure 15
Measure of Budgetary Stance

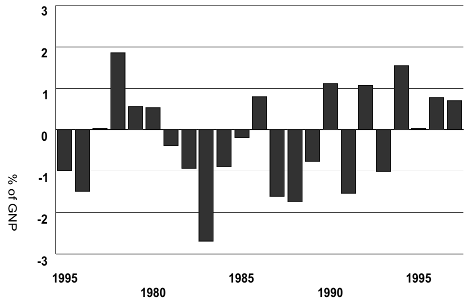


Figure 16
GNP

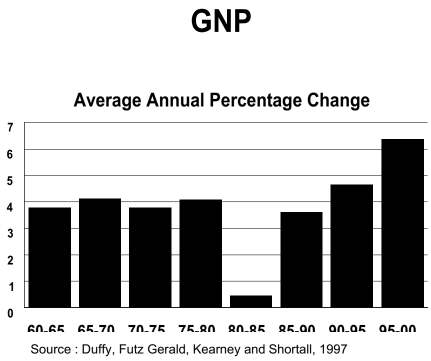
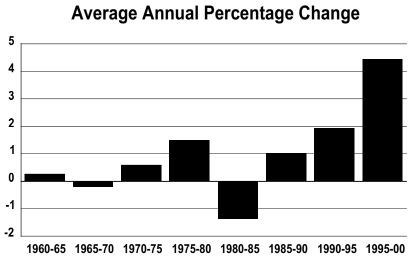


Figure 17
Total Employment



Source : Duffy, Futz Gerald, Kearney and Shortall, 1997

Figure 18
Unemployment

Source : CSO Labour Force Survey and ESRI Forecast

Figure 19
Unskilled Labour Market

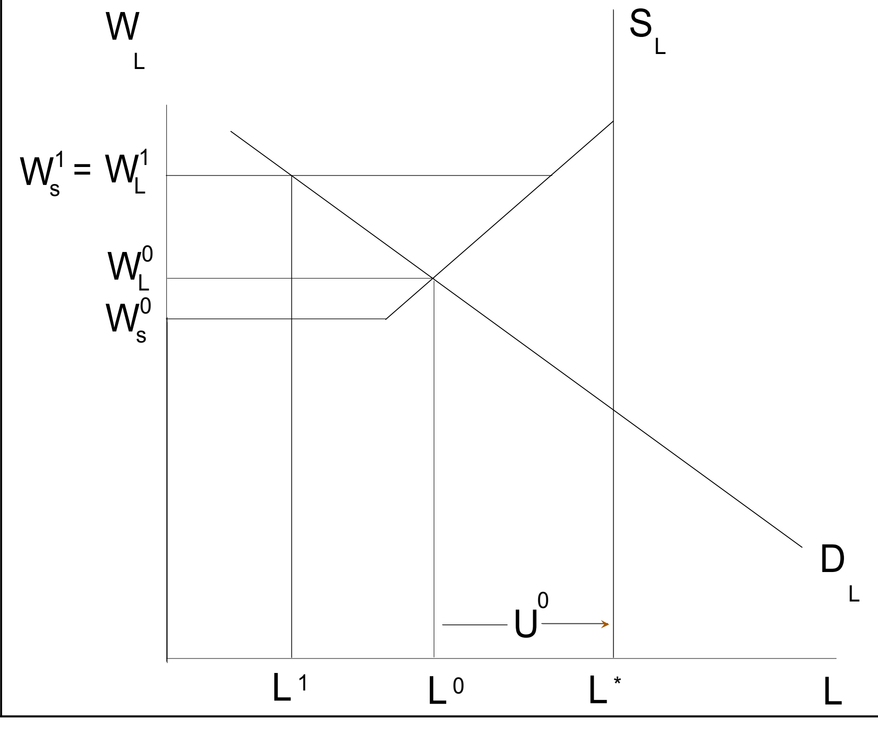
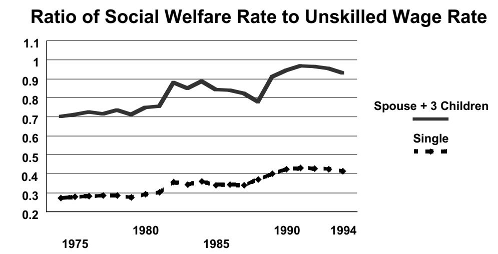
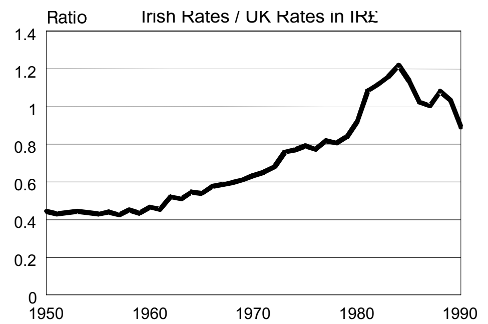


