

# ECONOMIC PAPERS

COMMISSION OF THE EUROPEAN COMMUNITIES • DIRECTORATE-GENERAL FOR ECONOMIC AND FINANCIAL AFFAIRS

Number 86

October 1991

**Labour Mobility, Fiscal Solidarity  
and the Exchange Rate Regime:  
a Parable of European Union and Cohesion**

Jorge Braga de Macedo\*



*"Economic Papers" are written by the Staff of the Directorate-General for Economic and Financial Affairs, or by experts working in association with them. The "Papers" are intended to increase awareness of the technical work being done by the staff and to seek comments and suggestions for further analyses. They may not be quoted without authorisation. Views expressed represent exclusively the positions of the author and do not necessarily correspond with those of the Commission of the European Communities. Comments and enquiries should be addressed to:*

The Directorate-General for Economic and Financial Affairs,  
Commission of the European Communities,  
200, rue de la Loi  
1049 Brussels, Belgium

# **ECONOMIC PAPERS**

Number 86

October 1991

## **Labour Mobility, Fiscal Solidarity and the Exchange Rate Regime: a Parable of European Union and Cohesion**

Jorge Braga de Macedo\*

\* Earlier versions were presented at Università Commerciale Luigi Bocconi, the Spanish Ministry of Finance and for the SUERF Colloquium on "Fiscal Policy, Taxation and the Financial System in an Increasingly Integrated Europe", held in Lisbon, May 22–25 1991. The author is Professor at the Faculty of Economics of Universidade Nova de Lisboa and Director for National Economies at the Commission of the European Communities, Brussels. Comments from an anonymous referee are gratefully acknowledged.

<b><u>CONTENTS</u></b>	<b><u>PAGE</u></b>
I. Introduction	1
II. Mobility and Solidarity	2
III. Development Assistance	4
IV. Nominal and real convergence	5
V. National and common policies	6
VI. National and regional catching-up	7
VII. Effects through time and space	8
VIII. Cohesion factors	10
IX. Conclusion	12
Notes	13
Table 1 - Gross national disposable product per capita (as % of the average for the Community of Twelve)	15
Table 2 - The 10 least-developed regions (as percentage of EC average)	16
Table 3 - Real interest differentials of the escudo against the Deutsch mark (% p. a.)	17

## I. Introduction

In spite of an apparent coincidence between relatively lower income per head and greater distance from Brussels, the European Economic Community has become a pole of attraction worldwide. Its twelve Member States are preparing Political, Economic and Monetary Union (PEMU) at the same time as other European nations wish to have ever-closer links with the Community (EC). From Austria, Sweden and other partners in the European Free Trade Association (EFTA) to Turkey; from the former German Democratic Republic to other ex-Soviet satellites in Eastern Europe and to Albania, there are more than twelve European countries wishing to join the Community sooner or later.

The single market programme, to be completed by 1993, is gaining added momentum from the drive towards a single currency while the negotiation of a European Economic Space (EC and EFTA) and the end of the Cold War raise the prospect of further enlargements, perhaps doubling the number of Member States. The coordination by the EC of assistance to Eastern Europe, cooperation with the Soviet Union and a number of initiatives aimed at helping the countries worst-hit by the Gulf crisis show the successive if not simultaneous pursuit of EC deepening and widening.

A search for greater Community operationality is felt in the twin Intergovernmental Conferences (IGC), which started at the end of the Italian Presidency of the Council of Ministers and is supposed to close with the Dutch Presidency. This is not surprising in light of the acceleration registered two years ago with the Spanish Presidency, and maintained by France and Ireland. Will such acceleration make it easier or harder for poorer Community members to catch-up? This is the issue of economic and social cohesion. While cohesion is seen by Portugal as decisive for the stability and hence the durability of PEMU, the parable told here is not specific to Portugal, but applies to all catching-up countries inside and outside the Community.

The basic point is that acceleration will only facilitate cohesion in poor economies if there is a change in economic regime. In Spain and Portugal, such change began with accession in 1986 but it must be still consolidated. Aside from structural adjustment, Portugal requires a substantial reduction in inflation. In Greece, however, the change in regime has hardly begun, ten years after accession.

It is of course possible to disregard economic and social cohesion in the drive for PEMU and to consider that it is a sufficient condition for the success of European integration if that integration guarantees a democratic political system in Greece, Portugal or Spain. Such a view, which is commonly held in countries seeking accession, makes it harder to change the economic regime when such a change is required for a catching-up country to benefit from PEMU. Even if joining the European Community could act as a bulwark against dictatorship, it would clearly be unable to offer any insurance against poverty.

If the Government cannot bring about the structural changes that are needed in order to narrow the gap between the joining poorer economy and those of the more prosperous European countries, then integration with them cannot guarantee anything whatsoever. What is worse, PEMU could lead to a situation of divergence in which traditional exports and transfers from abroad are used to finance public sector deficits, thus squandering the development aid provided through Community solidarity. This argument applies to any of the divergent countries that still need to catch-up and is therefore receiving transfers from the Community.

After the 1988 reform, Community interventions are mostly devoted to raising efficiency but, given the large amounts involved, they do imply a form of fiscal solidarity. Indeed transfers of resources could build up to as much as 3% of gross domestic product in Ireland and Greece and 4% of GDP in Portugal by 1993 are involved. Will this be enough for the three poorest Member States reap some economic benefits during the transition towards EMU? In consequence, should the catching up countries lend their support to the deeper integration called for at the current IGCs, thus enabling the Community to be subsequently widened? The answer depends on the effectiveness of the instruments used for achieving such solidarity, which in the final analysis has to do with the mobility of the factors of production that are labour and capital. The international mobility of financial capital has been achieved across the Community, including, somewhat surprisingly, the poorer members that have not yet fully liberalized capital movements. The converse is true of labour, where mobility across regions or nations is the exception rather than the rule.

To argue that for the benefits actually to accrue there must be a change in economic regime is tantamount to saying that a better mix of labour mobility and fiscal solidarity (i.e. structural funds) needs to be achieved. This proposition, which is borne out by examination of the transition of the Spanish, Greek and Portuguese economies, is also confirmed by the transition efforts made in eastern Europe [1]. Moreover the notion of "economic regime change" has been used in the Commission report on the benefits and costs of economic and monetary union as a condition for positive effects over time and space [2].

## II. Mobility and Solidarity

Solidarity in an economic regime has to do with the provision of public goods through taxation. The effectiveness of taxation is determined by the mobility of the tax base. This is how an economic regime ends up being largely determined by the mobility of its underlying factors of production. If all goods could be privately owned, there would be no strictly economic argument in favour of fragmentation, along national or other lines: the whole world would be the optimum size for a single market. The same would be true if there were only world-wide public goods. In the first case there would be no taxes, in the second taxes ought to be levied at the world level [3]. As there is no world tax authority, these world wide public goods could only be provided by a coalition of large governments. Moreover, as private and public goods mix, not even nuclear deterrence and the global warming environment can be seen as pure worldwide public goods.

