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Labour Market Performance in the EU Periphery: Lessons and Implications

by

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and

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LABOUR MARKET PERFORMANCE IN THE EU PERIPHERY:
LESSONS AND IMPLICATIONS

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Frank Barry*, John Bradley**, Kieran A. Kennedy** and Nuala O'Donnell**

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** Economic & Social Research Institute

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This paper draws on the results of research carried out for the European Commission, D.G. XII, under contract JOU2-CT92-0257. Our understanding of the Greek, Portuguese and Spanish economies benefited greatly from discussions with Nicos Christodoulakis, Leonor Modesto, Jose Antonio Herce and Simon Sosvilla-Rivero. Errors, omissions and misinterpretations are our own responsibility.
The problems and challenges addressed in the Commission's White paper on *Growth, Competitiveness, Employment* affect the peripheral member states acutely, and in a way that differs considerably from how the richer, more developed, core members are affected. To set the scene for our reflections on the White Paper, we briefly examine the economic context and the key stylised facts of the four main EU peripheral economies (Greece, Ireland, Portugal and Spain), and question whether much of the existing econometric research literature presents a useful picture of how policies should be designed to address their labour market and competitiveness problems.

We then explore the relevance of the White Paper analysis and policy proposals, and deduce that a very different focus is required when moving from the core to the periphery. We conclude with an outline of the types of policy issues that arise in the periphery in assisting its transition to a higher level of development and a more satisfactory and robust labour market performance.
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1 INTRODUCTION

At the time of the signing of the treaty of Rome in 1956, the EEC consisted of six member states that were reasonably homogeneous in terms of GDP per capita.\(^1\) The first enlargement of the EEC in 1972 brought in as new members two wealthy core countries (the United Kingdom and Denmark) and one less developed peripheral country (Ireland). However, it was not until after the second enlargement in 1981 (Greece) and the third in 1986 (Portugal and Spain) that the issue of economic and social heterogeneity and regional inequality moved up nearer to the top of the EC policy agenda.\(^2\) The 1992 Single European Market initiative put further pressure on the quest for policies that would help offset some of the tendencies towards divergence on the part of the periphery, although these issues were not addressed directly at that time in the major research programme that examined the probable consequences of the completion of the internal market [Cecchini (1988); Emerson et al (1988)].\(^3\)

The increased concern for economic and social homogeneity in the EC (cohesion) resulted in a reformulation and expansion of the disparate group of policies aimed at structural and growth objectives under the title Community Support Framework (CSF). Policies grouped together included the European Regional Development Fund, the European Social Fund, and the Guidance Section of the very large Guidance and Guarantee Fund (EAGGF) of aids and support to agriculture.\(^4\) In terms of their size and wide scope, the CSF policies are of crucial importance to the three smaller "Objective 1" countries (Greece, Ireland and Portugal), and, to a lesser extent, to the other assisted regions - particularly in Spain and Italy.

The implementation of the first CSF (Delors-I) covered the five-year period 1989-93, and has just drawn to a close. More recently, moves towards economic and monetary union (EMU) and the signing of the Maastricht treaty in December 1992, under which many of the remaining areas of policy autonomy in the periphery are likely to be further constrained, were accompanied by another expansion of the size and scope of the CSF by some 50 per cent. This second programme (Delors-II) will run for the six-year period 1994-99.

From the start of the CSF process, the clear aim was to encourage self sustaining growth in the less developed countries and regions, rather than to provide demand stimulus or income maintenance on a continuing basis. From a purely economic point of view, the CSF initiatives were seen by the net donor states as the means of providing the poorer peripheral members with a window of opportunity to rectify economic problems that were associated with their low level of income per capita, low rates of productivity and high unemployment and under-employment. Hence, the CSF funding was targeted at boosting productive capacity, employment and productivity in order to ease the transition of the peripheral member states to the more competitive post-1992, post-EMU environment. The implicit assumption among the net donors was, presumably, that the CSF funding, if successful, could eventually be wound down, withdrawn, or redirected elsewhere, probably to the newly liberalized Central and Eastern European economies.

---

1 In 1960, the index of GDP per capita (in terms of purchasing power parity (PPP), where the EC average was 100) ranged narrowly from a low of 86.5 for Italy to a high of 118.6 for the Netherlands (ignoring Luxembourg's 158.5). The regional problems of the mezzogiorno in Italy were the one serious exception to homogeneity. At that time, non-members Portugal and Greece stood below 40 (C.E.C. (1993e)).

2 In what follows, when we use the term "periphery" we will be referring to Greece, Ireland, Portugal and Spain, unless otherwise qualified.

3 Explicit calculations of the 1992 effects were carried out using models of only five countries (Germany, France, Italy, the United Kingdom and Belgium). The effects of 1992 on the EUR 12 was on the basis of extrapolation of the weighted average of these five countries [Emerson (1988), pp. 262-264].

4 In 1992, the EAGGF constituted about 61.2 per cent of the total EC general budget [C.E.C. (1993e)].
In any provision of development aid there is always a danger that a "ratchet" dependency process will operate and, at the very least, the real level of CSF funding may need to be maintained ad infinitum, or even further increased. Undoubtedly, any such expectation on the part of the poorer members would have serious consequences for the efficiency of use of existing CSF funding. Furthermore, if progress towards EMU is maintained at anything approaching the pace envisaged in early, optimistic, plans, the peripheral countries are likely to envy increasingly the fiscal integration of the regions of larger and wealthier member states (in particular, Germany, France, Italy and the United Kingdom). Within these countries there is almost total fiscal homogeneity, with huge domestic budget allocations ensuring massive intrainational income and social welfare transfers from richer to poorer internal regions.

The almost certain absence for the foreseeable future of comparable inter-national income transfers (i.e., the likelihood of an EU budget that remains small in comparison to purely national redistributive budgets), has political implications for the future of intra-EU aid programmes. However, the lessons to be learned from the Mezzogiorno experience in Italy are not encouraging and suggest that the narrower structural and developmental role for EU aid policies (such as the CSF) is perhaps necessary if there is to be any chance of producing the intended self-sustaining growth effects within the context of relatively modest budget allocations, and within a reasonable length of time (C.E.C. (1993d)).

By focusing purely on the periphery, our paper attempts to rectify the understandable orientation of the White Paper towards the preoccupations of the more advanced and developed core EU economies. Although the existing periphery is only a small part of the total EU economy - generating under 11 per cent of its aggregate GDP in the year 1993, but containing almost 19 per cent of total EU population - its problems are similar to, thought not at all as serious as, those arising in the newly liberalised Central and Eastern European economies. Hence, our insights can be generalised to a wider peripheral issue that will undoubtedly come to preoccupy the soon-to-be-enlarged EU during coming decades.

The paper is organized as follows. Sections 2 and 3 provide the background within which policy in the periphery needs to be designed and studied: wider conceptual issues are treated first (Section 2), followed by a narrower focus on the labour market (Section 3). In Section 4 we pose the question: Are the policies proposed in the White Paper relevant in the periphery? Our largely negative conclusion about some policies is inevitable, though understandable in the light of the imperatives and pressures that influenced the orientation of the White Paper towards the big-economy concerns. However, within the general framework of the White Paper, we try to isolate key policy approaches in Section 5 that address both the specific labour market issues that arise in the periphery, as well as more important encompassing developmental issues. Section 6 concludes.

2 CORE VERSUS PERIPHERY: KEY ISSUES

Table 2.1 illustrates several characteristics of the EU periphery relative to the EU average. We see that these regions remain well behind the average in terms both of income per head and in terms of labour productivity, even though there has been some convergence since 1973, except in the case of Greece. If living standards are more accurately measured by private consumption per capita, however, then relative living standards can be seen to have fallen in all four peripheral member states between 1973 and 1991. On this measure, Ireland is seen to be much nearer to the lower levels of Portugal and Greece than it is to the higher levels of Spain.

5 Even the relatively modest proposals of the MacDougall Report, where the EU budget would be some 7 per cent of total EU GNP, have never met with any favour [MacDougall (1977)].

6 Consumption is measured according to its own specific purchasing power parity. (Figures are from Eurostat National Accounts 1970-1991).
Looking specifically at the labour market, we see that two of the peripheral countries, Ireland and Spain, have very high unemployment rates while Greece and Portugal have rates below the EU average. The minimal nature of the social welfare systems in Greece and Portugal, however, and the large proportion of the labour force engaged in agriculture in these countries suggest a substantial degree of underemployment.

