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European integration and the case for compensatory regional policy

42nd Congress of the European Regional Science Association: "From Industry to Advanced Services - Perspectives of European Metropolitan Regions", August 27th - 31st, 2002, Dortmund, Germany

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**Paper to be presented at the 42nd European Congress of the European Regional
Science Association, August 27th – 31st 2002, Dortmund**

EUROPEAN INTEGRATION AND THE CASE FOR COMPENSATORY REGIONAL POLICY

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Abstract:

The ongoing process of European integration is likely to increase trade and factor mobility thereby increasing interregional competition and affecting the interregional division of labour. From a theoretical standpoint, particularly on the basis of the New Economic Geography (NEG), rising specialization and polarization of European regions could result from this process, and could entail a growing core-periphery-divide of regional income. Hence, there may be winning and losing regions of the integration process, according to the way industrial concentration and regional specialization takes place.

Such a supposition evokes questions on the need of an accompanying compensatory regional policy, and whether it can be justified from an efficiency and/or distributional perspective. Also, questions arise as to the adequate design of such compensatory regional policy.

We find that a case for regional policy cannot be excluded, but that the EU largely overstates any requirements for such a policy at that administrative level, and that it should abandon from co-financing of policy measures with unclear accountability and from direct structural interventions into regional economies.

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1. Introduction

The ongoing process of European integration is likely to increase trade and factor mobility thereby increasing interregional competition and affecting the interregional division of labour. From a theoretical standpoint, particularly on the basis of the New Economic Geography (NEG), rising specialization and polarization of European regions could result from this process, and could entail a growing core-periphery-divide of regional income. Hence, there may be winning and losing regions of the integration process, according to the way industrial concentration and regional specialization takes place. Integration of European states, although beneficial to overall economic welfare, inhibits a certain risk of resulting in regional polarisation and in an increasing core-periphery income differential within the integration area, as will be shown below.

Such a supposition evokes questions on the need of an accompanying compensatory regional policy, and whether it can be justified from an efficiency and/or distributional perspective. Also, questions arise as to the adequate design of such compensatory regional policy.

The paper starts reviewing the case for regional policy in Europe on theoretical and empirical grounds. It then discusses some options for an efficient European regional policy, and compares it to the actual EU regional policy.

2. The case for regional policy in the process of European integration

2.1. Reasons for regional policy intervention

There are many worries, particularly at EU institutions, that progressing integration in the EU, be it by a deepening or a widening of the union, would deteriorate the cohesion of countries and regions within this union. Among others, the EU Commission, the EU Parliament, and the EU Committee of the Regions repeatedly stressed the need for cohesion of countries and regions in the process of integration and targeted the EU structural policies, including regional policy, towards this end.

Yet, there is no clear cut definition of cohesion; rather, there coexist a number of differing concepts of cohesion. Traditionally, the EU Commission used to speak of economic and social cohesion. According to the EU Commission's "Second Report on Economic and Social Cohesion" (2001), economic cohesion seems to be understood concerning income

prospects of regions, whereas social cohesion seems to be understood concerning employment opportunities. More recently, the term “territorial cohesion” entered the agenda. An enumerating definition of territorial cohesion is to be found in the EU Commission’s “Second Report on Economic and Social Cohesion”.¹ Accordingly, it seems to be the enclosing term to the concepts of economic and social cohesion, including further items of political concern. It would thus imply another extension of cases calling forth for financial support by the EU. We would, however suggest another view of regional cohesion that would be less oriented on results and more on basic conditions and frames of regional economies. Such a new view could also be the basis of a new perception of regional policy.

From a purely economic point of view, regional policy can be regarded as an active policy intervention into the economic process in favour of certain regions. Quite generally, policy interventions are traditionally justified by allocative, distributive or stabilisation oriented reasons. We may concentrate on the former two reasons the latter being less relevant at the regional level. The *allocative problem* consists of achieving an efficient allocation of economic resources within and between the regions. Foremost, it requires to define a frame for economic activity such that all costs and benefits related to economic decisions are internalised to the market process. This could be understood as providing territorial cohesion in the sense of defining equal and fair basic conditions for all regional economies. Only in specific, well-founded cases without efficient market solutions, direct steering interventions into the market process may be required. The *distributive problem* deals with changing the outcome of the market process according to concomitant perceptions of a just intra- and interregional income distribution, thereby mending a perhaps detracted social cohesion. This may be done ex post via redistributive measures such as taxes and transfers or ex ante via trying to influence the market process such that the intended outcome arises.

Accordingly, for the process of European integration, we can set up a case for compensatory regional policy if

- integration produces market failure such as lock-ins or poverty traps for regions out of which they cannot escape on their own, or severe inter- or intraregional externalities that hurt the conditions-oriented cohesion and require allocative corrections;

¹ Six priorities with an “important territorial dimension for Europe’s cohesion policy” are enumerated: (i) support of least developed regions, (ii) pursuit of a strategy for cohesion and sustainable development in urban areas, (iii) diversification of rural areas, (iv) cross-border, transnational and interregional cooperation, (v) support of areas undergoing industrial restructuring, and (vi) support of areas with severe geographical or natural disadvantages (EU Commission 2001).

- integration produces an increase of the regional income differential, a severe polarisation of regional incomes, that may be regarded as being socially unacceptable, i.e., hurting the results-oriented cohesion, and may thus give reason for distributive corrections.

Hence, compensatory regional policy could be justified particularly, if we would face a polarisation of regions and an aggravation of regional cohesion related to increasing integration. The question remains whether there is any danger for cohesion to aggravate in the process of integration.

2.2. Theoretical considerations on the likeliness of polarisation

For long, integration in economic theory, at least in its mainstream, was not perceived to be much of a problem for regional cohesion. According to neoclassical trade theory, economic integration fosters a division of labour according to comparative advantages, raises the overall welfare as well as the welfare of each country or region involved in the process, and equalises factor prices. In this analytical framework, it was taken for granted that convergence of countries and regions is to be expected. Translated into political advice for policy makers the basic message could read like this: Regional policy will, at best, only speed up a convergence process, which would presumably happen anyway.

Since the 1980s, however, emerging new theories, particularly the new economic geography (NEG), have put the opportunities and risks associated with the integration process in a new perspective. The equalisation of factor prices does no longer turn out to be standard result. Producers can retain rents and free trade would, similarly to standard neo-classical reasoning, enhance welfare globally but – and this is the new message – not necessarily for all participating countries (or regions, respectively).

NEG takes into consideration factor mobility, and thus endogenises factor endowments of regions (for a comprehensive presentation see Fujita, Krugman and Venables 1999; see also Ottaviano and Puga 1997). Mobile factors (workers or firms) choose their location according to existing centripetal and centrifugal forces and become the engine of any agglomeration process: due to their migration a location may enter into a circular cumulative process of increasing agglomeration. The *centripetal* forces are technical increasing returns to scale, localisation economies, urbanisation economies, as well as home market and price index effects that — due to the saving of transport costs — increase factor incomes in agglomerations the more, the larger the agglomeration already is. Acting in an opposite direction, there are the *centrifugal* forces: scarcity of immobile factors,

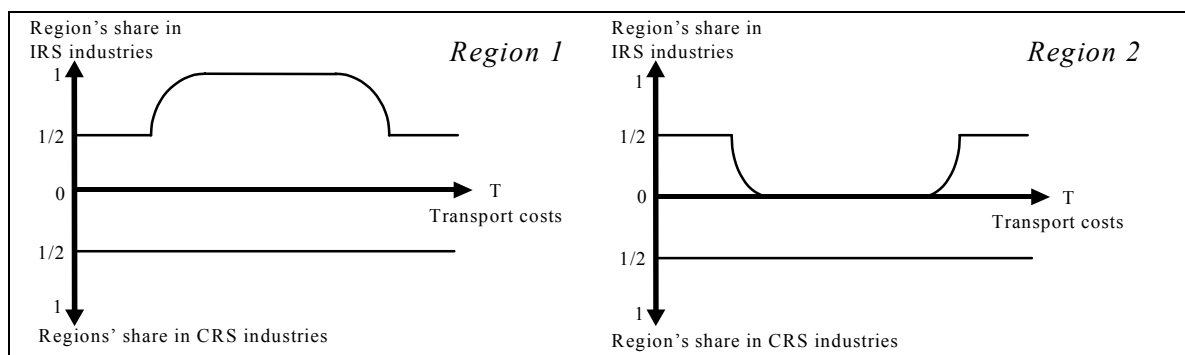
congestion costs, and the competition effect that — due to an increased supply of competing products — exerts the more pressure on factor incomes, the larger the agglomeration is.

The balance between centripetal and centrifugal forces changes as the degree of integration increases, i.e., as transaction and transportation costs decrease. While *high transportation costs* act as a trade barrier for each region against product competition from abroad, this isolation at the same time increases the potential for intra-regional product competition, thus discouraging an in-migration of production factors. In this situation, a stable spatial equilibrium evolves where all economic activities are dispersed evenly across all regions.