The larger the distance between a taxpayer and the public good, the easier it is for taxation to be avoided. The threat of a "free ride" by distant taxpayers leads to smaller communities, where solidarity, expressed through majority vote, limits tax evasion. Between the village and the world, the nation has emerged as a combination of market and state, which attempts to trade off mobility and solidarity. In the village, there is solidarity but the tax base is outwardly mobile. The tax base cannot move out of the world but there are no citizens of the world and no state either. From an economic standpoint, the specificity of nations lies in the combination of personal mobility between social classes and geographical regions and the supply of public goods, whose consumption is determined by the electorate and has to be financed through taxes paid, either in principle or in the fact, by the residents of the country in question [4].

The social cohesion implicit in shared public goods is, all in all, a reflection of the legitimacy of the State's political (and taxation) powers, essential to the concept of a democratic nation. The rules governing the functioning of the market, among which the observance of contracts and individual mobility loom large, are public goods. Since technology and personal preferences vary, new opportunities emerge for exchanging information. In such transactions, public and private goods intermingle, justifying a hierarchy between the levels of government underpinning the market.

In accordance with the principle of subsidiarity (expressed by the Catholic Church in *Quadragesimo Anno* and embodied in the Treaty of Rome), public goods should be supplied at the level that is closest to their consumers and consistent with economic efficiency - which itself depends either on the state of technology or on individual and collective preferences. Given that the latter are normally expressed by the electorate, it can be seen that economic efficiency cannot be separated from collective choice [5].

The nation state is the sum total of persons who have more or less homogeneous preferences and agree, through the electoral process, to consume certain public goods, which requires that they pay the same taxes. The nation tends to be associated with the concept of the State because the latter is the organization which, by exercising political power, levies taxes to finance expenditure - or, in other words, supply public goods. The limit to present taxation is undoubtedly enforcement by the competent court, but this does not necessarily mean that the tax has to be paid by the voter, since it may fall on non-residents or indeed future residents. The limit to future taxation is thus the expectation of social mobility and of the provision of public goods, or in other words, the decision to maintain residence within a particular tax territory.

In a situation where residence is not fixed, if the public goods supplied are not sufficient, taking account of the level of taxation, so that net taxes are too high, some residents will feel poorer and vote to raise gross taxes, while others, who do not wish to consume more public goods, will want net taxes to remain low. When a new equilibrium has been established, there is still a possibility that the rich person will emigrate to a country where gross taxes are lower and the poor person to a country where there is greater provision of public goods. The domain of the stable trade-off between mobility and the solidarity may therefore be smaller or larger than the nation, and it will certainly increase if mobility overcomes solidarity as expressed in a majority vote. Now mobility varies a great deal across people and factors of production. If the dichotomy labour/capital is kept, the problem can be illustrated with greater clarity.

The tax on the income from capital - an internationally mobile factor - is seen as a good example of the need for each nation to maintain tax competitiveness, and there are even fears that competition may eliminate altogether the tax on mobile factors, so as to lower the provision of goods at the national level without a compensating increase at community or world levels. The strategic interaction between nations changes when there exists a voting mechanism, however because voters know the danger of "competitive tax avoidance" and will try to minimize it by electing governments with less of a propensity to lower taxes. As the argument applies to all countries, the political economy equilibrium will have higher taxes on the mobile factor than the pure economic equilibrium. Strategic interaction is dampened by the vote. The political system weakens the required changes in the economic environment. Nevertheless, it turns out that a greater

mobility on the tax base implies greater economic and political convergence.

Despite the fact that there is a positive relationship between mobility and political and economic convergence, the mobility of persons and capital can result in either convergence or divergence, economic and political. The example of divergence comes from a situation where labour, rather than capital, is taxed and where the political and economic equilibrium can exhibit convergence or divergence between integrating economies. If an economy with high wages in the export sector integrates with an economy where high wages occur in the import competing sector, then inter-sectoral divergence of wages rises as a consequence of integration, and the same is true of taxes [6].

The analysis can be refined by recognizing that there is not such a clear difference between labour and capital, as some forms of capital will be incorporated in land and are therefore immobile, whereas skilled labour is highly mobile across nations. More relevant to cohesion is, however, to recognize the social and political implications of labour mobility. In effect, mobility tends to be restricted when human rights are curtailed so that divergence is exacerbated and solidarity must be centralized. This however makes solidarity ineffective. In centrally planned economies, centralized fiscal solidarity was based on the forced immobility of the tax base. In centrally planned economies, therefore, when the ban on mobility is defied, the system rapidly collapses, as was the case in the former GDR in the summer and autumn of 1989 and perhaps Albania in 1991. Given the erosion of centralized state solidarity, international assistance - German national in the case of GDR - was called for. The international assistance effort was coordinated by the EC and has already shed new light on the parable of union and cohesion.

### III. Development Assistance

The mobility of the vote and of the tax base is thus at the centre of efforts to promote convergence and ensure that development aid is effective. Moves to reduce inequalities in the distribution of wealth between nations are occasionally criticized on the grounds that they merely incite either the donors or the recipients to corruption and do not bring about a real change in the situation as regards the supply of public goods or improve national cohesion in the recipient countries. On the contrary, they can interfere with social mobility, leading to the squandering of foreign aid and the misappropriation of tax revenue for the authorities' own benefit.

For these reasons, aid should not be managed by the governments of the recipient countries, and could instead be regarded as a private good which can be appropriated by entities which do not belong to the state, such as autonomous regions or local communities, on the one hand, and multinational entities, such as the EC or the World Bank, on the other. The regionalization of Community assistance, initiated by the reform of 1988, is a case in point. Introducing the local and Community level is of course no guarantee against waste, but it allows a better operation of the principle of subsidiarity discussed earlier.

As a rule, foreign aid is subordinate to foreign policy, which is conducted on a government-to-government basis. Foreign aid has thus traditionally been viewed in the same way. Apart from considerations of political expediency, the underlying rationale was that in the developing countries, investment in infrastructures was more socially cost-effective than in

other areas, particularly productive activities carried on by the private sector.

Yet the experience accumulated over the last few decades by the World Bank, the Community and major donors in the 24 members of OECD (which are known as the G24) has shown that this is frequently not the case - quite the opposite. Thus, where the State acts wrongly or fails to do what it should, public aid comes to be associated with both inefficiency and injustice. Hence the desirability of a type of aid which would be arranged with and be channelled directly to individual private agents or groupings of such agents. The conditions under which it would be possible to convince the recipient state to accept this approach involve a certain proximity with the donor. In other words, they require a certain solidarity.