This is further borne out by the fact that Portugal and Spain also have exceptionally low productivity levels in agriculture - only about one-third of the already low national level in each case. The professional status of employment also points to agricultural underemployment in Greece and Spain, where 38 per cent and 19 per cent, respectively, of total agricultural employment is classified as unpaid family workers. While the proportion of unpaid family workers in Portugal and Ireland is much lower (less than 10 per cent in each case), in both of these countries there are still many small holders with no prospect of long-term viability. Furthermore, in Greece the exceptionally high proportion of non-agricultural employment classified as employer/self-employed (27 per cent) or unpaid family workers (5 per cent, with 11 per cent of females so classified) is also suggestive of high levels of underemployment.

If we regard the welfare of all the population not in employment as being dependent on those in employment, then Ireland, Spain and Greece have exceptionally high dependency rates. In Ireland in 1991 there were 21 dependants for every 10 workers, in Spain 20 and in Greece 17, as compared with an EU average of 14. As mentioned, unemployment is a major component of this problem in Ireland and Spain, but it is only one component. As well, both have very low labour force participation rates, as does Greece also, and in all three countries the participation rates are especially low for females. This points to a relatively high incidence of discouraged workers in these countries.

Table 2.1: Economic Indicators in the Periphery

<table>
<thead>
<tr>
<th></th>
<th>Greece</th>
<th>Ireland</th>
<th>Portugal</th>
<th>Spain</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GDP (GNP) / Cap.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>51</td>
<td>56 (56)</td>
<td>54</td>
<td>76</td>
<td>100</td>
</tr>
<tr>
<td>1991</td>
<td>48</td>
<td>70 (63)</td>
<td>59</td>
<td>78</td>
<td>100</td>
</tr>
<tr>
<td><strong>GDP (GNP) / Worker</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>56</td>
<td>66 (66)</td>
<td>55</td>
<td>83</td>
<td>100</td>
</tr>
<tr>
<td>1991</td>
<td>53</td>
<td>90 (81)</td>
<td>60</td>
<td>95</td>
<td>100</td>
</tr>
<tr>
<td><strong>Unemployment Rate (%)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1960</td>
<td>n.a.</td>
<td>4.7</td>
<td>1.9</td>
<td>2.4</td>
<td>2.5</td>
</tr>
<tr>
<td>1973</td>
<td>2.0</td>
<td>6.2</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
</tr>
<tr>
<td>1993</td>
<td>7.8</td>
<td>18.4</td>
<td>5.2</td>
<td>21.2</td>
<td>10.4</td>
</tr>
<tr>
<td><strong>Private Consumption/Cap.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td>57</td>
<td>67</td>
<td>65</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>1991</td>
<td>54</td>
<td>62</td>
<td>58</td>
<td>76</td>
<td>100</td>
</tr>
</tbody>
</table>

Source:
Mainly from European Economy, No. 55 and Eurostat, National Accounts 1970–1991. Figures in parenthesis for Ireland refer to GNP, which is a more appropriate measure than GDP of economic activity.

What then are the structural similarities between the peripheral regions that generate these excessive labour market difficulties? In this section we identify the following shared characteristics which are likely to increase the amount of absorption required of the labour market:

7Of course economies such as the US appear to be able to absorb labour relatively easily. For such pressures to result in unemployment, therefore, there must be hysteresis factors that hinder the peripheral labour markets’ ability to adjust.
- the relative importance of agriculture
- the high proportion of marginally efficient firms
- the difficulties faced by these regions in adjusting to free trade, and the dualistic industrial structure that emerges from this process
- the underdevelopment of financial markets, and
- infrastructural deficiencies in both physical and human resources.

As the One Market, One Money report [C.E.C. (1990)] notes, Objective 1 regions have a relatively high share of employment in the inexorably declining agricultural sector. This factor adds either to the number of workers who must be absorbed into the urban labour force, or else, as in Portugal and Greece, provides a refuge in the form of underemployment for those who in a more developed welfare system would add to the unemployment rolls.

A second characteristic of peripheral economies also referred to in One Market, One Money is the high proportion of sensitive sectors and small and marginally efficient firms in these regions [Vanhove and Klaassen (1980)]. This finding has a number of important implications. It means firstly that peripheral regions will be particularly sensitive to the business cycle. This may partly account for the well known phenomenon that convergence, if it occurs at all, occurs mainly when the world economy is buoyant. It also explains the counter cyclical performance of productivity in peripheral regions, in contrast to its procyclical behaviour in the core. For Ireland productivity has been found to behave counter-cyclically in the traditional industrial sector, presumably because marginally efficient firms get wiped out during a recession, while behaving procyclically in the modern sector, for which the standard explanation is labour-hoarding, [Mankiw (1989)]. The countercyclical behaviour for the Spanish economy was remarked upon by Bentolila and Blanchard (1990), though our interpretation agrees more with Calmfors' comments on their paper than with that of the original authors.\(^8\)

Another structural feature of peripheral regions that creates extra labour market pressures is the fact that progressive trade liberalisation within Europe is likely to entail substantial inter-industry adjustment in these economies. Trade among the core EU countries, with fairly similar factor endowments, generates intra-industry trade, with sectoral restructuring taking place through the development of market niches rather than through the wholesale disappearance of industries as traditional trade theory predicts. Given the labour abundance of peripheral regions, we would expect their adjustment to free trade to be of the inter-industry variety, with all the adjustment problems that that entails. Evidence in this regard is provided by Neven (1990) who shows that Greece and Portugal have less intra-industry trade than the other EU countries; Ireland, Spain and Italy have intermediate levels, while Germany, France, the Netherlands, the UK and Belgium are characterised by intense intra-industry trade.

As Krugman (1987b) notes with respect to the Southern periphery's accession to the EU, "the trade expansion produced by EC enlargement is simply not likely to be as painless as the trade expansion produced by the formation of the Community and earlier enlargement. There will certainly be income distribution problems created by the changes, and also quite possibly some real costs in terms of unemployment".

---

\(^8\) This excess sensitivity to the business cycle has fiscal implications. It increases the automatic movement into deficit during a recession, which creates pressure to cut spending. Since public capital spending usually bears the brunt of expenditure cuts, this inhibits the periphery's attempts to converge in terms of infrastructure. With hysteresis in employment or in the production structure [Krugman (1987a)], the upswing in the business cycle may not compensate adequately. If these speculations are correct, it suggests that the Maastricht rules and CSF co-financing requirements may present extra difficulties for peripheral regions, a point to which we return later.
The extent of this dislocation depends on which side of the Krugman-Venables (1990) U-shaped curve peripheral countries find themselves upon as the dismantling of trade barriers and reduction in transport costs progresses. This curve depicts the response of employment levels in increasing-returns industries in the periphery as the cost of engaging in international trade declines. Ireland has undoubtedly undergone this structural transformation, and further market integration should increase its employment share in these industries, largely through its continuing attractiveness as a location for multinational investment, [Barry (1994)]. The same would appear to be true of Spain, whose shake-out of jobs as this inter-industry process got under way has been described by Bentolia and Blanchard (1990).

Spain also has been relatively successful in attracting multinational investment to ease its transition. Table 2.2 shows that both Ireland and Spain increased their shares of US multinational investment significantly in the last ten years, while Greece and Portugal barely kept pace with the EU average. The Survey of Current Business publishes another set of figures that brings out even more emphatically the relative unimportance to date of US investment in Greek and Portuguese manufacturing (and the extraordinary scale of such investment in Ireland). These are the data on the stock of US direct investment abroad at a point in time, estimated on a historic cost basis. The latest data for manufacturing, relating to the end-1992 position, are shown in Table 2.3.

Table 2.2: Annual Foreign Investment by US Companies (excluding banks)
MANUFACTURING

<table>
<thead>
<tr>
<th>Change 1983-93</th>
<th>Per Worker in total manuf. 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>$</td>
</tr>
<tr>
<td>Greece</td>
<td>121</td>
</tr>
<tr>
<td>Ireland</td>
<td>313</td>
</tr>
<tr>
<td>Portugal</td>
<td>142</td>
</tr>
<tr>
<td>Spain</td>
<td>200</td>
</tr>
<tr>
<td>UK</td>
<td>90</td>
</tr>
<tr>
<td>EU Total</td>
<td>121</td>
</tr>
<tr>
<td>Worldwide</td>
<td>116</td>
</tr>
</tbody>
</table>

**Source:**

Table 2.3: US Direct Investment in EU Manufacturing
(on a historical cost basis). Stock at end 1992

<table>
<thead>
<tr>
<th>Share of EU</th>
<th>Per Worker in Total Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>$</td>
</tr>
<tr>
<td>Greece</td>
<td>0.1</td>
</tr>
<tr>
<td>Ireland</td>
<td>5.1</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.4</td>
</tr>
<tr>
<td>Spain</td>
<td>6.1</td>
</tr>
<tr>
<td>UK</td>
<td>22.9</td>
</tr>
<tr>
<td>France</td>
<td>15.7</td>
</tr>
<tr>
<td>Germany</td>
<td>23.6</td>
</tr>
<tr>
<td>Italy</td>
<td>9.9</td>
</tr>
<tr>
<td>EU Total</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Source:**

A massive shakeout of jobs in Irish and Spanish "traditional" industry occurred as trade liberalisation progressed. Productivity grew rapidly, partly as a result of increased multinational investment, and the low-productivity sectors of the economy were squeezed out in a Dutch-disease type process. Our analysis suggests that Greece and Portugal are at present on the other side of the Krugman-Venables U-curve,
and their low productivity sectors are likely to come under intense international competition in the next decade. A stark choice that they will therefore face is whether to follow the European route of developing a social welfare system to aid workers as jobs in the low-productivity sectors are shed, or to follow "the American model" of preserving these jobs through allowing increased intersectoral wage differentials.\(^9\)

Further confirmation of the structural changes likely to be in store for Greece and Portugal is provided by the size structure of enterprises in peripheral regions, shown in Table 2.4. National Economic and Social Council (1989) documents how the average size of establishments in Ireland declined in the wake of free trade as indigenous firms in increasing-returns sectors were wiped out. Something similar may have happened in Spain.\(^{10}\) Portugal may therefore be thought to resemble the pre-free-trade Irish position, while the fact that nearly three-fifths of Greek non-agricultural employment is concentrated in micro enterprises with less than ten employees probably does not augur well for their ability to compete internationally.

