



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

# A Private Sector Perspective on the Celtic Tiger Experience<sup>1</sup>

*Pat Mc Ardle*<sup>2</sup>

CIT Working Paper 052212. Clemson University Center for International Trade  
December 22, 2005

## PART 1 – A BRIEF HISTORY<sup>3</sup>

### The early years

In the immediate aftermath of Independence in 1922, Irish economic policy focused on the agricultural sector. There was a nationalistic emphasis to the approach; it provided a clear continuity with the past; one-half of the workforce was in agriculture; and it appeared to represent the best chance for economic viability and independence. The rural values associated with agriculture were ones the State chose to emphasise, and agriculture seemed to hold the greatest promise of economic growth in this initial, free-trade approach.

The free trade emphasis lasted but a decade. In 1932, a new government was elected and, in response to the Great depression and collapsing global markets, introduced a policy of protectionism designed to nurture and sustain Ireland's fledgling industries and, as with agriculture, contribute directly to economic self-sufficiency by decreasing dependence on foreign imports, primarily from the UK.

This protectionist approach to economic development remained in place for the next four decades.

“Foreign investment was virtually excluded and high tariffs were imposed on imports to protect anyone willing to manufacture products in Ireland. The level of protection of Irish industry remained extremely high. Even as late as 1966, the average rate of effective protection of Irish manufacturing industry was almost 80 per cent, one of the highest in the western world. In addition, measures were introduced to encourage the growth of native Irish industry, as well as a more labour-intensive pattern of farming.”<sup>4</sup>

As a policy, it was spectacularly unsuccessful. By the late fifties, Ireland was a largely rural and underdeveloped nation, one of the poorest in Europe. Half a century earlier, Irish incomes were on a par with those of most of the countries of Western Europe, with the exception of the UK, which was twice as affluent. By the end of the nineteen fifties, per capita income was down to 70% of the EU average and Ireland missed out completely on the first part of Western Europe's

---

<sup>1</sup> Presentation to EURO BANK CONFERENCE “SOURCES OF GROWTH: CAN GREECE FOLLOW THE IRISH EXAMPLE?” October 2005, Athens, Greece.

<sup>2</sup> Chief Economist, Ulster Bank.

<sup>3</sup> This section draws heavily on Chapter 5 of *The Economy of Ireland*, J O'Hagan & C Newman, Ninth Edition

<sup>4</sup> Leddin & Walsh *The Macro Economy of Ireland*

economic 'golden age'. In the 1950s, half a million people emigrated; by 1961, when the population reached its nadir, more Irish-born people lived outside the country than at home.

In an influential report entitled *Economic Development*, published in 1958, the then permanent secretary of the Department of Finance, T. K. Whitaker, noted that 'the mood of despondency was palpable'. He argued, among other things, for a reorientation of government investment towards more 'productive' uses and away from a primary emphasis on 'social' investment (such as housing); this was an early recognition of the importance of the quality, as opposed to just the quantity, of investment. Perhaps most importantly, he proposed that tariffs be dismantled unless a clear infant industry case existed – an adaptation that would require a major change from a highly protected economy to one that was outward looking. He favoured incentives to stimulate private industrial investment, and warned against the dampening effects of high taxes. The Whitaker report formed the basis of the *First Programme for Economic Expansion*, published in November 1958, the first of a series of government-sponsored, economic plans that were to transform the nation's economy.

### **The transition to free trade**

Between 1960 and 1973, real output increased by a hitherto unprecedented 4.4 per cent per annum. Per capita incomes rose by three fifths, kept up with income growth elsewhere in Europe, and significantly outpaced growth in Britain or Northern Ireland. This first wave of substantial economic growth has been largely attributed to the strategy of export-led growth that the government pursued. Less publicised but important nonetheless, were a notable improvement in the terms of trade, an expansionary fiscal policy, the boom in nearby European economies and the fact that solid institutional foundations had been laid in the 1950s.

The policy of export-led growth stood on two legs – trade liberalisation, and the attraction of foreign direct investment.

Trade liberalisation began in the 1960s as Ireland unilaterally cut tariffs in 1963 and 1964, negotiated the Anglo Irish Free Trade Area Agreement in 1965 and subscribed to the General Agreement on Tariffs and Trade (GATT) in 1967.

With significant tax breaks and subsidies – notably a zero tax on export profits of manufacturing companies – Ireland successfully induced foreign companies to set up branches in Ireland, and by 1974 new industry accounted for over 60 per cent of industrial output.

The final thrust of government policy was wage restraint, viewed as necessary, especially with a fixed exchange rate<sup>5</sup>, to help keep industrial costs at a competitive level. In the 1960s, government efforts to influence the wage bargaining process amounted to little more than exhortation. In the 1970s, wage bargaining was centralised, under the National Wage Agreements.

---

<sup>5</sup> The Irish Pound was linked to Sterling on a one-for-one no margins basis from the formation of the State until March 1979 when Ireland joined the European Monetary System (EMS)

## **EU Membership**

In 1973, Ireland, along with the UK and Denmark, joined the EU, then referred to as the EEC. Membership immediately led to a further reduction in trade barriers. The EU was founded as a customs union, with low internal barriers to trade and a common set of external barriers. By joining, Ireland committed to trading freely with the other member countries, and in 1977 had removed all tariff barriers. Many of the remaining, less obvious, restraints on trade within the European Union were dismantled as part of the effort to create the Single Market. Officially these changes came into effect in 1992, although the full elimination of barriers is still ongoing.