With transportation costs achieving a *medium* level, the related outward protection of the regions becomes less effective. This offers scope for exploiting scale economies, and trade sets in. The centripetal forces induce an agglomeration process toward an extreme allocation where all industries with increasing returns (IRS industries) take place in just one region. Integration thus evolves a core-periphery system where the economic centre (core region) gets specialised in such IRS industries with monopolistic competition. These industries inhibit a high income potential for the core-region and open perspectives for a further process of endogenous growth. By contrast, the periphery will get specialised in what is left, industries with constant returns, perfect competition, and a low income potential that are not subject to concentration (figure 1). At this intermediate stage, integration may thus bring about a sharp core-periphery divide regarding income and growth thereby aggravating the cohesion of regions. Which region becomes the core region within the model is due to random chance or infinitesimal differences.

Finally, with transportation costs *declining even further*, agglomeration stops being advantageous as scale economies can be exploited from any place in space. Rather, within the agglomerated core region, a vigorous product competition dampens real wages and drives workers out of the centre towards the peripheral region. Approximately, increasing integration may be characterised by an U-shaped evolution path, leading from dispersion of the IRS industries to concentration and back to dispersion, accompanied by a first increasing then decreasing core-periphery divide of income.

Figure 1 —Regional specialisation at different levels of transport costs — 2 sectors/2 regions



Source: Own illustration

To complete the view on regional specialisation, it has to be stressed that, of course, location decisions are taken in an interaction between such agglomeration-inducing forces outlined in NEG and traditional natural and comparative advantages outlined in Ricardian, and Heckscher-Ohlin-Samuelson models,² and it cannot be stated *ex ante* which of these influences may dominate the other. Natural comparative advantages may determine regional specialisation the more evidently, the more heterogeneous regions are with respect to immobile factor endowments, the less pronounced technologies of increasing returns are, and the more distinctly integration has proceeded from an intermediate toward a high degree.

A basic message of NEG is hence that economic integration may ultimately bring about convergence of income per capita levels. Yet, the process may take a long time and it cannot be taken for sure that a degree of integration sufficient to enter the dispersion stage will be achieved. There are certain barriers to integration that will persist in spite of all institutional and technical progress in reducing them: e.g., geographic distances (relevant in particular for the movement of goods and persons), language, cultural and institutional differences. If integration comes to a standstill at an intermediate stage of integration, decreasing regional cohesion remains a possibility that needs to be taken seriously. From this, one could infer a *distribution oriented case* for policy measures such as interregional transfers in order to share the aggregate gains from integration across all countries and regions. Also, there may be an *allocation oriented argument* in favour of regional policy: Like the traditional neoclassical theory from which it is derived, NEG deduces equilibrium market solutions where the economy at any stage of integration is in overall optimum. However, in contrast to traditional neoclassical theory, such an overall optimum need not be an optimum for any region involved. By specific measures in favour of IRS industries

² In NEG models, in general, space is assumed to be homogeneous.

regions can attain a strategic edge over other regions, and this constitutes a strategic argument for an active regional policy. The arbitrariness of the concentration process and the existence of hysteresis in cumulative causation strongly support this argument.

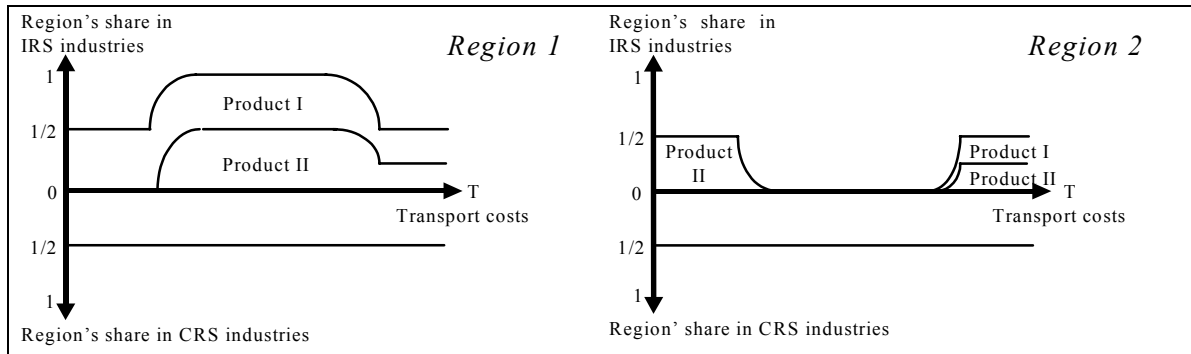
However, there are two major objections to these arguments that concern (i) the uniqueness of results and (ii) the efficacy of policy measures in correcting the results.

(i) The outcome of integration on theoretical grounds is rather ambiguous as it depends on the starting point of the integration process as well as on the assumptions of the model chosen.

Even if concentration of IRS industries proceeds at few locations this does not necessarily imply regional polarisation. Considering more than one IRS industry, the NEG analysis becomes more differentiated (figure 2). In this case, when moving toward a state with very low transport costs, there is no return to a dispersion of all industries. Instead, we find each region getting specialised in one of the IRS industries. By this location of industries, it is possible to take advantage of scale economies internal to a branch, while at the same time easing external diseconomies of scale such as competition for immobile factors.³ From a theoretical standpoint, the pattern of regional specialisation becomes the more complex the more regions and industries are included. Industries with increasing returns will tend to develop decentralised clusters, each at only few locations, instead of becoming dispersed evenly. Such clusters will become the more likely the lower transportation costs get. Hence, more and more regions will host some of these industries and will be able to take advantage of their income potential. Although the degree of regional specialisation may increase (Ottaviano and Puga 1997, Puga 1999), there is no polarisation of income and no obvious need for compensatory regional policy.

³ Dluhosch (2000) stresses the significance of such centrifugal forces, particularly the influence of competition. According to her view, if competition grows due to integration, it may increasingly split production into separate components which may then be manufactured at various scattered locations. Hence, integration may not „per se promote a centre-periphery pattern“ but rather „provide the opportunity to reap the benefits of a finer (vertical) division of labour which can be shared among trading partners.“ (p. 158)

Figure 2 —Regional specialisation at different levels of transport costs — 3 sectors/2 regions



Source: Own illustration.

Also, sharp polarisation is less likely, if we assume other engines of agglomeration instead of labour mobility, e.g., migration of firms, as some NEG models do (Krugman and Venables 1995, Venables 1996, Markusen and Venables 1999). Such assumption seems much more appropriate for the European case. In these models, the centripetal forces are somewhat constrained as there is no comparable accumulation of consumers. Competition for workers will strongly raise wages in the central region, and this will force industries with a lower potential for scale economies to move toward the periphery, thereby easing the competitive pressure in the central region. A lack of interregional labour mobility can thus „sustain non-extreme equilibria in which all regions have industry, even if in different proportions.“ (Puga 2001:17; cf. also Braunerhjelm et al. 2000:28f). Again, with less polarization, there is less need for compensatory regional policy.

Due to the non-monotonic relationship between integration and polarisation which makes it difficult to tell what part of the function we're on, and due to the dependency of the results from the degree of labour mobility we do not know what will be the outcome from increasing integration, whether, on the one hand, and extreme polarisation is likely and whether, on the other hand, the stage of dispersion and income conversion is attainable at all. There are hence a number of different possible outcomes, e.g.:⁴

- increasing specialisation + increasing concentration of IRS industries in the core + increasing polarisation, or
- increasing specialisation + movement of industries between core and periphery in both directions + moderate increase of polarisation, or

⁴ Braunerhjelm et al. (2000:xiv, 29f) subsume their analyses in three different types of outcome from integration: the dispersion, the concentration, and the regional stagnation outcome, and consider only the latter to contrast regional equality.

- increasing specialisation + increasing dispersion of IRS industries + decreasing polarisation, or
- decreasing specialisation + increasing diversification + decreasing polarisation.

It is difficult to decide whether we need regional policy or just further steps of integration and further reductions of transaction costs.

(ii) Policy measures may not be adequate to correct the results but even aggravate the situation of disfavoured regions.

If policy measures aim at containing the process of concentration, this may have adverse effects on overall endogenous growth and likewise on the growth of peripheral regions (Puga 2001). The increase of competition of goods and factors related to integration and concentration works towards a reduction of goods prices and an increase of consumer income, at the core as well as at the periphery (Combes and Linnemer 2000). Hence, according to the measures applied, regional policy may even act to the detriment of peripheral regions.

In particular, policy measures that aim at expanding the regional infrastructure, e.g., traffic networks, may reduce transportation costs thereby mitigating the outward protection of remote regions related to high transportation costs and resulting in a sell-out of their production. Or, when taking the form of ameliorating the educational infrastructure, this may increase the qualification of labour thereby increasing their mobility and resulting in a brain drain. In these cases, the peripheral regions would be better off without regional policy (Ph. Martin 1998).