<table>
<thead>
<tr>
<th>Table 2.4: Employment Structure 1991</th>
<th>Greece</th>
<th>Ireland</th>
<th>Portugal</th>
<th>Spain</th>
<th>EU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-agric. Employment Shares by Enterprise Size, 1988</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Micro (0-9)</td>
<td>59</td>
<td>34</td>
<td>36</td>
<td>36</td>
<td>30</td>
</tr>
<tr>
<td>Small (10-99)</td>
<td>21</td>
<td>30</td>
<td>27</td>
<td>30</td>
<td>25</td>
</tr>
<tr>
<td>Medium (100-499)</td>
<td>11</td>
<td>18</td>
<td>17</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Large (500+)</td>
<td>9</td>
<td>17</td>
<td>20</td>
<td>17</td>
<td>30</td>
</tr>
</tbody>
</table>


Since this transition must ultimately be undertaken, something might usefully be said here about its timing. Since adjustment to the Maastricht criteria is unlikely to be painless, these shocks should not be undergone simultaneously. There appear to be good grounds for the belief that Ireland's difficult adjustment to freer trade was substantially compounded by the fiscal problems and retrenchment of the 1980s, [Barry (1991)], while Bentolila and Blanchard (1990) note how inter-regional (and by assumption inter-sectoral) labour mobility in Spain declined as overall unemployment rose, worsening job mismatch. Difficulties in the Spanish and Portuguese inter-industry adjustment is also evident from Larre and Torres' (1991) remark that "the growing need for highly skilled labour has not been adequately met, as is clear from the fact that the number of unfilled job vacancies in Spain and Portugal has been rising steadily since 1985".

Two further characteristics of peripheral regions appear likely to hinder the development of employment opportunities. One is the underdeveloped state of financial markets. Larre and Torres (1991), in a study of Spain, Portugal and Greece, make the following points, many of which apply to Ireland as well. "In the mid-1980s financial markets were still in their infancy, with ... little or no competition between banks and financial institutions; narrow capital markets; a limited range of savings instruments and a preponderance of public debt securities; credit controls (Greece and Portugal) and administratively fixed interest rates; compulsory portfolio requirements for banks, and a high proportion of subsidised credit". This theme is echoed in One Market, One Money (1990), which reports that the high cost of credit and poor availability of risk capital are among the major factors that firms in peripheral regions identify as growth inhibiting.

\(^9\) Note the similarity between these options and those proposed for the Eastern Lander of Germany by Dornbusch (1991) and by Akerlof et al. (1991) respectively. The high human capital endowment of the labour force in the former GDR may position this region better to attract inward multinational investment.

\(^{10}\) On the basis of Ireland's adjustment, we would regard small initial firm size in increasing-returns sectors as a competitive disadvantage, rather than as representing an opportunity for the exploitation of further scale economies in an integrated market, as in Neven (1990).
One Market, One Money also notes that firms identify infrastructural deficiencies in the areas of education and training, transport and communications, and the supply and cost of energy, as more important impediments than geographic factors such as the proximity of suppliers and of customers. The available data on the stock of infrastructure in peripheral regions provides supporting evidence. Table 2.5 below, adapted from Martin and Rogers (1993), reports relative infrastructural levels for an aggregate of transportation, telecommunications, energy and education. It reveals that Ireland, Spain and Portugal fell further behind the EU average between 1979 and 1985, while Italy and Greece converged slightly.

Table 2.5: Relative Infrastructural Levels in EU Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Aggregate 1979-80</th>
<th>Aggregate 1985-86</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italy</td>
<td>81.7</td>
<td>85.4</td>
</tr>
<tr>
<td>Spain</td>
<td>77.7</td>
<td>74.3</td>
</tr>
<tr>
<td>Ireland</td>
<td>71.1</td>
<td>67.1</td>
</tr>
<tr>
<td>Greece</td>
<td>54.5</td>
<td>56.0</td>
</tr>
<tr>
<td>Portugal</td>
<td>40.0</td>
<td>38.7</td>
</tr>
<tr>
<td>EU</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

One might further hypothesize that if European integration leads to a convergence of social welfare entitlements across regions, then the labour markets of the poorer peripheral regions would be adversely affected. Such convergence does not seem to have occurred as yet. Measures of the generosity of unemployment benefit systems devised by Elmeskov (1993, Figure 13) show no convergence for Ireland, Portugal, Greece and Italy, and only minor convergence for Spain during the 1980s. This point should warn, however, that the harmonisation of employment protection and welfare rights may be premature for poorer countries trying to catch up.

3 LABOUR MARKET DIVERSITY WITHIN THE PERIPHERY

In the previous section we discussed general aspects of the economics of peripherality and the consequences for economic performance and cohesion. We now narrow our focus to the labour markets in the main EU peripheral areas: the three "Objective 1" countries (Greece, Ireland and Portugal) and Spain.\textsuperscript{11} We start with a brief review of labour market facts and institutional arrangements in the periphery and then consider what the econometric literature has to say.

3.1 The Peripheral Labour Markets: Stylised facts

The Unemployment Situation:

Although the four peripheral countries share some common features of slower development, their labour markets display considerable differences. In terms of the recorded rate of unemployment, two distinct groups emerge: on the one hand Ireland and Spain, both at the top of the EU unemployment league table, and on the other, Greece and Portugal, where recorded unemployment is significantly below the EU average (Figure 3.1). Spain has had the highest rate of unemployment in the EU since the late 1970s, and in 1993 it stood at 21.2 per cent, with the Irish rate second highest at 18.4 per cent. Greece and Portugal always had much lower rates, which stood at 7.8 and 5.2 per cent respectively in 1993. We have argued, however, that these low rates are not comparable with the higher rates of Spain and Ireland, and do not give an accurate representation of the labour market situation in these countries.

\textsuperscript{11} Our analysis is also of some relevance to the Italian Mezzogiorno region and to Northern Ireland, both of which have "Objective 1" status in the CSF.
Figure 3.1: Unemployment Rates in the EU Periphery

Ireland

Spain

Greece

Portugal

Source: European Economy, No. 55

Underlying these aggregate unemployment rates there are very different components, associated mainly with youth and female unemployment [C.E.C. (1993b)]. In Greece, youth unemployment (persons aged 14-24 years) stood at 24.6% in 1991 (males 17.1%, females 33.5%) compared with a total rate of 7.7%. Unemployment among those aged 25 and over was much lower at 5.0%. Portugal also has a severe youth unemployment problem, especially among young females: in 1991 11.8% of females aged between 14-24 were unemployed compared with 6.2% of males. The corresponding figures in the adult population were a minimal 1.8% for males and 4.2% for females.

Similar marginalisation of women and young people prevails in the Spanish labour market where, in 1991, the female unemployment rate (all age groups) exceeded the male rate by 11.2 percentage points while the rate among young people was double that of the total labour force. The female youth rate was again 12 percentage points higher than the male youth rate. In Ireland, unemployment has been somewhat higher among females than males but to a minimal extent when compared with the rest of the periphery. The youth unemployment rate has been consistently higher than that for the total population, 23.2% compared with 15.8% in 1991, with again minimal difference between the male and female rates.

The other underlying characteristic of unemployment concerns its duration. Long-term unemployment (defined as greater than 12 months), accounts for a greater proportion of total unemployment in Ireland than in any other peripheral country (60.3% in 1991). The female proportion at 52.1% was 12 percentage points lower than the male rate. Youth long-term unemployment also accounted for a larger proportion than in the other three countries (49.3%), again with the male rate higher than the female rate; 53.1%
compared with 43.7%. Spain has the next highest proportion of long-term unemployed (49.1% in 1991), followed closely by Greece (47.0%). The Portuguese proportion was the lowest in the periphery (38.3%) [EUROSTAT (1993)].

