Taxation and foreign direct investment in Ireland

Brendan Walsh

During the 1990s, the Irish economy boomed. Rapid output and employment growth resulted in a sharp rise in the ratio of employment to population, which played a major role in closing the gap in living standards between Ireland and the rest of the European Union (EU). Substantial inflow of foreign direct investment (FDI)—mainly from the United States—reduced the economy's dependence on agriculture and low-productivity industries. The Irish economic success story has attracted considerable international interest. Even though the economy slowed dramatically in 2001, the transformation of the 1990s is still worthy of scrutiny to see what lessons can be learned. The focus of this paper is on the contributions of tax policies to the Irish economic renaissance.¹

The record

Figure 1 shows the growth rates of GDP in Ireland and the EU since 1979. Since 1989, Ireland has consistently out-performed Europe. While Gross Domestic Product may overstate the economy's performance (see below), the growth rate has been unambiguously spectacular since 1994. This exceptional growth moved the coun-

Ireland European Union 11 9 Percent 7 5 3 1 -1 1987 1989 1991 1993 1995 1997 1999 2001

Figure 1: Growth in Ireland and the EU since 1986

try quickly up in the EU living-standards league. Whereas in the mid-1980s Ireland was in much the same relative position as when the country joined the European Economic Community in 1973, by 1999 it was above the European average (figure 2). On a global basis, Ireland moved from about twenty-fourth among the major nations to ninth in 1999.

In view of Ireland's traditional concern with emigration and unemployment, the performance of the labour market deserves special attention. In fact, it is here that developments have been most dramatic. Figure 3 shows how the decline in employment in the early 1980s gave way to an extraordinary employment boom in the 1990s, when unparalleled rates of job creation were recorded. The number at work has risen by more than 40% since the mid-1980s, while there has been little net employment growth in the EU as a whole. Figure 4 shows how sharply the unemployment rate declined during the second half of the 1990s. The unemployment rate fell below 4% in 2001, leading to concerns that labour shortages would lead to a wage explosion. The reduction in the last half of 2001 in the growth rate eased these strains.

Figure 2: Real convergence

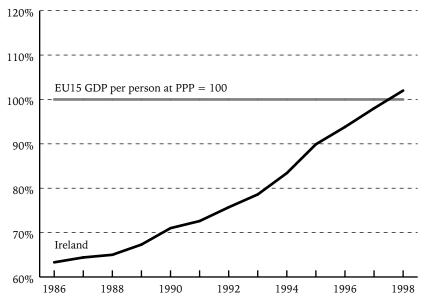
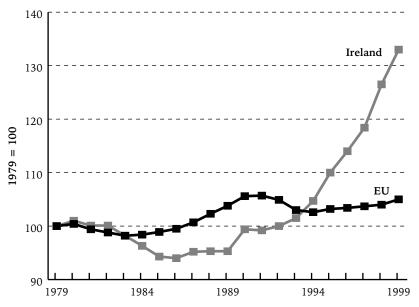


Figure 3: Employment growth



Source: Eurostat; Irish Central Statistics Office.

20%

15%

Ireland

5%

EU

0%

1961 1966 1971 1976 1981 1986 1991 1996 2001

Figure 4: Unemployment rates in Ireland and the EU

The most dramatic symbol of the change in the Irish labour market is replacement of the traditional stream of emigration by the highest net immigration rate in the EU (figure 5). Worries about emigration have been replaced by controversies over policies towards immigrants and asylum seekers from non-EU countries. Finally, the belated convergence of Ireland's birth rate to the European norm reduce the proportion of the population aged under 15 years from 33% in 1970 to 21% in 2001, while the share of the elderly in the population remained unchanged. The outcome of these developments was that the proportion of the total population in non-agricultural employment rose from 26% in 1971 to 42% in 2002.