With lower trade barriers, it was recognised that some of Ireland's industry would wither under the competition, but it was also expected that Ireland would become a platform from which companies from outside the European Community could serve the European market. These expectations were handsomely fulfilled and Irish exports rose from 34 per cent of GDP in 1963, to 94 per cent by 2002, one of the highest ratios in the world.

Membership of the EU also led to substantial net receipts under the Common Agricultural Policy (CAP), which subsidised farm prices. About two-thirds of EU transfers to Ireland are farm related, the remaining third consists mainly of transfers from the 'structural funds' including the Regional Development, Social and Cohesion funds. In principle, these funds might have added to investment and thereby boosted economic growth, but, in practice, they mainly appear to have substituted for projects that the government would otherwise have had to finance; they thus made a more important contribution to living standards than to growth. Net receipts from the EU peaked at 6.5 per cent of GDP in 1991, and stood at 1.1 per cent of GDP in 2003.

## **The dismal eighties**

Between 1979 and 1986, per capita consumption in Ireland actually fell slightly and GDP rose very slowly. What went wrong?

Membership of the EU coincided with a fourfold increase in the price of oil (from \$3 to \$12 per barrel) that resulted from the first oil shock in late 1973; a sharp worldwide recession followed.

The higher price of oil meant that spending was diverted towards imports, thereby depressing aggregate demand for Irish goods and services. The response adopted was to boost government current spending, and, as a consequence, the current budget deficit rose from 0.4 per cent of GDP in 1973 to 6.8 per cent by 1975. For a while the policy worked: despite a difficult international situation, GDP growth during the first six years of EU membership was robust.

In 1979 Ireland broke the link with sterling and joined the European Monetary System (EMS). The economic rationale was straightforward. Ireland had experienced inflation averaging 15 per cent between 1973 and 1979, necessarily the same rate as in Britain given that the two currencies were linked in a common currency area. It was believed that the key to reducing the inflation rate was to uncouple the Irish pound from (high inflation) sterling and attach it to the (low inflation) EMS, which was dominated by the deutschmark. Although over 40 per cent of exports still went to the UK in 1979, about a quarter went to the other EU countries and so a change in exchange regime was considered feasible. Political considerations and some temporary subsidies were also contributory factors to what was a landmark decision.

The early adjustment to the EMS was precarious as the course of Irish fiscal policy was not altered. The slow reduction in Irish inflation towards German levels meant that the Irish pound became overvalued, and had to be devalued within the EMS on a number of occasions. The standard explanation was that wage demands – which tended to respond to recent inflation – were slow to change, so wage increases continued to be too large to be consistent with very low inflation.

Moreover, the expansionist Keynesian fiscal response to the 1973 oil crises was doomed to fail as successive governments were unwilling to reduce the budget deficit, and continued to borrow heavily. At the same time, intermittent efforts to curtail the deficit resulted in very high marginal tax rates but the revenue response was disappointing, suggesting that revenue-maximising rates of tax had been exceeded. The ratio of government debt to GDP rose from 52 per cent in 1973 to 125 per cent by 1987, easily the highest in the European Union. By 1986, the cost of servicing this debt took up 94 per cent of all revenue from personal income tax. The situation was clearly unsustainable.

### **The roaring nineties**

In 1987, a new government, recognising that Ireland had effectively exhausted its borrowing capacity, introduced a very tight budget, cutting the current budget deficit sharply and slashing capital spending. The 1987 reform worked. Economic growth resumed; confidence (and investors) returned, and exports boomed, thanks in part to a currency devaluation in 1986 and to a surprising degree of wage restraint in the initial years of the new approach. A few short years later, Ireland could boast of low inflation, a tight budget, and a falling ratio of government debt to GDP – in fact, the ratio had already fallen below 100% by 1990.

Then, in late 1992, the EMS fell apart. High interest rates in Germany, resulting from that country's need to finance reunification, caused the deutschmark to appreciate. Sterling, which had joined the EMS at too high a rate anyway, was forced into a large devaluation. The Irish pound ultimately followed suit because 32 per cent of Irish exports still went to the UK, and in the absence of a devaluation, Irish competitiveness in the important British market would be too severely compromised.

After the collapse of the EMS, it became clear that a regime of 'fixed but flexible' exchange rates did not work. Without a viable middle way between floating exchange rates and a single currency (a long-term and long-held objective of its founding fathers and devotees), the European Union opted for the latter. The schedule was set out in the Treaty of Maastricht, signed in 1992 and ratified the following year. Ireland easily met the qualification criteria for membership, and the exchange rate was locked at  $\text{€}1 = 0.787564$  on January 1, 1999, with euro notes and coin following three years later. For Irish Monetary Policy and, in particular for the control of interest rates, this was more like a return to the past than a radical change as was the case in most other Member States. After all, an independent monetary policy was not possible when the Irish pound was linked to sterling, was severely circumscribed during the, relatively short, period of the EMS membership, and is, of course, once again not possible within EMU.