Moreover, it is assumed that in the stage of increasing agglomeration the self-reinforcing forces would be so strong that any policy measures aimed at stopping or reversing this trend would have to be extremely strong, too. Hence, such a policy would be very costly and any related adverse effects would also be very strong (Ph. Martin 1998).

To resume, from a theoretical standpoint, the case for regional policy, though not completely unreasonable, depends on circumstances and is flawed by several objections, reservations, and restraints. These have to be observed particularly, when designing regional policy measures. Moreover, of course, any suggestion derived from theory depends on the empirical relevance of the theory.

2.3. Empirical evidence for the likeliness of polarization in Europe

Considering the *relevance of the NEG perspective* in explaining integration related processes of regional specialisation and industrial concentration, it has to be stated that compared to the increasingly sophisticated theoretical approaches empirical analysis is lagging behind. This applies in particular for econometric tests on the relevance of NEG models.⁵

There are, however, investigations on the *evolution of specialisation* in the course of the West European integration process so far. This process of European integration may be accounted for as an economic experiment without precedent in modern economic history. It offers an outstanding field for empirical research on the effects of integration. In the last two decades, three major integration steps have been taken: the south enlargement in 1981/1986, the completion of the Single Market in 1992, and the north enlargement in 1995 (the creation of the European Monetary Union in 1999/2002 still being too recent for analysis). It is thus much worthwhile to look what has happened to the division of labour between countries and regions during this period.

2.3.1. Review of existing literature

Most of the existing investigations on the evolution of specialisation in West Europe refer to the national level and study in particular the manufacturing sector. Accordingly, overall specialisation of EU member states seems to have increased in the 1970s and 1980s, starting from a remarkably low level at the end of the 1960s as compared to US states (Hufbauer and Chilas 1974, Molle and Boeckhout 1995, Amiti 1999, Brülhart 1998, Walz 1999). This increase, however, seems to occur at a very slow pace, and as the result of quite divergent processes, some acting toward concentration others toward dispersion of industries (Middelfart-Knarvig, Overman, Redding, and Venables 2000). Moreover, it has been shown that the localisation of IRS industries seems to have increased, i.e., industrial clusters emerged (Brülhart 1998). Particularly regarding the effects of the Single Market Programme, Ziltener (2002) draws a rather pessimistic resume:

As to the evolution of specialisation on a *regional level*, there is still a severe lack of empirical results, which is primarily due to a lack of data on European regions in a

⁵ See, however, the work by Davis and Weinstein (1996, 1999) who tested the relevance of home market effects and found them to be significant in the case of (Japanese) regions, but not in the case of (OECD-) countries. See also Ellison and Glaeser (1997) who tested the relevance of agglomerative forces against random chance („dartboard approach“) in the process of concentration and found US industries to be considerably more concentrated than random chance alone would explain.

sufficiently disaggregated industrial breakdown and covering a sufficient number of years. Some studies show localisation of the manufacturing sector as a whole to have increased throughout the 1970s and 1980s (Molle 1980, Brühlhart 1998, Walz 1999). Simultaneously, the concentration of the manufacturing sector at existing agglomeration centres diminished while peripheral regions entered into a catching-up process (Krieger, Thoroe, and Weskamp 1985, Waniek 1995, Brühlhart 1998). One may conclude, that the manufacturing sector seems to have withdrawn from the centres and localised at the periphery in decentralised industrial clusters. Accordingly, the core-periphery-divide loses significance — which would be in line with NEG predictions.

However, these investigations refer to the manufacturing sector as a whole. They need to be supplemented by more detailed analyses of regional specialisation within the manufacturing sector, and, also, within the services sector. A first step into this direction has been taken by Hallet (2002). In contrast to the studies on national specialisation, he finds specialisation of European regions to have been decreasing since the 1980s. This has to be seen, however, against the backdrop of a flat sectoral breakdown:⁶ The formation of highly specialised decentralised clusters (say, at the level of branches or even product varieties), as formulated by NEG, implies a growing dispersion of broad sectors. In another study for the case of Spain, Paluzie, Pons and Tirado (2001) also detect regional specialisation to decrease rather than increase.⁷ At any rate, like the studies on national specialisation, Hallet (2002) as well as Paluzie, Pons and Tirado (2001) find any process of concentration / deconcentration to be very slow.

2.3.2. Own research results for French and Spanish regions

To analyse the spatial division of labour and the location of industries in deep sectoral detail requires to take recourse to nationally available data for EU member states, since no such data set at the European regional level exists that is internationally comparable. In building such a data set, we started collecting employment figures for *France* for some selected years from 1973 to 1996 broken down into 21 regions and 35 manufacturing branches and for *Spain* for years from 1981 to 1992 broken down into 18 regions and almost 80 manufacturing branches. For these data, we provide some descriptive statistics. For convenience, the two major integration events of the observation period are signified, the south enlargement when Spain entered the EU and France got a new intra-EU

⁶ Hallet (2000) used existing data for European regions by Eurostat which are broken down into 17 sectors, including agriculture, 9 industrial branches, and 5 service branches.

⁷ This study is based on INE data for 50 Spanish provinces and 30 manufacturing industries.

neighbour, and the completion of the single market when all intra-EU borders should have gotten less relevant.

Both for French and Spanish regions, Herfindahl indices have been calculated which compare a given regional structure to a situation where all industries have equal shares (figure 3).⁸ Quite in line with other empirical studies on specialisation we find most regions, particularly such with a low degree of specialisation, to reveal only slow variation, even over a period of more than 20 years as in the case of France. A narrow majority of all regions in France and Spain experienced a moderate overall *increase* of specialisation as expected from NEG theory. For several of these regions, particularly those situated at the French South, this overall increase was the result of a first-decrease-then-increase evolution, an *U-type* evolution. Less than one half of all regions in France and Spain experienced a *decrease* of specialisation, most remarkably those that had been highly specialised in the past like the mining and steel regions (Lorraine, Nord-Pas de Calais and Asturias).⁹ No obvious influence of the south enlargement or the single market program can be detected. This interpretation, however, should be counterchecked by an econometric analysis which is still ahead. Accordingly, the evolution of regional specialisation does not pursue any simple and uniform path. Also, it does not by itself answer the question of an aggravating regional cohesion.

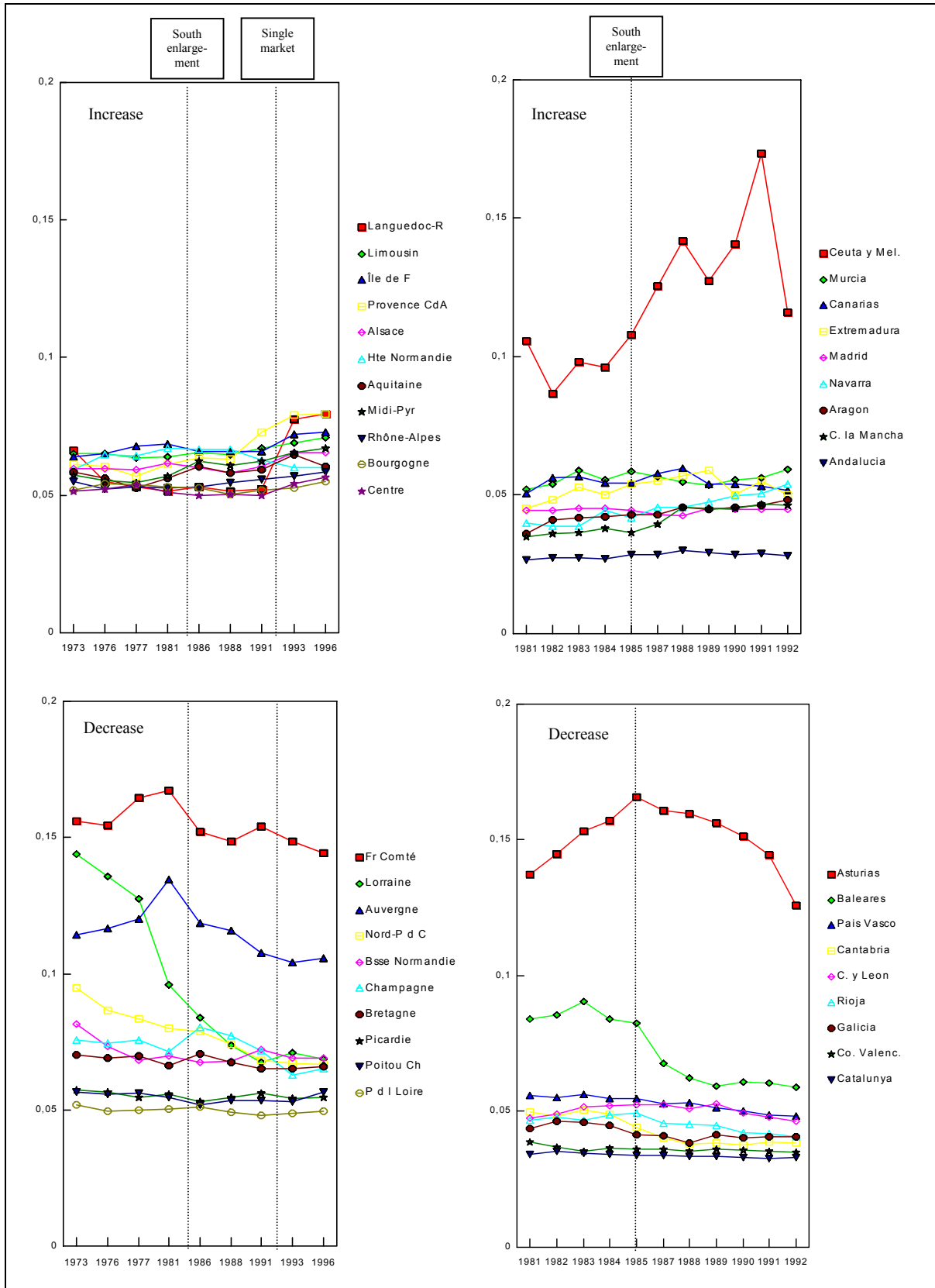
To this end, it is useful to also have a look at the location of IRS industries across regions since these industries are most relevant with respect to income perspectives of regions. We analysed the significance of IRS industries in French and Spanish regions and its evolution, applying a classification by Pratten (1988; figure 4)¹⁰. In case of a concentration process, one would expect the significance of the IRS sector to increase in one or a few regions and