To complete this glowing picture, the rapid growth has not been by achieved through fiscal irresponsibility or at the cost of high inflation. As the Irish growth rate rose above that of the rest of Europe, the inflation rate fell and the public finances improved steadily. The country easily met the criteria laid down in the Maastricht Treaty to adopt the new single currency—the euro—in Janu-

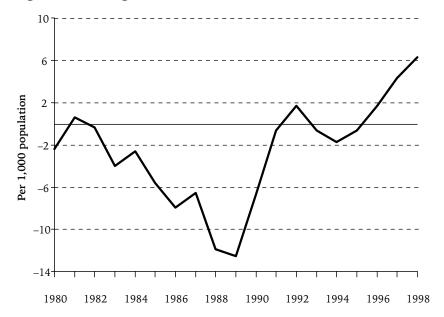


Figure 5: Net migration rate

ary 1999. In fact, there was a greater need to fudge the criteria to allow countries such as Belgium, France, and Italy to join than there was for Ireland to be admitted. The speed with which the ratio of national debt to GDP fell during the 1990s confounded those who were so understandably depressed by its rapid rise in the first half of the 1980s (figure 6). True, Ireland has recorded relatively high inflation since 2000 due to the effects of a lower real interest rate and the weak euro as well as the rise in wages in the service sectors of the economy. A relatively relaxed view has been taken of the surprisingly high inflation rate in the belief that it is part of the country's adjustment to its new-found prosperity.

Macroeconomic preconditions

Irish commentators are agreed that the following broad developments should be included in the list of those that contributed to the recent success of the economy (Walsh 2000).

110 Percent of GDP 90 70 50 30 1983 1985 1987 1989 1991 1993 1995 1997 1999

Figure 6: Ratio of debt to GDP

Fiscal stabilization

In the course of the 1980s, the country struggled to correct the major imbalances in the public finances inherited from the recklessness of the late 1970s, which required a major shift in resources from domestic absorption to net exports (see Walsh 1996). This painful adjustment process was largely completed by the late 1980s. (For a review of these developments, see Honohan 1999.)

During the first half of the 1980s, attempts to stabilize the public finances relied heavily on higher taxation. These met with only limited success as the tax based shrank due to soaring unemployment, higher emigration, increased cross-border shopping, and flight of capital. The economy seemed to be sinking under the stabilization effort. After 1987, the emphasis shifted. Public expenditure was pruned. Both current and capital spending by the government fell in nominal terms. The economy responded positively, entering a virtuous cycle as faster growth facilitated reductions in the burden of taxation. Some commentators have taken this as an illustration of economic expansion during fiscal austerity by government, with the positive effects of increased confidence on private spending more

than offsetting any negative effects of the reduction in pubic spending. Although confidence did return as it became clear that the public finances were coming under control, favourable external developments and a competitive exchange rate were probably more important. At the end of the 1980s, the "Lawson boom" in the United Kingdom provided a stimulus to Irish exports. The employment boom it generated attracted large numbers of Irish emigrants to Britain, relieving pressure on the labour market. During the 1990s, as the American boom gathered pace, Ireland benefited from increased inflows of investment by sophisticated industrial and financial firms.

Aid from the European Union

Funds from the European Union (EU) have been proportionately more important in Ireland than in any other member state. One reason for this is that Ireland has benefited disproportionately from the Common Agricultural Policy since joining the EU in the 1970s. In addition, the country received special aid on joining the European Monetary System in 1979 and more money flowed in from the Cohesion, Regional, and Social Funds in the early 1990s. This last infusion helped to insulate Ireland from the global recession of the early 1990s.

It is generally believed that Ireland used aid from the EU effectively. Indeed, the process of applying for funding led to a marked improvement in the overall planning of Irish public spending. Net inflows from the EU peaked at about 5% of GDP in the early 1990s and are now declining steadily. After the next reapportionment of the EU aid budget, Ireland is likely to become a net contributor rather than one of the largest net recipients on a per-capita basis.

Exchange rate policy

In 1979, Ireland indicated its desire to join the new exchange rate arrangements in Europe even if this entailed breaking the link with sterling, as quickly proved necessary. In 1999, the new single European currency was adopted, thereby ending the life of the independent Irish pound introduced in 1927. It may be no coincidence that the boom really got underway shortly after the 10% devaluation of the Irish pound in the exchange rate mechanism of the European Monetary System in January 1993. The currency had fallen to a very a competitive level, especially relative to sterling, before it was finally converted to the euro in 1999.