**Labour Demand and Supply in the Periphery:**

Considerable insight into the unemployment situation in the periphery can be gained by looking at the pattern of sectoral employment. Of the four countries, Greece has the largest proportion of employees in agriculture (22.2% of total employment in 1991). This compares with 17.4% in Portugal, 14.0% in Ireland and 10.9% in Spain [EUROSTAT (1993)]. In all four countries this share is steadily declining (Figure 3.2).

![Figure 3.2: Agricultural Labour Force](image)

All four countries had somewhat similar, relatively unchanging, proportions of employees working in industry, ranging from a high of 34% for Portugal to a low of 25.7% for Greece. In contrast, the proportion of employees in services has increased steadily in all four countries (as in the EU core), with Ireland having the highest proportion (57.0%) and Portugal the lowest (48.6%), all countries ranking below the EU average of 60.8% [EUROSTAT (1993)].

Turning to labour supply, there is a strong positive correlation between the size of the labour force and employment in Greece and Portugal. In both economies changes upwards and downwards in employment are closely mirrored by similar changes to labour supply, leaving unemployment numbers relatively unaffected. This volatility in labour supply is attributable to the rudimentary nature of the social welfare system, with its very limited availability of unemployment benefits. The Irish and Spanish labour forces do not exhibit quite the same degree of change in size characteristic of Greece and Portugal. Instead, both countries show large unemployment responses to negative shocks, with more muted responses to positive shocks. In the particular case of Ireland there is very close integration with the British labour market, a link operating primarily through emigration in a Harris-Todaro fashion [Walsh (1974)]. In both cases the social welfare entitlement system is more developed, a factor that also serves to encourage registration as being unemployed rather that complete departure from the labour force.
The Social Welfare Systems in the Periphery:

The social welfare system is recognised in the White paper as having a crucial influence on labour market performance. In the periphery, the two-way split in terms of high unemployment (Ireland and Spain) and low unemployment (Greece and Portugal) is broadly mirrored in differences between the social welfare systems.

The limited social welfare systems in Greece and Portugal cast doubt on the extent to which the unemployment figures are an accurate representation of the labour market situation in these countries. Given the limited benefits and assistance available, there is no incentive to register as unemployed, when one is not in employment. This has led to the situation where many people are unpaid family workers or working in agriculture where underemployment is rife, particularly in Greece. The reported unemployment figures must be grossly understated. This contradiction between low unemployment rates and large numbers of people not in productive paid employment helps to explain why per capita GDP is so low in Greece and Portugal, a fact which one might find surprising if only reported unemployment rates were taken into account.

While Spain is an intermediate case, in Ireland more or less permanent support is available for the unemployed. Benefits paid are predominantly flat rate with increases for adult and child dependants, unrelated to income when in work. Unemployment benefit includes a limited earnings related element but mainly depends on the contribution record of the person concerned and is payable for up to 15 months. At the end of this period and where there is no entitlement to benefit, means tested social assistance is paid indefinitely to these without income for a legitimate reason and where income and savings are below a specified level. The rates at which assistance is paid tends to be lower than benefit rates but in contrast to the Southern periphery, the scheme is designed to bring income up to a subsistence level [C.E.C. (1993c)].

Wage Determination Institutions:

Because of the centrality of wage determination in closing the labour market, it is worth looking at the institutional wage setting framework in the periphery. Broadly speaking, they range from a fairly centralised system in Greece, through to more flexible approaches in Portugal. We briefly describe each country in turn.

In Greece during the 1980s wage bargaining was highly centralised. The government set non-binding wage increases and these combined with indexation to inflation produced large wage increases and a reduction in inter-sectoral wage differentials. Labour market flexibility has however improved somewhat since 1990. Centralised bargaining now exists at the national level but there is more scope for settlements at the sectoral and firm level. The norms set by the centralised system are regarded as a floor, and increases above these depend on market forces. The number of settlements at firm level doubled from one-fifth of all settlements in 1990 to two-fifths in 1991 and 1992 on average, a process that is beginning to restore wage differentials [OECD (1993a)].

Attempts to improve labour market flexibility in Greece have recently been made. Restrictions on part-time work have been reduced and since 1991 limits have been imposed on sudden strikes, particularly in public utilities. In the late 80s, Greece had the worst strike record in the EC. These sanctions have, however, rarely been applied and although improving, the strike record in public utilities remains poor. Serious rigidities still remain. Lay-offs above 2 per cent of the workforce in any month require government authorisation which greatly reduces labour market flexibility. However, government

12 It should be noted, however, that the share of employees in total Greek employment is much smaller than for the other peripheral countries.
authorisation is obtained considerably more quickly than in the past. Those laid-off are presented with a choice of attending a one-year retraining course while receiving full pay or a lump-sum equivalent to one years pay.

The Spanish wage determination system is neither highly centralised nor decentralised, but has features of both approaches. For about three quarters of Spanish workers, wages are decided at the sectoral level where industry-specific or regional conditions play a limited role, although this generalisation is less true for small than big firms. The majority of the remainder of wage settlements are at the national level. Regional wage differences are more influenced by price differentials than unemployment conditions so that there is little regional variation in real wages. Little consideration is given to productivity levels or wage differentials for different categories of workers [OECD (1993d)].

In Spain, attempts have been made to limit the segmentation of the labour market which is reflected in the protection of permanent workers, resulting in excessively high redundancy payments, compared with the precarious position of temporary workers. In 1992, legislation was introduced to improve the vulnerable situation of temporary workers. With the exception of seasonal workers, the minimum duration of most temporary contracts was extended from 6 to 12 months. Greater transparency was also introduced into employment promotion and training schemes in an attempt to limit abuse.

Wage flexibility is high in Portugal at both aggregate and sectoral level. Sectoral agreements take into account differences in productivity growth and firm profitability and sectoral wage dispersion is as a result much greater than the EU average. In the 1980s, tripartite wage agreements were concluded which provided non-binding guide-lines for wage increases. From 1986 onwards, they were based on forward-looking expectations but their effectiveness in improving the trade-off between unemployment and inflation is unclear. High inflation meant that wages normally caught up and the upgrading of jobs in the public sector is likely to have biased upwards private sector wage claims. Minimum wages were instiuted in 1974 but have had little effect on the wage negotiation process in recent years, with only 6.5% of employees being paid at the minimum wage level in 1993 [OECD (1993c)].

The Irish experience since 1987 has also been one of tripartite centralised bargaining with agreements of three years duration concluded in 1987, 1991 and in 1994 [OECD (1993b)]. The first two programmes set basic pay increases and allowed for limited additional localised bargaining in the private sector to reflect the economic circumstances of firms. This clause generally resulted in wage increases above the target set. Real wages grew more slowly than productivity in the period 1987-90. However, there is no research evidence to suggest that the resulting wage increases were lower than they would have been in the absence of a centralised agreement. The complex negotiating procedures involved provided little scope for flexibility. The low target set in the first agreement meant that localised bargaining began with reduced expectations of wage increases. Special awards made to the public sector with the objective of restoring comparability with the private sector resulted in extremely large public sector pay bills in the early 1990s [Durkan (1992)]. The recently negotiated Programme for Competitiveness and Work which will run from 1994-96 provides for pay increases at the expected rate of inflation, with freedom to undertake additional localised bargaining. A review of the agreement is provided for in the third year in the light of economic and social developments during the period.

3.2 The Periphery in Cross-Country Econometric Studies

We have described above some of the great diversity of labour market behaviour in the four main EU periphery countries and provided some heuristic explanations for how they deviate from the core and from each other. In attempting to explain this diversity, and the wider behaviour of unemployment in the EU during the 1980s, there is a strong temptation to seek out encompassing models that differentiate between the different member states only on the basis of parameter values within a common
encompassing analytic-theoretic framework. For all their flaws and limitations, any insights that can be offered by such models into the causes and cures of unemployment are triply powerful, having intellectual coherence, parsimony and universal applicability.

At the one extreme, such encompassing models can consist of a single reduced-form equation explaining unemployment, as in the seminal work of Layard, Nickell and Jackman (LNJ) (1991). At the other extreme, the encompassing framework can be a complex large-scale structural macroeconometric model such as the European Commission’s QUEST [Brandsma et al. (1991)] or the more recently developed HERMIN models of the periphery [Bradley (1992)]. However, in using such formalised model-based approaches, one must be satisfied that the models being used have sufficient scope and flexibility to deal with all important country specific differences.