The remainder of the nineties was a period of unparalleled economic expansion, reminiscent of that which had occurred in Asia some years earlier – hence the expression “Celtic Tiger” which is frequently used to describe it. In the seven years to 2000, GNP growth rates averaged 8% per annum, inflation was low, employment outside of agriculture rose by 50%, the debt/GDP ratio fell to 38%, the second lowest in EU15 and the unemployment rate fell below 4%, i.e. full employment. There is no shortage of volunteers to take credit for the Celtic Tiger experience. They include politicians, public servants, trade unions, employers and others. Economists, for their part, are still struggling to explain the phenomenon. We will return to this in Part 3 but, first, it is necessary to dispose of some common misconceptions regarding the Irish economic boom.

## **PART 2 – THE TIGER’S STRIPES**

### **Second wealthiest in the World?**

“The 2005 Human Development Report, published by the UN Development Programme, found Irish people to be the second wealthiest in the world, with a GDP per head of \$37,738.”

Quotes of this nature are no longer uncommon but they reflect more journalistic exuberance than an objective assessment of the facts. They do, however, generate considerable interest abroad in the Celtic Tiger phenomenon. Invitations to conferences like today’s are a pleasant side-effect of this. Audiences, both domestic and foreign, frequently look for the “magic bullet” that has transformed the Irish economy. Fortunately for speakers like myself, there is no easy answer - it will already be clear from the historical overview in Part 1 that the reality is a good deal more complex.

We begin by drawing a distinction between wealth and income. GDP measures the money value of goods and services produced and marketed in an economy in a calendar year. It represents the value added, or income generated, by economic agents operating within a particular jurisdiction. Wealth, however, is a different concept which results from the accumulation of assets, usually over long periods. Wealth statistics for Ireland are not published. We know, from earlier studies, that 30 years ago land accounted for the vast bulk of the nation’s assets. Equally, there is little doubt that the situation has improved dramatically in the meantime as the industrialisation process developed and particularly in more recent times when the national income grew rapidly. A survey to-day would probably show that wealth is rapidly increasing from a very low base but that Ireland is still a long way behind the other developed countries. We should not confuse income and wealth. This paper is concerned with income only.

Ireland is not be the second wealthiest country in the world but it does have a rate of income growth which is now on a par with, or even slightly above, many of its European neighbours. In time, this should lead to an accumulation of wealth though it is likely to be a long time before absolute levels of wealth will match those in the more developed European countries given that Irish income per head in 2004 was only 3% above the EU average. In addition, many of these countries gained from global trade and foreign colonies in the past in contrast to Ireland which was, itself, a colony. Of course, Ireland has experienced another type of wealth creation, namely, asset price inflation, notably in housing, which has accompanied the Tiger experience. Again, however, the phenomenon was largely a catch-up one as house prices caught up with those abroad.

### **The usual measure of income used is flawed**

Whereas GDP measures the value of goods and services in an economy, irrespective of the ownership of the factors of production involved, Gross National Product (GNP) adds in the income earned by Irish residents on their foreign assets plus net transfers from abroad and deducts outward transfer payments, mainly the repatriation of profits earned by foreign companies operating in Ireland. GNP thus measures the value added/ income accruing to Irish residents as distinct from entities operating in Ireland. Because the operations of the foreign companies are very large, the recorded net outflow is exceptional by international standards. In most countries there is little difference between GDP and GNP but the gap in Ireland is roughly 20% - one could say that up to a fifth of the rise in GDP per capita is measurement error. The GDP figures are, therefore, a distortion of the true picture. GNP is not only lower in absolute terms, it also exhibits a lower rate of growth from year to year. Over the past 10 years, for example, the growth rate as measured by GNP was a full percentage point lower than the GDP figure. In this paper we only use GNP data for Ireland as we believe it gives a truer picture. In addition, all Irish international comparisons are based on the GNP data for Ireland which are compared with GDP elsewhere.

### **The Celtic Tiger experience was a concentrated, catch-up one**

Like its jungle counterpart, the Celtic Tiger came from nowhere, made a huge impact and disappeared quietly. Differences in currencies and in the cost of living make it difficult to compare GDP across countries. A euro in Ireland no longer buys a cup of coffee; converted into rupees and spent in India, it might buy a whole meal. The standard solution is to recompute each country's GDP using a common set of "international prices", to get a purchasing power parity (PPP)-based measure that is reasonably comparable across countries. We use the EU-15 PPP measures as calculated by DG ECFIN of the European Commission, substituting GNP for GDP in the case of Ireland. In Chart 1 the GDP based figures are also shown for comparison purposes. The large and growing gap between the two is immediately apparent. Equally striking, however, is the fact that the Celtic Tiger phenomenon was a highly concentrated one. In the early sixties, Irish income per head was around 70% of the EU-15 average. In the 60s and 70s, it oscillated between 66 and 70% of the average as the reorientation of domestic policy described earlier resulted in high rates of growth but these were barely sufficient to keep pace with the rest of Europe which was also growing strongly. The impact of the policy errors of the 80s is also obvious. Per capita income fell below 64% of the EU average in the mid-eighties and it was not until 1990 that the ratios of 30 years earlier were convincingly breached. In the decade between then and the turn of the century, income per head rose from 70% to 100% of the EU average and the catch-up was achieved (had we based our comparison on GDP instead of GNP, it would have occurred three years earlier in 1997). The GNP ratio remained around the 100 level for the next couple of years as the global depression took its toll but, more recently, has tended to increase again. This, in turn, has sparked a debate as to whether or not the Tiger has returned – but that is a story for another day!