The inflow of foreign direct investment

Although reliable data on flows and stocks of foreign direct investment (FDI) are not readily available, it seems that Ireland's share of the flow of FDI from the United States to the EU rose from 2% in 1987 to over 7% in 1993 (Barry 1999: figure 3.10). Several factors contributed to the increased inflow of FDI but from the perspective of the present publication it is important to note that no significant changes in the corporation tax (CT) regime occurred over this period.

The role of FDI in the growth of the Irish economy is illustrated by the fact that foreign-owned firms now account for about 47% of Ireland's industrial employment, 77% of net industrial output, and 83% of merchandise exports (figures 7 and 8). Foreign firms predominate in the International Financial Services Centre (IFSC), where over 7,000 people are now employed in back-office activities like routine data entry and processing and record keeping, and in higher value-added activities like treasury management, fund mamagement, and risk analysis 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. Several of the larger overseas companies employed over 3,000 people in Ireland. Virtually every major microelectronics and pharmaceutical firm in the world now has an Irish affiliate. Employment in these firms held up well during the American recession of 2001/2002. The resilience of the new industrial sectors is evidence of the profitability of Ireland as a location.

Explaining the success in attracting FDI

In view of the contribution made by foreign firms to the Irish boom, it is important to try to account for the country's attractiveness to FDI.

A European export platform

Since the completion of the EU's single market in the early 1990s, Ireland offered US firms a convenient platform from which to supply their European customers. While its peripheral island location added to transport costs, this disadvantage was not important for

Foreign-owned companies Irish-owned companies **%** 150

Figure 7: Emploment in manufacturing

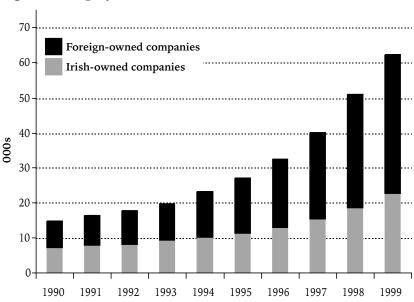


Figure 8: Employment in international services

Source: Eurostat; Irish Central Statistics Office.

the very high value-added products in the electronics, pharmaceutical and financial services sectors where inward investment has been concentrated.

Favourable climate for FDI

Ireland has shown a consistently favourable attitude towards overseas investment since the 1960s. Among the inducements to firms to choose Ireland as their European location, the low rate of CT and liberal grants for fixed assets and training have been paramount. Ireland has the lowest rates of CT in the EU. This is true whether the comparison is based on the statutory rates or the effective rates (Nicodème 2001)—see figures 9 and 10. But, there were no changes in the tax system in the late 1980s that could be given credit for triggering the boom. Indeed, the effective CT rate actually increased in the 1980s (see below) so is not possible to invoke it as

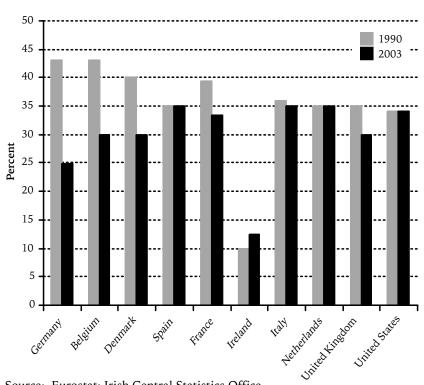


Figure 9: Statuory corporation tax rates, 1990 and 2003

Source: Eurostat; Irish Central Statistics Office.