Moreover, one should be aware of the difficulties involved in identifying recipient groups, difficulties which would be compounded by the need for those groups to manage the machinery established. Aid expectations induce rent-seeking behaviour on the part of would-be recipients. As a culture of dependence is induced on aid recipients, the ethical argument for assistance ceases and solidarity is as threatened as it was under central planning. This is why machinery must be set up for monitoring the effectiveness of aid granted. In that case a certain amount of resistance is to be expected from the recipient administrations, which prefer to receive funds directly and escape scrutiny [7].

This underscores the important role played by national policies in changing the economic regime and the need for democracy to make the change permanent. The existence of adequate national policies is a necessary condition for economic and social cohesion in a PEMU. Moreover, the problems of identification of recipients and of their absorption capacity without perverse changes in behaviour suggest common supervision rules such as ones introduced in the reform of Community structural funds in 1988. In the meantime, new pressures of convergence and divergence emerged, which suggest the need to adapt Community solidarity even before the 1988 reform has borne fruit.

#### **IV. Nominal and real convergence**

As the preparation for PEMU proceeds, the deepening and widening forces of European integration have become apparent. The acceleration visible in the PEMU project induces additional pressures for convergence and divergence. These additional pressures should not suggest that the poorer regions and countries are already poised to narrow the gap that separates them from the rest of the Community. Automatic convergence is as erroneous a view as automatic divergence. The less prosperous Member States must succeed in boosting per capita disposable income relative to the Community average. But such an increase in spending must be underpinned by a rise in production, and this in turn requires successful action to enhance competitiveness, promote national savings and attract foreign private investment.

In these circumstances, diverse national economies would reap the benefits of a unified market. Even if that were the case for a time, however, it does not follow that inflation rates would immediately converge to the lowest one. For macroeconomic policy to be consistent with price stability, this stability must be imported through a fixed exchange rate with the strongest currency - which ends up becoming the single currency. Or, to put the problem differently, even if one accepts that the overall costs of EMU will be outweighed by the benefits, one still needs to look into the distribution of those benefits and costs through time and space. The basic

question is to determine under what conditions and for which horizon does the mobility of individuals and firms promote cohesion.

Within countries, there is a fixed exchange rate (a single currency), labour mobility and fiscal solidarity, whereas between countries there is less mobility, less solidarity and exchange-rate flexibility. This flexibility is greatest for those countries which have not joined the exchange rate mechanism (Greece, Portugal) or even for those who keep a wide band (Spain, United Kingdom) but potential flexibility does exist until a single currency is introduced across the Community. The current anxiety about Italy, whose currency has been in the exchange rate mechanism from the beginning and in the narrow band since early 1990, illustrates the point. According to some counts, these are the five divergent countries, according to other counts, only Greece, Italy and Portugal might threaten the process of nominal convergence required for the second phase to begin sometime in the mid-nineties.

#### V. National and common policies

According to the traditional theory of international trade, based on the concept of comparative advantage, economic integration leads to an equalization of the prices of goods and factors of production across nations even though by definition these only move within a nation. Trade is seen as requiring a lasting difference between industries (inter-industry specialization) but not between national incomes. In other words, the more uniform the level of consumption, the more diversified the production structure will become. On this traditional view, it is a uniform prosperity combined with the diversity of Member States which will act as a catalyst for the emergence of more advanced forms of integration. Reaching these advanced forms will in turn enable the frontiers of the European economy to be extended still further.

Such optimistic view has, however, always been pitted against a different school of thought which holds that integration will be achieved at the expense of the outlying regions and the greater specialization of production will distort the level and pattern of consumption. On this second view, therefore, diversity would be incompatible with unity, and there would not be much hope for the least-developed countries and regions, since cumulative out-migration would frustrate the catching-up process, thereby discouraging investment at the periphery in favour of investment at the center. The best that might be hoped would be an equalization of living standards achieved through the desertification of the regions and countries further away. While this solution might be acceptable in terms of economic convergence, it would certainly prevent political convergence because it would exacerbate the asymmetry between regions and threaten cohesion.

Whatever the conditions for any particular low-income territory to catch-up, the horizon is sufficiently distant for the emergence of a compromise between the optimistic and pessimistic views. The most frequent compromise is to recommend that the different stages on the road to integration should be accompanied by transfers of resources to the regions lagging behind. But such transfers should not aim at buying the immobility of peripheral populations through subsidies to their consumption [8]. Rather they should have the effect of maintaining cohesion within the Community; that is to maintain competitive production, to prevent cumulative out-migration, and to attract capital. The Treaty of Rome, as amended by the Single European Act, thus states that the Community should aim at reducing the backwardness of the least-favoured regions by implementing common policies (Article 130b). This should not cause one to overlook the fact that the responsibility for the catching-up process rests first and

foremost with the Member States themselves. Only they can adopt national policies designed to promote the catching up process.

## VI. National and regional catching-up

The structural Funds and the Community's other financial instruments (including operations financed by the European Investment Bank) are thus intended to support the process. The reform of the structural Funds decided in 1988 and the objective of doubling the level of assistance by the time the internal market is completed are responses to the new threats to the cohesion of a Community - which has become increasingly heterogeneous. With German unification and the two most recent enlargements, the new north-eastern, south-eastern, southern and south-western fringes of the European economy have joined the North Atlantic fringe, represented by Ireland, as low-income areas. The apparent coincidence between the wealth gap and the distance from Brussels politicizes the catching-up process.

Although such politicization makes the comparison of composite indicators such as per capita income particularly risky, some light can be shed on the subject by the attached table, which only deals with Member States rather than regions therein, and shows the relative position of the four poorest from 1960 to the present day. The indicator used is gross national disposable product per capita (adjusted for purchasing power standards) as a percentage of the average for the Community of Twelve. Unlike gross domestic product, which is a more commonly used composite indicator, gross national disposable product excludes resources intended to remunerate foreign factors of production (such as repatriated profits or interest on foreign debt) but includes private and public current transfers from abroad. The difference between the two indicators is given in the table 1 in brackets, again as a percentage of the Community average [9]. It is justifiable to include Spain. Even though the economy's size is over twice as large the size of the other three together, and even though several regions in Spain are rich, one half the population lives in poor lands.

Regardless of the composite indicator chosen, the table reveals an initial situation in which Ireland and Spain stood at around 60% of the Community average, compared with only 40% in Portugal and Greece. Over the following three decades, the catching-up process favoured the south-western fringe. Spain has settled at around 80% after reaching a peak of 82% in 1975, when the Community average declined as a result of the recession that followed in the wake of the first oil shock. Ireland, on the other hand, has always remained below 70%, having peaked at 66% in 1975 too. Portugal has consistently hovered around 60%, its peak figure being 62% as long ago as 1973, while the figure for Greece, which touched 62% in 1978, shortly before the country joined the Community, has been edging downwards ever since. If the trends were to continue, the position of these countries on the eve of the single market would be as follows: Spain out in front and Greece bringing up the rear, with Ireland and Portugal vying with each other for the middle ground.