In 2004, Irish per capita income was the ninth highest in EU-15 – ahead of Portugal, Greece, Spain, Italy and Germany but behind the rest. It is interesting that Germany, which once was around 125% of the EU average, is now slightly below it and that the UK, which started out at 117%, is still 110% despite the malaise of the Thatcher years which saw it fall as low as 92%. Greece, on the other hand, has made considerable progress with per capita income rising from

50% of the average in 1960 to a high of around 80% some 20 years later but subsequently fell back sharply and, while once again gaining ground, is now about 75% of the average.

### **Tigers are unpredictable**

No one predicted the explosive growth of the 1990s, although after the fact some commentators interpreted it as a belated and long-overdue convergence on our richer neighbours. The Economic and Social Research Institute's *Medium Term Reviews* sounded an optimistic note from 1994 onwards, drawing attention to Ireland's out-performance of the EU economy before this was widely acknowledged, but their forecasts proved conservative. In 1994 they anticipated that GNP growth would average 4.5 per cent for the rest of the decade; in 1997 they raised this to just over 5 per cent for the period 1995-2004. All of these forecasts were well below the eventual outcome. While the ESRI authors drew attention to the fact that they traditionally err on the side of pessimism, they were generally viewed as inveterate optimists by practically all other commentators. If anyone else had a set of medium-term forecasts higher than those of the ESRI, they kept it well concealed.

The impact of the Tiger was as sudden and swift as it was unanticipated. Another cat-like dimension of the experience was the extraordinary soft landing that followed it. Just as many observers are now querying the housing boom, I spent much time during the 90s fielding questions from observers who were fearful that the boom would be followed by a bust. Economic growth slowed sharply in the early part of the new century as FDI flows dried up and confidence plummeted causing Personal Consumption Spending to fall. At no stage, however, did we go under water. GNI growth slowed from 10% in 2000 to 2.7% in 2002, its low point, and has since recovered to 4%. This was a remarkable soft-landing indeed.

### **A spot in the Top Ten?**

“We will find neither national purpose nor personal satisfaction in an endless amassing of worldly goods ... the gross national product measures neither our wit nor our courage, neither our wisdom nor our learning, neither our compassion nor our devotion to country. It measures everything, in short, except that which makes life worthwhile.”

The above quote by Robert Kennedy in 1968 challenges the conventional measures of welfare that we are using. Other indicators of living standards – see Table 1 – show that Ireland still lags behind despite significant improvements. Ireland is something of a laggard as compared with the rest of Europe when it comes to measures of health, environment and assets in the form of cars and, indeed, houses. There is also a significant infrastructure deficit – a legacy of past spending curbs. The UN Human Development Index combines measures like those in Table 1 with GDP per capita into a single overall index. On this basis, Ireland ranks around 10<sup>th</sup> in the world.

Ireland is indeed rich in terms of annual income, not as wealthy as the headlines or the GDP per capita figures would have one believe, but now somewhere in the top 10, probably towards the bottom. For this, we can thank the Celtic Tiger experience.

The dramatic nature of the change can be encapsulated in a few quotations. As late as 1988, the *Economist* Magazine described Ireland as the “poorest of the rich” A year later, the well-known US economist, Rudiger Dornbusch (since deceased), referred to Ireland's failed stabilisation. As



late as 1989, a leading Irish historian, J.J.Lee, stated “It is difficult to avoid the conclusion that Irish economic performance has been the least impressive in Western Europe, perhaps in all Europe, in the twentieth century.” However, out of adversity comes hope. When the *Economist* next revisited Ireland in 1997, it hailed “Europe’s shining light”.

### **PART 3 – THE NATURE OF THE BEAST**

#### **A productivity miracle?**

Income per head can be created in two ways: i) by increasing real output per employed worker (with better technologies, better education and training, better public infrastructures, more and higher-quality machinery and equipment, better social relations, or more hours worked per employee); and ii) by putting a larger fraction of the adult population to work. The first way, increasing real output per worker, means increasing productivity. The second way, putting more people to work, means increasing the employment rate. The growth rate of real GNP per adult is simply the sum of the two.

In the case of Ireland, the decomposition of real GNP per working age adult into its productivity and employment-rate components brings out a startling fact. The growth in Irish productivity has been very rapid, not just in the past few years, but over the entire period since 1970, averaging 2.7 per cent per annum. Productivity growth rates of almost 3 per cent sustained over such an extended period have been a rare occurrence, indeed, in the postwar period.

Two implications follow from these observations. First, a fundamental characteristic of the Irish economy over the past 35 years is that it experienced very significant long-term productivity gains. Second, the Celtic Tiger boom was not at all due to an acceleration of productivity. In fact, over the period in question, Irish productivity grew somewhat more slowly (3.1% p.a.) than in the 8-year period 1984-91 (3.9% p.a.).

