A POLICY AT WAR WITH ITSELF? STATE AID AND REGIONAL COHESION IN THE EU

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ABSTRACT. *The entry of ten new countries in the EU raises a number of questions about the need and type of reform of EU policies on cohesion and regional state aid. This paper examines the impact of regional state aid on regional disparities. It finds that the effect of state aid on regional cohesion is ambiguous, partly because state aid is not proportionally granted to the most needy regions. In the context of the forthcoming debate on reform of regional policy it follows that member states should limit the geographic coverage of regional aid and should take into account the possible trade-offs between other types of state aid and regional development or cohesion.*

KEY WORDS: *state aid, cohesion, regional policy*

Introduction

One of the fundamental objectives of the European Community is economic and social cohesion [see Articles 2, 3 & 158 of the EC Treaty]. To achieve that objective the EC spends considerable funds in supporting structural actions – about EUR 35 billion in 2003. The EC also modulates its policies to take into account cohesion [see Article 159EC]. This means that policies such as competition have to accommodate the pursuit of cohesion.

At the same time, member states are required to conduct their own economic policies and coordinate them in such a way as to attain the objectives of development, cohesion and reduction of regional disparities [Article 159EC]. It follows that to the extent that national state aid policies affect cohesion they need to be adjusted accordingly.

To facilitate the achievement of cohesion and to allow member states to implement policies that comply with Article 159EC, the Treaty exempts from its general ban of state aid certain types of aid, including regional aid. Indeed regional state aid may benefit from exceptions under Article 87(3)(a) and Article 87(3)(c).

The purpose of this paper is threefold. First, it reviews the reasons for granting state aid and identifies theoretical and practical problems in designing effective state aid schemes. Second, it examines the rules and practice of the European Community on regional aid and identifies here too the practical difficulties in implementing aid schemes which are capable of contributing to regional development. Third, it assesses the record of the member states in using regional state aid as an instrument of cohesion.

The main findings of the paper are that, first, state aid in general does not show any significant correlation with regional disparities. Second, some types of state aid may worsen regional disparities as they appear to be granted to regions with higher per capita income. Third, although the overall amounts of state aid in the EU have recently declined, some regions have received larger amounts of aid. Fourth, the amounts of state aid received by regions fluctuate considerably from year to year. Fifth, although most regional state aid goes to poorer regions, when examining just the poorer regions, there appears to be no precise correspondence between regional income and either the overall amount of state aid or of regional aid received by those regions.

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Sixth, and most importantly, the policy implication of these findings is that member states need to limit the geographic spread of their regional state aid and, if indeed their intention is to contribute to regional development, they should give proportionally more to the poorest of the poor regions.

The structure of the paper is as follows. First, the next section places research on the effects of state aid in the context of the wider research effort on regional disparities and the structural policy and actions of the EU. Then the paper explains how the EU defines the concept of state aid and reviews briefly the main rules on state aid. Next it examines the various arguments in favour and against the granting state aid. The section that follows reviews the rules on regional aid and evaluates the applicability of those rules. Against this background the paper proceeds to test a number of empirical propositions on the regional distribution of state aid and its impact on regional disparities. It uses data from a variety of sources such as the European Commission and national central and regional authorities.

The neglected issue of state aid

The primary empirical question that has been asked in relation to cohesion is whether rich and poor regions converge. The answer has been tentatively in the affirmative. Small rates of convergence have been observed by several studies.[2]

The second issue that has been tested is whether regional expenditure and in particular spending from EU structural funds has any effect on regional development and cohesion between member states. Again the answer has been tentatively in the affirmative.[3]

Since state aid is part of national expenditure, it may be tempting to conclude that national spending in the regions has the same effects as expenditure which is categorised as state aid. This, however, would be a premature conclusion. Apart from the fact that overall national spending in the regions is many times larger than the amount of state aid, the latter also has different objectives or different targets than national expenditure that takes place in regions. That is trivially true in the sense that the largest proportion of member states' budgets is devoted to salaries, social welfare, public health, public works and defence and runs into trillions. By contrast, state aid granted by the fifteen member states totals no more than EUR 85 billion per year.[4]

In addition to these rather obvious differences in spending objectives and overall amounts, there are other factors for which spending one euro of national money in member states' regions may have a different impact than spending one euro of state aid. The differences are spelled out later on. We believe that they justify empirical research on the impact of state aid on cohesion. With a few exceptions, this has not yet been systematically explored in the literature.[5] The Commission has also looked into this matter.[6]

In the next two sections, we define more precisely the meaning of state aid and the kinds of state aid which member states may legally grant under current EC rules. Then we examine the economic rationale of state aid and whether it is framed in a way that maximises the economic benefits from public support of enterprises and regions. Afterwards we proceed to frame our empirical hypotheses on the impact of state aid on cohesion.