On average, Spain is relatively close to the average, that is over three quarters of Community income per capita. Furthermore, the size of the Spanish economy tends to situate the problem of the spatial effects of monetary union at regional as opposed to national level. This is even more true when the quasi federal nature of Spain's constitutional organization is acknowledged. In that sense, central, southern and northwestern Spain ought to be put on a par with southern Italy and eastern Germany, which are respectively the earliest and most recent of the Community's peripheral regions.

Table 2 shows the poorest regions in comparison with the poorest countries for the period 1986/88, that is before German unification. For reference, national averages of the countries in table 1 plus Italy are also recorded as a percentage of the Community average. The comparison shows well the convergence of Portugal and the divergence of Greece. As for regions, Calabria's rank is above Portugal's average, but not Lisbon's, which is the 30th poorest region. Ireland is a single region, and the Community's 25th poorest. It is noteworthy that data for Portugal's Atlantic autonomous regions, Azores and Madeira, are not available.

Given the low average income of Portugal and of the Spanish peseta, the similarity in the Lisbon and North Portugal pattern is remarkable, both with high unemployment and high population density. The contrast with Alentejo and Extremadura, both with high unemployment and low population density, is reminiscent of the coast/hinterland distinction found for example in the United States. This distinction reveals the attractiveness of the Southwestern and Eastern Iberian coast, in contradiction with the apparent importance of distance from Brussels mentioned at the outset. The relevant distance is economic and it is measured by time rather than space travelled. The intermediate pattern of Algarve (lower unemployment and lower density) is similar to Greek regions: it may well be closer to the low density equilibrium than to the high unemployment equilibrium but it would be difficult to go further with the indicators available in table 2.

The rough classification of countries and regions by output per head masks the balance that may be struck between optimism and pessimism as to the impact of integration on cohesion, especially for the three poorest Member States. Rather than one apparent failure and two borderline cases, what we have is a catching-up process punctuated with advances and setbacks. Relative income is flat in Ireland and in decline in Greece. Indeed, only Portugal has matched and is now set to exceed its peak figure of the 1970s.

## VII. Effects through time and space

It is within this analytical framework, as applied to all twelve Member States of the Community, that the Commission's report on the benefits and costs of monetary union concluded that a single European currency was indeed desirable both for the Community as a whole and in terms of the distribution of the net gains over time and space [10].

The way in which the gains materialize over time and space obviously depends on other conditions - where national policies are prominent. As regards the nature of the transition to monetary union, the report recalls that the main macroeconomic costs arise at the beginning, while the main microeconomic benefits will be felt at the end of the process - so that only a swift changeover to a single currency will avoid speculative attacks on more vulnerable currency parities. Alongside this unfavourable profile over time, the report draws attention to the fact that the spatial distribution of the effects will necessitate a change in economic regime that is all the more comprehensive the more the national structure and system diverge from the Community average.

The implications of the analysis are clear for the three countries which recently joined the Community. Has there been a change of economic regime in Greece, Spain and Portugal? The answer would appear to be no, yes and perhaps, in that order. As for Ireland, which has been a member for longer, the answer is also yes, but the turning-point dates from more than ten years after accession and took the form of a vigorous budgetary consolidation exercise in 1986, thirteen years after accession and seven

years after pegging the exchange rate. Thus we cannot exclude that the change in economic regime that is necessary in order to bring about the favourable effects of integration will take time.

Ten years after accession, can it be said that the change in regime has occurred in Greece? Probably not, even though the Community loan of February 1991 explicitly calls for such a change. On the other side, the example of the Spanish peseta, which entered the exchange rate mechanism on the eve of the Madrid summit, that is to say three and a half years after accession, shows awareness of the urgency of regime change, even though it may also indicate haste in obtaining political dividends from the measure. For Portugal, one may have a quasi-change in economic regime, soon to be consolidated by the pre-pegging float initiated in October 1990.

PEMU may therefore unleash forces of disintegration, both in space and over time. Even overlooking the problems that are bound to arise during the transitional phase, it can be argued that, for a small peripheral state, the effects of EMU are likely to follow a U-shaped curve, like that traditionally used to depict equality in income distribution during the economic development process, i.e. a decline at the outset followed by an increase [11]. It has been demonstrated how increased trade initially depresses relative wage levels in small peripheral countries relative to the centre, before allowing them to catch up. The relative effect of comparative advantages and economies of scale causes the benefits to depend as much on initial conditions as on national and regional policies, and particularly the degree of integration attained [12].

Once the implications of the U-shaped curve for the effects of economic union on the periphery have been understood, it would appear that monetary union would not change matters. As the forces of cohesion are real and not nominal, divergence would only result from insufficient real integration. But over the transition to PEMU, a specific effect of establishing a single currency cannot be ruled out. It is worth recalling here some of the results of the survey which was conducted among 9 000 enterprises in 1989 by the Institut für Wirtschaftsforschung (IFO) into the effects on competitiveness of national and regional factors and which demonstrated how little importance was attached to exchange rates in comparison with the cost of credit and with infrastructure endowment. This clearly echoes the conclusion concerning the hierarchical structure of domestic money markets and the multiplier effect which credit restrictions at the centre exert on the solvency of enterprises at the periphery.

Is there a hierarchical relationship between the central, outward-looking money market and the closed local and regional money markets, on which small and medium-sized enterprises depend? This hierarchy exists in the United States and it is likely to be even more pronounced in the EC. It would then exert a multiplier effect which, through restrictions on the central money market, would work to the detriment of peripheral enterprises. The monopoly power enjoyed by local intermediaries is reflected in an additional premium on the difference between borrowing and lending rates. That premium is intended to compensate for the higher risk but also reflects the likelihood of a local financial collapse [13].

The financial weakness of a particular region or country can be aggravated by a link with a strong currency, since such a link will not permit a corresponding reduction in the risk premium. Such reduction is of course the signal of the credibility of the change in regime. It is difficult to measure but is often inferred from the real interest differentials with respect to some numeraire currency. These differentials should not be zero, however, when changes in relative prices are expected, for reasons of

structural adjustment or as part of the catching-up process . In table 3, column 3 reveals that between 1986 and 1990 the Portuguese escudo revalued in real terms against the D-mark, turning a devaluation at an annual rate of 3% in 1981 into a revaluation of 5% in 1990 [14].

The difference between real interest rates has different interpretations depending on whether capital exporting or capital importing countries are being considered. A fall in the average differential reflects greater capital mobility due to a fall in risk premium for a capital importing country, that is having access to cheaper financing or a reduction in real interest rates. On the contrary the effect of a fall in risk premium for the capital exporting country would be accros to better investment opportunities, so that the real interest rate rises.