#### **Employment was the key**

If the Irish boom of 1994-2000 was not due to an acceleration of productivity (more output per worker), it must logically be attributed to the other source of growth in GNP per adult, namely an exceptionally strong increase in the employment rate (a larger fraction of adults at work). The extraordinary income growth performance was due to a dramatic short-term employment turnaround that has finally combined with the country’s continuing long-term high productivity rate.

This employment boom has no parallel elsewhere in postwar Europe. The Irish experience was exceptional in at least four respects. First, the unemployment rate fell from a much higher initial level (from 16 percent in 1993 to around 4 percent today). Second, employers were able to draw on a very large pool of women who had never been in the labour force before. The number of Irish women in the labour force has increased by 65 percent since 1993. Third, the pool of labour was added to by an unusually large natural increase in the labour force. Fourth, the rate of job creation has absorbed a very large flow of immigrants who were attracted (or attracted back) to Ireland by the boom.

#### **Employment growth was widespread**

Strong employment growth in export-driven manufacturing was a particular feature of the boom. This went against the trend of the OECD countries generally, where industrial employment declined. Most of the Irish expansion occurred in newer sectors such as electronics,

pharmaceuticals, and medical instrumentation where foreign-owned firms account for over 90 per cent of output. Employment in the traditional industrial sectors – clothing, textiles, furniture, utilities and so on – where established Irish firms predominate, was more or less static over the period. But by 2000 manufacturing as a whole accounted for only 18 per cent of total employment, of which foreign-owned firms contributed half. Even if a generous allowance is made for the employment indirectly generated by these firms their contribution to total employment remains small, whatever their wider contribution to the economy might have been.

Employment in construction more than doubled since the early 1990s, increasing at the fastest rate of any sector. It now accounts for 12 per cent of all employment, compared with only 7 per cent in the mid-1980s. The expansion reflects a catching-up phase in residential and office accommodation and must be expected to go into reverse over the medium term.

The predominance of “market services” as a provider of new jobs is striking. This heterogeneous category ranges from financial services (banks, insurance companies, etc), legal services, accountancy firms, to hotels, catering, restaurants, pubs, and so on. It includes employment in what might be regarded as ‘economic base’ activities (such as tourism and internationally traded financial services) as well as ‘induced’ activities (such as local commercial services). Employment in the publicly financed health and educational services has also increased quite rapidly, especially in recent years, but the numbers in core public administration were better contained.

Viewed in the context of the longer-run performance of the Irish economy, given the growth rate of GNP in the 1990s, the increase in employment was not exceptional. According to this view, the dramatic fall in the Irish unemployment rate in the 1990s was “simply” a reflection of the economy’s exceptional growth rate. In addition, it can be argued that it simply represented a catch-up that made up for the losses associated with the policy mistakes of the seventies and eighties. Irish politicians rightly claim much credit for the policies that fostered the boom. One hears less about the earlier experience which resulted in massive emigration. Taking a broad view, the economy and the associated level of employment is now back where it might have been had a consistent set of policies been pursued.

The convergence on the leaders that occurred in Irish output per person in the last quarter of the century was thus essentially the result of employing a new generation – one with higher educational qualifications and, in the case of women, a higher propensity to labour force participation – in the modern sector and notably outside of traditional agriculture.

At one level, therefore, Ireland’s achievement does not seem all that special. The challenge is to explain the timing and speed of the catch-up.

At the height of the economic crisis of the 1980s it was not uncommon to blame the inexorable rise in Irish unemployment partly on “our young and rapidly growing labour force”. It was claimed that the unemployment rate would have been much lower had the rate of natural increase of the labour force been zero rather than about two percent a year. Later, some commentators attributed the boom to the ready availability of well-educated and skilled labour force. The two positions are not easily reconciled. In essence, the latter view seems to be a modern variant of Say’s Law that supply – in this case of labour – creates its own demand. There are obvious limits to how far this can be pushed. At one extreme, it might imply that growth in Ireland, or anywhere else for that matter, can expand indefinitely as long as the labour force is replenished

by immigration. It is also difficult to convincingly explain why the young, well-educated generation of the seventies was forced to emigrate – almost a quarter of a million departed - if their mere availability should have been sufficient to generate a boom.

We have to look elsewhere for a more satisfactory explanation.

## **PART 4 – EVERYTHING THAT COULD GO RIGHT DID**

### **A unique combination of circumstances**

Catching-up, and doing so rapidly, requires a favourable institutional, policy and external environment. There are several individual institutions and policy entities in Ireland each of which would claim to be the source of the turnaround. My view is that the credit must be widely shared, and a much-improved external environment also played its part. As we will see, the rectification of previous policy errors was a critical factor. There is also a touch of the “luck of the Irish” in the story.