[2] *See R. Barro and X. Sala-i-Martin (1992), Convergence, Journal of Political Economy, vol. 100(2), pp. 223-251; A. de la Fuente (2000), Convergence across Countries and Regions, EIB Papers, vol. 5(2), pp. 25-45 and references therein.*

[3] *See M. Boldrin and F. Canova (2001), Inequality and Convergence in Europe's Regions, Economic Policy, no. 32 (April), pp. 206-252; M. Reiner and M. Steinen (1997), State Aid, Regional Policy and Locational Competition in the European Union, European Urban and Regional Studies, vol. 4(1), pp. 19-32 and references therein. See also European Commission (1997), First Cohesion Report; Commission (2001), Second Cohesion Report; and Commission (2003), Second Progress Report on Cohesion.*

[4] *See the Commission's State Aid Scoreboard. It can be accessed at "http://europa.eu.int/comm/competition/ state_aid/scoreboard/". It contains data submitted by the member states. It does not necessarily include all state aid granted by national central and regional authorities. About 15-20% of all cases of state aid investigated by the Commission each year concern non-notified aid. This suggests that if member states fail, for whatever reason, to notify all cases of state aid, it is also likely that they fail to report the true amount of state aid granted by public authorities within their territories.*

[5] *These studies are by M. Reiner and M. Steinen (1997), State Aid, Regional Policy and Locational Competition in the EU, European Urban and Regional Studies, vol. 4(1), pp. 19-32; L.-H. Roller, H. Friederiszick and D. Neven (2001), Evaluation of the Effectiveness of State Aid as a Policy Instrument, report for the European Commission; J. Gual (1998), State Aid and Convergence in the European Union, Barcelona.*

[6] *See the report prepared by Jordi Gual (1998), State Aid and Convergence in the European Union.*

Which public measures are state aids?

Not all public expenditure is state aid.[7] It is necessary, therefore, to define what is state aid. The first paragraph of Article 87 of the EC Treaty stipulates that:

"Save as otherwise provided in this Treaty, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market."

This wording indicates that a measure of public support is classified as state aid only if the conditions defined in that paragraph are all satisfied simultaneously. Alternatively, not all measures of public support, even those that may involve public subsidies, are necessarily classified as state aid.

The five conditions that must all hold at the same time are the following:

(a) aid must favour or confer an advantage to the recipient undertakings;

(b) this advantage must be granted by the state or through state resources;

(c) the advantage must favour certain (selected) undertakings or economic activities;

(d) it must affect trade between member states; and

(e) it must distort competition in the common market.

The five conditions taken together imply that the following types of measures are not state aid:

- financial assistance from one private company to another,
- public assistance to individuals,
- financing of entities which are not undertakings, such as hospitals or schools,
- financing of projects which are not related to undertakings, such as infrastructure,
- regulatory measures that confer advantages to undertakings without transferring public money or without increasing state liabilities,
- general measures of economic policy that do not favour any particular undertakings, such as reduction of the standard rate of corporate taxation,
- measures that do not distort competition, such as incentives for early retirement of professionals,
- measures that have a purely local effect, such as the funding of municipal recreational facilities.

In relation to the last point, small amounts of public subsidies are not considered to have an effect on trade and competition and, for this reason, they are not classified as state aid. This kind of aid is the so-called "de minimis" aid and is defined as aid that does not exceed EUR 100,000 per beneficiary undertaking over a three-year period.

Lastly, funding that is classified as state aid must come from national sources (including regional and other sub-national authorities), not the EU budget. Community money that is used to finance the same project together with national money is still Community money (but, confusingly, it is taken into account in calculating the intensity of aid received by those projects).