The interpretation of the average differentials reported in table 3 in terms of lending on deposit rates should enter into account that the intermediation margin will tend to be higher in a peripheral money market than in the emerging central money market. Moreover, since 1990 an implicit intermediary tax helped making lending rates much higher than deposit rates. This allowed the local monopoly of Portuguese financial intermediaries to be preserved even though it was in part offset by the use of banks of (implicit) tax collectors.

Independently of the intermedia covered interest differentials are perhaps a better measure of obstacles to international capital mobility. In this regard, Portugal and Spain's differentials with respect to the dollar fell significantly in 1987 [15]. On relevant to PEMU and Portugal's transition thereto is the fact that the risk premium between the escudo and the mark also fell from -2% in 1987 to zero (column 4 of table 3) and ... the exchange rate premium in column 2 fell from 6% to 2% between 1985 and 1990, reflecting source shadowing of the German currency. At the same time this premium allowed that the sign reversal of the real differential (from 10% in 1987 to -3% in 1990) while significant, be dampened relative to the real appreciation of the escudo-mark rate.

#### VIII. Cohesion factors

How can we identify the factors that will enable us to secure cohesion and hence stability in the Community as we move towards EMU? The first question is whether the economic regime has changed sufficiently to allow the catching-up process to takeplace so that the main condition laid down in Article 130b is met.

Apart from per capita income, which we have already discussed, factors relating to economic distance also matter, and these include not only the number of kilometres but also the travelling time and cost and the ease of communication. This poses the problem not only of physical infrastructures, especially means of communication, but also of social infrastructures, human capital and skills. Actually training matters both in general terms and in its specific application to the firm. The results of the IFO survey also confirm the infrastructure challenges facing the reformed structural Funds and German efforts in connection with unification.

Industrial structure is at the root of the optimistic and pessimistic views referred to earlier. In cases where trade is based on traditional inter-industry specialization, the adjustment costs can be significant. This applies to Greece, which exports goods with a high unskilled-labour content. Intra-industry trade based on economies of scale, which is a feature of the situation in Spain and Ireland, is already less likely to generate high adjustment costs. The way in which the factors of production

respond to economic union will thus depend on the pattern of trade, with greater resistance being expected from national producers where traditional inter-industry trade predominates. It may be that Portugal is closer now to Spain than Greece, although the situation is still unclear. The situation is not clear either in the case of Ireland, whose aggressive commitment to attracting direct foreign investment has created a pattern of development that appears to discriminate against domestic capital, resulting in payments in respect of foreign capital that will amount to over 10% of GDP in 1991.

Financial hierarchy is also liable to affect the costs of adjusting to monetary union. Countries whose financial system is still heavily regulated and whose financial fragility is thus less visible are those more likely to suffer credit restrictions during the transition: Portugal is perhaps closer to Greece than Spain in this respect, while a great deal of diversity is to be expected in the countries' regions - even in the two small economies.

The variable importance of these factors in particular countries and regions clearly demonstrates the role of national policies in the catching-up process. The three fundamental criteria have to do with labour mobility, structural policies and interventions to support the catching-up process, and the role played by exchange-rate policy. If high emigration eliminates poverty in a region or country by drawing out people, the political and social base of self determination vanishes, even though there would be no barrier to investment. Under these conditions, public transfers without a sound macroeconomic and microeconomic basis may lead the least productive workers not to emigrate, inducing shifts in behaviour which would make backwardness cumulative and which would endanger economic and social cohesion. Finally, the seriousness of the problem will depend on the mechanism to accommodate the real appreciation resulting from an inflation differential, once the decision to fix the nominal exchange rate has been taken [16].

The varying combinations of the three criteria highlight the diversity of situations encountered. High labour mobility coupled with fixed exchange rates necessitates the transfer of greater resources than when coupled with flexible exchange rates. This having been said, the situation of central, southern and northwestern Spain inspires greater confidence than that of southern Italy, simply because the former has been recognised more recently. Indeed, the combination of the three criteria is the same (high nation-wide labour mobility, substantial transfer of resources, fixed exchange rate). Does the future hold an Extremadurian or Calabrian (respectively 50% and 60% of Community average as shown in Table 2) fate for eastern Germany?

In the same vein, Ireland displays less marked international labour mobility and receives fewer transfers from outside than a region within Italy, Spain or Germany, but maintains a fixed exchange rate. Greece and Portugal, for their part, also have a low degree of international mobility of labour and receive less by way of transfers from the EC than underdeveloped regions in Spain, Italy or Germany receive from their central government and the EC combined. Yet, unlike Ireland, Portugal and Greece have kept a flexible exchange rate. The relative confidence inspired by Ireland and Portugal contrasts with the concern felt about the situation in Greece. Spain argues in the IGC that Community solidarity is not sufficient given the desired degree of deepening involved. Yet, there is no evidence that the absorption capacity of the three small countries could be greatly increased.

## IX. Conclusion

In approaching the current IGCs with a mixture of enthusiasm and caution, Portugal is one example of special interest, among the poorer and divergent Member States because it seems to be combining unity with diversity. Whatever its merits in the IGCs, such constructive ambiguity should not, however, characterize the fight of the Portuguese monetary and fiscal authorities against inflation. Fortunately, inflation is no longer favoured by the Government which now refrains from collecting hidden taxes through the fall in the purchasing power of the currency. Despite the transitory cost of disinflation, its inevitability warns us against the temptation of believing that the change in regime can be consolidated without nominal convergence. From that standpoint, reducing inflation to a level close to the Community average is a necessary condition for a sustainable catching-up process [17].

This message is also relevant for the interaction between the issues in the two IGCs but making the catching up process an issue for political union risks backfiring, especially for recipient countries where the regional and federal dimensions are largely absent, such as Greece, Ireland and Portugal. The parable of union and cohesion suggests instead that the regime change needs to be initiated by strong budgetary adjustment in Greece and consolidated by continued budgetary and monetary restraint in Portugal. In Ireland, nominal convergence was achieved faster but structural adjustment for real convergence has been slower.

The only reason to doubt that the change in regime can be deep enough to achieve both nominal and real convergence is the widespread idea that it takes a long time to acquire the reputation for price stability, whereas it is lost very quickly. In spite of the popularity of this assumption in the theoretical literature, there are limitations to an argument based almost exclusively on the passage of time. Making the limitations of pure time seniority apparent to all by acquiring a good reputation quickly is perhaps the greatest contribution the new member States can provide to the construction of PEMU. Indeed, the lesson of Southern regime change can have profound incentive effects on the path of reform in Central and Eastern Europe, thereby contributing to secure an ever-widening Eastern frontier to the European economy.