Amongst the factors that have been identified as contributing to the boom were:

- Social partnership
- The single market
- Educational reform
- FDI inflows/the IFSC
- The US boom of the 1990s
- Lower income and capital taxes
- Very low rates of corporation tax
- Entry into EMU and the lower interest rates that followed
- EU subsidies
- Falling trade union membership
- The unique system of collective wage bargaining
- Active labour market policies
- A growing labour force

While all of these played a part, the central thesis of my presentation is that the Irish economy experienced a series of favourable demand-side shocks, emanating from exchange rate and interest rate developments, the global economic boom, and increased mobility of FDI and its increased sensitivity to tax differentials. The dramatic response to these developments was facilitated by a set of favourable supply side developments – an elastic labour supply underpinned by a strong demographic situation, a growing stock of human capital due to rising levels of educational attainment in the inflow to the labour force, wage moderation induced by centralised wage bargaining and declining union power, a reduction in the tax wedge on earnings, and a stricter approach to unemployment benefit claimants<sup>6</sup>.

### **Fiscal correction was a necessary precondition**

The rapid turnaround in the fiscal accounts took everybody by surprise. Not only was the marked tightening of policy by the incoming government unexpected but the speed with which borrowing and the debt ratio responded was also unforeseen. The specific fiscal steps taken in 1987 were quite orthodox: a temporary freeze on all public sector recruitment – implying a sharp

---

<sup>6</sup> This analysis follows that in the seminal paper by Honohan & Walsh “ Catching up with the Leaders: The Irish Hare”, 2002

fall in numbers employed combined with (further) cutbacks in public capital spending. Better external conditions helped turn the automatic stabilizers around, as first emigration and then a pick-up in labour demand at home lowered unemployment. Falling interest rates also helped and when the debt ratio started to fall in 1987 the positive feedback became cumulative

Once economic activity started to pick-up, tax receipts began to flood in (not least corporation tax with the surging manufacturing profits taxed at 10%), allowing the government to lower tax rates quite sharply without any significant decline (after 1990) in the share of GNP taken in taxation or any increase in the deficit. The ability to lower tax rates gave government an important bargaining chip in the centralised pay negotiations; potentially generating another virtuous circle, as credible multi-year wage agreements halted the deteriorating wage competitiveness that had been a feature of the previous 10 years.

The budget also benefited from the receipt of substantially expanded structural grants from the European Union budget after 1988. This came at a crucial moment inasmuch as, using these funds, the government could begin to tackle the backlog of deferred infrastructure projects without threatening the initially fragile recovery in the public finances. Annual receipts from this source peaked at over 3 percent of GNP in 1993, a very substantial sum, though only a fraction of the fiscal turnaround. They are estimated to have boosted the level of GNP by 4% on a sustained basis. While by no means trivial, this impact is dwarfed by the exceptional growth rates that were recorded.

Fiscal correction was a necessary precondition for subsequent performance. Comparing 2001 with 1985, the top rate of Income Tax fell from 65% to 42%; the standard Corporation Tax rate from 50 to 16% (effectively, this applied to domestic service sector institutions only); Capital Gains Tax from 60 to 20% and Capital Acquisitions Tax from 55 to 20%. Direct taxes were reformed but taxes on spending remained at the top end of the EU league.

### **Exchange rate policy was also important**

The devaluation of 1986, initiated as a defensive measure in light of the loss of competitiveness associated with a rapid depreciation of sterling, was especially timely in that sterling suddenly recovered, leaving Ireland well-placed in terms of wage competitiveness to benefit from the accelerating economic boom in the UK and other trading partner countries after 1987. As it happened, this was the first step in a sustained improvement in wage competitiveness.

The Irish boom really got under way shortly after the 10 per cent devaluation of the Irish pound in the European Monetary System in January 1993, and we converted to the euro in 1999 at what was arguably a very competitive rate. The weak euro, post 1999, further boosted competitiveness. EMS membership helped copper-fasten the credibility of policy as there was a strong national consensus that Ireland should meet the qualifying criteria. We were keen to show that we were 'whiter than white' given early prognostications by senior German officials that membership would be restricted to a club of six that excluded Ireland. This banished any thoughts of policy laxity. Interest rates fell in anticipation of membership, providing a major boost to the housing market, which added to the boom. Exchange rate policy was important particularly in the context of the 1988 and 2003 devaluations, the favourable entry rate, the policy stiffening effect and the significantly lower interest rates it gave rise to, albeit that the latter came towards the end of the boom period.

### **Centralised wage bargaining was key at the beginning**

While demand management failures and the consequences of the struggle to restore order to the public finances explain the sluggish employment performance during most of the 1980s, and their correction could be expected to result in some recovery, the rapid and sustained growth in employment especially after 1989 still needs explanation. The new jobs were sufficiently numerous not only to wipe out most of the unemployment, but also to absorb an unusually high natural rate of labour force growth, a sharp increase in labour force participation by women *and* considerable net immigration, reversing the traditional outflow.

Much of the credit for maintaining the cost of labour at a competitive level is conventionally given to Ireland's system of wage determination. There was a return to centralised wage bargaining in the late 1980s. In the 1990s, a series of national wage agreements was negotiated between the "social partners" – employers, unions, and the government. The promise of a steady reduction in income tax rates helped gain acceptance for moderate rates of pre-tax pay increases over three-year intervals. There was a marked drop in the incidence of industrial disputes. The disastrous labour market trends of the 1980s had hit the Irish trade union movement hard. Union membership, which had been growing rapidly from the 1960s, peaked in 1980 and then declined steadily. Union density declined even more rapidly and did not recover, as most of the new jobs created in the booming economy were in union-free workplaces. From a peak of over 60 per cent in the early 1980s, union membership as a percentage of the employed labour force fell to 44 per cent at the end of 1990s. Wage restraint was a key factor and a hallmark of the recovery.

