13 Irish economic growth, 1945–88

CORMAC Ó GRÁDA AND KEVIN O’ROURKE

1 Introduction

Economic growth has made a welcome return to the headlines in the economics profession. Technical advances have made it possible to model the growth process rigorously in the presence of externalities and increasing returns, and this has spawned a vast literature formalizing many of the intuitions about growth previously held by applied economists and economic historians. Whether or not there are diminishing returns to capital, it seems clear that there are diminishing returns to theory, in this field at least. Theory urgently needs to be supplemented with empirical work, be it multicountry regressions or case studies, if the field is to retain its present vigour.

We believe that Irish economic history offers many potential lessons for students of economic growth. While Dowrick and Nguyen (1989), Mankiw et al. (1992) and Freeman (1989) incorporate Ireland1 in their work, Ireland is excluded from consideration in well-known studies such as those by Calmfors and Driffill (1988), Crafts (1992) and Barro and Sala-i-Martin (1991). The last-mentioned (p. 151) go so far as to exclude Northern Ireland from their study on the grounds that it is 'a substantial outlier for the United Kingdom'. This seems to us mistaken: many of the theoretical issues explored by growth economists have resonances in the Irish experience. In this century, Ireland has swung from extreme protectionism to extreme openess. Its development strategy has at times favoured the exploitation of its comparative advantage in agriculture, at other times has been based on import substitution, and most recently has relied on the capital inflows and technology transfer associated with (heavily subsidized) foreign multinationals. It is a country that is peripheral in relation to Europe as a whole, but which has long had intimate links with the UK, one of Europe's largest economies. Not only commodities but labour and capital have been extremely mobile between Ireland and the rest of the world.

Above all, there is a widespread perception that independent Ireland 'blew it', not least in Ireland. Two influential books recently published, Joseph Lee's Ireland 1912–1985: Politics and Society and The Economic Development of Ireland in the
Twentieth Century by Kieran Kennedy, Thomas Giblin and Deirdre McHugh, have made the point forcefully. Using Louis Cullen’s estimate of Irish national income per capita in 1911, they have argued that, while Ireland was a respectably wealthy country on the eve of World War I, its subsequent growth experience was disastrous, with the result that it slipped dramatically down the European income league.

Kennedy et al. make their point largely with reference to growth rates in the UK. Over the period 1926–85, GNP grew at the same rate, 2.1 per cent p.a., in both countries, while per-capita product grew at 1.8 per cent p.a. in Ireland, and 1.7 per cent p.a. in the UK. They then point out that this performance is unsatisfactory, for two reasons. First, per-capita incomes in Ireland were lower than in the UK over this period, so Ireland should have been catching up rather than merely keeping pace with the UK. Second, British growth rates were low by European standards, and so keeping pace with the UK ensured long-run decline with respect to the Continent (Kennedy et al., 1988: table 6.1, pp. 118–21).

Lee is less concerned with the UK, and more concerned with Europe. 'Ireland recorded the slowest growth of per-capita income between 1910 and 1970 of any European country except the United Kingdom ... Ireland slid from being a reasonably representative western European economy, in terms of income per head, at the time of independence, to a position far below the western European average in 1970.' Moreover, 'Income per capita is itself an indulgent criterion by which to assess Irish achievement. Precisely because of the unique Irish population performance, a wide gap opened between developments at the individual and the national levels ... No other European country, east or west, north or south, for which remotely reliable evidence exists, has recorded so slow a rate of growth of national income in the twentieth century' (Lee, 1989: 514–15).

To summarize, recent Irish authors have tended to go beyond simple Irish–British comparisons, and made the following points: Ireland kept pace with the UK; given that the UK was the sick man of Europe, this implied that Ireland did not keep pace with Europe; Ireland should have grown more rapidly than the UK, given that it was poorer.

This chapter addresses Ireland’s growth experience between the 1940s and the present. Its comparative statistical appraisal focuses on the years since 1950, the period for which both the Penn Table Mark 5 and the OECD provide data. It does so in the context of growth theory new and old, and in the spirit of the survey of recent literature on productivity growth by Crafts (1992). How bad was Ireland’s relative economic performance, and what can explain it? While the chapter may not provide definite answers, we hope to convince our audience that the questions are worth asking and that Ireland is a country worth studying.

2  Irish growth and the economic convergence debate

In the debate about the empirical relevance of the new growth literature, much prominence has been given to the question of convergence. Do countries with initially lower levels of GDP per capita grow more quickly, as the Solow model suggests; or can divergence rather than convergence occur over time? Standard models suggest that convergence can occur in many ways. First, there is the
closed-economy Solow intuition: as capital accumulates and capital–labour ratios rise, the marginal product of capital falls. This on its own implies convergence (although, of course, if countries differ in various ways, they may converge to different steady states). In addition, there is a host of open economy forces which should strengthen this process, irrespective of differences between countries. We suspect that these open economy forces may in practice be more important. Poor, low-wage countries will attract capital and technology inflows, which boost labour productivity and living standards; and they will experience emigration, which improves the lot of those who stay at home. Furthermore, commodity trade may lead to factor prices converging internationally, and probably did in the late nineteenth century (O’Rourke and Williamson, 1992).^3

On the other hand, if emigration involves a loss of human capital, or of the best workers within a given skill bracket, this can lead to capital outflows and divergence.4 In the absence of instantaneous technological diffusion, higher levels of technology in rich countries may also imply capital flows from poor to rich countries (Barro and Sala-i-Martin, 1991). Moreover, the original Solow intuition does not apply in the absence of diminishing returns, and the new growth theorists have argued forcefully that constant or increasing returns may be the rule rather than the exception.

Empirical investigations have generally found that catch-up is a feature of economic growth, at least among OECD economies (Baumol et al., 1989; Dowrick and Nguyen, 1989). The most influential studies of convergence may have been Barro and Sala-i-Martin’s papers documenting convergence among US states and European regions, showing convergence to be a robust feature of these economies, occurring at the annual rate of about 2 percent (Barro and Sala-i-Martin, 1991). However, while some less developed countries have grown rapidly in recent years, whether the entire globe forms a single convergence club is a controversial matter (Mankiw et al., 1992; Durlauf and Johnson, 1992). This may mirror Williamson’s early study of regional convergence within countries, which identifies a pattern of increasing regional inequality early in the growth process, and increasing equality later on (Williamson, 1965).

Ireland is an OECD member, and has been an EC member since 1973. It is one of the most open economies in the world, with a very high trade-to-GDP ratio, policies designed to attract direct foreign investment, and strong links with international labour markets. By rights, then, it should have participated in the OECD convergence experience. Has it?

First, a word is in order about what measure of economic growth is most appropriate for the issues we want to address. Economists might legitimately be interested in either productivity growth or the growth in living standards. In the former case, GDP per employed worker is the most reasonable measure to look at. In the latter case, GNP per capita is what matters. When the data are available, we examine trends in these two variables; however, for the most part, data availability dictates that we examine GDP per capita. As we will see, the distinction becomes potentially important in the post-1973 period.

Previous studies which have examined Ireland’s postwar economic performance have been flawed in a number of respects. First, while they mention the experience of other peripheral European economies, they typically rely solely on average growth
Table 13.1. Economic growth in Ireland, the UK and Europe, 1950–88

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Note: H–S, Heston and Summers; M, Maddison.

rates in Ireland and other countries, which does not give sufficient weight to the recent literature on convergence. Second, the choice of income figures matters; as is well known, difficulties arise in making national income estimates comparable across countries and time. The Heston–Summers and Maddison/OECD data sets represent the state of the art in this regard, and we now summarize the picture given by the two data sets. Unfortunately, it matters which data set you use.

Table 13.1 gives evidence from the Penn Table Mark 5, as well as from Maddison’s most recent data set. Average annual growth rates in GDP and GDP per capita are given for Ireland, the UK and the rest of Western Europe. GDP per capita is what is most relevant to the convergence debate, and on this criterion, Ireland’s performance has been poor, especially according to Heston and Summers. Over the period 1950–88, Ireland’s annual growth rate was only two-thirds of the Western European average, and a fraction less than the equally anaemic British rate. The period 1960–73 was a relatively good one for Ireland, when it easily outperformed the British economy, but even then Irish growth rates were somewhat lower than their European counterparts. The other two subperiods were disastrous, with Irish growth rates less than half as high as on the Continent, and substantially lower than in the UK. Note in particular the very low growth rate after 1973. While the oil shocks reduced growth worldwide, the relative Irish performance during this period was (according to the Heston–Summers figures) even worse than during the 1950s. On the face of it, this challenges the conventional wisdom that EC membership has helped Ireland catch up with the rest of Europe during the past twenty years (although Ireland might, of course, have done a lot worse had it not been an EC member during this period).

The Maddison data give a much more optimistic story, with Ireland doing better than the UK over the period as a whole (although it still does less well than Western Europe). The big difference between the two data sets lies in the post-1973 period: Maddison has Ireland outperforming Western Europe during this time. The reason for this can be easily seen in Figure 13.1, which plots the Irish GDP/capita indices.
from the two data sets. The two indices tell broadly similar stories until 1978, after which time the Maddison estimates continue growing according to trend, whereas the Heston–Summers index stagnates. We will have more to say about this discrepancy in what follows.

The figures on GDP growth rates tell a broadly similar story, the only difference being that over the period 1950–88 as a whole, GDP grew slightly more rapidly in Ireland than in the UK, even according to Heston and Summers. Again, however, the Irish growth performance was well below that in Europe throughout the whole of the period, for both data sets. Only the Irish tendency to use the UK as a yardstick for performance has disguised Ireland’s relative failure during this period.

Moreover, these tables giving average growth rates conceal important information which makes Ireland’s relative performance look much worse. In 1950, according to Heston–Summers data, Irish GDP per capita was 48 per cent lower than in the UK, and 15 per cent lower than in Western Europe. It is the case that convergence has been a feature of the OECD economies: Ireland should therefore have grown more rapidly than Western Europe as a whole. That it did not makes Ireland an important outlier.