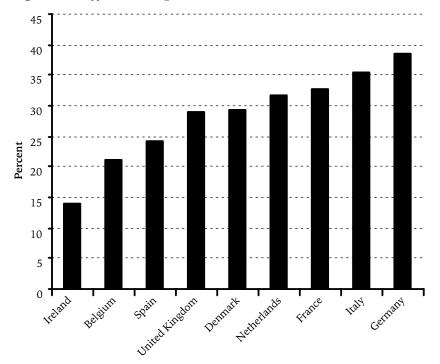


Figure 10: Effective corporation tax rates, 1995

an explanation for the timing of the boom, even though its importance in the economy's longer-term success is not disputed. In fact, it is noticeable that previous studies do not explicitly mention the CT regime as an explanation for the increase in Ireland's share of American investment in the EU in the late 1980s (Barry, Bradley, and O'Malley 1999).

Industrial promotion

The main Irish industrial promotion agency—the Industrial Development Authority—has a long history of active encouragement of inward FDI. A gradual refinement of these policies led to more sophisticated targeting of overseas investment in the 1980s and 1990s. By trial and error, those industries were identified that were most likely to be attracted by the advantages that Ireland has to offer. Over time, the emphasis switched to subsidiaries of "high tech" industries with a focus on electronic engineering, pharmaceuticals, medical instru-

mentation, computer software, and some food processing sectors. The industries that came to Ireland appear to share a need for a ready supply of well-educated, flexible workers, and are structured so that they can reap maximum benefit from the low CT rate applied to manufacturing industry. As the former insistence on regional decentralisation was tacitly relaxed, cities like Dublin, Cork and Galway attracted significant clusters of firms in these industries.

Supply of low-cost labour

When asked about the key attraction of locating in Ireland, the "correct" answer for an industrialist to give should stress the importance of Ireland's plentiful supply of English-speaking, skilled labour. It is true that by the 1980s the majority of those leaving the educational system were well-qualified young people with secondand third-level qualifications. They were eager to work in Ireland at wage rates that were relatively low by comparison with those prevailing on the European mainland. Subsidiaries of multinationals employing these young people in Ireland were able to achieve high productivity levels here.

Corporatism

Much of the credit for maintaining the supply price of labour at a competitive level during the 1990s has been given to the return to centralized 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 steady reductions in income tax rates helped gain acceptance for moderate rates of pre-tax pay increases over three-year intervals and there was a marked drop in the incidence of industrial disputes. This arrangement has proved difficult to maintain in recent years, as the labour market grew tighter. None the less, early in 2000 another three-year wage agreement was negotiated, labelled the Partnership for Prosperity and Fairness. It is interesting to note that American firms thrived in a setting of centralized pay bargaining that is completely alien to their domestic industrial relations environment. Many also combined this corporatist approach with a union-free work place.

One of the consequences of the policy of buying pay moderation through reductions in income taxes and other taxes has been that Ireland went from being a country with relatively high taxes in the mid-1980s to one of the least heavily taxed countries in the EU by the end of the 1990s (figure 11). In addition to their contribution to moderating pay demands, income tax reductions were justified on supply-side arguments and concentrated on situations where excessively high marginal tax rates prevailed in the past. In particular, the tax code has been restructured to increase the rewards to two-earner households and there has been a marked increase in the labour-force participation rate among married women. The falling tax burden may also have played some part in attracting former emigrants back to work in Ireland.

By 2000, however, public opinion became increasingly critical of the growing deficiencies in the availability and quality of public services, especially in the health sector. In the debate on the appropriate level of spending on public goods and services, the low burden of taxation is frequently invoked to persuade politicians that the priority should shift from further tax reductions to increased public

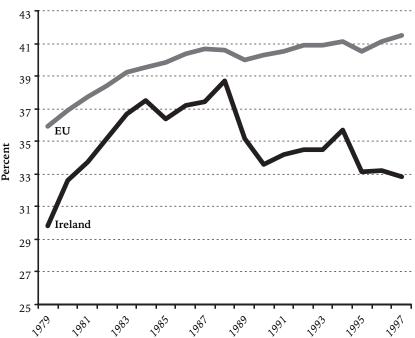


Figure 11: Tax revenue as a percentage of GDP

Source: Eurostat; Irish Central Statistics Office.

spending. Unfortunately this shift in attitude occurred just as the economy lost momentum in 2001 and the buoyancy of tax revenue enjoyed over the preceding five years was drying up. Commitments to large increases in public sector spending combined with stagnant tax receipts made large inroads on fiscal surplus in 2002.