NOTES

- [1] The approach draws on a book which I edited with Christopher Bliss for the Centre for Economic Policy Research, Unity with Diversity in the European Economy: The Community's Southern Frontier, Cambridge: Cambridge University Press, 1990
- [2] The report was published in European Economy No 44, entitled "One market, one money - An evaluation of the potential benefits and costs of forming an economic and monetary union". The impact over time and space is described in Chapters 8 and 9 respectively.
- [3] Strictly speaking, the absence of taxes requires more than private ownerships of all (vital and excludable) goods; there must be no externalities as well (or at least the ability to introduce a market for the externality). The distinction between public and private goods should also not be overdone as there are many mixed goods. See Alessandra Casella and Jonathan Feinstein, "Public Goods in Trade: On the Formation of Markets and Political Jurisdictions", Centre for Economic Policy Research Discussion Paper No 511, February 1991.
- [4] The analytical interpretation in the text does not presume that states and nations need coincide, and therefore does not rationalize the boundaries of states; certainly chance plays an important role in the state boundaries. Current tensions within multinational states such as the Yugoslavian or the Soviet Union - to include clear only European examples outside the Community - suggest the advantage of an analytical approach and underline more or less the importance of homogeneous preferences among nationals.
- [5] See Dieter Helm and Stephen Smith, "The Assessment: Economic Integration and the Role of the European Community", Oxford Review of Economic Policy, Vol. 5, N° 2. See also "Subsidiarity and Economic and Monetary Union", unpublished document, Directorate General for Economic and Financial Affairs, where the quotation from the 1931 Papal encyclica is reproduced.
- [6] These arguments are due to Torsten Persson and Guido Tabellini, "The Politics of 1992: Fiscal Policy and European Integration", National Bureau of Economic Research Working Paper No 3460, October 1990.
- [7] See Bliss: "Adjustment Compensation and Factor Mobility in Integrated Markets", Chapter 2 of Unity with Diversity, and the commentary by Michael Emerson, *ibid.* Once again neither local nor supranational governments need be less prone to rent seeking activities and bureaucratic feature.
- [8] An anonymous referee states correctly that : Whether aid is directly in the form of subsidies to the consumption of peripheral populations or via subsidies to investment, the net effect is likely to be similar viz. capital flows to labour rather than the other way around (in the first case wages will be lower than they would otherwise be). To coin a phrase "Who receives the subsidy is not the same as who reaps the benefit".

- [9] Per capita gross domestic product in Ireland stood at 64% in 1980, the same level as in 1986, whereas gross national disposable product had fallen from 65% to 60% of the Community average. I am grateful to Sean Berrigan, who is responsible for Ireland in the Directorate for National Economies, for drawing this significant difference to my attention.
- [10] This is the report mentioned in note [2] above.
- [11] This traditional theory, developed by Simon Kuznets, has been challenged. See The state of development economics: program and perspectives, edited by Gustav Ravis and T. Paul Schultz, Oxford: Basil Blackwell, 1990, Chap. 15.
- [12] Paul Krugman in Chapter 3 of Unity with diversity.
- [13] William Branson in Chapter 5 of Unity with diversity.
- [14] See the chapter on Portugal in Unity and Diversity, especially Table 9.16. I am grateful to João Paulo Carvalho, who is responsible for Portugal in the Directorate for National Economies, for the computations underlying table 3. Comparing these figures with the current interest differential against the dollar we see a specific premium for the Dmark of 1.3% in 1989 and .8% in 1988.
- [15] See the chapter on Portugal in Unity with Diversity, especially Table 9.15. The implicit intermediation tax has been calculated by José Fernando Matos of the Ministry of Finance of Portugal, using the international borrowing rate of the public sector as a benchmark. It then drops from 3.1% of GDP in 1984 to zero in 1985 and rises to 1.4% in 1988, with small negative values in 1986 and 1987. This is due to the fact that the domestic interest rate on public debt rose above the foreign rate plus the realized effective depreciation of the exchange rate, which was very small from 1985 to 1987 and rose again in 1988, even though the escudo did not greatly depreciate against the Deutsch mark during that year.
- [16] This question is tackled by Krugman in Chapter 6 of Unity with diversity.
- [17] The same conclusion is reached in the report on the latest multilateral surveillance exercise for Portugal, which is available as No 2 in the new series of Country Studies, published by the Commission's Directorate-General for Economic and Financial Affairs. A comprehensive list of the expected effects of monetary union on the twelve national economies is to appear in this series.

Table 1

Gross national disposable product per capita  
(as % of the average for the Community of Twelve)

	Spain	Ireland	Portugal	Greece
1960	60 (0)	64 (+3)	40 (+1)	40 (+1)
1970	75 (+1)	62 (+2)	53 (+4)	54 (+2)
1980	73 (0)	65 (+1)	60 (+5)	62 (+4)
1985	72 (0)	62 (-3)	55 (+3)	59 (+2)
1986	72 (0)	60 (-4)	56 (+3)	58 (+2)
1987	74 (0)	62 (-3)	58 (+4)	57 (+3)
1988	75 (0)	61 (-4)	58 (+4)	57 (+3)
1989	77 (+1)	62 (-5)	60 (+5)	57 (+3)
1990	78 (+1)	66 (-3)	62 (+6)	56 (+3)
1991	79 (+2)	66 (-3)	62 (+5)	56 (+3)
Max	82.0	65.8	62.3	62.1
Year	1975	1975	1991	1978

Source: The GDP values (adjusted for purchasing power standards) used in calculating gross national disposable product are taken from the blue pages of European Economy No 46. The figures for 1990 and 1991 are Commission forecasts.

Note: Gross national disposable product = GDP + figure in brackets (= net return on factors + current transfers)

Table 2

The 10 least-developed regions  
(as percentage of EC average)

Ranking	Region	Member State	Average 1986-88		1988
			GNP (in PPS)	Unemployment Rate (%)	Population Density (inhab/km <sub>2</sub> )
1	Northern Aegean	GR	40	64	35
2	North	P	42	36	117
3	Ipiros	GR	42	50	24
4	Alentejo	P	46	141	15
5	Algarve	P	46	43	47
6	Western Macedonia	GR	47	65	22
7	Crete	GR	49	32	43
8	Extremadura	E	49	289	18
9	Western Greece	GR	50	81	40
10	Centre	P	50	36	53
Other					
(15)	P		54	59	78
(15)	GR		55	83	53
21	Calabria	I	59	259	99
25	Ireland	IRL	65	187	35
28	Mainland Greece	GR	67	71	25
30	Lisbon and Tagus Valley	P	70	85	201
(35)	E		74	200	53
(118)	I		104	118	132
129	Balearic Islands	E	109	118	93
171	Groningen	NL	183	135	131
Community average			14730	9	144

Sources: GDP: cf. Table 1. Other variables: Commission of the European Communities, Fourth Periodic Report on the Regions of the Community, 1991.