This outlier status appears most clearly when one examines graphs plotting GDP per capita growth rates against initial GDP per capita levels. Figure 13.2 does this for 1950–88, 1950–60, 1960–73 and 1973–88, using both the Heston–Summers and Maddison data. Several things emerge at once from these graphs. First, the familiar OECD convergence story emerges clearly, the strictures of Milton Friedman notwithstanding. The only subperiod in which a clearly visible negative correlation between growth and initial income is absent is 1973–88 (although it is weak during the 1950s). This could be due to a number of factors. The oil shocks and associated policy responses made this a turbulent time, of course; it could be that the short-run effects of different macroeconomic policies swamped any longer-run forces during this period. Or it could be that the forces which normally lead to convergence are absent during downturns, as was certainly the case during the interwar period.
Irish economic growth, 1945–88

Note: A = Austria, B = Belgium, BRD = West Germany, CH = Switzerland, DK = Denmark, Fl = Finland, FR = France, GR = Greece, IC = Iceland, IRL = Ireland, IT = Italy, L = Luxembourg, NL = Netherlands, NW = Norway, P = Portugal, SP = Spain, SW = Sweden, UK = United Kingdom.

Figure 13.2 GDP per capita, initial level and growth: Europe, 1950–88
(Williamson, 1994). This could be because downturns in economic activity lead to protection and other autarkic policies, or there could be deeper reasons connected with this growth process. Williamson has found strong international wage convergence both before 1914 and after 1945, but no convergence between the wars. Perhaps international stability on the macroeconomic, exchange rate and/or trade fronts is necessary for convergence to take place.

Second, Ireland is the clearest outlier over the whole period, having a much lower growth rate than its initial income would suggest. This is true with both data sets. During the 1950s and the post-1973 period, Ireland is joined by Spain, Portugal and Greece; the four countries seem to constitute a mini-convergence club, lying on a line to the left of the rest of Europe. During the 1960s they do a lot better, fitting into the general European convergence pattern to a greater extent; but even during this period, Ireland is an underperformer (especially according to the Maddison numbers).

Third, the data set you use matters. We saw in Table 13.1 above that it matters a lot for average growth rates. It also matters for telling qualitative convergence stories about Ireland; but only for the post-1973 period. Ireland seems below (or to the left) of the convergence line with both data sets for the period 1973–88, but is far less clearly an underperformer if you use the Maddison data. The difference in Irish growth rates using the two data sets, which we saw in Table 13.1, and which is worryingly large, is sufficient to reverse one’s conclusion about Ireland’s post-1973 performance based on GDP/capita performance.

However, the pessimist case can be resurrected for the post-1973 period, even on the basis of Maddison’s numbers, if one considers GNP rather than GDP per capita. GNP is more relevant than GDP per capita for living standards: Heston and Summers give GNP as a multiple of GDP for a smaller sample of countries, after 1979. Applying these correction factors to the optimistic Maddison GDP numbers, we get the data portrayed in Figure 13.3: Ireland is once again a dramatic
underperformer during this period. This is due to Ireland’s excessive borrowing during the post-1973 period, which led to the GNP/GDP ratio shrinking from 96.4 per cent in 1979 to 88.1 per cent in 1988.

Fourth, the meaninglessness of comparing Irish with British growth is apparent from these graphs. The standard story has been that Ireland kept up with the UK, but that the British economic performance was one of the worst in Europe. It appears that UK growth was more or less what would have been expected given its initial level of GDP per capita. Ireland should have been growing faster than the UK, but was not; it is Ireland which appears to be the sick man of Europe, not the UK (see also Castles, 1991: 21–2).

Fifth, one result of Ireland’s relatively slow growth was that between 1950 and 1973 it was overtaken by Spain (according to Maddison), or Spain, Italy and Austria (according to Heston and Summers).

When viewed in the context of general European convergence, Ireland’s performance thus appears even more disappointing than previous Irish authors have suggested. To summarize the evidence on Ireland’s relative performance presented thus far: Ireland was a clear underachiever throughout the post-1950 period, no matter which data are used. There is one exception to this general finding: Maddison’s GDP numbers show a satisfactory Irish performance (from the standpoint of the convergence literature) after 1973. However, even for the post-1973 period, Ireland is clearly a bad underachiever from the standpoint of GNP/capita growth, no matter whose data are used. From the perspective of the convergence literature, Ireland emerges as a spectacular outlier. What can explain all this?

A first question which one might ask is: how did Irish productivity growth, as measured by GDP per employed worker, behave over the period? If Ireland was not an outlier by this standard, then its failure by the criterion of GDP per capita must be due to a relative deterioration in either Irish employment or Irish labour force participation. Figure 13.4 gives what information we have on GDP per worker. As may be seen by comparing with Figure 13.2, adjusting for labour force participation does indeed move Ireland closer to the ‘convergence line’. Yet Ireland still remains somewhat of an outlier in most periods, the exceptions again being the post-1973 period according to the Maddison data, and the 1960s according to Heston and Summers. Figure 13.5 presents the data for GDP per employed worker, for EC countries only, and for the post-1964 period. Again, the qualitative picture is similar, although once more the adjustment appears to make Ireland look better (according to the Maddison data, Ireland is now hardly an outlier for the entire period 1964–88).

Unemployment and higher dependency rates thus help partly to account for Ireland’s poor growth in GDP per capita in the postwar period. On the other hand, productivity growth was not as fast as it should have been either, and some of the unemployment might plausibly be attributed to this (Kennedy, 1993). Moreover, higher employment might have implied lower average labour productivity: if so, better employment performance would have been possible only at the expense of slower productivity growth. In sum, there was a productivity failure as well as a more general standard of living failure over the period as a whole, and after 1973 as well if you believe the Heston–Summers data.

Moreover, even if it were the case that Irish productivity growth, as measured by
Figure 13.4 GDP per worker, initial level and growth: Europe, 1950–88
GDP per employed worker, had been satisfactory since 1950, the conclusions which one would be justified in drawing from this would be unclear. The Irish dependency rate is not just a function of birth rates, death rates and attitudes towards female labour force participation. It is significantly affected by emigration, which is in turn produced by the same problem as leads to unemployment: a failure by the economy to create sufficient employment. Some commentators have argued that Irish productivity growth has been satisfactory, and that slowly growing living standards are thus due to Catholic mentalities reducing the proportion of the total population employed: the implicit inference is that no great economic failure is involved. We would argue that sluggish employment generation represents a serious failure of economic policy; the inference which we would draw from Figures 13.4 and 13.5 is that not only Irish productivity growth, but the performance of Irish labour market institutions, has been unsatisfactory ever since the mid-1960s.
A second immediate question arises: how can there be such a large discrepancy post-1978 between the two data sets examined here? After all, they both make use of national accounts data, and the relative price information contained in the UN International Comparison Program. We confess to being puzzled by the discrepancy, and here content ourselves with listing potential causes for it:

- The Maddison data presented here use 1990 prices, while the Heston–Summers data use 1985 prices; but the same discrepancy emerged when earlier OECD data using 1985 prices were used.
- Revisions to the Irish national accounts which were used by one study may have been neglected by the other.
- Transfer pricing by Irish multinationals means that the value of output given in the Irish national accounts may differ significantly from the value of output using world prices. Similarly, Irish agricultural output is sold at CAP prices, which are far above world prices. Both trends have become more important since 1978. These two sectors together account for a large share of total Irish output. If the two studies differed in the degree of aggregation used, so that one study failed to pick up these discrepancies between national and world prices in important sectors, that could explain the difference in the two studies.²

Finally, comparing the Maddison data with the Heston–Summers data for other European countries may be of some help in resolving the issue. Table 13.2 gives the percentage by which the Maddison data for GDP per capita (expressed in 1985 dollars) exceed the Heston–Summers data for 1950, 1973 and 1988/9.¹⁰ As can be seen, in the richer European countries the Maddison figures are generally around 10 per cent higher than the Heston–Summers data. In the poorer countries – for which, suggestively, agriculture is relatively more important – the gap is bigger still. The discrepancies between the two data sets tend to be relatively steady over time, except in the cases of Belgium, Norway and (especially) Ireland.

In conclusion, it seems clear that some effort should be put into understanding the differences between these two widely used data sets. In the meantime, while these numbers can be relied on to tell reliable stories about broad international patterns, researchers should be wary of telling stories about individual countries. Nevertheless, on the basis of the evidence presented above, we feel that a negative assessment of Irish economic growth since 1950 is supported.

3 Irish economic history, 1945–92

We now offer a brief narrative outline of economic trends since 1945 in that part of Ireland known officially as Saorstát Éireann or the Irish Free State until 1948, and as the Republic of Ireland since then (see also Ó Gráda, 1994a). The period since political independence in 1922 had been one of economic experimentation. The economic stance of the Cumann na nGaedheal party, which ruled between 1922 and 1932, had been deliberately cautious. It preached, and indeed practised, comparative advantage and fiscal retrenchment. This meant giving a wide berth to populist nationalist credos and relying on an improved performance from the dominant agricultural sector as the ‘engine of growth’ (Daniel, 1976). Agriculture then employed half the labour force, and agricultural policy aimed at emulating Danish
success by capturing the high-quality end of the British market for meat, eggs and dairy products. This policy, always associated with Agriculture Minister Patrick Hogan, had yielded few dividends by 1932; perhaps it was given insufficient time to assert itself (O’Brien, 1936). Another feature of Cumann na nGaedheal policy was fiscal and monetary prudence. Both nationalist ideology (which had long maintained that Ireland was overtaxed within the United Kingdom) and the emphasis placed on minimizing the input costs faced by farmers supported low taxation in the 1920s. Ministers also resisted the demands, which were becoming more vocal in the late 1920s, for widespread tariff protection.

That the Irish economy, so closely linked to the UK’s, grew sluggishly during the 1920s should come as no surprise. Emigration, long blamed on British maladministration, continued at a high rate, and living standards barely rose. The onset of the Great Depression in 1929-30 dented the appeal of Cumann na nGaedheal’s liberal orthodoxies. They failed to maintain popular support, and were replaced by Éamon de Valera’s Fianna Fáil party in 1932. Now ideology and contingency would combine to transform a virtually free-trading economy into one bent on state supports and import substitution. Faced with the challenges of high unemployment and declining markets abroad for agricultural produce, Fianna Fáil’s alternative was to build an indigenous industrial sector through protection, and to reorient agriculture towards a more labour-intensive product mix. In a context of world depression, low farm prices and a political imperative to reduce unemployment, this strategy had its logic; in the short run, it produced a significant increase in employment in the sheltered industrial sector. The new manufacturing industries, small scale and low productivity, had already captured the home market by the late 1930s.