⁸ $h = \sum_i^n (a_i)^2$, where a_i are industrial shares of an economy under investigation, $1/n \leq h \leq 1$, and where a region is the more specialised the higher the indicator is. For an overview on different measures of specialisation and their specific properties, see Amiti (1999) and Krieger-Boden (1999). The results depend to a considerable degree on the specialisation index chosen.

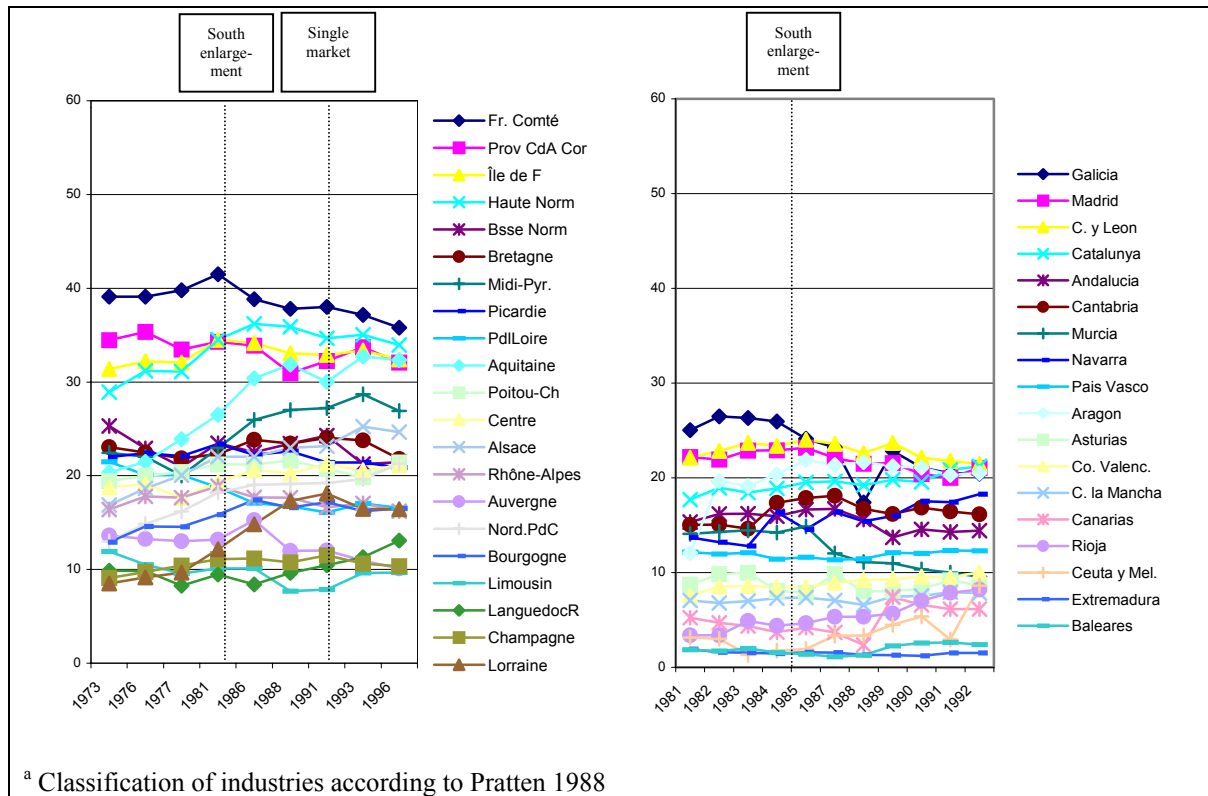
⁹ A few regions ended up in their overall result after a first-increase-then-decrease evolution, which may be taken as an *inverted U-curve* (e.g., Franche-Comté, Auvergne, Asturias).

¹⁰ There exists a number of studies applying various methods to characterize industries according to the relevance of scale economies. We draw on a study which tries to measure scale economies (Pratten 1988, cf. annexe table A1; see also Oliveira Martins, Scarpetta and Pilat 1996) whereas other studies conclude on scale economies from the degree of localisation of industries (e.g., Ellison and Glaeser 1997, particularly for France see Maurel and Sédillot 1999). See also OECD (1987) distinguishing five categories of industries: scale-intensive industries, science-based industries, industries producing differentiated goods, labour-intensive industries, and resource-intensive industries. For an overview see Junius 1999.

Figure 3 —Regional specialisation in France and Spain, Herfindahl indices



Source:SESSI. — INE, TEMPUS Bancos de Datos. — Own calculations.

Figure 4 — Shares of industries with high IRS in French and Spanish regions^a

Source: SESSI. — INE; TEMPUS Bancos de Datos. — Own calculations.

to decrease in all others, and vice versa for the CRS sector. This would be accompanied by an increased polarisation of income perspectives. By contrast, a spread of IRS industries across regions, as demonstrated in figure 2, would imply the significance of both IRS and CRS industries to converge between regions, and the income perspectives of regions to converge, too.

By our figures, the observation is confirmed that any change of specialisation is slow: we find only slight variation over time regarding the significance of the different types of industries within the regions. This moderate variation indicates more *dispersion* of IRS industries than concentration, since the shares of the types of industries seem to converge rather than diverge. Overall, the shares of IRS industries seem not to increase significantly. There seem to emerge certain “clubs” of regions, each with a different significance of these industries.¹¹ It even looks like this trend has become more relevant since the south

¹¹ Hence, for France, one may identify a club made up of Franche-Comté, Provence-Côte d’Azur-Corse, Île de France, Haute Normandie and Aquitaine, another one made up of Bretagne, Basse Normandie, Poitou-Charentes, Centre, Nord-Pas de Calais, and Picardie, also one consisting of Pays de la Loire, Rhône-Alpes, Bourgogne, Lorraine, and one consisting of Champagne-Ardenne, Auvergne, and Limousin end. For Spain, we find one club containing Galicia, Madrid, Castilla-León, and Cataluña, and another one containing Comunidad Valenciana, Castilla la Mancha, Canarias, Rioja, and Ceuta y Melilla.

enlargement of the EU. In reversal, as a resulting effect for the other industries, not regarded as being “IRS”, we find slight tendencies towards dispersion, too.

With some reservations, one may argue that these results are in a certain consistency with the theoretical considerations. They do not exactly support the imputation of ever growing polarisation resulting from integration. Rather, we may expect a though very slight tendency towards a conversion of regional income perspectives due to the dispersion of IRS industries across regions, and due to emerging clusters of single IRS industries all over the countries. Much uncertainty regarding the relation between integration and regional specialisation, however, remains and requires much more empirical research. Also, there is as yet no clear empirical evidence that regional income and growth are indeed related to the degree of regional specialisation and of dispersion of IRS industries, as described.

2.4. Resume: Challenge from European integration for regional policy

Bearing in mind the theoretical considerations and the existing, a bit sporadic empirical evidence, European integration so far seems not to have deteriorated regional cohesion to a very disquieting degree. From this, what challenges can we expect to result from the new steps of integration on the agenda, the very recent formation of the European Monetary Union (EMU) and the envisaged east enlargement of the EU?