Figure 20
Replacement Rates



Source : The Economic and Social Research Institute Databank

Figure 21
Relative Labour Costs - Textiles



Source : The Economic and Social Research Institute Databank

Figure 22
Skilled Labour

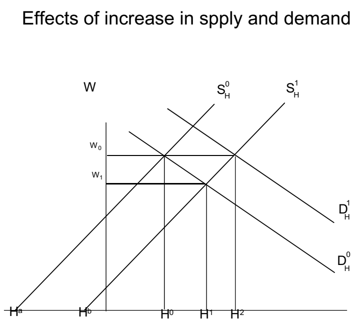


Figure 23
Unskilled Labour

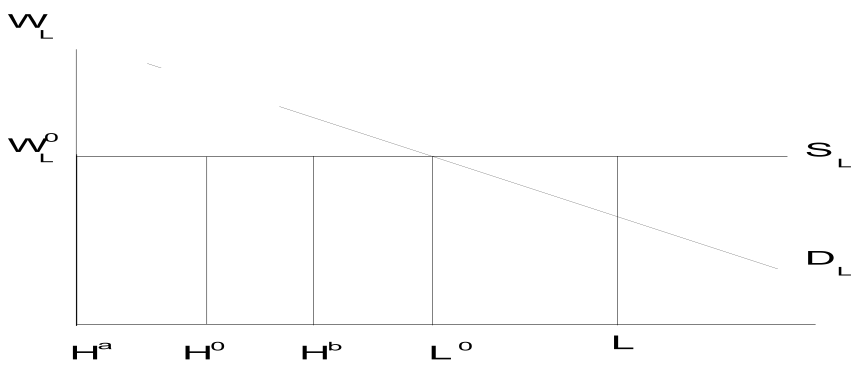
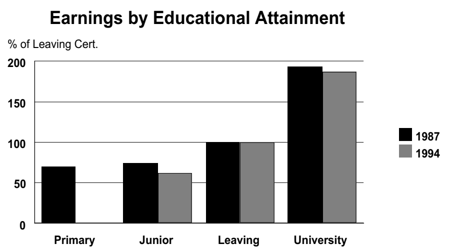
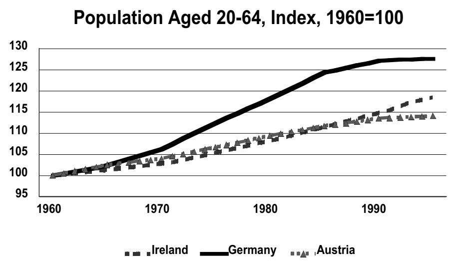


Figure 24
Returns to Education - Female



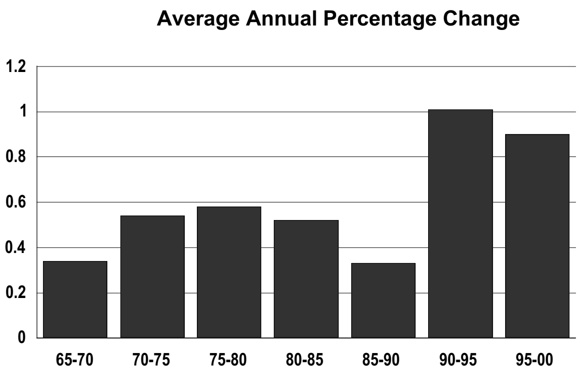
Source: OECD Education at a Glance, 1996

Figure 25
Index of Human Capital



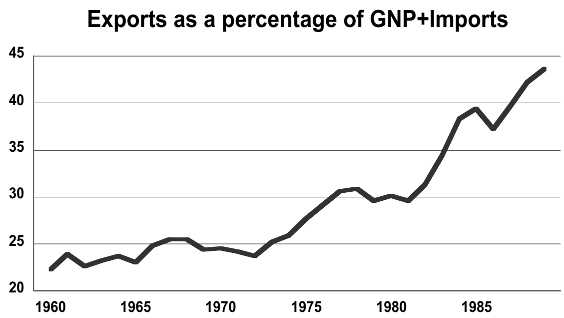
Source : Duffy, Futz Gerald, Kearney and Shortall, 1997

Figure 26
Growth in Human Capital



Source : Derived from CSO, Census of Ireland

Figure 27
Proportion of National Output Exported



Source : Duffy, Futz Gerald, Kearney and Shortall, 1997

Figure 28
Manufacturing Employment 1970-1996

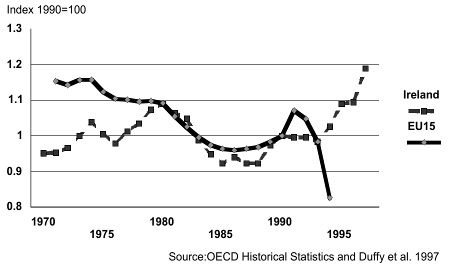


Figure 30
Ireland compared to EU

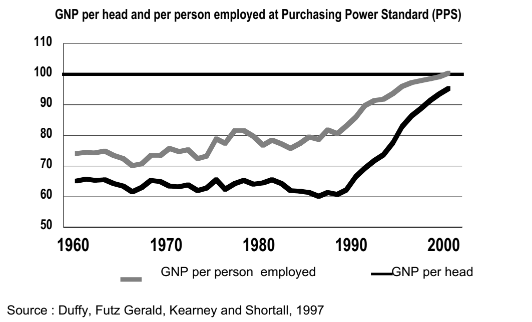


Figure 29
Relative Labour Costs