However, neutrality during World War II forced a degree of self-sufficiency on the South’s economy that exceeded the demands of even the most ardent economic
nationalist. Imports as a share of national income fell from 26 per cent in 1938 to 11 per cent in 1944, and imports of capital equipment and raw materials fell almost in proportion. Thus although the economy had been spared military destruction, near-autarky led to a running down of the capital stock through wear and tear. Gross domestic capital formation fell to a paltry 3.7 per cent of national income in 1944–5, and output per worker in the manufacturing sector fell. Agriculture was less affected, and its share of national income rose from 28 per cent in 1938 to 37 per cent in 1944–5. Yet World War II was far from being a bonanza for Irish farmers: prices on the British market were strictly controlled, and an inadequate supply of fertilizers, feedstuffs and machinery depressed crop and milk yields. The result was a badly undercapitalized agricultural sector. In 1945, Ireland remained one of the poorest countries in Western Europe.

Ireland experienced a postwar recovery, like the rest of Europe. This was largely predicated on trade: merchandise trade (imports plus exports) as a share of national income rose from 28 per cent in 1945 to 64 per cent in 1950. The resulting trade pattern could not be sustained for long, however; merchandise imports and exports had been roughly equal during the war years, but in 1946–50 the value of imports was double that of exports. A consumer boom produced a fourfold rise in the value of imported manufactured goods between 1945 and 1950.

The multiparty coalition which ruled Ireland in 1948–51 after sixteen years of Fianna Fáil government believed that the ‘inadequacy of capital investment, particularly in agriculture’ was the root cause of continued emigration. This emphasis on the leading role of the farm sector marked a return to the beliefs of the 1920s, although the new government failed to dismantle the tariff regime established in the 1930s. One result was a rise in the Department of Agriculture’s share of government spending from 2 per cent in 1943–5 to 16 per cent in 1950–2. Overall, the economy’s investment rate recovered, reaching 14 per cent of income in 1948–50; though (as critics would soon point out) perhaps too high a proportion was in ‘social’ investment, such as housing, hospitals and schools.

Fianna Fáil’s radicalism of the 1930s had not extended into the monetary or budgetary sphere. Monetary experimentation was rejected out of hand, and Ireland’s currency readily exchanged into sterling at par throughout. Though the sterling link was not without its tensions, particularly when sterling devalued, it probably boosted investor confidence and ensured the acceptance of the Irish pound. Thus the coalition government regarded the 1948 devaluation of sterling as ‘most unwelcome’, but nevertheless resigned itself to following the fate of sterling. The Irish banking sector, dominated by a cartel of joint-stock banks, may have lacked dynamism, but it proved very stable. The banks vehemently opposed the creation of an Irish central bank, and the Free State survived without one until 1943, when the Central Bank of Ireland was set up. Ireland stands out for being one of the few economies free of banking panics or failures during the 1930s.

The budgetary stance of all administrations in the 1920s and the 1930s had been rather conservative, and even Fianna Fáil paid no heed to Keynes’s call in 1933 for deficit spending on urban renewal and other worthwhile projects (Keynes, 1933). At the end of the 1930s, Ireland’s national debt was still relatively small by contemporary European standards. The decision to partition government spending plans into current and capital spending in 1949 was seen as the first sign of an Irish conversion
to Keynesian thinking; in the memorable quip of one economist, 'Keynes had come to Kinnegad' (Lynch, 1969: 187). During the postwar recovery phase, fiscal policy was quite lax. However, stop-go policies in which an adverse balance of payments signalled drastic fiscal action were to follow, and produced severe and largely unnecessary fiscal contractions in 1952 and 1957 (Kennedy and Dowling, 1975: chs. 13–14).

Much was expected in Ireland of the Anglo-Irish trade agreement of 1948, which again opened up the British market to Irish livestock exports. The hoped-for growth (stipulated in an appendix to the agreement) was not realized, since the British system of deficiency payments depressed food prices. The terms of trade proved quite unfavourable to Ireland in the early and mid-1950s.

The 1950s turned out to be a dismal decade for the Irish economy. GDP grew more slowly than in any other economy in the OEEC, and net emigration reached levels not equaled since the 1880s. Poor economic performance prompted a fundamental reappraisal of the policy package pursued since the 1930s. The reappraisal was articulated in a famous White Paper, Economic Development, and in the Programme for Economic Expansion (later called the First Programme), both published in 1958. These documents were quite vague about both policy instruments and targets, yet they presaged a new consensus on the need for a more outward-looking economic policy, including trade liberalization and reliance on direct foreign investment.

The First Programme was Ireland's first tentative exercise in indicative planning; it outlined the strengths and weaknesses of the economy, emphasized the importance of farm investment, and held out hopes for slow economic growth. Its targets were modest in scope, and vague as to the mechanisms for achieving them. An annual growth rate of 2 per cent over a five-year period was anticipated. In its emphasis on agriculture as the engine of growth, the First Programme was strictly traditional (Lee, 1989: 350–1); more important, it was explicit in its commitment to trade liberalization and the reorientation of industry towards foreign markets. The economy soon picked up; historians have generally tended to give the First Programme the credit, and the sharp rise in investor confidence in the late 1950s suggests that the Programme produced a 'euphoria effect'. However, another view posits that the economy, which was emerging from recession in any case, would have performed just as well in the absence of the Programme.

The First Programme was succeeded by the Second (1964–70) and Third Programmes (1969–72). These were far more detailed than the first, and contained detailed sectoral projections. In neither case was even the overall aggregate growth rate target of 4 per cent per annum met, and both were abandoned before the 'due date'. The Second Programme, formally abandoned in 1967, was laid to rest because of the widening disparity between the projections for employment growth and reality. The plans were also flawed methodologically (Norton, 1975; Bradley, 1990).

Economic planning went out of favour for a few years, although it briefly returned with a vengeance in 1977 when a new Fianna Fáil administration created the Department of Economic Planning and Development, and launched National Development 1978–1980. That plan's ambitious projections — including targets of 25,000 new jobs a year and an annual GNP growth rate of 7 per cent — proved to be wildly unrealistic. There followed The Way Forward (1982) and Building on Reality
(1984), but both of these emphasized budgetary constraints rather than overall growth targets. These documents, better characterized as stabilization programmes rather than exercises in French-style indicative planning, marked the end of Ireland's experiment with economic planning. That experiment is a reminder that setting and meeting detailed medium-term growth targets for a small open economy is a difficult, if not downright pointless exercise. By the late 1980s, planning's only legacy was the Programme for Economic and Social Progress, a joint commitment by the social partners and government to income and social welfare targets.

Much more important for the economy's improved performance than the commitment to planning was the renewed commitment to trade liberalization. This brought membership of the Anglo-Irish Free Trade Area (1966) and the European Community (1973). The stage was set in the early 1960s by the 'corporatist' Committee on Industrial Organization, created by the government in 1961 to study the likely impact of trade liberalization on native industry. The Committee's studies of the whole range of Irish manufacturing—twenty-six reports put together at some speed by representatives of the trade unions, government and business—painted a bleak picture of an industrial sector beset by shoddy design, poor marketing and short production runs. Detailed recommendations by the Committee were followed by the introduction of a grants scheme to help firms seeking to adapt to free trade, and the strengthening of export-promoting state agencies such as An Bord Bainne (The Milk Board) and Córas Tráchtála (The Export Board). These measures helped to prepare the way politically. The rather leisurely pace of tariff reduction envisaged under the Anglo-Irish Free Trade Agreement speeded up with EC membership, with Ireland undertaking to remove all tariffs against EC member countries by 1978. The static gains from trade liberalization were presumably small, although there may well have been important dynamic gains (see section 6 below).

The Irish economy performed better between the late 1950s and the mid-1970s than at any other time since independence. GDP growth averaged about 4 per cent, and emigration had been brought to a virtual halt by the end of the period. The growth was predicated partly on direct investment by multinational firms, and partly on running down the external assets of the banking system.

Ireland's initial main policy response to the oil crisis of 1972–3 was a succession of large budget deficits. The public sector borrowing requirement (PSBR) rose from 8.6 per cent of GNP in 1972–3 to 12.9 per cent in 1976–7 (Leddin and Walsh, 1992: 122). At the time, this rise was rationalized in Keynesian terms. But budget deficits continued to accumulate in the following few years, shielding the Irish consumer for a time from the effects of the oil crisis, but raising the PSBR and the national debt to clearly unsustainable levels. The huge rise in public spending—the PSBR reached 17.3 per cent of GDP in 1980 and 20.3 per cent in 1981—failed to generate much productive investment; indeed, despite gross investment rates of 30 per cent of GDP in 1978–81, the economy grew at an average rate of only 2.5 per cent in the first half of the 1980s.

Economists were quick to criticize the fiscal expansion of those years; indeed, the tone of some critics had turned apocalyptic by the early 1980s. Politicians were slower to learn than economic commentators, and as a result most of the 1980s were wasted undoing the damage of earlier fiscal recklessness. However the 'delusion' that Ireland could sustain living standards by borrowing in the wake of the second
Irish economic growth, 1945–88

The oil price hikes had dissipated by 1983. The rhetoric of Budget Day speeches reflected lessons dearly learned. In 1978 the Budget sought ‘to give an impetus to economic activity’ that would increase the annual growth rate in GDP to an unprecedented 7 per cent, as envisaged by *National Development 1978–1980*. The combination of tax cuts and public spending would, it was hoped, grease the wheels of the private sector. But while the Budget speech of 1981 derided ‘loose comment about so-called disorder in the public finances’, by 1983 there was a clear recognition that the cost of servicing the debt had ‘preempted resources for the future’. ‘Populist quick fixes’ were ruled out in the 1993 Budget, and the PSBR has now been reduced to below 3 per cent. The pervasive gloom of the mid-1980s, reminiscent of the 1950s, has given way to mild confidence about the future. Irish economic growth since 1987 has been among the fastest in the OECD.