Types of state aid granted by the member states

Since Article 87(1) of the EC Treaty makes any form of state aid incompatible with the common market, member states may not grant any aid unless it is otherwise allowed by the Treaty by way of derogation from that general prohibition. The various possible exceptions are the following:

Article 36 provides that the "... rules of competition shall apply to production of and trade in agricultural products only to the extent determined by the Council ...". Regulation 26/62 subsequently applied all competition rules to agricultural products with the exception of the then Article 92 which has now become Article 87. This means that, in practice, state aid in agriculture is controlled by the many Community Regulations on the organisation of the market for each agricultural product. Because farmers receive considerable assistance directly from

[7] *For a fuller explanation of EC state aid rules see C. Quigley & A. Collins, EC State Aid Law and Policy, (Oxford: Hart Publishing, 2003); S. Bilal & P. Nicolaides (eds.), Understanding State Aid Policy in the European Community: Perspectives on Rules and Practice, (The Hague: Kluwer Publishers, 1999).*

the EU budget, those Regulations allow state aid only for certain purposes such as research in new strains of plants.

Article 77 allows state aid for the purposes of coordinating public transport. Regulation 1191/69 on inland transport exempts this kind of state aid from prior notification to the Commission.

Article 86(2) exempts, under a narrowly defined set of conditions, state aid to providers of services of general economic interest. The recent Green Paper on Services of General Interest considers the possibility of issuing a block exemption Regulation for state aid intended to compensate providers of services of general economic interest.[8]

Article 87(2) declares compatible with the common market state aid that is given to individuals for social purposes, aid to remedy the effects of natural disasters and aid to redress the effects of the old division of Germany. This last category of compatible aid is not used anymore.

Lastly, Article 87(3) identifies five categories of aid that may be compatible with the common market:

(a) aid to promote the economic development of areas where the standard of living is abnormally low or where there is serious underemployment;

(b) aid to promote the execution of an important project of common European interest or to remedy a serious disturbance in the economy of a member state;

(c) aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest;

(d) aid to promote culture and heritage conservation where such aid does not affect trading conditions and competition in the Community to an extent that is contrary to the common interest;

(e) such other categories of aid as may be specified by decision of the Council acting by a qualified majority on a proposal from the Commission. This provision has been used only twice to define special rules for state aid to shipbuilding and aid to coal mining.

All aid must be authorised by the Commission before it is put into effect. The Commission is obliged by EU law not to approve any aid scheme or individual award of aid unless it falls into one of the categories above. Most aid authorised by the Commission falls into just two categories: 87(3)(a) and 87(3)(c).

The guidelines issued by the Commission are a good indication on the kinds of state aid that may be exempted under Article 87(3)(a) & (c). These guidelines cover the following themes:[9]

• Transactions by public authorities:

Government Capital Injections, Financial Transfers to Public Enterprises, State Guarantees, Risk Capital, Public Land Sales, Export Credit Insurance, Fiscal Aid (Direct Business Taxation).

• Horizontal schemes:

Research and Development Aid, Environmental Aid, Rescue and Restructuring Aid, Regional Aid.

• Sectoral schemes:

Synthetic Fibres, Motor Vehicle Industry, Shipbuilding, Steel, Coal, Road, Rail and Inland Waterway Transport, Maritime Transport, Air Transport, Agriculture, Fisheries, Electricity, Broadcasting.

In addition there are three Regulations on training aid, employment aid and aid to SMEs Aid granted in compliance with the provisions of these regulations need not be submitted for prior approval by the Commission before it is put into effect.

It is obvious that only regional aid has a direct relationship with assisted areas for the simple reason that it may not be granted to any other area.

However, aid for R&D, training, employment and environmental protection and aid to SMEs also allow for higher intensities when the aid is granted within assisted areas. The problem is that it is not known how much of the aid that falls in these categories is granted within assisted areas and how much in other areas. Even if higher intensity rates are allowed for these kinds of aid, the total amount that may be granted within non-assisted areas may overwhelm the effect of any aid in assisted areas for the simple reason that most R&D, training and creation of new

[8] *COM(2003) 270 final, 21/5/2003.*

[9] *They can be accessed at "http://europa.eu.int/comm/competition/state_aid/".*

jobs may take place outside assisted areas. The end result would be economic divergence rather than convergence.