With a focus on a EU periphery consisting of Greece, Ireland, Portugal and Spain, we examine the insights yielded by existing econometric work. We start with the LNJ (1991) approach, and examine the conclusions of this work in so far as they apply to the peripheral members. We then look at the EU Commission’s QUEST macroeconometric model and its labour market implications, once again from the point of view of the periphery. Finally, we describe some more recent work carried out by teams working in the four periphery countries, involving HERMIN, a modelling approach that attempts to take into account some of the specific features of the economies involved to a greater extent than was possible within QUEST.

Layard, Nickell and Jackman (1991) on the Periphery:

The most authoritative example of empirical work based on a one or two equation reduced-form approach is LNJ (1991). In chapter 11 of their book they address the question: “Why has unemployment differed between countries?”, using a reduced form equation explaining movements in unemployment that includes both demand and supply side elements. Two of the EU periphery members are included in the international cross-section: Ireland and Spain. Unfortunately, Greece and Portugal are excluded, but we have seen above that the large agricultural labour forces and the elementary nature of the social welfare system make the data on unemployment unreliable in these latter two countries.

The LNJ study aims at explaining two key stylised facts: the higher unemployment in every country in the 1980s compared to the 1960s; and the vastly higher EU unemployment compared with the better performance of the EFTA members, Japan, Oceania and North America. The model consists of two equations: a price equation (or, equivalently, a marginal revenue product condition, written as a dynamic employment equation) and a wage equation (or Phillips curve). Total employment is used (i.e., agriculture is included with non-agriculture; public with private), the price used is the aggregate deflator of GDP, but the wage is taken as the narrower measure of hourly earnings in manufacturing.

Solving their price and wage equations for the unemployment rate gives an explanation in terms of the following factors:

(a) real wage rigidity - RWR (i.e., the extent to which wage pressure is converted into unemployment at constant inflation);

(b) nominal wage rigidity - NWR (i.e., the long-run inflation-unemployment trade-off, measured as the long-run cumulative unemployment cost of reducing inflation by one point);

13 Our comments have relevance for the labour market problems of Northern Ireland, which is part of the United Kingdom, but shares some of the characteristics of its Southern neighbour, the Republic of Ireland, and has many Mezzogiorno-like characteristics.
(c) hysteresis - $H$ (measured as the coefficient on lagged unemployment or as the mean lag on unemployment taking into account all dynamics).

Given that Ireland and Spain had the highest rise in unemployment during the 1980s, it is interesting to see how the LNJ approach accounts for this behaviour (LNJ, pp. 405-430). First, RWR is low in Ireland (0.27, similar to Belgium and France), but high in Spain (0.52, similar to Denmark, Germany and the UK). No clear pattern emerges for NWR. Hysteresis is all pervasive, in the EU and elsewhere, with Ireland’s mean lag the highest within the EU. Finally, the effect of unemployment on wage and price setting in the underlying structural equations is atypical for Ireland, where the influence on price setting is bigger than for wage setting.\(^{14}\)

The LNJ reduced form unemployment equation can be used to explain the changes in unemployment from the early 1970s to the mid 1980s in terms of:

(a) The change in the rate of change of inflation, and

(b) The size of the two oil shocks on each country (measured as the percentage rise in real import prices weighted by the share of imports)

The estimated reduced form equation is as follows:

$$\Delta u = 1.93 - 0.35(NWR)\Delta(\Delta^2 p) + 1.90(RWR)\text{Shock} + 11.59SP$$

For Ireland, Spain and Germany (for comparison), the table below shows the decomposition of the rise in unemployment:

Layard, Nickell and Jackman (1991), pp. 409:

| Change in unemployment: (1969-73) to (1980-85) and key explanatory factors |
|-------------------------|----------------|---------|---------|---------|
| $\Delta u$ (Actual)    | Inflation effect | World shock | Dummy   | Constant |
| Ireland (6.9)          | 0.37            | 4.51     | 0.0     | 1.93     |
| Spain (13.8)           | 0.49            | 0.69     | 11.6    | 1.93     |
| Germany (5.1)          | 0.22            | 4.07     | 0.0     | 1.93     |

Hence this decomposition tells us nothing about the rise in Spanish unemployment (other than that it was associated with "the wage explosion that accompanied the end of the Franco era"), and attributes most of the Irish (and German) rise to the world "shock" variable. As a detailed taxonomy of the likely influences on unemployment, the LNJ study offers useful insights, but one is left with the impression, at least in the case of Ireland and Spain, that the level of aggregation is too great to get to the bottom of the complex processes of domestic institutional and structural change that these countries, together with the missing Greece and Portugal, were undergoing.

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\(^{14}\) The implied strong demand effects in Irish pricing behaviour are simply not credible and must cast doubt on the aggregate nature of the model specification for Ireland.
The European Commission's QUEST Model on the Periphery:

The EU Commission's QUEST quarterly macroeconometric model is a unique source of econometric research findings that embraces all four of the peripheral countries within a common modelling framework, albeit one with a restriction to a two production sector model (public and private). An examination of its structure can give valuable insights into the likely behaviour of the individual periphery members, and a comparison with the core countries. In addition, the QUEST model was used in the White Paper to justify a reduction of employer's social security contributions as a desirable way of reducing unemployment [C.E.C. (1993a), pp. 140-142], making it necessary to evaluate the usefulness of the conclusions for the periphery. In what follows we briefly review the key characteristics of the periphery as portrayed in QUEST, focussing on the labour and capital demand schedules, the price equation and the wage equation, and comment on some shocks evaluated with the model.

Although the long-run elasticities with respect to real GDP are constrained to unity in the QUEST labour demand schedules, the short-term elasticities can vary and the four periphery elasticities are very large (highest for Portugal (0.72), lowest for Ireland (0.40), but only 0.08 for Belgium). This finding is consistent with the stylised facts concerning core-periphery differences in production relationships examined in Section 2 above. The peripheral real wage cost elasticities are also much higher, both in the short and long run, with Ireland being the outlier on the low side. Finally, the annual rate of labour-embodied technical change is highest for the four periphery countries, consistent with their rapid development and restructuring.

With the exception of Ireland, the periphery does not stand out quite so dramatically in terms of demand for capital equipment. Ireland shows a very large sensitivity to changes in final demand, and a high elasticity with respect to profitability (measured as the share of gross operating surplus in GDP). Portugal has the second highest elasticity, at 1.95, while Spain and Greece are fifth (at 0.76) and seventh (0.61), respectively. The explanation is interesting, and goes to the heart of how small, open, developing economies can have an important supply-side link to core developed economies through foreign direct investment by multinational companies [Bradley and Fitz Gerald (1988)].

The wage-price determination in QUEST has many similarities to the LNJ (1991) approach. The deflator of GDP is determined by wage costs, demand and competitive conditions, in an equation of the form:

\[ \dot{p} = a_0 + a_1 w/c + a_2 \mu \rho o + a_3 \mu c + a_4 (p/m - (L)p/m) + e_r c \]

where

\[ p = \text{product price} \]
\[ w/c = \text{nominal wage} \]
\[ u/c = \text{capacity utilization rate} \]

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15 Neither of the two other models used in the White Paper, MIMIC (for the Netherlands) and the interlinked version of HERMES, include the periphery economies.

16 The explanation for the low wage cost elasticity in the Irish case is probably associated with the high share of employment in multinational enterprises, for which factor proportions are largely determined in the country of origin [Bradley and Fitz Gerald (1988)].

17 These high rates on technical change in the periphery imply high employment thresholds (using the White Paper terminology, pp. 43). This means that output must grow at above 3 per cent per year before employment can begin to increase.
upro = labour productivity
pm = import price
erc = error correction mechanism

Although the long-run wage-cost elasticity is constrained to unity (other than for Ireland), the short-run elasticities for the periphery members are grouped close together at the high end of the scale. Prices are relatively insensitive to capacity utilization (other than Greece), and the short run influence of labour productivity is quite large for the periphery as a group (and Belgium). Import prices (a proxy for competitive conditions) are constrained to have only a temporary influence on the markup producer price model, the permanent effect being assumed to pass through consumer prices.

Turning finally to the wage equation, the standard bargaining model (or augmented Phillips curve) approach is used:

\[ \omega r = a_0 + a_1 p c + a_2 (p c - \bar{p}) + a_3 u p r o + a_4 l u r + a_5 \Delta l u r \]

where

- \( \omega r \) = nominal wage
- \( pc \) = consumption price
- \( p \) = value-added price (used to define the "terms-of-trade" effect \( pc - \bar{p} \))
- \( upro \) = labour productivity
- \( lur \) = unemployment rate

The periphery members differ slightly with respect to the degree of short-run indexation to the consumption deflator (nearly full indexation for Spain and Portugal; about half that for Greece and Ireland), but are constrained to full (or almost full) indexation in the long run. In the Phillips curve (or unemployment effect), wage inflation in Portugal is by far the most sensitive to movements in unemployment (\( a \approx -1.95 \), nearly twice as high as the next nearest (Japan, at -1.17), and nearly six times higher than the nearest periphery country (Ireland, at -0.35).