Note: There are 174 NUTS Level 2 regions, but no figures for the French overseas departments or the Portuguese Autonomous Communities. This reduces the figure to 171. The ranking for P, GR, E and I (shown in brackets) is not taken into account.

With the exception of Lisbon, the Norte region and Ireland, the regions listed make up less than 1% of the total population of the Community. At country level, Ireland accounts for 1% of the Community's population, Portugal and Greece 3% each, Spain 12% and Italy 18%.

Table 3

Real interest differentials of the escudo  
against the Deutsch mark  
(% p. a.)

	(1) r-r*	(2) f-e	(3) e+p*-p	(4) i-i*-f
1987	1.3	0.2	+2.9	-1.8
1988	0.6	5.0	-4.4	-0.8
1989	-2.9	5.8	-7.7	-0.9
1990	-3.2	2.2	-5.4	-0.0

Source: Commission of the European Communities.

Note: i (i\*) 3 month interbank rate in Portugal (Germany)  
p (p\*) consumer price inflation in Portugal (Germany)  
f,e 3 month forward (spot) rate of escudo/Dmark  
r=i-p (r\*=i\*-p\*)

## Economic Papers

The following papers have been issued. Copies may be obtained by applying to the address mentioned on the inside front cover.

- No. 1 EEC-DG II inflationary expectations. Survey based inflationary expectations for the EEC countries, by F. Papadia and V. Basano (May 1981).
- No. 3 A review of the informal economy in the European Community, by Adrian Smith (July 1981).
- No. 4 Problems of interdependence in a multipolar world, by Tommaso Padoa-Schioppa (August 1981).
- No. 5 European Dimensions in the Adjustment Problems, by Michael Emerson (August 1981).
- No. 6 The bilateral trade linkages of the Eurolink Model : An analysis of foreign trade and competitiveness, by P. Ranuzzi (January 1982).
- No. 7 United Kingdom, Medium term economic trends and problems, by D. Adams, S. Gillespie, M. Green and H. Wortmann (February 1982).
- No. 8 Où en est la théorie macroéconomique, par E. Malinvaud (juin 1982).
- No. 9 Marginal Employment Subsidies : An Effective Policy to Generate Employment, by Carl Chiarella and Alfred Steinherr (November 1982).
- No. 10 The Great Depression : A Repeat in the 1980s ?, by Alfred Steinherr (November 1982).
- No. 11 Evolution et problèmes structurels de l'économie néerlandaise, par D.C. Breedveld, C. Depoortere, A. Finetti, Dr. J.M.G. Pieters et C. Vanbelle (mars 1983).
- No. 12 Macroeconomic prospects and policies for the European Community, by Giorgio Basevi, Olivier Blanchard, Willem Buiter, Rudiger Dornbusch, and Richard Layard (April 1983).
- No. 13 The supply of output equations in the EC-countries and the use of the survey-based inflationary expectations, by Paul De Grauwe and Mustapha Nabli (May 1983).
- No. 14 Structural trends of financial systems and capital accumulation : France, Germany, Italy, by G. Nardozi (May 1983).
- No. 15 Monetary assets and inflation induced distortions of the national accounts - conceptual issues and correction of sectoral income flows in 5 EEC countries, by Alex Cukierman and Jorgen Mortensen (May 1983).
- No. 16 Federal Republic of Germany. Medium-term economic trends and problems, by F. Allgayer, S. Gillespie, M. Green and H. Wortmann (June 1983).
- No. 17 The employment miracle in the US and stagnation employment in the EC, by M. Wegner (July 1983).
- No. 18 Productive Performance in West German Manufacturing Industry 1970-1980; A Farrell Frontier Characterisation, by D. Todd (August 1983).
- No. 19 Central-Bank Policy and the Financing of Government Budget Deficits : A Cross-Country Comparison, by G. Demopoulos, G. Katsimbris and S. Miller (September 1983).
- No. 20 Monetary assets and inflation induced distortions of the national accounts. The case of Belgium, by Ken Lennan (October 1983).
- No. 21 Actifs financiers et distortions des flux sectoriels dues à l'inflation : le cas de la France, par J.-P. Baché (octobre 1983).
- No. 22 Approche pragmatique pour une politique de plein emploi : les subventions à la création d'emplois, par A. Steinherr et B. Van Haeperen (octobre 1983).
- No. 23 Income Distribution and Employment in the European Communities 1960-1982, by A. Steinherr (December 1983).
- No. 24 U.S. Deficits, the dollar and Europe, by O. Blanchard and R. Dornbusch (December 1983).
- No. 25 Monetary Assets and inflation induced distortions of the national accounts. The case of the Federal Republic of Germany, by H. Wittelsberger (January 1984).

- No. 26 Actifs financiers et distorsions des flux sectoriels dues à l'inflation : le cas de l'Italie, par A. Reati (janvier 1984).
- No. 27 Evolution et problèmes structurels de l'économie italienne, par Q. Ciardelli, F. Colasanti et X. Lannes (janvier 1984).
- No. 28 International Co-operation in Macro-economic Policies, by J.E. Meade (February 1984).
- No. 29 The Growth of Public Expenditure in the EEC Countries 1960-1981 : Some Reflections, by Douglas Todd (December 1983).
- No. 30 The integration of EEC qualitative consumer survey results in econometric modelling : an application to the consumption function, by Peter Praet (February 1984).
- No. 31 Report of the CEPS Macroeconomic Policy Group. EUROPE : The case for unsustainable growth, by R. Layard, G. Basevi, O. Blanchard, W. Buiter and R. Dornbusch (April 1984).
- No. 32 Total Factor Productivity Growth and the Productivity Slowdown in the West German Industrial Sector, 1970-1981, by Douglas Todd (April 1984).
- No. 33 An analytical Formulation and Evaluation of the Existing Structure of Legal Reserve Requirements of the Greek Economy : An Uncommon Case, by G. Demopoulos (June 1984).
- No. 34 Factor Productivity Growth in Four EEC Countries, 1960-1981, by Douglas Todd (October 1984).
- No. 35 Rate of profit, business cycles and capital accumulation in U.K. industry, 1959-1981, by Angelo Reati (November 1984).
- No. 36 Report of the CEPS Macroeconomic Policy Group. Employment and Growth in Europe : A Two-Handed Approach by P. Blanchard, R. Dornbusch, J. Drèze, H. Giersch, R. Layard and M. Monti (June 1985).
- No. 37 Schemas for the construction of an "auxiliary econometric model" for the social security system, by A. Coppini and G. Laina (June 1985).
- No. 38 Seasonal and Cyclical Variations in Relationship among Expectations, Plans and Realizations in Business Test Surveys , by H. König and M. Nerlove (July 1985).
- No. 39 Analysis of the stabilisation mechanisms of macroeconomic models : a comparison of the Eurolink models by A. Bucher and V. Rossi (July 1985).
- No. 40 Rate of profit, business cycles and capital accumulation in West German industry, 1960-1981, by A. Reati (July 1985).
- No. 41 Inflation induced redistributions via monetary assets in five European countries : 1974-1982, by A. Cukierman, K. Lennan and F. Papadia (September 1985).
- No. 42 Work Sharing : Why ? How ? How not ..., by Jacques H. Drèze (December 1985).
- No. 43 Toward Understanding Major Fluctuations of the Dollar by P. Armington (January 1986).
- No. 44 Predictive value of firms' manpower expectations and policy implications, by G. Nerb (March 1986).
- No. 45 Le taux de profit et ses composantes dans l'industrie française de 1959 à 1981, par Angelo Reati (Mars 1986).
- No. 46 Forecasting aggregate demand components with opinions surveys in the four main EC-Countries - Experience with the BUSY model , by M. Biart and P. Praet (May 1986).
- No. 47 Report of CEPS Macroeconomic Policy Group : Reducing Unemployment in Europe : The Role of Capital Formation, by F. Modigliani, M. Monti, J. Drèze, H. Giersch and R. Layard (July 1986).
- No. 48 Evolution et problèmes structurels de l'économie française, par X. Lannes, B. Philippe et P. Lenain (août 1986).
- No. 49 Long run implications of the increase in taxation and public debt for employment and economic growth in Europe by G. Tullio (August 1986).
- No. 50 Consumers Expectations and Aggregate Personal Savings by Daniel Weiserbs and Peter Simmons (November 1986).
- No. 51 Do after tax interest affect private consumption and savings ? Empirical evidence for 8 industrial countries : 1970-1983 by G. Tullio and Fr. Contesso (December 1986).
- No. 52 Validity and limits of applied exchange rate models : a brief survey of some recent contributions by G. Tullio (December 1986).