In terms of absolute amounts, the data collected by the Commission and published in its State Aid Surveys and the various editions of the State Aid Scoreboard indicate that there are large variations in the aid granted by each member state. For example, aid to manufacturing makes up between 15% and 35% of the total aid granted by each member state. Aid to transport [mostly railways] varies between 15% and 70%, while aid to agriculture varies between 10% and 60%. For the EU as a whole, in 2001, manufacturing received 25% of total aid, transport 45% and agriculture 25%. The two biggest beneficiaries of state aid are, therefore, transport and agriculture which take up 70% of all aid. Over the years, these two sectors have consistently absorbed the majority of state aid. (**See Table 1 at the end of the article** for the latest recorded amounts of state aid granted by each member state expressed in absolute terms, as a percentage of GDP and in amounts per capita.)

This raises again the question about the impact of state aid on cohesion. Does state aid in agriculture and transport benefit less prosperous regions? There may be positive effects. Many poor regions also rely more on agriculture as their main source of income. In the case of transport, good links also make subsequent investment in remote regions more attractive.

But there may be also negative effects. If state aid in agriculture follows the pattern of the CAP expenditure, then most aid may be granted to large farms. In the field of transport, most investment may be intended to improve connections between large urban centres.

In conclusion, the largest proportion of state aid is not directly related to regional development. However, most types of aid allow for higher intensities when the aid is granted to undertakings in assisted areas. (**See Table 4 at the end of the article** on the rates of aid intensity and the permitted supplements for companies located in assisted areas.)

The impact of state aid on the functioning of markets and a brief critique of EC state aid policy

There is concern about the economic effects of state aid at the highest political level in the EU. The Lisbon European Council (March 2000) asked member states to reduce the general level of state aid and to shift the emphasis from supporting individual companies or sectors to tackling horizontal objectives of Community interest. The Stockholm European Council (March 2001) urged reduction in the level of state aid in the EU and asked member states to demonstrate a downward trend in state aid in relation to GDP by 2003. The Barcelona European Council (March 2002) asked member states to reduce the overall level of state aid as a percentage of GDP by 2003, redirect aid towards horizontal objectives of common interest and target it to identified market failures because less and better-targeted state aid is a key part of effective competition. The Brussels European Council (March 2003) reaffirmed the commitments of earlier Councils and welcomed the Commission's intention to simplify and modernise state aid arrangements, focusing attention on the most distorting aid.

The purpose of this section is to explain that, while preference for horizontal aid is a move in the right direction, economic distortions will not necessarily be eliminated. There is a large amount of literature on whether, when and how governments should aid their companies, industries or regions.[10] By and large, this literature concludes that, on efficiency grounds, aid may be justified when it is intended to correct a market failure. The typical

[10] *See, for example, S. Bishop (1997), The European Commission's Policy Towards State Aid: A Role for Rigorous Competitive Analysis, European Competition Law Review, vol. 18(2), pp. 84-86; D. Collie (2000), State aid in the European Union: The Prohibition of Subsidies in an Integrated Market, International Journal of Industrial Organization, vol.18(6), pp. 867-884; C.-D. Ehlermann (1995), State Aid Control in the European Union: Success or Failure?, Fordham International Law Journal, vol. 18(4), pp. 1212-1229; G. Ioannis & M. Reiner (2001), State Aid Control in the European Union - Rationale, Stylised Facts and Determining Factors, Intereconomics, vol. 36(6), pp. 289-297; S. Lehner, R. Meiklejohn & A. Louw (1991), Fair Competition in the Internal Market: Community State Aid Policy, (Luxembourg: OOPEC); R. Meiklejohn (1999), The Economics of State Aid, European Economy, no.3, pp. 25-31; D. Neven (1994), The Political Economy of State Aids in the European Community: Some Econometric Evidence, Cahiers de Recherches Économique, no. 9402, (Lausanne: University of Lausanne); P. Nicolaides & S. Bilal (1999), An Appraisal of the State Aid Rules of the European Community: Do they Promote Efficiency?', Journal of World Trade, vol. 33(2), pp. 97-124; F. Wishlade (2003), Regional State Aid and Competition Policy in the European Union, European Monographs 43, (London: Kluwer Law International).*

reasons cited for market failure are externalities (plus public goods), economies of scale and incomplete or asymmetric information. Because of these reasons, it is thought necessary for a government to intervene and subsidise training, undertake part of the cost of research and other knowledge-generating activities, offer incentives for investment in environmentally friendly machinery and production processes, attract enterprises to particular regions, offer incentives for investment in small, higher-risk, enterprises, etc.