The terms-of-trade effect is almost unity for Greece, Portugal and Spain, but is very small (-0.14) for Ireland, a puzzling finding in light of the extreme openness of the Irish economy (Table 6.2 in Brandsma et al. (1991) shows Belgium, Ireland and the Netherlands to be the most open EU economies). The positive productivity term in the wage equation is constrained to be equal to the size of the negative productivity term in the producer price equation, and hence is not a cause of inflation.

The consequences of the above key equations in QUEST can be illustrated by subjecting the four periphery models to a public investment shock equal to 1% of baseline GDP. The results are shown in Figure 3.3 (a)-(c).

At one extreme, the Irish response is for a sustained rise in real GDP of 0.8%, a modest increase in wage inflation (rising to 0.7%) and a sustained reduction in the unemployment rate of 0.2 percentage points relative to the baseline. At the other extreme, the short term increase in Portuguese real GDP of 0.8 is quickly reduced to zero, there is a large rise in wage rates of nearly 3.5%, and unemployment rises by 0.2 percentage points relative to the baseline. Greece and Spain are intermediate cases.

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18 The consumption deflator is determined as a weighted average of the producer price (\( p \)) and the import price (\( pm \)), where the import price weight is related to the import share in GDP.
Figure 3.3(a):
Unlinked QUEST Simulation: 1% of GDP Public Investment: Effect on Real GDP

Effects on Real GDP

Figure 3.3(b):
Unlinked QUEST Simulation: 1% of GDP Public Investment: Effect on Nominal Wage Rate

Effects on Nominal Wage Rate

Figure 3.3(c):
Unlinked QUEST Simulation: 1% of GDP Public Investment: Effect on Unemployment Rate

Effects on Unemployment Rate
If these results were to be taken literally, then CSF-type policies would be relatively ineffective in the Southern periphery in promoting sustained higher growth. In fact the QUEST simulations ignore key supply-side responses that would be associated with improvements in public infrastructure and human resources, and focuses on the more Keynesian demand-side effects. A better treatment of these supply-side responses requires a more disaggregated approach to modelling of the peripheral economies.

**Sectoral and Development Issues in the Periphery: The HERMIN Model:**

The LNJ (1991) approach was essentially a single sector reduced form analysis of the labour market. The QUEST econometric model extended this to a structural model, and focussed on the private sector. A recent peripheral modelling project, the HERMIN model, extends the level of disaggregation to a four sector breakdown [Bradley (1992)]:

(a) A manufacturing (or traded goods) sector  
(b) A services and utilities (or non-traded) sector  
(c) Agriculture, forestry and fishing  
(d) The non-market sector (public administration, health and education)

Complete models exist for Ireland [Bradley, Whelan and Wright (1993)] and for Portugal [Modesto and Neves (1993)], and preliminary results exist for Spain [Herce and Sosvilla-Rivero (1994)] and Greece [Christodoulakis (1994)]. Extensive use has been made of the Irish model to study the causes of the rapid rise in Irish unemployment between 1980 and 1986 [Barry and Bradley (1991)], with findings that contrast with those of LNJ (1991) and with Newell and Symons (1990), which is in the LNJ tradition. Basically, domestic policy mistakes are found to play a much more important role in accounting for the rise in Irish unemployment during the 1980s than that assigned to them by the LNJ approach.

Crucial to the HERMIN approach is the three-way disaggregation of private sector production, particularly the distinction between traded and non-traded activities. Clearly the process on opening to the world economy, advanced in Ireland’s case, but less so for the Southern periphery, is forcing change initially in the traded sector. Inefficient industries, previously protected by tariff and non-tariff barriers, are in decline and are being replaced by a mixture of multinational branch plants and by more efficient indigenous firms. Consequently, the ability to pass through domestic cost inflation to producer prices is declining in the traded sector, and, based on Ireland’s experience, will eventually vanish completely. In addition, the production technology will move progressively from a Cobb-Douglas type, where the blue-print is responsive to domestic relative factor prices, to a more Leontief type, where the blue-print is designed abroad.

In addition, the market service sector is undergoing a transition, initially providing consumer services, but gradually changing to a greater provision of producer services, the containment of whose costs is a crucial element in the competitive success of the exposed traded sector.

Finally, the HERMIN model provides a bridge between macro-stabilization and macro-growth analysis. This permits one to investigate the supply-side consequences of policy initiatives like the CSF, that were ignored in the QUEST analysis described above. Results for Ireland illustrate the beneficial consequences on infrastructural and human resource shocks that occur as externalities, and produce permanent benefits to the periphery [Bradley, Whelan and Wright (1993)].
4 ASPECTS OF THE WHITE PAPER LESS RELEVANT FOR THE PERIPHERY

The White Paper was understandably designed with the more populous core regions in mind. Certain aspects of it are at variance with the social and economic realities of the periphery, as outlined in the previous sections. In this section we identify those features of the White Paper that are of less direct relevance to the periphery, although still of indirect relevance to the extent that they may boost activity in the core. We postpone until the next section our discussion of the more relevant policies, i.e., those mainly associated with facilitating the economic transition of the periphery to a higher state of development.

4.1 The White Paper: Main Recommendations

The White Paper recommends that the Community set itself the objective, once the current recession is overcome, of creating an additional 15 million net new jobs by the year 2000 (a growth rate of nearly 2 per cent per annum from 1995 to 2000) so as to reduce the EU unemployment rate by half. The emphasis is on expanding employment and not just reducing unemployment, since the EU not only experiences high unemployment but also its participation rate (67 per cent, measured here as the ratio of the labour force to the population aged 15-64), is well below that in the US and Japan (upwards of 75 per cent in both cases). Consequently, about one-third of the 15 million new jobs would be needed to cater for growth in the labour force and the other two-thirds to halve existing unemployment.

The White Paper argues that this growth in employment could be achieved most appropriately by a combination of somewhat stronger actual and potential output growth (GDP volume growth of 3.4 per cent per annum), and somewhat higher employment intensity (implying a decline in the growth of labour productivity to 1.5 per cent per annum). To secure this increase in growth potential, the investment share of GDP must rise over a number of years from the current level of 19 per cent to about 23-24 per cent, supported by increased saving, primarily through reduced government deficits, and by policies that will sustain business confidence and enhance investment profitability.

Policies regarded by the White Paper as inappropriate include protectionism, inflationary monetary or fiscal policy, generalised reductions in working hours or job-sharing, and drastic cuts in wages. Instead it proposes a strategy comprising three inter-linked elements: (i) the creation and maintenance of an appropriate macroeconomic framework (including the progression of incomes), (ii) the improvement of European competitiveness, and (iii) structural changes in the labour market (including statutory charges on labour, labour market practices and education and training).

4.2 Some White Paper Objectives and the EU Periphery

Although the White Paper focuses primarily on the Community-wide problem of unemployment, it recognises that the economic situation differs significantly among the member states. This is particularly true of the peripheral member states in relation to the rest of the Community.

The economic challenges facing the peripheral member states are not only much greater, but are not adequately encapsulated in the rate of measured unemployment. Portugal, for example, now has a rate of unemployment below what the Community would have in the year 2000 were the White Paper objectives fully achieved; while in Greece the measured rate of unemployment, though higher than in Portugal, is also well below the current EU average. But this should in no way distract from the even more fundamental problems of low incomes, underemployment etc. which characterise the less-developed state of these economies. Consequently the objectives set in the White Paper need considerable
modification if they are to be applied sensibly to the peripheral member states. Before going on to consider the implication of this point for policy, we develop the point first in regard to the White Paper targets for the growth of output, employment and productivity.

Output:

We argue that the four peripheral member states need a much higher growth of employment and/or labour productivity than envisaged in the White Paper in order to make progress comparable to what the White Paper targets would achieve for the rest of the EU. If so, a necessary corollary is that the growth rate of output would need to be much higher in the periphery.

If in fact the sustainable rate of economic growth in the core members of the EU can be raised to 3.5 per cent per annum, however, as envisaged in the White Paper, this would by itself greatly improve the environment for the growth of output and employment in the peripheral states, because convergence is easier under buoyant conditions. From the mid-1980s up to the start of the current recession the peripheral countries other than Greece were able to sustain GDP/GNP growth rates substantially above the EU growth rate. Intra-Community exports of goods as a percent of GDP is exceptionally high in Ireland and is above average in Portugal, while in all four the ratio has been rising relatively rapidly. In regard to services exports, tourism, which is important to all four countries, is quite sensitive to the general buoyancy of economic activity. In section 2 we saw that Ireland and Spain are significant recipients of US direct investment, which is also likely to be responsive to a higher level of activity in the EU. For these and other reasons, the buoyancy of the Community economy generally, while not a sufficient condition for the acceleration of growth in the periphery, comes close to being a necessary condition.