The Irish decision in December 1978 to participate in the European Monetary System (EMS) was a landmark in recent Irish economic history, since it brought to an end the monetary union between Ireland and Great Britain that had lasted since 1826. The aim of EMS membership was a monetary discipline which would win Ireland investor credibility, low inflation and low interest rates. At first, the inconsistent stance of Irish fiscal policy and repeated realignments of the value of the Irish pound (or *punt*) within the system’s Exchange Rate Mechanism sapped investor confidence, and Irish interest rates remained high. The currency realignments ceased in 1986, and by the early 1990s the Irish yield curve was downward sloping and the gap between Irish and German interest rates minimal. By the early 1990s it could be said that the goals of price stability and low interest rates had been reached. This brought a reduction in the cost of servicing the national debt and in the fiscal burden facing the economy. The victory was costly, however, in terms of output and employment forgone, and some economists now argue that the exchange rate regime pursued by Ireland under the EMS was unduly deflationary (Dornbusch, 1989; Leddin and Walsh, 1992: 390–3).

The aim of EMS membership had been to ‘free’ the *punt* from the shackles of a weak sterling. With a *punt*–Deutschmark exchange rate of £1 = 2.65DM, which has been maintained since mid-1986, the goal seemed to have been met by the early 1990s. The crisis caused by sterling’s departure from the Exchange Rate Mechanism in September 1992 had therefore not been widely anticipated. Moreover, most commentators initially believed that Ireland would resist the pressure to devalue in order to maintain the credibility that had been so dearly won. The costly battle to ‘save’ the *punt* against the speculators lasted four months. In January 1993 the Irish currency was devalued by 8 percent within the Exchange Rate Mechanism. With the virtual demise of the EMS in mid-1993, the Irish currency has become ‘one of the smallest independent currencies in the world’ (Walsh, 1993b). The search is now on for that golden rule-of-thumb which would yield a *punt* capable of reducing Ireland’s savage unemployment rate without endangering exchange rate stability.

The Irish combination of fiscal retrenchment, tough exchange rate policy and economic recovery in the 1980s has attracted the attention of outside experts, evoking the admiration of some and confounding others (Dornbusch, 1989; Giavazzi and Pagano, 1991). Giavazzi and Pagano have proposed the Irish recovery as a classic example of ‘expansionary fiscal contraction’, a claim denied by Barry (Barry, 1991; also Barry and Bradley, 1991). An alternative interpretation of recent
Irish macroeconomic history has buoyant world market conditions and capital inflows outweighing the deflationary effects of fiscal contraction (Leddin and Walsh, 1992: ch. 13; Barry, 1991).

4 Investment

The traditional Solow growth model places much emphasis on investment, even though steady-state growth is not affected by it. The new growth theory has placed even more emphasis on capital accumulation; indeed, it is largely motivated by the fact that traditional Solow-based growth accounting puts too small a weight on capital's contribution to economic growth (see, for example, Crafts, 1992: 391–3). While the Solow model suggested that an increase in savings rates could increase income levels but not growth rates, the new growth literature attributes both level and growth effects to investment. De Long and Summers have gone further and attributed major explanatory power to investment in equipment as a determinant in growth (De Long and Summers, 1991).

The literature has tended to find a significant positive relationship between investment shares and growth, when growth is regressed on a list of explanatory variables including investment (Barro, 1991; De Long and Summers, 1991; Mankiw et al., 1992; Dowrick and Nguyen, 1989; Crafts, 1992). Moreover, investment is itself an endogenous variable related to, among other things, initial income levels. Traditional growth models would suggest that in poorer countries returns to capital, and hence investment shares, should be higher than in rich countries. Barro (1991) found this to be so, once initial levels of human capital had been controlled for.

Theory and aggregate experience thus suggest that Ireland should have had very high investment shares during our period; if it did not, this might help explain its failure to converge. Irish policy-makers were traditionally concerned about a lack of investment in the Irish economy. The 1958 White Paper (1958: 35) highlighted 'the insufficiency of our current savings as a basis for national capital formation on the scale which would be necessary to enable us even to follow at some distance the rising standards in the rest of Europe'. Were these fears justified?

Table 13.3, using EC data, gives investment shares for Ireland, the UK and twelve present EC members since 1960. Irish investment rates were consistently above UK levels, but only exceeded average EC levels after 1970.

A similar picture emerges when the Penn Table data are used. Figure 13.6, based on that source, gives annual investment shares for Ireland, the UK and the rest of Europe from 1950. Irish investment rates were continually above UK rates, but only exceeded European rates during the 1970s and early 1980s. Investment was modest in Ireland during most of the 1950s, but increased rapidly in the following decade. The 1960s also saw a drop in marginal capital–output ratio; this was partly due to the utilization of infrastructure created in the early and mid-1950s (Kennedy and Dowling, 1975: ch. 11). The gross investment rate exceeded 30 per cent several times during the 1970s, but declined sharply thereafter. Conventional crowding-out stories seem implausible in a small open economy, and the high rates of the 1970s, a time when public expenditure was rising rapidly, suggest that it was not an issue for Ireland (Honohan, 1992a). The general climate of uncertainty and macroeconomic instability associated with the Irish debt crisis, and the severe downturn of the 1980s
Table 13.3. Gross investment, 1961–90 (as a % of GDP)

<table>
<thead>
<tr>
<th></th>
<th>Ireland</th>
<th>UK</th>
<th>EC 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960–9</td>
<td>19.5</td>
<td>18.1</td>
<td>22.8</td>
</tr>
<tr>
<td>1970–9</td>
<td>25.0</td>
<td>19.2</td>
<td>22.8</td>
</tr>
<tr>
<td>1980–90</td>
<td>21.6</td>
<td>17.5</td>
<td>20.1</td>
</tr>
</tbody>
</table>

Source: European Economy, table 20.

Figure 13.6 Investment shares: Ireland, UK and the rest of Europe, 1950–88

(largely caused by the earlier accumulation of debt) are much more plausible reasons for the decline. In the event, Irish investment rates only fell below European rates in 1987.

In summary, the Irish underinvested if the yardstick used is European investment rates, and if one bears in mind the implication of the standard convergence story that poorer countries should invest more. Underinvestment might thus explain slow Irish growth prior to 1973, as well as the spurt in growth after 1973 which the Maddison data suggest. However, if Heston and Summers are right, the dismal Irish performance from 1973 onwards which they document cannot easily be explained by appealing to Irish underinvestment.

But perhaps aggregate investment shares are not what is relevant: maybe the quality of Irish investment was poor and its composition wrong? De Long and Summers (1991) make a strong statistical case for the proposition that it is investment in capital goods that is crucial for growth; were equipment goods prices too high in Ireland, and was the share of GDP devoted to equipment investment too low? Figure 13.7, which uses the data provided by De Long and Summers, suggests that their insight cannot explain slow Irish growth. The normalized equipment price in Ireland was lower than that in most European countries, and the Irish equipment share was relatively high.

Perhaps a more disaggregated approach is needed. Table 13.4 summarizes trends
Table 13.4. Investment by use: Ireland, 1953–90 (%)

<table>
<thead>
<tr>
<th></th>
<th>Dwellings</th>
<th>Roads</th>
<th>Other buildings</th>
<th>Transport equipment</th>
<th>Agricultural machinery</th>
<th>Other machinery</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953–9</td>
<td>17.1</td>
<td>5.6</td>
<td>37.0</td>
<td>14.1</td>
<td>5.5</td>
<td>20.6</td>
</tr>
<tr>
<td>1960–9</td>
<td>15.9</td>
<td>4.3</td>
<td>33.5</td>
<td>14.4</td>
<td>4.8</td>
<td>27.1</td>
</tr>
<tr>
<td>1970–9</td>
<td>22.9</td>
<td>2.1</td>
<td>26.8</td>
<td>12.4</td>
<td>4.5</td>
<td>31.3</td>
</tr>
<tr>
<td>1980–90</td>
<td>22.4</td>
<td>3.7</td>
<td>24.2</td>
<td>14.0</td>
<td>2.5</td>
<td>33.2</td>
</tr>
</tbody>
</table>

Source: Derived from National Income and Expenditure.

Figure 13.7 Equipment share and price: Europe, 1960–85

in the share of gross investment by use. The share of agricultural machinery in total investment has dropped steadily since the 1950s, while that of 'other machinery' has risen steadily, from one-fifth of the total in the 1950s to over one-third today. But the consistently high proportion spent on transport equipment is the most noteworthy feature of Table 13.4. Was this 'unproductive' investment, or was communications a relatively important industry in Ireland for geographical or other reasons? The output of the Irish transport and communications sector – about 6 percent of GDP, proportionately no greater in Ireland than in other European countries in the period under review – casts doubt on the last explanation. Surely a more plausible explanation for the high share of transport is the loss-making capital grants to concerns such as the national air, rail and sea carriers. Dividing the output of the transport sector by the sum invested in it in a selection of European economies indicates that the return on investment in transport equipment was lower in Ireland than in any of the other European economies examined (Table 13.5).

It is also sometimes alleged that too much Irish capital formation has been in the form of public sector investment. The argument is that the public sector feels less pressure and incentive to allocate funds to the most profitable uses. Defining public
Table 13.5. Returns on investment in transport equipment, selected years

<table>
<thead>
<tr>
<th>Year</th>
<th>Ratio</th>
<th>Year</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ireland</td>
<td>1.7</td>
<td>Germany</td>
<td>1964</td>
</tr>
<tr>
<td>1979</td>
<td>1.9</td>
<td>1980</td>
<td>3.2</td>
</tr>
<tr>
<td>1986</td>
<td>2.4</td>
<td>1987</td>
<td>3.1</td>
</tr>
<tr>
<td>Italy</td>
<td>1964</td>
<td>3.3</td>
<td>Netherlands</td>
</tr>
<tr>
<td>1980</td>
<td>2.7</td>
<td>1980</td>
<td>3.7</td>
</tr>
<tr>
<td>1986</td>
<td>2.9</td>
<td>1987</td>
<td>3.3</td>
</tr>
<tr>
<td>UK</td>
<td>1964</td>
<td>4.1</td>
<td>Belgium</td>
</tr>
<tr>
<td>1980</td>
<td>3.4</td>
<td>1980</td>
<td>3.5</td>
</tr>
<tr>
<td>1986</td>
<td>4.2</td>
<td>1987</td>
<td>4.6</td>
</tr>
<tr>
<td>Norway</td>
<td>1964</td>
<td>2.2</td>
<td>Sweden</td>
</tr>
<tr>
<td>1980</td>
<td>3.6</td>
<td>1980</td>
<td>3.3</td>
</tr>
<tr>
<td>1987</td>
<td>4.8</td>
<td>1987</td>
<td>3.2</td>
</tr>
</tbody>
</table>

capital formation as public capital expenditure minus redemption of securities and payments to the rest of the world (usually a small item), the public share in total gross fixed capital formation in Ireland has indeed been high, usually ranging between 30 and 40 per cent between the 1950s and the 1980s, and falling below 20 per cent only in 1990 and 1991.11 Eurostat provides a comparative perspective: it suggests that the public share in gross fixed capital formation was not particularly high in Ireland in 1970, but that by 1986 it was the highest in the EC.