Other advantages

In addition to the attractions listed above, Ireland is, of course, English speaking, enjoys reasonably easy access to the United States and has close cultural ties with North America. The legal and accountancy professions are "Anglo-Saxon." American firms have found it relatively easy to recruit managers familiar with their business culture: in fact, many were able to identify Irish people working in their American branches who were keen to return to Ireland to head up new projects there.

Tax policy

I have emphasised the prominence of a favourable CT regime among the attractions Ireland offers to inward investors. It is time to look at this topic in more detail.

To understand the present Irish CT regime we need to recall that, from the 1930s to the 1960s, the country relied heavily on protectionist measures to promote industrial development. The result was a growth of employment in small, inefficient firms oriented almost exclusively towards the tiny domestic market. During the 1950s, there was a growing awareness of the limitations of this policy, heightened by the prospect of economic integration in Europe. This prompted a switch to other measures to promote industrialization, in particular attempts to attract inward FDI. Initially, foreign investment was encouraged only in areas where it would not represent a threat to established domestic firms. However, this consideration declined in importance as the prospect of dismantling tariffs and the almost inevitable collapse of employment in "infant industries" loomed. It was hoped that new, outward-oriented firms would offset the loss of employment in the older firms and, as we have seen, this goal was realized in the 1990s.

The switch to outward orientation was gradual. In 1947, a customs-free zone was created at Shannon Airport. The Industrial Development Authority was established in 1949 and, during the 1950s, given increasing powers and resources to aid manufacturing industries with grants. In 1956, a 100% tax remission, known as Export Profit Tax Relief (EPTR), was applied to profits from manufacturing exports. Any remaining restrictions on inward foreign investment were removed by the repeal of the Control of Manufactures Act in 1958. Thus, by the 1960s, the former hostility to FDI had been completely transformed to active encouragement. Foreign investors were offered the attractions of a low CT rate and grant-aid to come to Ireland. No restrictions were placed on their freedom to remit profits from the country. Few other developing countries exercised as liberal a regime towards FDI at this time. The completion of the change to outward-looking policies came with the passage of the Anglo-Irish Free Trade Area Agreement (1965), entry into the European Economic Community (EEC) in 1973, the completion of the EU single market in the early 1990s, and the adoption of the euro in 1999.

It was inevitable that the EEC and the EU should raise the question of the compatibility of the Irish CT structure with obligations under the Treaty of Rome. Because the EPTR was targeted on exports, it was deemed discriminatory and was phased out over the period from 1981 to 1990. In its place, a 10% "preferential" CT rate was applied to profits from the manufacturing industry and internationally traded services.² In the late 1980s, the 10% preferential CT was extended to activities located in the International Financial Services Centre (IFSC) in Dublin. But, in the course of the 1990s Ireland's success in attracting FDI in the "high-tech" and financial sectors provoked claims of "unfair tax competition" from countries such as Germany and Belgium that were not pleased to see some relocation of activity to Ireland.

The CT tax system in place in Ireland in the 1990s was dualistic, with low rates applicable to export sales (up to 1981) or manufacturing and internationally traded services (after 1981), on the one hand, and a high "standard" rate applicable to the remainder of the corporate sector, on the other. In the early 1980s, the standard rate was 50% but this has been reduced to 20% by 2001 (see be-

low). Such has been the growth of manufacturing in the 1980s and 1990s that tax payments at the "preferential" rate quickly grew to more than half of the total take from CT. However, the only major taxpayers of the "standard" CT rate have been the non-IFSC banks. The anomalous situation in which the lowest rate of profit tax in the EU applied to one set of businesses and one of the highest rates applied to all the rest was not acceptable to the EU. The preferential rate was originally introduced as a temporary measure, to be phased out in 1990 but it was subsequently extended to 2010 (2005 in the IFSC). Some features of the tax system, in particular the application of the special inducements to attract activity to the IFSC, have been viewed as "unfair tax competition" in some European circles. In negotiations between the Irish government and the EU Commission, the following compromise was approved.