### **Favourable climate for Foreign Direct Investment**

The climate for overseas investment in Ireland has been consistently favourable since the 1960s. Among the factors that have encouraged firms to choose Ireland as their European location, the low rate of tax is paramount. In addition, a ready supply of well-educated labour, reasonably easy access to the east coast of the United States, and close cultural ties with America are further reasons for the preference shown by many leading US companies for Ireland.

The Irish boom coincided with a marked increase in the inflow of FDI, especially from the United States. Ireland's share of the flow of FDI from the United States to the EU rose from 2 per cent in 1987 to over 7 per cent in 1993. No changes in the corporation tax regime occurred at that time – rather the trend has been upwards, initially from zero to 10% and, more recently, from 10 to 12.5% - but several other factors played a role – these are developed in the accompanying paper by Dan Flinter.

The importance of FDI in expanding the base of the Irish economy is illustrated by the fact that foreign-owned firms now account for about 47 per cent of Ireland's industrial employment, 77 per cent of net industrial output, and 83 per cent of merchandise exports. Foreign firms are also very much in evidence in the International Finance Services Centre (IFSC), where the level of employment has reached 11,000 in a mixture of back-office and higher-valued added activities in a designated area of Dublin. While output and employment in indigenous industrial and banking firms have grown in recent years, their relative importance in the total economy has declined.

A very high proportion of Irish trade (over 90 per cent of manufacturing exports) reflects the output of foreign-owned manufacturing enterprises. And the level and growth rate of productivity has been much higher in sectors dominated by these firms. But, although productivity has been high and the role of foreign firms important, a simplistic reading of the numbers can greatly overstate their contribution to the Irish boom

To take an extreme example, just two dozen enterprises manufacturing pharmaceutical-related chemicals and employing 4,800 workers, 0.3% of total employment in 1999, produced over 18% of the economy's total exports, a sum equivalent to 14% of GDP. The general belief is that these figures and the associated productivity and output contributions are distorted by transfer pricing. We correct for this by using GNP instead of GDP as the former is net of multinational profits. Also, we saw earlier that employment generated by manufacturing, while surprisingly strong, was small relative to overall employment gains. However, there were other knock-on benefits. It is generally reckoned that each FDI-created job is matched by another elsewhere in the economy. In addition, these companies pay huge amounts of Corporation Tax, even if the rate is low.

### **Tax policy**

While the low rate of Corporation Profits Tax (CPT) and the reductions in personal income tax were clearly very important, it would be wrong to conclude that changes in the tax system triggered the boom. Indeed, the effective CPT rate actually increased in the 1980s and thus cannot be invoked as an explanation for the timing of Ireland's economic boom, even though its importance in the economy's longer-term success is not disputed.

It is striking that the burden of taxation in Ireland fell sharply after the watershed year of 1989, while it continued to grow elsewhere in the EU. As a consequence, the gap between Ireland and the EU widened markedly during the 1990s. Ireland now has one of the lowest tax burdens, measured relative to GDP, in the OECD. Did the accelerated growth rate lead to a fall in the tax burden, or was the faster growth due to lower tax rates? We favour the latter explanation. The rapid decline in the tax/GDP ratio during the 1990s was primarily a reflection of exceptional growth rather than vice versa.

The tax wedge on labour, that is, the difference between an employers' cost of employing workers and employees' take home pay after income tax, social welfare deductions and consumption taxes, peaked in Ireland in the late 1980s and fell back during the 1990s. It is now among the lowest in the OECD countries. Higher taxes lower employment by reducing demand for labour by employers and lessening individual incentives to work. The marked fall in these wedges during the 1990s would therefore be expected to have contributed to Ireland's exceptional rate of employment creation.