Capital grants to enterprises have typically accounted for only 10–15 per cent of Irish public investment; capital formation by government and local agencies accounted for a half. Loans and share capital accounted for 37 per cent in 1960–2, and 17 per cent in 1988–90. On the face of it, there is scope for waste here, even if Barro finds evidence 'consistent with the hypothesis that the typical country comes close to the quantity of public investment that maximizes the growth rate' (Barro, 1990: 124). However, the share of the public sector in Ireland was twice that of the average (16.4 per cent) in Barro’s 76-country sample (Barro, 1991: App. 1, p. 438).

In summary, there would seem to be several reasons why Irish investment ratios, low as they were for much of our period, would overstate the investment performance of the Irish economy during this period. This highlights some of the problems with cross-country regressions of the sort that we will be looking at later in the paper: by using explanatory variables that are of necessity crude, they may on occasion hide more than they reveal.

5 Human capital and emigration

Human capital has been much emphasized in recent theoretical and empirical work on economic growth. In theoretical work, it is an important feature of the endogenous growth literature. In applied work, it has largely served as a way of refining the original Solow model, and making that model more consistent with the facts. Mankiw et al. (1992) stress that incorporating human capital boosts capital’s share in income to an extent that capital accumulation can explain quite large
differences in income per capita. More relevantly for our purposes, Barro and others have found that convergence does hold in a conditional sense: controlling for human capital, poorer countries do grow faster. The failure of LDCs to converge as a group on the rich countries is largely due to their poor human capital endowment (Barro, 1991). This finding will come as no surprise to economic historians, who were reminded by Richard Easterlin of the importance of education in facilitating the spread of new technology over a decade ago (Easterlin, 1981).

Conditional convergence in the sense described above has become a widely accepted stylized fact. It thus seems natural to ask: is Ireland’s failure to converge on the rest of Europe attributable to a poor record of human capital accumulation?

Surprisingly, Ireland does quite well in international comparisons of educational expenditure and output. Irish expenditure on education has been both high and rising (from 3.1 per cent of GNP in 1962 to 6.4 per cent in 1989). This is reflected in Ireland’s relatively high rate of school attendance in the recent study by Mankiw et al. (1992), where Ireland ranks seventh out of 121 countries. Thus Ireland not only failed to grow faster than richer economies during this period; it also underperformed relative to its rate of investment in education. Walsh’s recent econometric study of an OECD subset of the Mankiw et al. data-set study confirms Ireland’s poor record in 1960–85, ‘in the sense that the level of GDP per adult reached in 1985 was lower than would have been expected on the basis of its initial level in 1960, the rate of growth of the labour force and the rates of human and physical capital formation’.

Decline in the quality of education is unlikely: analyses of the contribution of education (measured by years of schooling) to earnings in 1972 and 1987 imply no decline in the interim, and the marginal returns to higher education are at least as high in Ireland as in other countries offering comparable data. Nor is the frequently alleged bias against technical and science-oriented subjects in the Irish education system supported by the facts (Sheehan, 1992).

Perhaps emigration, by removing human capital, had something to do with the poor Irish performance? Ireland was after all an outlier as regards emigration, as Table 13.6 makes clear. If emigrants are better educated than the population at large, emigration will reduce the growth of income per capita in the sending country (Berry and Soligo, 1969; Dolado et al. 1993). However, the selection bias in emigration from Ireland before 1960 was, if anything, towards unskilled workers, and therefore arguably reduced unemployment and upgraded the structure of the remaining labour force (Ó Gráda and Walsh, 1992). The net outflow declined during the 1960s, turning negative in the 1970s. When it resumed in the 1980s, the highly educated were disproportionately represented among the emigrants. But this is a problem for policy in the 1990s, and hardly explains the poor record hitherto.

Emigration could have hurt the Irish economy in another way, however. Williamson (1993) examined the convergence in industrial wages across countries, and found that Ireland was in no sense an outlier according to this criterion after 1950: indeed, Ireland lies precisely on the estimated ‘convergence line’. This finding is obviously at sharp variance with what the GDP or GNP statistics tell us. If industrial workers were doing as well as could have been expected, but the country as a whole was not, then some other group in society must have suffered. Was it capitalists? This seems unlikely, since capital is freely mobile between Ireland and the rest of the world. Farmers? This also seems unlikely, at least for the post-1973
Table 13.6. Net migration in Western Europe, 1950–87  
(in thousands)

<table>
<thead>
<tr>
<th></th>
<th>1950–73</th>
<th>1974–87</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>287</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>3 360</td>
<td>365</td>
</tr>
<tr>
<td>Germany</td>
<td>7 070</td>
<td>1 042</td>
</tr>
<tr>
<td>Italy</td>
<td>2 139</td>
<td>544</td>
</tr>
<tr>
<td>Netherlands</td>
<td>47</td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td></td>
<td>77</td>
</tr>
<tr>
<td>Sweden</td>
<td>336</td>
<td>167</td>
</tr>
<tr>
<td>Switzerland</td>
<td>755</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>–605</td>
<td>15</td>
</tr>
<tr>
<td>Ireland</td>
<td>–534</td>
<td>–68</td>
</tr>
<tr>
<td>Total</td>
<td>15 133</td>
<td>2 310</td>
</tr>
</tbody>
</table>

*Note: The totals refer to the sums of absolute values.*

The period of EC bonanzas.

Williamson’s finding may perhaps be reconciled with our own, if the industrial wages used in his analysis are not competitive market wages, but wages earned by privileged ‘insiders’ holding desirable jobs and protected by strong unions. ‘Outsiders’ in casual employment and on the dole queues would then be the ones who have lagged behind. The fact that Irish labour markets are well integrated with world markets might mean that insiders, who have the option of emigrating when suitable jobs come up abroad, demand and receive internationally satisfactory wages. Outsiders have the option of receiving substandard domestic wages, going on the dole, or emigrating.

The recent experience of East Germany suggests a possible parallel here. Emigration may not by itself have raised East German wages (since labour is clearly not scarce there); but German integration may nevertheless have led to trade unions pushing up insider wages, leading to mass unemployment. We believe that a careful study of labour market institutions, and the ways in which these interact with world labour markets, has to be a priority for Irish researchers in the near future.

*In summary, then, while human capital accumulation has provided a useful way of reconciling aggregate evidence with the Solow model, and ‘explaining’ the lack of convergence at the global level, it does not, at first sight at least, explain Ireland’s poor postwar economic performance. The role of emigration, however, deserves further study.*

6 Trade policies

While the market imperfections at the heart of both new trade theory and new growth theory can potentially damage the case for free trade, the empirical case for free trade has on balance been strengthened by these developments. A well-known survey by Baldwin (1984: 586) found that the estimated gains from trade liberalization in the context of standard competitive CGE models were very small: for example,
Whalley and Wigle (1982) found that the gains to a 50 per cent multilateral tariff cut amounted to a mere one-third of 1 per cent of world GDP. Increasing returns have in practice boosted the static effects of trade liberalization: Harris and Cox (1984) found that a free trade agreement with the USA could boost Canadian welfare by almost 9 per cent of GNP.

The dynamic effects of trade policy remain more elusive, at both a theoretical and an empirical level. It is true that if trade leads a country to specialize in less technologically progressive goods, this may imply dynamic losses that outweigh the static gains from trade (Young, 1991); and indeed, it is sometimes claimed that this is precisely what happened when Ireland specialized in linen rather than cotton in the nineteenth century. In a similar vein, it has occasionally been argued that only industry is capable of sustaining general productivity growth, and that economies such as Ireland, whose comparative advantage dictates that they should specialize in agriculture, will benefit from protection.

On the other hand, if there are increasing returns to research, and trade leads all countries to put their research eggs in one basket, rather than spreading resources across sectors, then trade can boost growth everywhere (Davis, 1992). Trade in both goods and ideas will do the trick; the theory, by appealing to economies of scale in the production of new ideas, is reminiscent of Smith's dictum that the division of labour depends on the extent of the market (Rivera-Batiz and Romer, 1991). What the new theory adds to traditional, static trade theory is the possibility that trade will increase growth rates as well as income levels. 14

More important for the debate than the theory, maybe, has been the plethora of empirical studies confirming that trade and growth go hand in hand. This work has taken the form of country studies, studying the effects of import substitution policies in several developing countries, as well as cross-country statistical studies. 15 Ireland too has a failed import substitution experiment behind it; trade policy would certainly seem to offer a promising explanation for Irish retardation, at least during the 1950s.

During the 1920s, Ireland continued to be largely free trading. After 1932, however, the De Valera government sought to create an import-substituting industrial sector. In an attempt to prevent tariff hopping by foreign companies, the government tried to restrict direct investments by foreign firms in the economy. Protection resulted in a very rapid increase in industrial employment and output in 1932–7, but that rise was not sustained and productivity remained low. Ireland remained protectionist until the late 1950s, much later than other European countries. It then progressively opened itself to the outside world, with tariff reductions, a free trade agreement with the UK in 1965, and eventually EC membership in 1973.

The policy of protection brought in by De Valera in the early 1930s was not unique, and may have been a sensible response to the circumstances of the time (Neary and Ó Gráda. 1991; O'Rourke, 1991). However, Ireland was slow to jump on the GATT bandwagon, only significantly liberalizing towards the mid-1960s with the Anglo-Irish Free Trade Agreement (AIFTA). It thus seems reasonable to enquire whether Ireland's failure to ride the postwar boom was due to its mistaken adherence to trade policies that had outlived their usefulness.