- The preferential rate of tax will continue to apply to manufacturing firms until 2010.
- The preferential IFSC tax will continue to apply to qualifying firms until 2005.
- Remission of local taxes and special capital allowances in the IFSC to cease immediately.
- A uniform CT rate of 12½% will apply to all firms by the year 2010 at the latest.

The 1999 Finance Act set out the schedule for achieving a single CT rate of 12½% by 2003. The 2002 Budget lowered the CT rate to 16%.

These changes in the Irish tax regime should be viewed in the context of a general tendency towards lower tax rates across the EU. To the degree that these cuts reflect a desire to attract foreign firms at the expense of other countries, they are part of a non-cooperative game. If FDI is highly sensitive to tax differentials and, bearing in mind that corporation taxes account for relatively small proportion of total government revenue, there are grounds for fearing that a "race to the bottom" will develop as countries use lower tax rates to try to raise domestic employment. Following the introduction of the single European currency in 1999 and the removal of the exchange rate as an instrument of national policy, the belief has grown that

competitive tax cuts will replace competitive devaluations. This has led to demands for tax harmonisation: "... tax cooperation can be viewed as the next step after the creation of the euro for reducing both impediments to the completion of the Single Market and the scope for non-cooperative behaviour in this highly integrated area" (European Parliament 2001: 13). However, this claim would not command wide support among European finance ministers, who cherish their freedom of manoeuvre in the fiscal area.

It is important to try to assess the sensitivity of FDI to tax differentials. While firms may be attracted to, and anchored in, locations by agglomeration economies—that is, the advantages of operating in an area where a concentration of similar firms has created deep labour, capital and sub-supply markets—and by the reluctance of firms to relocate, it seems that flows of FDI are to tax differentials and, perhaps, have become more so as markets become increasingly integrated. A recent study concluded that "taxes appear to be an important consideration for firms' decisions whether or not to invest abroad, as well as where to invest abroad" (Gropp and Kostial 2000: 19).

How important has Ireland's low CT rate been in attracting FDI to the country? It has been estimated that the increase in the Irish statutory CT rate from 10% to 12.5% will reduce the inflow of FDI to the country by about 7% (European Parliament 2001). But, the effects of this would be minor compared with those of a more thorough harmonization of EU CT rates. Gropp and Kostial estimate that, if CT rates had been harmonised on the EU average over the period from 1990 to 1997, Ireland would have experienced a fall of more than 1.3% of GDP per annum in its net FDI flows. There would also have been a fall of about 0.8% of GDP in revenue from this tax. It is therefore clear that Ireland's strategy of using a low CT regime to attract inward FDI is vulnerable to the growing concerns about "unfair tax competition" and the drive to harmonise EU tax rates.

Side effects of the low CT rate

We should acknowledge some of the peculiar consequences of the low CT rate that has been the centrepiece of the Irish incentives package. In the first place, it is easy to exaggerate the "high tech" nature of the new industries that have been attracted. The end

products produced and sold by the Irish subsidiaries of MNCs tend to be technologically sophisticated, ranging from state-of-the-art computer chips to the latest pharmaceutical and medical care products, but few of these firms have located a full range of functions in Ireland. While most Irish operations involve processes that are considerably more advanced than routine assembly, the highest corporate functions—managerial, financial, R&D, and marketing—are usually performed at home by the parent company. The average skill levels in the "high tech" sectors is significantly but not dramatically above the average for all Irish industries: 19% of the employees in foreign-dominated sectors are "administrative and technical" personnel compared with an average of 14% for all manufacturing. Despite the relative importance of manufacturing to the Irish economy, business expenditure on R&D as a proportion of GDP is below the EU average (Barry, Bradley, and O'Malley 1999). However, these criticisms may have lost some of their force in recent years as the Irish subsidiaries of multinational corporations (MNCs) increase in sophistication and the range of their functions and as more indigenous firms start up to profit from the opportunities offered in the booming economy. The spin-off effects of the microelectronics industry in the software sectors is a notable example.