Both events are once more likely to influence the division of labour between European countries and regions. The *formation of EMU* marks an important step in the process of European integration. It eliminates the possibility of adjusting national nominal exchange rates and it reduces transaction costs connected to the existence of different currencies (i.e. costs of information, conversion and hedging) thereby reducing transaction costs. As a result, EMU leads to a reduction of price flexibility putting strain on regional labour markets, to a reaction of labour market flexibility, to an increase of trade links, and to a change of regional centrality. What will result from EMU to the stability, as well as to the employment, income and growth of European regions is ambiguous, and it is equivocal ex ante which regions are likely to be winners or losers of the process. At the core of this ambiguity is the question of how the industrial specialisation of regions changes in the process of integration. Regional specialisation, in turn, affects the susceptibility of regions to asymmetric shocks, and the core-periphery divide of regional incomes, and may thus be taken as a key determinant for integration effects on regions (Krieger-Boden 2002).

The envisaged *east enlargement* at any rate will increase the variety of regions tremendously, with respect to their economic and social development level as well as to

their legislative and administrative settings and their factor endowments. Whereas the band width, e.g., of regional per capita income now reaches from ... to ... of the community average, it will reach from .. to .. within the community of 25 member states. Also, unemployment rates will vary quite more in a community of the 25 than in the community of the 12. Legislation, administration and support of regions differ significantly between old and new member states, also, the differences regarding their factor endowment with human and physical capital, and with infrastructure such as traffic routes, education opportunities, and health care are large. Hence, the enlargement produces an initial aggravation of the level of regional cohesion. Moreover, the enlargement inhibits a sudden change of transaction costs between incumbent and accession countries. According to Lejour, de Mooij, and Nahuis (2001) this initial enlargement shock has three dimensions: the formation of a customs union (which is more or less achieved already) with less barriers towards EU member states, but in some cases, more barriers towards external states, the accession to the internal market with mutual recognition of different technical regulations, minimum requirements and harmonisation of regulations, and the free movement labour.¹² As a result, a new equilibrium of the division of labour is called forth. This process could be accompanied by severe perturbations such as a brain drain of high-qualified workers from accession countries, out-migration of low-qualified jobs from incumbent members, processes of affiliation in accession countries. Again, the division of labour and the specialisation of regions proves to be a major determinant of integration effects.

However, it is difficult to estimate how far-reaching the adjustment procedures will turn out to be. If we consider the empirical results on earlier integration steps, we would not expect the effects of these new steps to be very disturbing. Even the south enlargement, an integration step that compares quite good to the east enlargement, appears to have had only little immediate impact on the specialisation of, e.g., Spain and France, areas that ought to be heavily affected. One possible explanation may be that intra-EU labour mobility is continuously declining in spite of huge regional differentials particularly with respect to unemployment (Braunerhjelm et al. 2000). This low labour mobility in Europe may prevent from extreme polarisation in the future, too. Still, the east enlargement, in particular, may be an even wider step than any other before since the heterogeneity of development levels between incumbents and accession countries may be larger than ever.

¹² On the basis of a CGE model for the world economy, Lejour, de Mooij and Nahuis (2001) estimate sectoral effects to be particularly significant in the case of ...Overall, they estimate large gains of accession for the accession countries and modest welfare improvements for incumbent members.

3. Compensatory EU regional policy – requirements and reality

3.1. Requirements for an efficient regional policy in the process of integration

If we allow that due to the general uncertainties of our findings both on theoretical and empirical grounds a case for an allocative as well as an distributive regional policy cannot be excluded, we will then ask, in what way this policy should be organised, and we will sketch a few guiding principles for an optimal design of structural policies with a regional dimension. Our considerations will regard the question of the efficient administrative level for regional policy, and the question of efficient instruments for regional policy.

(i) Choice of efficient level of administration for regional policy measures

On which administration level should any policies toward regional cohesion be implemented — at EU level, level of national, or even regional or local authorities? Some major principles for an optimal division of policy prerogatives between different layers of administration may be derived from public choice theory, particularly from fiscal federalism (Buchanan 1950, Oates 1972, 1999).

According to the theory of fiscal federalism, each policy prerogative should be attributed to that level of administration that comes closest to representing the consumers of this policy (principle of *subsidiarity*). The lower the level of administration the larger is the potential of the people concerned to influence this policy according to their specific preferences — or to move to another location. Closely related is the other principle postulating that the prerogative of spending funds for certain policy measures and the prerogative of raising these funds must be combined (principle of *equivalence*) in order to guarantee all benefits and costs of the measures being checked, and any financial illusion being avoided.

In the case of spillovers from one region pursuing a certain policy to neighbouring regions, or in the case of economies of scale, it may, however, be useful to negotiate on it in order to internalise such externalities, or to decide on this policy at a more elevated level of administration (principle of *coordination*). Coordination by bilateral or multilateral negotiation would be preferable as long as the externalities concern only a selected number of regions that could be organised in clubs. Coordination by delegation to an elevated level of administration would be preferable in the case of externalities where club solutions are not feasible. Particularly in the latter case, the principle is in a certain conflict to the

subsidiarity principle. Accordingly, „policies, where economies of scale and / or externalities are predominant should be allocated at the union level, or even at the world level. Instead, policy areas where heterogeneity of preferences are high relative to externalities should be allocated to a national or sub national level.“ (Alesina, Angeloni, Schuknecht 2001:1). Moreover, the principle of coordination stands in a tension to another one, a principle of *competition* in the sense of von Hayek: The existence of a variety of policy measures in different locations induces increases of efficiency, productivity and innovation of such policies. Coordination includes a restriction of competition that is the more detrimental the more dubious the externalities and their extent are (Klodt 1999).

Hence, policy measures at the EU level surpassing local, regional or even national borders should be restricted to cases with very explicit union-wide externalities, with low heterogeneity of preferences, with a clear assignment of accountability in order to avoid a rise of financial illusion, and leaving scope to locational competition.

(ii) Choice of efficient instruments for regional policy at EU level

From this view, in order to offset adverse integration effects, an *allocative* policy could be justified as far as it exhibits an union-wide dimension. It's not easy, however, to imagine projects that could answer this purpose. Generally, measures further lowering transaction costs and driving integration toward the stage of dispersion and cohesion would be appreciated. It could be argued in favour of eliminating trade barriers within the union, of ameliorating the trans-European transport and communication infrastructure (as far as it produces non-pecuniary externalities), of supporting trans-European networks of research, administration and commerce, of tearing down administrative overregulation, and of helping to spur bureaucratic procedures. A certain control of state aid granted by member states may also be helpful to reduce non-tariff barriers and to prevent a race on subsidies. Further, in order to reach the dispersion stage of integration, barriers to labour mobility ought to be removed. Yet, at an earlier stage of integration, it might be useful to keep these barriers to labour mobility in order to avoid a severe polarisation, thereby enabling peripheral regions to exploit a lower wage level as a locational advantage (p.9; Lammers and Stiller 2000).

Also, in order to enable regions to escape lock-in situations, i.e., by ameliorating their factor endowment, an unconditioned financial instrument may be useful, supporting retarded or otherwise problematic regions. Yet, it is not useful for the EU administration to intervene itself directly into the economies of such regions. An interventionist regional policy usually takes the form of development programs and financial aids targeted either at

private firms or at administrations that can apply for such assistance. Such policy works in a selective way and its effects are questionable since it requires a superior knowledge concerning the right way to economic success. If this right way is missed, the intended effect is accompanied and perhaps even superimposed by a number of further effects (Krieger-Boden und Lammers 1996): (i) In the case of windfall gains the intended effect would have occurred anyway, a funding is thus waste. (ii) In the presence of backward and forward linkages, the incidence of the aid may become effective in quite other industries and regions than is intended. (iii) Substitution effects induced by the aids may lead to a change of allocation (e.g., an increase of capital intensity of productions) that is neither intended nor desirable. (iv) Funding effects result from the need to finance any state aid at the expense of other purposes. (v) Negative dynamic effects may arise because state aids favour moral hazard and lobbyism, and because they are often targeted toward selected industries and thus force a development path that may turn out to be unfavourable. These latter dynamic effects are most critical in that they may lead to a complete reversion of the intended objective of stepping up economic activity. The lack of knowledge required to efficiently direct such programs rules them out of the policy agenda, particularly at EU level.

As far as *redistributive* objectives are concerned, a need for policy measures at EU level is altogether less convincing. A preference for equalisation of income is likely to be orientated much more to a national or even regional yardstick than to an union-wide. We may assume, that most people are much more interested in comparing their standard of living to that of neighbours or fellow citizens in the same country than to that of any foreign people in far-off countries under quite different circumstances. Hence, redistribution can be regarded as a policy field with small externalities and large heterogeneity of preferences (Alesina, Angeloni and Schuknecht 2001), and it should thus be attributed to national or even regional authorities rather than to the EU.