The ratio of customs receipts to merchandise imports is a fallible, first-cut means
of tracking protection. That ratio rose from 12 per cent in 1929 to 24 per cent in 1939. In 1960 it was still 20 per cent, but by 1970 it had fallen to 13 per cent, and by 1990 to 0.9 per cent. The fall in the effective rate of protection was greater still (McClymont, 1971). The ratio of merchandise trade (imports plus exports) to GDP rose in tandem from about 25 per cent in 1945 to 55 per cent in the 1950s, to 69 per cent in 1960–73, and 106 per cent in 1974–89. A small but indeterminate part of the rise was due to transfer pricing, since tax relief on profits derived from exports prompted multinational corporations to declare low prices for imported raw materials and high prices for exports. The result was inflated value added, an artificially high return on capital, and exaggerated export and output levels. The rate of growth over the long haul is probably not much affected, however.

How did protection affect the Irish economy? It certainly made it a lot more inward looking. A useful comparison here is with Northern Ireland, which as part of the UK was compelled to maintain free trade with Britain throughout our period. The trade ratio suggested by Kennedy et al. (1988: 234, 239) (defined here as $(X - M)/(X + M)$ for manufactured goods) effectively captures the contrast. The home market orientation of the new southern industrial sector caused the ratio to drop, while the more recent rise in the ratio captures the transition to a more outward-looking industrial sector. For the North, however, the two-way trade in manufactures was broadly in balance throughout (Table 13.7).

The resulting industrial structure – a large number of widely dispersed small firms and a low degree of horizontal integration – reflected both the powers of local pressure groups and the small size of the local market. The following extract from Mary Daly's recent book on the 1930s will give a flavour of the distortions involved (Daly, 1992: 108; see also Ó Gráda, 1994b: ch. 15):

J.H. Woodington was refused permission to build a tannery adjacent to his Drogheda shoe plant or in an adjoining town. He was informed that the minister preferred a town that did not have an industry and was dispatched to Mountmellick following local representations, despite the lack of a suitable site. When he turned his attentions to Portlaoise because of an offer of local capital, officials proposed Tralee, 'where all the capital necessary would be available'.

Few other sizeable towns in Ireland are as far from Drogheda as Tralee!

Such a structure was unlikely to support the innovation necessary for sustained economic growth. It was also bound to deprive Irish industry of precisely the sorts of external economy of scale (skilled local labour forces, for example) that have been used to justify industrial protection. Why then did Ireland take so long to liberalize?

Although the protectionist policies pursued by successive administrations since the early 1930s always had their critics, evidence of the damage caused was elusive
before the 1950s. As mentioned, the tariffs imposed in the early 1930s had initially produced a sharp rise in industrial employment. Admittedly, it did not take capital long to absorb the sheltered home market, and industrial employment had already peaked before 1939. However, the message that import substitution could not have produced sustained economic growth was blurred by the enforced autarky of 1939–45, and the postwar recovery produced the illusion that protectionism was doing no harm. 1946–51 was the first five-year period since the Famine to experience population growth. Industrial employment rose considerably, industrial profits rose, and the rate of economic growth was respectable by European standards (Hall, 1951: 4–5; Lynch, 1969: 189). It was only when the rest of Europe left the Irish economy standing in the 1950s that the bankruptcy of the old policies became clear to policy-makers.

Policy-makers and most opinion-makers in the early 1950s took protection for granted. The Commission on Emigration (1956: 161) defended tariffs by noting that without them ‘it would be difficult to conceive of industry on any wide scale maintaining itself or developing further’, and insisted that future commitments to international agreements should not compromise ‘our freedom to develop our industries as we think fit’. To those economists who continued to support free trade, in the mid-1950s it was still ‘an unlikely utopia’ (Lynch, 1969). Even Whitaker's landmark *Economic Development* (1958), the government report which paved the way for the new economic policies of the 1960s, was circumspect about the issue. Noting that ‘the coming of free trade in Europe in one form or another must be faced in due course’, its main emphasis was on the need to allow in foreign capital rather than on abolishing tariffs (Whitaker, 1958: 190; see also Whitaker, 1956). Indeed, the new Industrial Development Authority, established to attract direct foreign investment, sanctioned some tariff increases in its early years (Whitaker, 1958: 13), and neither the Central Bank nor the Department of Finance proposed freer trade as a panacea in the early 1950s. Policy-makers emphasized instead the need for state mobilization of investment funds and demand management. It took time for the argument for freer trade to sink in.

Free trade appears to have helped boost Irish growth, as a glance at Figure 13.2(c)–(f) will suggest. The distance between Ireland and the ‘convergence lines’ implied by experiences of a large number of European economies narrowed after 1960. On the other hand, Ireland continued to underperform. Perhaps this was because free trade did not mean an end to government distortions. For example, it was surely no accident that the new tax incentives and grants introduced to attract foreign investment in export-oriented industries were geared to complement, rather than substitute for, existing inward-looking Irish-owned industries (Lee, 1989: 352).

To this extent the Irish campaign to attract foreign investment was constrained from the start by the protectionist legacy. The shift to ‘free trade’ in Ireland was matched by a big increase in non-tariff distortions in the form of a huge rise in aids to industry. In 1983–6, 3 per cent of GNP was being spent on promoting industrial development, equaling about one-eighth of industrial value added (Leddin and Walsh, 1992: 482). Bond and Giesinger (1985: 96) state that ‘Investors receiving the maximum cash grant are being protected, in effect, with the equivalent of a 24% tariff on top of an average 27% tariff afforded by the EC's common external tariff.’ Such government distortions, falling under the general rubric of ‘industrial
policy', may simply substitute for outright protection; if so, they may lead to a
similar misallocation of capital. More importantly, by creating an impression that
bail-outs might be available for underperformers, they might reduce innovation, an
effect stressed by Michael Porter (1990). Furthermore, direct government subsidies
to industry might be even more 'capturable' by interest groups than across-the-board
protection; rent seeking might be as much or more of a problem, with all that this
can imply for growth. It is to rent seeking, and other political economy factors, that
we now turn.

7 Rent seeking and interest groups: the political economy of growth

The rent-seeking approach associated with Mancur Olson (1982) seems to offer a
good framework for interpreting Ireland's relatively poor economic performance
since 1945. Olson predicts, in the absence of disturbing causes, powerful tendencies
for sectional interest groups to become entrenched in an economy. These groups
will tend to cause institutional sclerosis and economic stagnation. According to
Olson, societies fortunate enough to have been spared military invasion or serious
political unrest for a long time, such as the United Kingdom, pay a price in that their
very stability gives such interest groups ample scope to plan collective actions which
restrict competition and retard growth. Only an external shock such as defeat in war
or economic and political integration can destroy the influence of such groups.

Aspects of the Irish record invite a reappraisal of this last hypothesis. First, the
political convulsions of the nineteenth century may, contrary to Olson, have
encouraged rather than hindered rent-seeking behaviour. The Land War, which
pitted the peasantry against the land-owning classes, was eventually won by the
former, after a series of rent strikes, some violence and much upheaval. Courts were
instituted to set rents, and later the landlords were forced to sell their land at
favourable prices, with the taxpayer helping to smooth the transaction. Barbara
Solow, for one, has argued that this was disastrous for Irish agriculture:

Incentives to adjust the economy in the face of new international
conditions were to some extent paralyzed. There is no need to take too
seriously landlord contentions that everybody rushed to court and
neglected his farming, but if tenants could increase income more by
litigation than by changing agricultural techniques, they would certainly
do so. If valuers were swayed by appearances, a premium was even put on
worse farming, and consequent dilapidation ... with the tenants of Ireland
crowding into court, no one was thinking about agricultural education,
credit and marketing programs, improved cropping, selective breeding,
and, in general, ways of assisting tenants to adjust to changed economic
conditions. (Solow, 1971: 165–6)

Could it be that experiences such as this had a long-run impact on the culture,
leading entrepreneurial talent to focus on 'the grant' or some other government
concession, rather than competing on world markets?

A second point to make is that Ireland did undergo a violent revolution and civil
war during the period 1919–23. Why then was rent seeking a problem in the new
Ireland? Olson himself (1989) has questioned whether independence 'destroyed the
organizational structure of Ireland'. Most historians would agree: the Irish
revolution left property, the legal and banking systems, industrial relations and the civil service largely intact. The new regime sought to build up its reputation through institutional continuity wherever possible, so in the sense of Olson the revolution may not have been thoroughgoing enough.

The protectionist coalition formed in the 1930s, which would soon command cross-party support and survive into the 1950s, would seem to fit Olson’s model quite well. Urban workers, small farmers and manufacturing interests benefited from De Valera’s policy of protection, sweetened with the ‘farmers’ dole’, and together formed a powerful alliance (O’Rourke, 1991). Indeed, Olson (1989) pointed to free trade and EC membership as a means of ridding Ireland of the anti-growth coalitions that had become entrenched since the 1930s.

If the maintenance of protection was due to a powerful Olsnian coalition, one might have expected to see fierce resistance to the liberalization that did eventually occur. Yet when the inability of the strategy of import substitution to sustain growth and employment became clear in the 1950s, the resistance offered by Olson-type lobbies was surprisingly weak. This supports the interpretation of the delayed liberalization put forward in the previous section: policy-makers had simply been slow to learn that protection was mistaken.

In support of the Olson model, however, it could be argued that the scheme of adaptation grants to threatened firms instituted in 1962 and continued until 1967 was part of the price paid for the support or acquiescence of business and trade unions. The grants provided subsidies to firms which modernized their plant and equipment. The scheme followed the reports of the corporatist Committee on Industrial Organization, which revealed an indigenous industrial sector unlikely to cope with free trade (Kennedy et al., 1988: 68). Initially intended as a temporary measure, the scheme took on a life of its own. Given the poor prospects and poor record of the majority of firms involved, these transfers must have yielded a very poor return.

A recent paper by Patrick Honohan (1992b) has listed several of the more blatant examples of rent-seeking behaviour in Ireland. Semi-state companies, granted a monopoly position in the Irish market, have channelled rents into cost increases rather than profits for the Exchequer. A small state-owned enterprise making a worthless petrol additive was supported by making the additive compulsory in all petrol refined in Ireland. During the recent currency crisis, hand-outs were granted only to those firms which had been careless enough to leave themselves exposed to fluctuations in the Irish pound/sterling exchange rate. Honohan might also have mentioned the fact that all flights between Ireland and the USA were for years forced to stop at Shannon Airport, as a result of some extremely effective lobbying by local interests.