- No. 53 **Monetary and Exchange Rate Policies for International Financial Stability : a Proposal by Ronald I. McKinnon (November 1986).** No. 54 **Internal and External Liberalisation for Faster Growth by Herbert Giersch (February 1987).**
- No. 55 **Regulation or Deregulation of the Labour Market : Policy Regimes for the Recruitment and Dismissal of Employees in the Industrialised Countries by Michael Emerson (June 1987).**
- No. 56 **Causes of the development of the private ECU and the behaviour of its interest rates : October 1982 - September 1985 by G. Tullio and Fr. Contesso (July 1987).**
- No. 57 **Capital/Labour substitution and its impact on employment by Fabienne Ilzkovitz (September 1987).**
- No. 58 **The Determinants of the German Official Discount Rate and of Liquidity Ratios during the classical gold standard : 1876-1913 by Andrea Sommariva and Giuseppe Tullio (September 1987).**
- No. 59 **Profitability, real interest rates and fiscal crowding out in the OECD area 1960-1985 (An examination of the crowding out hypothesis within a portfolio model) by Jorgen Mortensen (October 1987).**
- No. 60 **The two-handed growth strategy for Europe : Autonomy through flexible cooperation by J. Drèze, Ch. Wyplosz, Ch. Bean, Fr. Giavazzi and H. Giersch (October 1987).**
- No. 61 **Collusive Behaviour, R & D, and European Policy by Alexis Jacquemin (November 1987).**
- No. 62 **Inflation adjusted government budget deficits and their impact on the business cycle : empirical evidence for 8 industrial countries by G. Tullio (November 1987).**
- No. 63 **Monetary Policy Coordination Within the EMS : Is There a Rule ? by M. Russo and G. Tullio (April 1988).**
- No. 64 **Le Découplage de la Finance et de l'Economie - Contribution à l'Evaluation des Enjeux Européens dans la Révolution du Système Financier International par J.-Y. Haberer (Mai 1988).**
- No. 65 **The completion of the internal market : results of macroeconomic model simulations by M. Catinat, E. Donni and A. Italianer (September 1988).**
- No. 66 **Europe after the crash : economic policy in an era of adjustment by Charles Bean (September 1988).**
- No. 67 **A Survey of the Economies of Scale by Cliff Pratten (October 1988).**
- No. 68 **Economies of Scale and Intra-Community trade by Joachim Schwalbach (October 1988).**
- No. 69 **Economies of Scale and the Integration of the European Economy : the Case of Italy by Rodolfo Helg and Pippo Ranci (October 1988).**
- No. 70 **The Costs of Non-Europe - An assessment based on a formal Model of Imperfect Competition and Economies of Scale by A. Smith and A. Venables (October 1988).**
- No. 71 **Competition and Innovation by P.A. Geroski (October 1988).**
- No. 72 **Commerce Intra-Branche - Performances des firmes et analyse des échanges commerciaux dans la Communauté européenne par le Centre d'Etudes Prospectives et d'Informations Internationales de Paris (octobre 1988).**
- No. 73 **Partial Equilibrium Calculations of the Impact of Internal Market Barriers in the European Community by Richard Cawley and Michael Davenport (October 1988).**
- No. 74 **The exchange-rate question in Europe by Francesco Giavazzi (January 1989).**
- No. 75 **The QUEST model (Version 1988) by Peter Bekx, Anne Bucher, Alexander Italianer, Matthias Mors (March 1989).**
- No. 76 **Europe's Prospects for the 1990s by Herbert Giersch (May 1989)**
- No. 77 **1992, Hype or Hope : A review by Alexander Italianer (February 1990)**
- No. 78 **European labour markets : a long run view (CEPS Macroeconomic Policy Group 1989 Annual Report) by J.-P. Danthine, Ch. Bean, P. Bernholz and E. Malinvaud (February 1990)**
- No. 79 **Country Studies - The United Kingdom by Tassos Belessiotis and Ralph Wilkinson (July 1990)**
- No. 80 **Siehe "Länderstudien" No. 1**
- No. 81 **Country Studies - The Netherlands by Filip Keereman, Françoise Moreau and Cyriel Vanbelle (July 1990)**
- No. 82 **Country Studies - Belgium by Johan Baras, Filip Keereman and Françoise Moreau (July 1990)**

- No. 83 **Completion of the internal market : An application of Public Choice Theory by Manfred Teutemann (August 1990)**
- No. 84 **Monetary and Fiscal Rules for Public Debt Sustainability by Marco Buti (September 1990)**
- No. 85 **Are we at the beginning of a new long term expansion induced by technological change?, by Angelo Reati (August 1991)**
- No. 86 **Labour Mobility, Fiscal Solidarity and the Exchange Rate Regime: a Parable of European Union and Cohesion, by Jorge Braga de Macedo (October 1991)**

## **Country studies**

- No. 1 The Federal Republic of Germany (September 1990)**
- No.2 Portugal ( February 1991)**
- No. 3 United Kingdom (March 1991)**
- No. 4 Denmark (April 1991)**
- No. 5 France (août 1991)**