Accordingly, the union should widely abandon itself from redistributive measures but allow for them at the national, regional or even local level. This will permit to differentiate between regions within a country, and will enable the incumbent member states to continue in dealing with their internal regional problems, such as east Germany or the Italian Mezzogiorno, problems that in most cases are not overcome. Again, a financial instrument favouring disfavoured areas or simply disfavoured persons — for not all persons in disfavoured regions are poor and deserve the support of persons from richer regions — would be most appropriate avoiding the traps hidden in interventionist policy. However, when regional policy is decentralised each nation and region could choose its own strategy and even experiment with different strategies in order to find the one that suits best its specific

requirements. The EU could take the obligation of accompanying this procedure of discovery by protecting it against ruinous dumping practices, and by monitoring the diverse measures and their economic effects. Such a monitoring process could provide a platform for overcoming informational asymmetries with respect to efficient policy initiatives, help sharpening regional profiles, foster the recognition of the complex feedback relationships connected to policy measures, and induce institution-building particularly in accession countries (Soltwedel 2002).

In order to pursue both the allocative as well as the redistributive objective on EU level, we argue hence for a triple strategy:

- Lowering transaction costs by further reducing remaining trade barriers;
- organizing unconditioned but limited financial transfers from rich to poor regions;
- allowing for locational competition of regions with a great variety of regional settings, combined with a certain control against dumping practices, and with a monitoring process of policy measures and their economic effects.

To this end, it may also be useful to link the EU policies towards regions with those of the national and regional authorities (e.g., by the guidelines of the “Competition” DG for the legitimacy of regional state aid). However, this triple strategy for EU regional policy would not cover a co-financing of policy measures with unclear accountability, nor any direct, project-bound interventions into the regional economies.

3.2. Actual EU regional policy

The actual EU regional policy is based on two major pillars: the structural funds which are at least partially targeted at regional policy objectives, and the competition policy of the EU Commission which also aims at influencing regional policy via supervision of national regional aid. A short review will clarify in how far they meet the above requirements.

3.2.1. The structural funds

The evolution of the EU financial instruments aimed at pursuing cohesion within the EU have always been closely related to the progress of integration. Since the start of the structural funds in 1960 (with the constitution of the European Social Fund, ESF) every step of integration was accompanied by the establishment of further funds, or an expansion of the monies with the aim to offset expected undesirable effects of integration. In 1975, in response to the first EU enlargement by Great Britain, Ireland and Denmark, the European Regional Development Fund (ERDF) was created. With the south enlargement of the EU

in 1981/1986, and the completion of the single market programme in 1993, the ERDF was extended further (table 1). The recent formation of EMU gave reason to set up another structural policy instrument in 1993, the cohesion fund.¹³

Table 1 — On the evolution of the EU structural funds and the EU cohesion funds 1985–1999^a (will be supplemented)

| | Agricultural fund EAGGF ^b | Fishery fund FIFG | Regional fund ERDF | Social fund ESF | Community initiatives ^c | Structural funds total | Cohesion fund |
|---|---|----------------------|-----------------------|--------------------|------------------------------------|---------------------------|-------------------|
| <i>Millions ECU/Euro</i> | | | | | | | |
| 1985 | 937 | – | 2 524 | 2 224 | – | 5 685 | – |
| 1986 | 995 | – | 3 339 | 2 554 | – | 6 888 | – |
| 1987 | 1 044 | – | 3 693 | 3 150 | – | 7 887 | – |
| 1988 | 1 203 | – | 3 838 | 2 899 | – | 7 940 | – |
| 1989 | 1 465 | – | 4 710 | 3 520 | – | 9 695 | – |
| 1990 | 1 976 | – | 5 342 | 4 100 | – | 11 419 | – |
| 1991 | 2 427 | 53 | 6 725 | 4 530 | – | 13 734 | – |
| 1992 | 2 897 | 81 | 8 394 | 5 683 | – | 17 055 | – |
| 1993 | 3 101 | 76 | 10 074 | 5 955 | – | 19 205 | 1 500 |
| 1994 | 3 302 | 380 | 9 769 | 5 841 | 1 949 | 21 547 | 1 750 |
| 1995 | 3 374 | 451 | 10 684 | 6 711 | 2 916 | 24 408 | 2 000 |
| 1996 | 3 772 | 450 | 11 834 | 7 150 | 2 989 | 26 587 | |
| 1997 | 4 026 | 491 | 12 990 | 7 639 | 3 173 | 28 625 | |
| 1998 | 4 183 | 464 | 14 148 | 8 733 | 2 781 | 30 624 | |
| 1999 | 5 233 | 695 | 15 869 | 9 520 | 4 480 | 36 039 | |
| <i>Annual average rate of change in percent</i> | | | | | | | |
| 1985–1990 | 16,1 | – | 16,2 | 13,0 | – | 15,0 | – |
| 1990–1995 | 11,3 | 70,8 ^d | 14,9 | 10,4 | ^e | 16,4 | 15,5 ^f |
| 1995–1999 | . | . | . | . | . | 6,3 | 6,8 |

^a „Verfügbare Verpflichtungsermächtigungen“. — ^b Guidance Section of the European Agricultural Guidance and Guarantee Fund. — ^c Such as INTERREG, URBAN, EQUAL, and LEADER; amounts included in the structural funds before 1994. — ^d 1991–1995. — ^e 1993–1995. — ^f 1994–1995.

Source: EU Commission (1989), Manual on the Reform of the EU Structural Funds; — EU Commission (various issues), Annual Report on the Execution of the Structural Funds. — Own calculations.

In preparing for the east enlargement, and in response to harsh criticism, the EU Commission submitted the Agenda 2000 that for once is aiming at the tightening and facilitating of EU structural policy. Also, it provides for a ceiling for total funds that is tantamount to reducing the funds directed to the incumbent members to the benefit of the

¹³ The cohesion fund is aimed at strengthening the cohesion of the EU by supporting projects of trans-European significance in the fields of environmental protection and provision of traffic infrastructure. However, in effect, the distribution of the monies is oriented solely on the economic performance of the member states, and is hence restricted to Greece, Portugal and Ireland.

accession countries. In fact, if the criteria for eligibility remain unchanged as envisaged, most of those regions supported by the EU so far may lose their eligibility after the accession.¹⁴

What can be said on this structural policy of the EU at the background of the requirements for an efficient regional policy as derived above? First of all, the pure amount of structural policies aimed at the cohesion of countries and regions does not look much. In total, the structural funds account for about 0,4 per cent of EU GDP (in 1995). However, for countries like Ireland, Portugal and Greece these funds are more than a „quantité négligeable“ (table 2). Moreover, the funds have been quintupled within the decade of 1985 to 1995 and have been increased since at an annual average rate of change of 6–7 per cent (table 1). At the same time, the proportion of the union’s budget allocated to structural operations has increased from just 18 percent in 1987 to over one-third by 1999.

Table 2 — On the distribution of EU structural funds on EU member states, 1990-2000^a

| | Millions ECU | | | ECU per capita | | | per cent | | |
|-------------|--------------|--------|------|----------------|-------|------|----------|-------|------|
| | 1990 | 1995 | 2000 | 1990 | 1995 | 2000 | 1990 | 1995 | 2000 |
| Sweden | – | 277 | | – | 31,4 | | – | 1,4 | |
| Finland | – | 304 | | – | 59,5 | | – | 1,6 | |
| Denmark | 77 | 95 | | 15,0 | 18,2 | | 0,7 | 0,5 | |
| Germany | 511 | 2 422 | | 6,4 | 29,7 | | 4,8 | 12,5 | |
| Austria | – | 301 | | – | 37,4 | | – | 1,5 | |
| Netherlands | 143 | 184 | | 9,6 | 11,9 | | 1,3 | 0,9 | |
| Belgium | 155 | 86 | | 15,6 | 8,5 | | 1,5 | 0,4 | |
| Luxemburg | 10 | 10 | | 26,2 | 24,6 | | 0,1 | 0,1 | |
| Un. Kingdom | 1 108 | 1 331 | | 19,2 | 22,8 | | 10,4 | 6,8 | |
| Ireland | 730 | 954 | | 208,4 | 266,3 | | 6,8 | 4,9 | |
| France | 1 282 | 1 327 | | 21,7 | 22,8 | | 11,6 | 6,8 | |
| Italy | 1 625 | 2 283 | | 28,2 | 39,9 | | 15,2 | 11,7 | |
| Spain | 2 836 | 5 837 | | 72,8 | 148,9 | | 26,6 | 30,0 | |
| Portugal | 1 067 | 1 380 | | 107,8 | 127,8 | | 10,0 | 7,1 | |
| Greece | 1 172 | 2 653 | | 115,3 | 253,7 | | 11,0 | 13,6 | |
| Total | 10 666 | 19 445 | | 30,2 | 52,2 | | 100,0 | 100,0 | |

^a „Verpflichtungen — verfügbare Mittel“. This variable is not identical to the „Verpflichtungsermächtigungen“ of table 1.