One institutional feature of Irish life that has often been blamed for some of the rent-seeking that occurs in the country is the multi-seat constituency, which pits party member against party member, and places a premium on ‘constituency service’. It also makes for more marginal seats, giving greater weight to regional issues than would be the case under either a ‘national list’ or a single-seat constituency system. For example, the Shannon stopover was supported even by the laissez-faire Progressive Democrats, presumably because two of its deputies represent the Limerick area.
Institutions and politics can matter in other ways. Did Ireland’s pay bargaining structure retard output and productivity growth? The Olson model would seem to have a definite bearing here. Olson (1982) argues that interest groups such as trade unions and producers’ groups inflict most damage when they are big enough to cause widespread disruption, but small enough for the social cost of their actions to remain an externality to themselves. In this view, either very weak or all-powerful lobbies may be preferable to something in-between. Thus it is often argued that corporatism works, both in pay bargaining and strategic policy decision making, because it takes account of macroeconomic constraints and minimizes the risk of inter-union disputes. Most analysts consider the cost in reduced wage dispersion worth paying. In Ireland, the experience of the Committee on Industrial Organization, which united management, unions and public service in analysing the shortcomings of protected industries in the early 1960s, and in proposing rationalization schemes, seems a good case in point. But more recent Irish experience in the pay bargaining sphere provides less cause for cheer.

In an economy with high unemployment such as Ireland, the argument in favour of centralized agreements is that they should produce lower wage increases than plant-by-plant collective bargaining. However, a recent assessment of the Irish experience with centralized bargaining concludes that the outcome ‘in terms of pay increases was higher than a decentralized wage bargaining situation’ (Durkan, 1992: 349). Before the 1960s, old-fashioned collective bargaining was the norm in Ireland. The first attempt at a centralized agreement, the National Wage Recommendation of 1964–6, led to trade union suspicion of incomes policy, and decentralized bargaining followed until 1969. A serious industrial dispute prompted the re-emergence of centralized bargaining in 1969, but the rationale was good industrial relations, not full employment or inflation. Subsequent pay agreements stipulated a national norm, but also allowed for local bargaining to obtain further increases. This combination of centralized and decentralized bargaining arguably produced the worst of both worlds.

The ‘National Understanding for Economic and Social Development’ of 1978 seemed to mark a watershed, in that it explicitly recognized the connection between pay and employment levels. However, the ensuing wage increases belied that view. The breakdown of the Second National Understanding in 1982 marked the end of centralized bargaining until 1987, with employers refusing to have any further truck with it. A sharp decline in wage inflation ensued, and there was industrial peace. Centralized bargaining resumed in 1987, according to Durkan ‘once again accelerat[ing] the pace of wage inflation’ (Durkan 1992: 362). His assessment of the Irish experience with wage bargaining is cast in a very Olsonian mould: ‘it is no surprise that once lobby groups get together the result is suboptimal. The result of bargaining will suit lobby groups, but how does it suit those excluded from the negotiation?’ (Durkan, 1991; cited in Durkan, 1992: 363).

Where does this fit in with the broader European experience with corporatism? Ireland does not feature in Calmfors and Driffill’s recent comparative study of the bargaining structure and economic performance in eighteen OECD countries (Calmfors and Driffill, 1988). Ireland’s industrial relations make it an ‘intermediate economy’ in their framework, and adding it to their sample corroborates their case for a hump-shaped relation between the degree of centralization and economic
Table 13.8. Calmfors-Driffill indicators of economic performance

<table>
<thead>
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<th></th>
<th>Unemployment rate</th>
<th>Employment Okun index</th>
<th>Alternative performance index</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>L</td>
<td>C</td>
<td>L</td>
</tr>
<tr>
<td>A Centralized economies</td>
<td>4.0</td>
<td>2.3</td>
<td>72.5</td>
</tr>
<tr>
<td>B Intermediate economies</td>
<td>6.1</td>
<td>4.8</td>
<td>60.9</td>
</tr>
<tr>
<td>Ireland</td>
<td>11.0</td>
<td>5.0</td>
<td>54.6</td>
</tr>
<tr>
<td>B’ (including Ireland)</td>
<td>6.9</td>
<td>4.9</td>
<td>59.9</td>
</tr>
<tr>
<td>C Decentralized economies</td>
<td>5.8</td>
<td>2.9</td>
<td>65.8</td>
</tr>
</tbody>
</table>

Note: The Okun index is the unemployment rate plus inflation; the alternative index is the unemployment rate plus the current account deficit as a percentage of GDP.  
Sources: Calmfors and Driffill (1988: 20); European Economy, no. 50.

performance. In Table 13.8, rows A, B and C reproduce Calmfors and Driffill’s results for centralized, intermediate and decentralized economies; row B’ shows the effect of including Ireland in the intermediate category. However, quite apart from the possible influence of other factors, the difficulty with measuring the degree of centralization precludes an attempt at measuring the importance of this effect. A related study by Freeman (1989: 76) shows Ireland in the uncomfortable position of having moderate wage dispersion coupled with the lowest employment rate in a 19-country sample.

Analysis of protection and industrial relations thus yields modest support for the Olson model. However, this model is notoriously difficult to test satisfactorily. Magee et al. (1989: ch. 8) invoke the ratio of lawyers (a measure of unproductive lobbying activity in an economy) to physicians (representing productive white-collar workers) as an index of rent seeking, and find that per capita income in countries with more lawyers per doctor has grown more slowly in the period 1960–80. High-tariff countries also have more lawyers. Ireland is one of thirty-four countries to feature in their analysis. However, cross-country variations in the structure of these professions vitiate the exercise; in Ireland, for example, the legal profession has always restricted entry, while in the United States, the legal profession is relatively open but the American Medical Association operates a monopoly (compare Walsh, 1993a).

8 Some simple cross-section evidence

Finally, for further comparative focus, we subjected an 18-economy data set, based largely on Heston–Summers Mark 5, to statistical analysis. The strategy was first to
gauge Ireland's status in the European 'convergence club' detected in section 2, by regressing growth in per capita GDP on initial GDP and an Irish dummy variable. We then added further explanatory variables, in an attempt to reduce the size of the (negative) coefficient on the Irish dummy. These variables were: the investment share of GDP (INV, taken from the Penn Table); a scale variable, as in Helliwell (1992); the share of GDP accounted for by agriculture (AG); secondary school enrolment rates (SEC, taken from the UNESCO Survey of Education (vol. 3) and the UNESCO World Education Report (1991)); a trade variable, TRADE, defined as the sum of merchandise imports and exports, and reflecting the well-known fact that trade is more important to small countries than to large; a proxy for corporatism (CORPOR), defined rather crudely by a dummy variable (since theory suggests that both highly centralized and highly decentralized systems of industrial relations work well, economies in those categories are given a value of one, and the rest (including Ireland after 1960) a value of zero); and a dummy variable, PERIPH, which equals one if the economy is geographically peripheral, in the sense of comprising part of Western Europe's external border, and which equals zero otherwise. The results for the period 1973–88 must unfortunately be treated with caution, due to the uncertainty over the Irish GDP data mentioned in section 2, and the steadily evolving GDP/GNP gap over the period.

Tables 13.9–13.12 present the results of the analysis. We estimated variants of the following:

\[
\text{GROWTH} = a_0 + a_1 \ln(\text{SCALE}) + a_2 \ln(\text{GDP}_1) + a_3 [\ln(\text{INV/GDP}) - \ln(n + g + \delta)] + a_4 [\ln(\text{SCHOOL}) - \ln(n + g + \delta)] + a_5 \text{CORPOR} + a_6 \text{TRADE} + a_7 \text{PERIPH} + a_8 \text{AG} + a_9 \text{IRL} + \epsilon
\]

where \(n\) is the rate of population growth. We follow Mankiw et al. in assuming that the sum of \(\delta\) (the rate of depreciation) and \(g\) (the rate of change in the level of technology) equals 0.05.

Regressions of this form were first estimated for each period separately (Tables 13.9–13.11). Throughout the 'convergence' effect is reflected in the negative coefficient of GDP, although comparing periods suggests that the convergence that took place in 1950–73 was less evident in 1973–88. Ireland's poor showing is captured by the negative coefficient on IRL, usually greater than 1 per cent. However, the drop in the coefficient on IRL from about 2 per cent during the 1950s to somewhat over 1 per cent in later periods is worth noting. This drop supports the notion that the shift to more outward-looking policies from the late 1950s led to improved Irish economic performance.

The investment rate (INV) performs well throughout, and in the expected direction, although it does not always help explain away the coefficient on IRL: if anything, Ireland invested too much. Several of the variables suggested by theory help explain the variation in growth rates, although they fail to make a big dent in the size of IRL. More interesting is the outcome in Table 13.12, where the data are pooled, and coefficients estimated following the heteroskedastic correction suggested by Kmenta (1973: 508–17).18 Again, convergence is confirmed, with Ireland as an outlier. Again the investment rate (INV) works as predicted. Several other variables - SCALE, PERIPH, SEC, CORP, AG - work as predicted. Taken together, they
reduce the coefficient on IRL by about half. Most powerful in this sense is AG, the contribution of agriculture to GDP. This variable reduces IRL by about one-third. CORP also reduces the value of IRL, although not too much should be read into this. Of these variables SCALE, PERIPH and AG may be deemed exogenous at least in the short run, while CORP, INV and SEC are influenced by policy. The fault for Ireland’s poor performance since 1950 thus seems to be partly ‘in ourselves’, partly ‘in our stars’.