A more important consequence of the role of low CT in the Irish success story is the extent to which the economy—or at least its statistical representation—has been distorted through "transfer pricing." The low CT rate encourages MNCs to use various internal pricing stratagems to inflate the profits attributable to their Irish subsidiary. The industrial sectors that have boomed in Ireland are those that are particularly well able to avail of the advantages offered by transfer pricing in minimizing their global tax liabilities. They are "patent intensive" rather than capital or technology intensive. Four sectors in particular exhibit characteristics that can only be explained as a response to the global tax-planning incentives provided by the low Irish CT rate: cola concentrates, software reproduction, certain organic base chemicals, and computers. The difference between Ireland and Europe in net output per employee in the cola-concentrates industry was over £1/2 million in 1995. This difference has been taken as an estimate of "entrepôt activity" in Irish industry, akin to the passage of vast amounts of goods through ports such as Hong Kong or Singapore. In aggregate, this

activity has been estimated to equal over 15% of GDP (Honohan, Maître, and Conroy 1998; Honohan and Walsh 2002).

The location in Ireland of enormously profitable subsidiaries of MNCs has inflated the figures for output and exports in certain sectors of the economy and led to a growing outflow of profits and other payments from the country. This is reflected in the exceptionally large gap between Irish Gross National Product and Gross Domestic Product. In 1998, GDP exceeded GNP by 14.3%, easily the largest gap in the OECD. Interest payable to non-residents on the national debt accounts for a declining proportion of this outflow, the bulk of which is attributable to "dividends, distributions of branch profits and inter-affiliate interest." 3 The very high value added per employee in these sectors also exaggerates the apparent productivity of the Irish labour force and its growth rate.

Nevertheless, the effects of transfer pricing on the measurement of economic growth should not be exaggerated. A minimalist calculation of the contribution of MNCs to the Irish economy that included only their labour costs reduced the estimated growth rate of national output in the 1990s by less than one half of one percentage point (Keating 1995). Moreover, it is now generally recognized within the country, if not always internationally, that GNP provides a better guide than GDP to the "true" performance of the Irish economy. In fact, the more arcane concept of National Disposable Income is an ever better yardstick because it takes account of the importance of net international transfers. While these measures have been growing by about one half of one percentage point per year less than GDP, it is obvious that this correction does little to dent the record of the "Celtic tiger" when this is taken to refer to the rapid growth of income per person. However, it does put a bigger dent in the rosy view of the rate of productivity growth that emerges from the official statistics.

Finally, we should not lose sight of the fact that revenue from the 10% CT rate on the inflated profits of the Irish subsidiaries of MNCs has swelled the Irish exchequer's coffers, creating head room for lower taxes on labour and expenditure. However, it is true that a low tax rate on one type of income erodes the tax base and increases the rate of other taxes required to finance a given level of public expenditure. This argument was very relevant in Ireland in the 1980s when the low CT rate contrasted starkly with the very

high marginal tax rates paid by individuals. Employees of a company that paid less than 10% of profits in tax would have faced a marginal income (including social security) tax rate of almost 75% as well as very high rates of VAT and excise taxes on drink, tobacco, electrical goods, and cars. Forward shifting of these high taxes offset some of the attraction of the low CT rate. A more even spread of the tax burden would have resulted in lower aggregate deadweight losses. This case was made as long ago as 1984 by the Irish Commission on Taxation, which argued for a thoroughgoing simplification of the tax system and against excessive reliance on targeted tax incentives.4 The same points were reiterated in a review of Irish industrial promotion published in 1992.5 Thus the EU's emphasis on standardization of tax rates and reduction in special tax incentives accorded with domestic advice on tax policy. But, it is unlikely that this advice would have been acted on in the absence of the threat of sanctions from Europe.