Source: EU Commission (1989), Manual on the Reform of the EU Structural Funds; — EU Commission (various issues), Annual Report on the Execution of the Structural Funds. — Own calculations.

¹⁴ For the accession countries, since 2000, a new programme has been issued, the Instrument for Structural Policy for Pre-Accession (ISPA), as a transition to the cohesion fund. This programme adds to the programme PHARE issued in 1989 to support the East European transition process, and to the agricultural programme SAPARD issued in 2000.

Even more important, the approach to regional policy within the EU has moved from a relatively passive stance supporting policy measures by member state governments to direct interventions for an active cohesion policy, and from an entitlement to reduce within-country regional disparities to the claim to smooth disparities in living standards across as well as within member states. As a result of subsequent reforms, the EU structural policy became more and more interventionist and cumbersome. At present, all structural funds are to achieve five economic objectives two of which can be regarded as being oriented toward regional policy:

- Objective 1: promoting the development and structural adjustment of retarded regions (with a per capita income below 75 percent of EU average);
- Objective 2: supporting economic and social conversion in regions with severe structural difficulties (with a level of unemployment above EU average);
- Objective 3: supporting the adaptation and modernisation of educational, vocational and employment systems.

According to the programme oriented concept of the EU, each region eligible for support must establish a regional development plan to be updated every year, and containing inter alia information on the economic prospects of the regions, on the coordination with national structural policy, and on financial budgets. After negotiations with and permission by the commission, these plans are transformed into Common Support Frameworks (CSF).¹⁵ From these, operational programmes are derived and submitted to the EU Commission that contain the projects selected for support. The support granted by the EU structural funds follows strictly the principle of additionality thus directing national funds into EU regional policy, too. The EU Commission gets further scope for intervention via the so-called Community Initiatives and the Innovative Measures. The CIs capture 15 percent of the budget of all structural funds, and they are distributed in the context of own programmes of the Commission, outside the CSFs, dedicated to problems that are assumed to exist all over the union. Since 1994, the so-called Innovative Measures, accounting for 0,4 percent of the ERDF, have been introduced a bit aside of the structural policy objectives. With these, the EU Commission tries to ameliorate the competitiveness of regional economies particularly by supporting the new economy and technological innovations as well as sustainable development.

Accordingly, the EU Commission does not only distribute funds, but influences decisively the regional development programmes under which this distribution takes place, and even

¹⁵ Or, in the case of a minor support budget, into Single Programme Documents (SPD) that are established in a somewhat facilitated procedure.

chooses projects. By its programme oriented concept, it also takes influence on additional national policy measures in favour of the regions under support. The Agenda 2000 provides for shaping the administration of the structural policies more efficient, and their execution more flexible and more decentralised. However, it also provides for defining the priorities of the structural policy more selective and more precise which is in obvious contrast to the former. In fact, the Council Regulation No 1260/1999 “laying down general provisions on the Structural Funds” for the period 2000-2006 as well as the supplementing guide-lines submitted by the Commission contradict any impression of a proper reversal of EU structural policy. Rather, they confirm the tradition of a continuous refining of objectives and procedures thereby further strengthening the influence of the EU on regions.

Obviously, the EU structural policy violates the principle of subsidiarity as it takes prerogatives with hardly any noticeable regional externalities. It violates the principle of equivalence particularly by its additionality concept and also by the joint formulation of policy measures, by which any accountability is blurred. The EU structural policy overstates the principle of coordination largely, thereby also violating the principle of competition as it seeks to include national structural policy in an all-embracing concept angled at union-wide objectives. Also, criticism concerns the dominance of political redistributive objectives and the intransparency in decision-making.

Moreover, the effectiveness of the structural funds are very much at doubt. In spite of the huge efforts and resources that are spent in substantiating the alleged objectives, the funds are distributed primarily according to national quota that correspond to the per capita income of the EU members (Stehn 1994). Accordingly, the highest amounts per capita go to Ireland, Greece, Spain und Portugal, the lowest to Germany (before re-unification), the Netherlands, Belgium, and Denmark (table 2). Also, the redistributive power of structural actions is very low (though larger than any other expenditures). Espasa (2002) estimates income elasticities and indicators of the redistributive power of the diverse EU expenditures as well as the revenues. According to her calculations, differentials in regional income after being corrected for structural funds aid account for about 97,7 percent of the initial income differentials.¹⁶ If one takes into consideration the whole EU budget, this ratio goes up to 98,1 percent due to the regressive effects of the EU revenues and some of the expenditures.

All in all, the conclusion of Jackman (1995) is still valid: “From an economic point of view, the correct policy is reasonably obvious. The Structural and Cohesion Funds, and the

¹⁶ Referring to the calculations in ECU and on the basis of the flow approach, cf. Espasa (2002).

CAP, for that matter, should all be abolished. This would bring direct and substantial benefits to the people of Western Europe at the same time as removing a barrier to the accession of CEE countries.“ He concedes a need for „grandfather’ clauses to buy off existing beneficiaries“. But he sees „no way that the accession of the CEE countries can be contemplated without a substantial scaling down of annual expenditures under these programmes.” With respect to the question whether the Agenda 2000 effectively prepared the floor for enlargement the academic community remains sceptic to negative. The Agenda 2000 is not coping with the challenges of accession despite the progress that has been made. Stehn (1999) looks at the Agenda 2000 more as an “ouverture for than as the grand finale of the reform process in the course of enlargement”.

3.2.2. Control of regional state aid

The second pillar of EU regional policy is the control of the member states’ regional aid by the Directorate-General Competition (former DG). Like, the other pillar, the control of regional state aid has increasingly been used to shape regional policy at all levels of administration according to EU intentions.

The control of national state aid is one of the prior prerogatives of the EU Commission constituted in the EU treaty in order to guarantee for a common market with an undistorted competition. Article 92 (3), however, provides that regional state aid promoting the economic development of areas with an „abnormally low standard of living“ or „serious underemployment“, in contrast to sectoral state aid, is considered to be compatible with the common market. In 1971, the Commission passed the first „Guidelines on national regional aid“ constituting rules for the derogation of national regional aid from the general prohibition of state aid. These guidelines have been supplemented, refined and updated continuously since. Upper limits for aid rates have been generated, expressed as a maximum net grant equivalent, and graduated in accordance with four different development levels of regions. Rules for achieving transparency of regional aid have been set up. Also, the Commission developed criteria for the eligibility of regions to national regional aid in relation to the Community and national average of GDP per capita and the unemployment rate.¹⁷ At the same time, national ceilings for the population covered by

¹⁷ The threshold for eligibility of regions as compared to the national average is related to the EU average according to the formula:

$$Threshold = \frac{1}{2} \left(Basic\ threshold + \frac{Basic\ threshold}{\frac{National\ average}{EU\ average}} \cdot 100 \right)$$

where the basic threshold is established uniquely at 85 percent for GDP per capita and at 115 percent for the unemployment rate. Accordingly, the lower the national development level is compared to EU

regional aid must be observed; for the period from 2000-2006, for instance, they reach from a ceiling of 15 percent coverage for the Netherlands up to a ceiling of 100 percent coverage for Ireland, Greece, and Portugal (EU Commission 1999). Moreover, since 1985, the national regional aid is to be granted only in the context of a coordinated regional development program that includes also the grants from the EU structural funds.

Hence, more and more, the control of national regional aid as a means to defend competition in the union while limiting a race on subsidies moved to the background whereas it became an instrument of integrating national regional aid into an all-embracing European regional policy. To be sure, the success of this integration does not seem to be very high by now – according to Martin's (1998) estimations, national support schemes seem to step in where EU support is missing thus resulting in a more or less equivalent support at least for all problem regions, rich or poor (objective 1 and 2). Still, according to our considerations on an optimal design of regional policy, an attempt to further coordinate these different layers of administration is not desirable. It destroys the accountability for regional policy and disregards the differing functions regional policy has to fulfil at the EU level as compared to the national, regional or local level: to serve the needs of a certain allocative compensation for possible disadvantages from integration and to serve the but small distributive preference for union-wide equality.

4. Conclusion

In this paper we analysed in how far a case for regional policy at the EU level arises from progress in European integration, and what role the EU should play as compared to the role it actually does play. Three major conclusions may be drawn:

(i) Due to the general uncertainties of our findings both on theoretical and empirical grounds, a case for an allocative as well as a distributive regional policy cannot be excluded. However, in view of the large amount of taxpayers's money affected, and in view of the doubts concerning the gravity of the cohesion problem as well as the efficacy of regional policy to solve it, a careful empirical investigation is required to prove the adequacy of regional policy, particularly at EU level.