Productivity:

Average productivity levels in Spain and Ireland are now not far behind the EU average, but there is still some leeway to make up. However, the greater part of the shortfall in average living standards in these countries is due to the fact that in both an exceptionally low proportion of the population is employed at these productivity levels. In Portugal and Greece, productivity levels are very low, and while Portugal has been reducing the gap, Greece has been falling further behind in recent years. In these two countries, in particular, the White Paper target of a reduced EU rate of productivity growth to 1.5 per cent per annum has no relevance to the economic challenges they face, nor would the target be appropriate either for Spain and Ireland for reasons mentioned below.

The White Paper path towards lower overall productivity growth (or higher employment intensity) envisages faster productivity growth in all sectors open to international competition, but with a greater share of employment being concentrated in the production of labour intensive products (mostly non-traded services). In fact in all the peripheral member states there is enormous scope for precisely the opposite structural shift - from low productivity to higher productivity activities - and indeed a particular need for such a shift in Portugal and Greece if they are to raise their living standards. All four have an above-average share of employment in agriculture, which is indicative of a relatively high rate of underemployment.

Outside agriculture, the scope for restructuring to higher productivity activities is also very considerable in Portugal and Greece. The research on the sensitivity of manufacturing industry to the operation of the Single Market indicated a higher degree of vulnerability in the manufacturing sector in these countries, with the prospect of substantial inter-industry adaptation affecting the labour intensive sectors
[Buigues et al (1990)]. Apart from likely and necessary structural changes, the fact that all four countries are late developers suggests the existence of relatively greater scope for catch-up in the application of technological and organisational advances than in the rest of the EU.

**Employment:**

In assessing the relevance of the EU employment target of nearly 2 per cent per annum growth in employment, other important variables need to be taken into account, such as the prospective growth in the active age population and migration behaviour. The figures for Ireland suggest that a 2 per cent growth in employment would go nowhere near halving its unemployment rate for two reasons: first, the Irish unemployment rate is much higher and second, the potential natural increase in the labour force is much greater, due to the age structure of the population and prospective increases in female participation. If, in fact, the Irish unemployment rate were to be halved over the period 1995-2000 in a situation of no net emigration, then employment would have to grow at 3.4 per cent per annum. About half of the increase would be needed to cater for the growth in the labour force and the other half to reduce unemployment. Furthermore, it must be recalled that, since Ireland starts with such a high unemployment rate, halving that rate would still leave it in the year 2000 with a rate not much below the current average for the Community.

It would be implausible to assume, however, that if the White Paper strategy were effective in the rest of the Community, net emigration from the periphery to the core would be zero. The econometric evidence confirms that emigration in Ireland is highly sensitive to variations in labour market conditions (unemployment and take-home pay) at home relative to those abroad, particularly the UK [NESC (1991)]. If employment conditions were buoyant in the UK, but not in Ireland, substantial emigration would resume. While this would bring down unemployment, it would be at the likely cost of a significant brain drain, which would reduce the development potential while increasing the intractability of reducing unemployment further by leaving behind a large substratum with neither the resources nor the skills to emigrate.

On the other hand, if labour demand in the periphery were buoyant, due say to CSF spending, it could give rise to a significant return flow of emigrants, notwithstanding the continuance of relatively high unemployment. Ireland is tightly constrained in the degree to which it can vary wage, tax or welfare rates relative to the UK, the main destination for migrants, without provoking substantial variations in its potential labour force. The countries of the Southern periphery are likely to face such constraints in the future.

The foregoing should suffice to show that the employment challenge in Ireland is on an altogether higher relative scale than in the Community as a whole. The same is true of Spain because of its high unemployment and low labour force participation rates. It is true also of Greece because of its low rate of labour force participation, but here, as in the case of Portugal, the more fundamental challenge is not the growth of total employment but its restructuring to higher productivity levels.
Finally a word about the White Paper’s instrumental objective of raising the EU investment ratio by about 5 percentage points to 23-24 per cent of GDP. Investment ratios in Portugal and Spain are near to or above this level, but in Ireland (15 per cent) and Greece (17 per cent) are below the current EU average.19

Looked at in absolute terms, of course, investment per inhabitant is very low in Greece (36 per cent of the EU average), Ireland (59 per cent) and Portugal (66 per cent), with only Spain (90 per cent) approaching the EU average. The need for massive additional investment in the periphery can hardly be doubted, but even more important perhaps is the need for greater investment in human capital, which is regarded by the White Paper as a priority. Such expenditure might more properly be treated in the National Accounts as capital spending.

Macroeconomic Policies:

Ireland is the only one of the four peripheral member states in which the application of the White Paper’s monetary, fiscal and exchange rate policies is unproblematic. Both the inflation rate and the general government borrowing requirement as a per cent of GDP are already comfortably below the Maastricht criteria, and while the national debt/GNP ratio remains high at 102 per cent, it is being steadily reduced. Ireland is fully committed to EMU, and has consistently tried to position itself to be in the fast track if and when a single currency is adopted.

The macroeconomic position in the other three peripheral countries is less favourable. The estimates and forecasts in the December 1993 OECD Economic Outlook indicate that they are a long way off meeting the Maastricht criteria, particularly in the case of Greece. The inflation rate in 1993 was 14.1 per cent in Greece, 6.3 per cent in Portugal and 4.8 per cent in Spain, while the general government financial balance as a per cent of GDP was, respectively, 14.8, 8.2 and 7.2 per cent. Furthermore the OECD forecasts suggest that even by 1995, these countries will lie well outside the Maastricht criteria for these entities, except that in Spain the inflation rate is expected by then to be just below 3 per cent.

Ireland’s lengthy battle to correct its macroeconomic imbalances, which were very severe at the start of the 1980s, may hold some lessons for the other peripheral member states. That experience suggests in particular that progress in adjusting these imbalances can be slow, and painful in terms of its effect on unemployment and real living standards, when undertaken at a time of slow growth in the European economy, as was the case in the first half of the 1980s. On the other hand, if undertaken decisively at a time when the European economy is buoyant, as was the case in the second half of the 1980s, progress can be rapid and relatively painless in its impact on unemployment [Bradley, Whelan and Wright (1993)].20

5 THE WHITE PAPER AND PERIPHERAL DEVELOPMENT

We turn now to the longer-term developmental policy aspects of the White Paper. These have been succinctly summarised in terms of the following four overriding objectives (pp. 58-59):

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19 The fact that Ireland has sustained a growth rate of 4+ per cent on average since the mid 1980s with such a relatively low investment rate is probably due to the utilisation of infrastructural capacity built in the late 1970s and early 1980s when investment rates were much higher.

20 Another possible lesson, though more open to argument, is that restoration of order in the public finances is more effectively done by cutting public expenditure rather than by raising taxes.
- Helping European firms to adapt to the new globalized and interdependent competitive situation
- Exploiting the competitive advantages associated with the gradual shift to a knowledge-based economy
- Promoting a sustainable development of industry, and
- Reducing the time-lag between the pace of change in supply and the corresponding adjustments in demand.

In each case there is a specifically peripheral perspective on these issues. We first treat the industrialisation and competitiveness aspects, examining the different states of evolution of, and choices facing, the four countries involved. Then we discuss how policies of investment in human resources and physical infrastructure are central to the process of development in the periphery, promoting greater integration into the EU and wider world economies.

5.1 Industrialisation and Competitiveness

The proposal in the White Paper is to keep average real wage increases 1 percentage point below the growth rate of productivity. It is well established that while the European economies tend to pass on almost all productivity increases to labour in the form of higher wages, measured productivity does not enter significantly in the U.S. wage equation [Dreze and Bean (1990)]. Consequently, the White Paper proposal would represent a modification of earlier practice in the EU, and would facilitate greater employment growth.

This pay guideline would be far too lax under the circumstances facing the periphery, for the following reason. Given the likelihood that productivity will continue to grow much faster in these countries, the guideline would be compatible with a substantially faster growth of real wage rates there than in the EU core.\(^{21}\) The resulting impact on employment overall would be unfavourable, however, because the pace of average productivity growth masks very different productivity performance across sectors.

For example, in Ireland productivity growth has come to be dominated by multinational enterprises with such high productivity levels and growth rates that the indigenous employment-intensive firms, which account for the bulk of total employment, could not hope to match them. For this reason, as well as the greater scale of the employment challenge facing the periphery, a more restrictive pay target would be needed to achieve the employment effects expected in other EU countries from the adoption of the Commissions guideline.