### **Improvements in education**

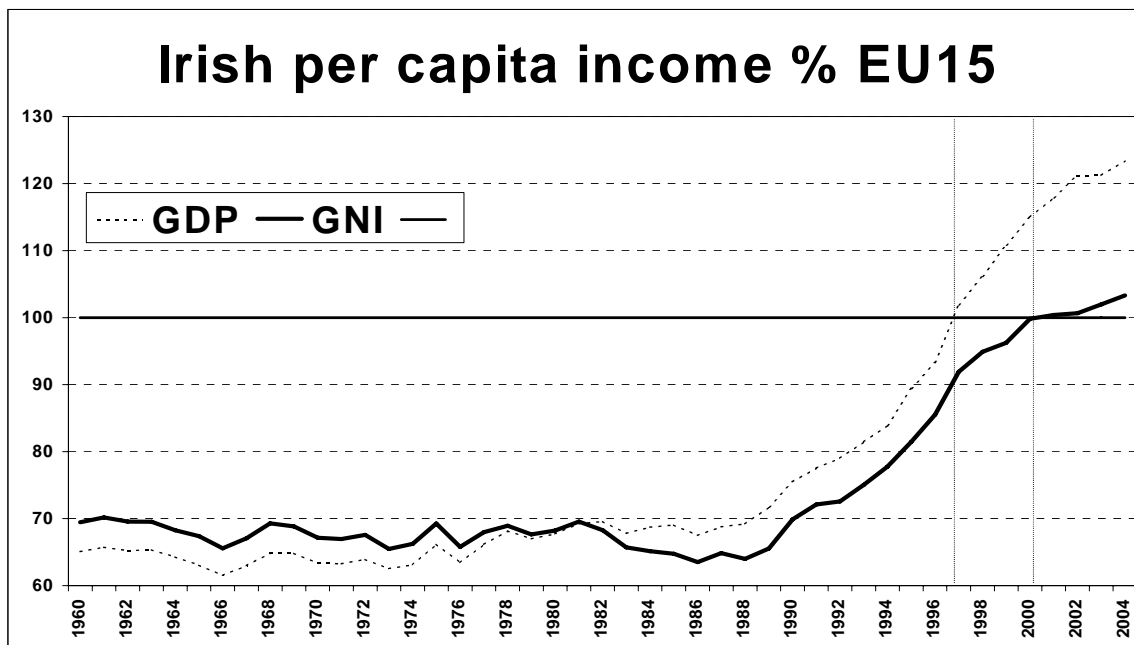
The much-vaunted quality of Irish education, contributing to the employability of the young workforce was very important. An acceleration in the growth of the average educational attainment of the workforce dates from the introduction in 1967 of universal access to secondary education free of fees. Subsequently, there was a focus on technical education and, more generally, on matching the skills to the requirements of the incoming multinationals. This seems to have been quite successful and it is generally accepted that educational attainment contributed almost one percentage point to GNP growth in both the eighties and nineties.

## **PART 5 – CONCLUSIONS**

The Irish success has been due to a variety of factors and we cannot establish the relative importance of each. A favourable climate for FDI was crucial but other factors were just as important. Successful fiscal adjustment, the reversal of the upward trend in the tax burden, falling interest rates, the competitive level of the exchange rate, and, above all, wage moderation achieved through social partnership were all present. Ireland's commitment to the EU, the ratification of the Single European Act and the enthusiastic adoption of the euro should be remembered. In addition, our location, use of the English language, familiar business culture and general openness to US influences were, no doubt, important in winning FDI. The fact that many American businessmen are of Irish descent may also have helped as did a very proactive attitude by the Irish authorities.

The exceptional performance of the Irish labour market during the 1990s was not triggered by radical structural reforms, but rather by a series of individually relatively small changes in the right direction. Disincentives to accepting offers of paid employment at prevailing wages were reduced, the administration of the social welfare system made more rigorous, and a plethora of active labour market measures was launched. While these were not sufficiently far-reaching or effective in themselves to account for much of the drop in the unemployment rate and even less of the spectacular rise in employment, they undoubtedly helped maintain the momentum towards lower unemployment created by favourable macroeconomic developments

The Irish example is important because it shows how an output boom, supported by sensible changes in labour market structures and policies, turned one of Europe's worst performing labour markets into one of the best in less than a decade. Some of the forces behind the Irish success story could not be implemented by all countries simultaneously due to their "beggar-my-neighbour" component. For example, it is not possible for all countries to improve their competitiveness by simultaneous devaluations. But a favourable environment for investment, a low tax burden, moderate growth in wage costs, a co-operative approach to industrial relations, a realistic approach to income maintenance for the unemployed, and incentives to help labour markets adjust, are policies that played their role in reducing unemployment in Ireland. They could be emulated elsewhere.



**Table 1**

**Measures of Recent Performance**

	1960-73	1973-79	1979-86	1986-94	1994-02
	(annual growth rates, %)				
Real GDP	4.4	4.2	1.8	4.7	9.0
Real GDP per capita	3.7	3.3	1.5	4.6	7.7
Real GNI per capita	3.5	2.6	0.4	4.5	6.1
Real GDP per worker	4.3	3.5	2.9	3.5	5.0
Real GNI per worker	4.2	2.8	1.8	3.4	3.4
Real consumption/capita	3.2	2.7	-0.1	3.5	5.3
	(levels at end of period)				
Employment (million)	1.06	1.15	1.09	1.20	1.61
Population (million)	3.07	3.37	3.54	3.57	3.92
Unemployment rate	5.9	7.1	17.4	15.6	4.2

*Source: Economy of Ireland, Ed O'Hagan & Newman, 9<sup>th</sup> Edition*



**Table 2****Quality of Life Indicators**

	<b>Ireland</b>	<b>EU-15</b>	<b>US</b>
<b>Health</b>			
Infant mortality	5.8	4.8	6.9
Life expectancy – F	79.8	81.6	79.5
Life expectancy – M	74.1	75.5	74.1
<b>Crime</b>			
Crimes per 1,000	21	65	41
Prisoners per 100,000	72	87	682
Homicides per million	15	17	56
<b>Environment</b>			
CO <sup>2</sup> per capita, t	11.2	9.5	19.8
<b>Connectivity</b>			
Internet connections % HH,	36	39	60
Landlines per 1,000	502	565	886
Mobile phones per 1,000	763	832	488
<b>Assets</b>			
Cars per 1,000	370	495	482

*Source: Economy of Ireland, Ed O'Hagan & Newman, 9<sup>th</sup> Edition*