(ii) Our considerations on an optimal design of regional policy at the EU level lead us to recommend a triple strategy:

average the higher may the development level of the respective region be compared to the national average — it may even surmount the national average (EU Commission 1998).

- Lowering transaction costs by further reducing remaining trade barriers;
- organizing unconditioned but limited financial transfers from rich to poor regions;
- allowing for locational competition of regions with a great variety of regional settings, combined with a certain control against dumping practices and with a monitoring process of policy measures and their effects.

(iii) The EU regional policy, the structural funds as well as the control of regional state aid, in spite of recent reform efforts, does not comply with this strategy, and is not apt to cope with the challenges of east enlargement. The EU structural policy violates the principle of subsidiarity, the principle of equivalence (by its additionality concept), and overstates the principle of coordination, thereby also violating the principle of competition. The control of national regional aid has become an instrument of integrating this aid into an all-embracing European regional policy thereby destroying the accountability for policy measures and disregarding the differing functions regional policy has to fulfil at the EU level as compared to the national, regional or local level.

References

- Alesina, A., I. Angeloni and L. Schuknecht (2001). What Does the European Union Do? NBER Working paper 8647.
- Amiti, M. (1999). Specialisation Patterns in Europe. *Weltwirtschaftliches Archiv* 135: 1-21.
- Braunerhjelm, P., R. Faini, V. Norman, F. Ruane, P. Seabright (2000), Integration and the Regions of Europe: How the Right Policies Can Prevent Polarization. Centre for Economic Policy Research (CEPR), Monitoring European Integration 10. London.
- Brühlhart, M. (1998). Trading Places: Industrial Specialisation in the European Union. *Journal of Common Market Studies*. 36 (3): 319–346.
- Combes, P.-P. , and L. Linnemer (2000).
- Committee of the Regions
- Davis, D.R., und D.E. Weinstein (1996). Does Economic Geography Matter for International Specialisation? Working Paper 5706. National Bureau of Economic Research (NBER), Cambridge, Mass.
- Davis, D.R., und D.E. Weinstein (1999). Economic Geography and Regional Production Structure: An Empirical Investigation. *European Economic Review* 43: 379–407.
- Dluhosch, B. (2000). Industrial Location and Economic Integration. Centrifugal and Centripetal Forces in the New Europe. Cheltenham and Northampton.
- Ellison, G., and E. L. Glaeser (1997). Geographic Concentration in U.S. Manufacturing Industries: A Dartboard Approach. *Journal of Political Economy* 105 (5): 889-927.

- Espasa, M. (2002). The Territorial Redistributive Power of the EU Budget: Empirical Evidence at National and Regional Level. In: J. Cuadrado-Roura, M. Parellada (eds.), *The EMU and Regional Convergence*, Berlin, Heidelberg, New York.
- European Commission (2001), *Unity, Solidarity, Diversity for Europe, Its People and Its Territory. Second Report on Economic and Social Cohesion*. Brussels.
- Fujita, M., P. Krugman and A.J. Venables (1999). *The Spatial Economy: Cities, Regions and International Trade*. Cambridge (Mass.).
- Hallet, M. (2002). Regional Specialisation and Concentration in the EU. In: J. Cuadrado-Roura, M. Parellada (eds.), *The EMU and Regional Convergence*, Berlin, Heidelberg, New York.
- Hufbauer, G.C., and J.G. Chilas (1974). Specialisation by Industrial Countries: Extent and Consequences. In H. Giersch (ed.), *The International Division of Labour*. Tübingen.
- Instituto Nacional de Estadística de España (INE), Encuesta Industrial (EIG). TEMPUS Bancos de Datos, <<http://www.ine.es>>
- Jackman, R. (1995). Regional policy in an enlarged Europe. *Oxford Review of Economic Policy* 11: 113-125.
- Junius, K. (1999). *The Economic Geography of Production, Trade and Development*. Kieler Studie 300. Tübingen.
- Klodt, H. (1999), Internationale Politikkoordination: Leitlinien für den globalen Wirtschaftspolitiker. Kieler Diskussionsbeitrag 343. Kiel.
- Krieger, C., C. Thoroe und W. Weskamp (1985). *Regionales Wirtschaftswachstum und sektoraler Strukturwandel in der Europäischen Gemeinschaft*. Kieler Studien 194. Tübingen.
- Krieger-Boden, C., and K. Lammers (1996), Subventionsabbau in räumlicher Perspektive: Wirkungszusammenhänge und Schlußfolgerungen. Kieler Diskussionsbeitrag 280. Kiel.
- Krieger-Boden, C. (1999). Nationale und regionale Spezialisierungsmuster im europäischen Vergleich. *Die Weltwirtschaft* 1999(2): 234-254.
- Krieger-Boden, C. (2000). Globalization, Integration and Regional Specialisation. Kiel Working Paper 1009. Kiel.
- Krieger-Boden, C. (2002). EMU and the Industrial Specialisation of European Regions. In: J. Cuadrado-Roura, M. Parellada (eds.), *The EMU and Regional Convergence*, Berlin, Heidelberg, New York.
- Krugman, P., and A.J. Venables (1995). Globalization and the Inequality of Nations. *Quarterly Journal of Economics* 110 (4): 857–880.
- Lejour, A. M., R. A. de Mooij and R. Nahuis (2001). EU Enlargement: Economic Implications for Countries and Industries. CESifo Working paper 585.
- Lammers, K. and S. Stiller (2000). Regionalpolitische Implikationen der neuen ökonomischen Geographie. HWWA Discussion Paper 85.
- Markusen, J., and A. Venables (1999), Foreign direct investment as a catalyst for industrial development, *European Economic Review*, 43: 335–356

- Martin, P. J. (1998). Can Regional Policies Affect Growth and Geography in Europe? *The World Economy*, 21 (6):757-774.
- Maurel, F., and B. Sédillot (1999). A Measure of the Geographic Concentration in French Manufacturing Industries. *Regional Science and Urban Economics* 29: 575-604.
- Middelfart-Knarvig, K.H., H.G. Overman, S.J. Redding, and A.J. Venables (2000). The Location of European Industry. Report prepared to the Directorate General for Economic and Financial Affairs, European Commission. Economic Papers 142, ECFIN/318/00-EN.
- Molle, W. (1980). *Regional Disparity and Regional Development in the European Community*. Farnborough.
- Molle, W., and S. Boeckhout (1995). Economic Disparity under Conditions of Integration — A Long Term View of the European Case. *Papers in Regional Science* 74 (2): 105–123.
- OECD (Organisation for Economic Co-operation and Development) (1987). *Structural Adjustment and Economic Performance*. Paris.
- Oliveira Martins, J., S. Scarpetta, and D. Pilat (1996). Mark-up Ratios in Manufacturing Industries. Estimates for 14 OECD Countries. OECD Working Papers - Economic Department Working Papers (IV) 24. Paris.
- Ottaviano, G. I. P., and D. Puga (1997). Agglomeration in the Global Economy: A Survey of the „New Economic Geography“. Discussion Paper 1699. Centre for Economic Policy Research (CEPR), London.
- Paluzie, E., J. Pons, A. Tirado (2001). Regional Integration and Specialization Patterns in Spain. *Regional Studies* 38 (4):285-296.
- Pratten, C. (1988). A Survey of the Economies of Scale. In Commission of the European Communities, *Research on the „Cost of Non-Europe*. Volume 2: *Studies on the Economics of Integration*. Luxemburg.
- Puga, D. (2001). European regional policy in light of recent location theories. Discussion Paper 2767. Centre for Economic Policy Research (CEPR), London.
- Puga, D. (1999). The Rise and Fall of Regional Inequalities. *European Economic Review* 43: 303–334.
- Services des Statistiques Industrielle (SESSI). Enquête Annuelle d' Entreprises. Various years, Paris.
- Soltwedel, R. (2002). Improving EU Regional Policy: Re-nationalization of Competences and Surveillance, Monitoring, Peer-Pressure Review at the EU Level. Forthcoming.
- Stehn, J. (1994). Stufen einer Osterweiterung der Europäischen Union. *Die Weltwirtschaft* (2): 194–219.
- Venables, A.J. (1996). Equilibrium Locations of vertically linked Industries. *International Economic Review* 37: 341–359.
- Walz, U. (1999). *Dynamics of Regional Integration*. Heidelberg.
- Waniek, R.W. (1995). Sektoraler und raumstruktureller Wandel in Europa. In H. Karl und W. Henrichsmeyer (Hrsg.), *Regionalentwicklung im Prozeß der Europäischen Integration*. Bonner Schriften zur Integration Europas 4. Bonn.

Ziltener, P. (2001). Wirtschaftliche Effekte der europäischen Integration – Theoriebildung und empirische Forschung. Max-Planck-Institut für Gesellschaftsforschung MPIfG Working Paper 01/7. Köln.