It is unclear how to interpret the strong influence of AG on the size of the Irish dummy variable. First, it could be that agriculture is a slow-growing sector without any of the beneficial externalities emphasized by the new growth theorists; Ireland may have had a comparative advantage in the ‘wrong’ good, as in Young (1991). In order to evaluate this claim, one would need to compute total factor productivity growth in both agriculture and industry for a large number of economies. Second, it
Table 13.11. Cross-section analysis, 1973–88

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<th>(4)</th>
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</thead>
<tbody>
<tr>
<td>CONST</td>
<td>3.80</td>
<td>6.51</td>
<td>-1.48</td>
<td>-7.26</td>
</tr>
<tr>
<td></td>
<td>(0.58)</td>
<td>(0.97)</td>
<td>(-0.15)</td>
<td>(-0.80)</td>
</tr>
<tr>
<td>GDP</td>
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<td>-0.76</td>
<td>0.43</td>
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<tr>
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<td>(-0.30)</td>
<td>(-0.69)</td>
<td>(-0.99)</td>
<td>(0.46)</td>
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<tr>
<td>IRL</td>
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<td>-1.37</td>
<td>-1.51</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(-1.31)</td>
<td>(-1.42)</td>
<td>(-1.72)</td>
<td></td>
</tr>
<tr>
<td>INV</td>
<td>1.66</td>
<td>0.80</td>
<td>1.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1.18)</td>
<td>(0.59)</td>
<td>(1.98)</td>
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<tr>
<td>PERIPH</td>
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<td></td>
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<tr>
<td>$R^2$ (adj.)</td>
<td>-0.06</td>
<td>-0.01</td>
<td>0.014</td>
<td>0.186</td>
</tr>
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</table>

may be that agricultural economies are governed by politicians who mistakenly believe that sustainable growth can only be based on industrialization; and that thus such economies are more likely to suffer from distortionary policies. Third, it is of course also true that Europe as a region does not have a comparative advantage in agriculture. European agricultural regions would therefore have declined faster than they actually have done, had government interventions not delayed the process. The growth implications of institutions such as the CAP are themselves ambiguous, even for agricultural economies, as the cossetting of particular sectors may reduce their long-run dynamism.

9 Conclusion

Patriotic Irishmen, worried about their country’s lowly economic status, have long looked to history and to the achievements of neighbouring economies for inspiration. In the 1840s, Young Irelander Thomas Davis pointed to the Prussian system of technical education and the Norwegian system of succession; in the 1900s agrarian reformer Horace Plunkett urged his countrymen to make Ireland ‘another Denmark’, and economic nationalist Arthur Griffith saw a lesson in the ‘resurrection of Hungary’. Though their diagnoses differed radically, all three believed that the performance of the Irish economy was far from optimal. Most subsequent assessments concur. Our own comparative perspective on the record since the late 1940s only confirms the gloomy assessments of earlier studies, such as those of Lee and of Kennedy et al. The outcome will hardly come as a surprise for the 1950s, conventionally deemed a ‘lost decade’ in Irish economic history. Yet when assessed in the context of a European pattern of ‘convergence’, even the 1960s, usually considered a ‘golden age’ for Irish economic growth, emerge in a rather unfavourable light.

Why, then, has Ireland’s record been so poor? In this preliminary survey we have reviewed some of the reasons given by other researchers and added a few of our own. In sections 4 to 7 we focused on certain possible causes in isolation, while in section 8 we adopted an explicitly comparative perspective. Our canvass suggested that factors such as the small size of the economy, the importance of agriculture,
Table 13.12. *Cross-section analysis, 1950–88*

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</tr>
<tr>
<td><strong>TRADE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.87)</td>
</tr>
<tr>
<td><strong>R² (adj.)</strong></td>
<td>0.861</td>
<td>0.819</td>
<td>0.850</td>
<td>0.853</td>
<td>0.858</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>(11)</th>
<th>(12)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONST</strong></td>
<td>19.12</td>
<td>18.35</td>
</tr>
<tr>
<td></td>
<td>(7.47)</td>
<td>(6.36)</td>
</tr>
<tr>
<td><strong>GDP</strong></td>
<td>-3.97</td>
<td>-4.00</td>
</tr>
<tr>
<td></td>
<td>(-10.51)</td>
<td>(-9.79)</td>
</tr>
<tr>
<td><strong>IRL</strong></td>
<td>-0.67</td>
<td>-0.68</td>
</tr>
<tr>
<td></td>
<td>(-1.12)</td>
<td>(-1.09)</td>
</tr>
<tr>
<td><strong>INV</strong></td>
<td>3.02</td>
<td>3.16</td>
</tr>
<tr>
<td></td>
<td>(7.24)</td>
<td>(7.01)</td>
</tr>
<tr>
<td><strong>AG</strong></td>
<td>-12.65</td>
<td>-11.95</td>
</tr>
<tr>
<td></td>
<td>(-5.09)</td>
<td>(-4.40)</td>
</tr>
<tr>
<td><strong>SEC</strong></td>
<td>0.36</td>
<td>0.36</td>
</tr>
<tr>
<td></td>
<td>(1.08)</td>
<td>(0.99)</td>
</tr>
<tr>
<td><strong>SCALE</strong></td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.83)</td>
<td></td>
</tr>
<tr>
<td><strong>CORP</strong></td>
<td>0.31</td>
<td>0.34</td>
</tr>
<tr>
<td></td>
<td>(1.33)</td>
<td>(1.38)</td>
</tr>
<tr>
<td><strong>R² (adj.)</strong></td>
<td>0.848</td>
<td>0.824</td>
</tr>
</tbody>
</table>
low-quality investment decisions, and rent seeking in industrial relations, all played a role, although we doubt whether taken together they account for all of the gap between Ireland's actual and 'expected' performance. On the other hand, low rates of investment in human and physical capital do not seem to have been responsible, at least from the 1960s onwards. Finally, this survey, in common with most of the convergence literature, is aspatial. Could Ireland's proximity to the UK, a slow grower in absolute terms (although not an underperformer in the convergence sense) have led to slow Irish growth rates? Adding a spatial dimension to the empirical growth literature may prove a fruitful research programme for the future.

It would be wrong to end on a wholly gloomy note, so let us add three caveats. First, the official Irish data underlying our figures and our tables probably underestimate Irish GDP in at least two ways:

- The allowance for the output of the owner-occupied housing sector (larger in Ireland than in most or all of the other economies considered above) is deemed to be relatively conservative.\(^\text{19}\)
- The size of the household economy is much larger in Ireland and the rate of female labour force participation much lower than in most European countries, so that GDP is a more conservative estimate of true output in Ireland than in other countries (Fahey, 1992; NESC, 1991).

Any such downward bias in the measurement of GDP exaggerates our expectations of Irish economic growth in the convergence stakes.

Second, relative economic performance is not everything; recent surveys of European public opinion confirm the common impression that the average Irishman and Irishwoman are happier and less angst-ridden than their British and most of their Continental neighbours.\(^\text{20}\)

Finally, the Irish economy has been among the fastest growing in Europe since 1988, the end-date of our comparative analysis. A continuation of that pattern for another few years would force us to modify, if not reverse, our sombre verdict on the post-1973 period.

NOTES

Earlier versions of this chapter were presented at the CEPR workshop on European postwar growth in Lund (May 1993); at the European Historical Economics Association seminar on economic growth in the European periphery at the Pazo de Marinan, Galicia (July 1993); and at seminars at University College Cork and the University of Copenhagen. We thank Frank Barry, John Bradley, Nick Crafts, Kevin Denny, Rolf Dumke, Joe Durkan, Cathal Guimond, John Kennan, Kieran Kennedy, Patrick Honohan, Moore MacDowell, Angus Maddison, Rodney Thom, Gianni Toniolo, Brendan Walsh and Jeffrey Williamson for their comments and help. We are grateful to David Lee for excellent research assistance, and to the UCD Department of Economics Research Fund for financial support.

1 Unless otherwise specified, 'Ireland' is used to refer to the 26 counties, rather than the island as whole.

2 Summers and Heston (1991); data kindly supplied by Angus Maddison.

3 See also O'Rourke et al. (1993), O'Rourke et al. (1994), Boyer et al (1994) and Williamson (1994), for further discussion of late nineteenth-century convergence.
4 O'Rourke (1992) contains a theoretical discussion; Mokyr and Ó Gráda (1982) investigate some of the empirical issues involved.

5 Kennedy (1992) is an important exception.

6 Taken to be the following countries: Austria, Belgium, Denmark, Finland, France, West Germany, Greece, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden and Switzerland. The Maddison data set we have access to does not have data for Greece, Iceland and Luxembourg.

7 Friedman (1992); see also Quah (1993). These authors argue that a declining coefficient of variation over time represents true economic convergence; finding that initially poor countries grow more rapidly does not necessarily imply such convergence. The point is made by analogy with Galton's fallacy: the fact that the sons of tall fathers tend to be smaller than their fathers ('beta-convergence') does not necessarily imply that the size distribution of the population collapses over time ('sigma-convergence'). Sala-i-Martin (1993) shows that beta-convergence is a necessary but not sufficient condition for sigma-convergence. The size distribution argument would seem to hold because, over time, different families rise to the top of the height league in a random fashion. We wonder whether this is the right metaphor for understanding economic league tables, in which countries retain their places in the league table for very long periods indeed. More tellingly, maybe, sigma-convergence was a feature of post-1950 Europe (but not of the post-1973 period), as the following table shows:

\[
\text{GDP per capita: coefficient of variation}
\]

<table>
<thead>
<tr>
<th>Year</th>
<th>Maddison data</th>
<th>Heston-Summers data</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>0.39</td>
<td>0.43</td>
</tr>
<tr>
<td>1960</td>
<td>0.34</td>
<td>0.37</td>
</tr>
<tr>
<td>1973</td>
<td>0.26</td>
<td>0.27</td>
</tr>
<tr>
<td>1988</td>
<td>0.22</td>
<td>0.27</td>
</tr>
</tbody>
</table>

8 Comparable data only being available for this subset of countries.

9 We are grateful to Cathal Guimard for this suggestion.


11 These data are given in the national accounts.

12 See Walsh (1933a: 30–3). Walsh notes, however, that his results only lend weak statistical support to this conclusion, unless GNP rather than GDP is used.

13 Of course, if education differentials reflect the power of 'insiders', rather than the relative productivity of the well educated, this conclusion does not hold.

14 Even the standard Solow model implies much longer 'medium-run' gains from trade than a static model; the addition of scale economies or other 'new growth theory' elements is, however, necessary to boost growth permanently. See Baldwin (1989), which represents a pioneering attempt to estimate these growth effects.

15 See, for example, the *World Development Report* (1987). A problem to date in empirical studies has been the lack of a theoretically valid index of protection; Anderson and Neary (1994) provide a promising candidate.

16 See n. 15. We hope to compute an Anderson–Neary trade protection index for Ireland at some future stage.

17 See also Hardiman (1993); Leddin and Walsh (1992: 264–7).

18 This was done because standard diagnostic tests suggested strong heteroskedasticity in the pooled data set.
19 The allowance for actual and imputed rent — currently about £400 per household per year — seems very low. One could argue for a much higher figure — say £1,000 per annum — and that would add about 2 percent to Irish GDP per head. Compare Kennedy and Dowling (1975: 325–6).

20 See Eurobarometer, no. 33 (June 1990).

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