This crowding-out process in Ireland can be regarded as a variant of the Dutch disease, from which Spain also has suffered. Both countries have experienced a considerable amount of restructuring and modernisation of activity which, because it was unevenly spread and concentrated primarily in less labour-intensive activities, led to a pricing out of low-productivity, labour-intensive activities [Bradley, Whelan and Wright (1993), pp. 41-43]. That Greece and Portugal have not experienced a similar situation may be a consequence of their low state of development, rather than that they have found satisfactory ways of dealing with the negative spill-overs of rapid modernisation. These problems, therefore, are still before them.

\(^{21}\) In section 3 we drew attention to the high rate of technical progress in the periphery, with obvious consequences for productivity growth.
Policy makers in the Southern periphery face the following stark choice. Do they permit the fairly rapid destruction of their indigenous, inefficient, labour intensive, low wage sector, and facilitate its replacement by an efficient, capital (or R&D) intensive, high wage sector? As in the Irish and Spanish cases, this route appears likely to entail substantial structural unemployment and an associated high tax burden if social welfare systems are put in place. Alternatively, do the policy makers permit a dual labour market to develop, where, in the absence of a fully developed social welfare system, workers in the low productivity sectors have no choice but to accept low wages. In the Greek and Portuguese cases, this second route appears to entail a wide dispersion of wage rates, as between sectors and skill levels, and a degree of "working poverty".

One way of minimising the adverse side effects is to try to ensure that the general process of wage determination is not unduly influenced by high productivity growth emanating from a relatively small section of the economy (in terms of employment share). Another complementary approach would be to try to secure a more balanced spread of productivity growth; policy should focus on raising efficiency in lagging sectors, especially the non-traded goods sectors, where restrictive practices and restraints on competition tend to be more abundant. The general application of the range of policies recommended by the White Paper to reduce tax and other disincentives to the use of labour would also help.

To conclude on pay issues, the White Paper makes large claims for what could be achieved by a reduction in statutory charges equivalent to 1-2 per cent of GDP. To the extent that insider power is important, care needs to be taken to prevent the benefits of such tax cuts simply accruing to insiders. Furthermore, it is not credible that the impact claimed could be achieved in the periphery as a result of such a change. Statutory charges on labour are already much lower in the four peripheral states than in all other EU states with the exception of the UK. The White Paper's own figures are that while the EU average as a percent of GDP is 23.5 per cent, the ratio in Greece is 16.5 per cent, Ireland 17.8 per cent, Portugal 16.0 per cent, and Spain 20.4 per cent.

Furthermore, an application by Fitz Gerald and McCoy (1992) of the HERMES model to simulate the effects in Ireland of a unilateral CO2 tax matched by a general cut in social insurance contributions, yielded an employment elasticity of under 0.4. A targeted cut of the kind recommended in the White Paper would undoubtedly yield more, but on the other hand in a multilateral application of the policy, Ireland's wage competitiveness would not improve relative to other EU countries. Obviously in the periphery, as elsewhere, tax policy should seek to remove needless disincentives to the take-up of low-paid employment, but such an approach cannot be regarded as reaching to the core of the underdevelopment problems of the periphery.

5.2 Human Resources and Physical Infrastructure

The White Paper proposals on education and training are very relevant to the periphery. All four states emerge as below-average on various measures of human capital, such as the proportion of adolescents in education and training, or the ratio of research scientists and engineers per 1,000 of the labour force, with the lowest positions occupied by Greece and Portugal. The White Paper is also concerned about the uneven distribution of education and training resources, with those from deprived backgrounds likely to benefit least - a factor that is also significant in the periphery. The more difficult questions to determine, however, relate to what kinds of education and training are likely to be most effective, and how to ensure that they are of good quality [Grubb (1994)].

22 In the Portuguese HERMIN model, the Phillips curve effect in the service sector is six times larger than the effect in manufacturing, illustrating that a dual labour market already exists [Modesto and Neves (1993)].
The White Paper recommendation that a significant proportion of expenditure on unemployment compensation be re-allocated to training, even if it were feasible, would have limited impact in Portugal and Greece. In Portugal, measured unemployment is quite low, while in Greece unemployment compensation is minimal, so that registered unemployment is much less than unemployment measured on a Labour Force Survey basis, and of course even the latter measure does not encapsulate the low participation rate and high degree of underemployment.

Besides lagging behind in terms of human capital, the peripheral regions, as noted earlier, also have inadequate levels of physical infrastructure. These problems of course are being addressed at present by the CSF programmes. With regard to the structural adjustments that we have identified as being in store for Greece and Portugal, the burden of adjustment would be substantially eased were an adequate level of infrastructure already in place. Not only would this stimulate the inflow of multinational investment that these economies will require, it would also aid restructuring along the lines of traditional comparative advantage.

5.3 The New Development Model

Further developmental opportunities are suggested by the White Paper's "new development model" for the Community. A clear implication of this model is the need to discourage environmentally damaging concentrations of economic activity and to encourage dispersal of industrial location. Indeed the White Paper recognises that the internal relocation of economic activities will contribute to the most efficient exploitation of environmental resources inside the Community as well as to a reduction of the far too-high environmental pressure in some areas. However, the dynamics of the internal market, if allowed to operate unchecked, could exacerbate that position in some respects by facilitating even greater regional concentration of certain industries in existing highly developed areas.

This danger would be greater if the present structure of national industrial subsidies is not rationalised [C.E.C. (1992)]. These are used extensively in most member states and, measured in relation to employment, are often much higher in the richer countries than in the poorer countries. In total in the Community they amount to several times the level of Structural Fund support for the poorer countries. Some of these subsidies in the rich member states (e.g. to indigenous mining) may not adversely affect the poorer members: indeed they may reduce the competitiveness of the richer members! But others, such as support for mobile international firms, serve to substantially negate the development efforts of the poorer member states. Moreover they involve a huge windfall transfer to mobile international companies since the competing subsidies probably have more influence on the location than on the volume of such investment.

Only at Community level would it be possible to rationalise this position. Given the strong political interests involved, it would be naive to expect that appropriate regional policies will emerge at Community level simply because the intellectual case for them is reinforced. Nevertheless the new model does strengthen that case. It also elevates the perception of the regional issue, which is sometimes seen merely as a backdrop to pleas for hand-outs on the part of the periphery, to an integral part of the progressive policy for the entire Community.
6 CONCLUSIONS

In this paper we have argued that the labour-market problems of the periphery, in terms both of unemployment and underemployment, are substantially greater than those of the core EU economies. We identified a number of characteristics of peripheral regions that generate this outcome. Many of the factors that define "peripherality" also place extra burdens of adjustment on the labour market. Among these factors are the high share of employment in the declining agricultural sector, the excess sensitivity of peripheral industry to the international business cycle, the difficulties faced by labour abundant regions in adjusting to free trade, and the deficiencies in both physical and human capital infrastructure that magnify these difficulties considerably.

We argued that many econometric treatments of labour market issues are not designed to capture these factors. The Layard-Nickell-Jackman approach, in considering a single sector economy, not only glosses over the distinction between agriculture, industry and services, but also the structural differences between traditional and modern industry that are crucial now or soon will be in all of the peripheral regions. The Commission's QUEST model we found to be overly focussed on demand-side issues, rather than the supply-side issues that dominate macroeconomic developments in the peripheral small open economies. These are the primary focus of the more recent HERMIN model constructed specifically for the EU periphery.

Just as the QUEST model is understandably designed with the more populous core regions in mind, so the specific recommendations in the Commissions's White Paper on Growth, Competitiveness, Employment are more appropriate for the core than for the periphery. Since labour productivity in the latter regions will continue to converge to the levels applying elsewhere, employment and output growth targets there need to be considerably higher. The White Paper's recommendation on cuts in statutory charges on labour is unlikely to be sufficient to generate this employment growth. Nor is such growth likely to be aided in the short run by the fiscal contractions entailed by the Maastricht criteria.

What is ultimately required to overcome the factors generating peripherality? As the One Market, One Money report reveals, these factors are not primarily geographic. They are infrastructural. Adequate levels of human capital and physical infrastructure are required if industry in peripheral regions is to be able to compete internationally, and if the peripheral regions themselves are to be able to compete for the available flows of multinational investment. While these infrastructures are being put in place the periphery faces a stark choice. It may follow the "European model", entailing convergence in terms of social welfare entitlements, employment protection etc., or it may follow the "American model" of reliance on the free market. The former path is likely to hasten the demise of low productivity firms, and may result in high long-term unemployment rates, as in Spain and Ireland, while the latter path will, in the situation in which the periphery finds itself, lead to a worsening of the distribution of income, and the continuance of very low wage sectors in otherwise affluent economies.
7 REFERENCES


Commission of the European Communities (1993d). "The Economic and Financial Situation in Italy", European Economy, No. 1


Dombusch, R. (1991) "Comment" on Akerlof et al. (op cit).