It is striking that the burden of taxation in Ireland fell sharply after the watershed year of 1989, while it continued to grow in the EU. As a consequence, the gap between Ireland and EU widened markedly during the 1990s. Measured relative to GDP, Ireland now has one of the lowest tax burdens in the OECD (see figure 11).6 Disentangling cause and effect is extremely difficult in this area. Did the accelerated growth rate lead to a fall in the tax burden or was the faster growth due to lower tax rates? It is true that towards the end of the 1980s the emphasis of policy shifted to tax cuts and especially to lowering the high marginal rate payable on wages and salaries. But, no dramatic changes in tax rates or in the structure of taxation occurred in the late 1980s that can be identified as the factor that triggered the boom. And, it is obvious that the rapid decline in the ratio of tax to GDP during the 1990s was primarily a reflection of the large inflow of FDI and exceptional growth of GDP rather than vice versa.

It is not implausible to give some credit for the drive to reform European tax structures to the role of the low CT rate in the Irish success story. The Irish example seems to have played a part in converting European governments to the belief that the heavy burden of CT had contributed to the problems of slow growth and high unemployment labelled Eurosclerosis. In the late 1990s, Germany, Denmark, France, the United Kingdom, and Italy have implemented

or announced CT rate cuts. (As we have seen, at the same time Ireland announced an increase in its low statutory rate from 10% to 12.5%.) The most important development was the German government's announcement that it was reducing the corporation tax rate from 40% in 2000 to 25% in 2001, leading to a significant decrease in the effective tax rate as well. As the movement to reduce CT rates gathers momentum in Europe, Ireland's competitive advantage in this area is being eroded. But, this is not necessarily a zero sum game: the aggregate performance of the European economy may be improved by learning from the role of a favourable tax regime in the Irish success.

Conclusion

Simplistic conclusions about the contribution of tax policy to Ireland's economic boom are not warranted. The recent success of the economy has been due to variety of factors whose relative importance is difficult to establish. Taking a long view, the rapid growth of the 1990s could be regarded as a belated catch-up with the leaders that was postponed by the policy errors of the 1970s and the painful correction of these during the 1980s. However, it cannot be doubted that the timing of the boom in the late 1980s points to the contribution of several policies put in place towards the end of the decade: the successful fiscal adjustment, the reversal of the upward trend in the tax burden, the competitive level of the exchange rate, and wage moderation achieved through "social partnership." Ireland's commitment to the EU project, the ratification of the Single European Act (1986), and the adoption of the single European currency should also be acknowledged while, in the longer run, Ireland's location, use of the English language, familiar business culture, and general openness to American influences have helped make the country an attractive location for FDI. Further, comparative research is required to establish the relative importance of each of these factors. But, after all these caveats, it cannot be doubted that a favourable climate for FDI and especially a low CT rate have been crucial to the recent boom and the form that it took.

The Irish tax system has evolved towards greater uniformity and less reliance on targeted (i.e. distortionary) incentives. From the

1960s through the 1980s, a zero tax rate on export profits was used to promote outward orientation in manufacturing. In the 1990s, in response to pressure for a less discriminatory tax regime, a 10% rate was applied to all profits from manufacturing and "internationally traded services." The commitment now is to apply a $12\frac{1}{2}$ % rate to all corporate profits.

A low corporate tax rate did contribute to raising the country's share of the flow of FDI into the EU and continues to be an important component of Ireland's favourable business environment. This inflow played a very significant role in the boom of the 1990s. In recent years, Ireland has raised the statutory CT rate while it was being reduced in other member states, so that the country's competitive advantage is being eroded. In the future, Ireland shall have to rely increasingly on other factors, especially relatively low unit labour costs, to maintain its attractiveness as a location for manufacturing industry and internationally traded services.

Notes

- 1 This paper updates and extends the material in Walsh 2000b.
- **2** A plethora of additional tax incentives were also introduced such as accelerated depreciation allowances and tax breaks linked to preference share financing and leasing.
- **3** Royalties and license fees paid abroad were formerly included in GDP but are now treated as a cost of production and excluded.
- **4** See Commission on Taxation 1984: para. 6.13–36.
- **5** The "Culliton Report" (Ireland, The Department of Industry and Commerce 1992).
- **6** A caveat is required because this comparison uses GDP in the denominator and Irish GDP exceeds GNP by about 15%. Adjusting for this would still leave Ireland with a relatively low tax burden.

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