Note that market failure is a necessary but not a sufficient condition for providing public support to industry. The "first-best" policy would be to address market failure directly, instead of granting state aid to compensate for it. Only when direct measures are not feasible should aid be considered, as a "second-best" option. However, the appropriate amount and method of aid may still be too difficult to determine. Not only may the government have to rely on incomplete information about the state of the economy, but it may also suffer from asymmetric information. The private sector seeking to benefit from state aid possesses information not directly available to the government. The latter, by not having this information, runs the risk of being misled when designing and implementing its aid policy.

The problem with second-best measures is particularly relevant to cohesion issues. This is because in markets with multiple distortions, addressing only one source of distortion by intervening in the market creates its own distortion, which may have the apparently paradoxical effect of reducing welfare. For instance, subsidies to attract companies to certain regions may also worsen environmental pollution, increase congestion or put pressure on weak transport systems.

Public policy may also generate negative regional (and cross-border) spillovers. Again this is particularly relevant to cohesion, as aid to stimulate creation of employment in one area may simply result in no net increase in jobs but simply in a shift of economic activity from one area to another.

Even where a region benefits significantly, another may suffer also significantly. An example will help clarify this issue. Firms may choose to invest in a location where other similar firms already maintain production facilities or have an established business presence. They may make that investment in order to obtain access to raw materials, transport networks, factors of production or to benefit from external economies or agglomeration effects. The government may initiate and speed up the process of agglomeration by offering regional investment incentives. This may suck in economic activity from other regions.

In addition to those problems, there is the risk of government failure. The aid-giving agency may be in danger of being "captured" by special interest groups. The "politicisation" of state aid is one of the major problems facing aid-granting agencies. Hence, the cost of getting the policy wrong may outweigh the benefits of intervention to correct market failure.

This is explicitly recognised in the Commission's new multisectoral framework for regional aid, which reduces the intensity of allowable aid for large projects because large companies are more mobile and because they can exert more pressure on regional authorities.[11]

The question which arises is whether EC rules remedy these problems. From an economic point of view Articles 87-89, secondary legislation and Commission guidelines are not perfect. First, note that the prohibition in Article 87 is too wide. It catches virtually all aid schemes because very few are found in practice not to have an actual or potential effect on intra-EC trade and competition. If a support measure is classified as a form of state aid, it is invariably found to affect trade and competition (which are often used interchangeably). Not all state aid is economically significant.

But the most serious weakness of state aid policy is that, with a few exceptions, it does not require member states or the Commission to carry out an explicit cost-benefit analysis of the impact of state aid, nor to examine whether aid schemes represent an optimal (i.e. first-best) economic policy option. Besides, the nature of market failure is often not even clearly identified.[12]

[11] *See the Notice on the Multisectoral Framework on Regional Aid for Large Investment Projects, OJ C107, 7/4/1998. The Framework has been extended until 31/12/2003. A new Framework [OJ C70, 19/3/2002] will come into effect on 1/1/2004 and will be valid until 31/12/2009.*

The examination of aid schemes is not normally done by considering what would happen in the absence of government support (although for certain schemes, such as those to support R&D and the automotive industry, the Commission does require that governments show their necessity; i.e. that R&D would not be undertaken without state assistance). This is surprising because the European Court of Justice established early on in the case law that public assistance should not replace market mechanisms. The Commission often asks how firms would behave without receiving state aid but it does not attempt to quantify the magnitude of the distortion.

Almost as a proxy for the magnitude of market failure it sets permissible aid ceilings (or intensities). These are defined in the various guidelines with respect to the different types of aid schemes and industrial sectors. For example the permissible aid ceilings for regional development aid are set according to the perceived regional backwardness which may be assumed to correspond to the degree of market failure (if backwardness can be presumed to be a market failure). But aid intensities are not derived from models that quantify market failure. They are good administrative instruments that prevent subsidy races between member states and ensure that aid is proportional to the objective sought.

Even though the Commission always insists on proportionality and makes references to economic factors such as “regional handicaps”, the guidelines do not relate aid to what is necessary to offset underlying market distortions. So aid intensities may be construed only in some loose manner as the Commission’s way of relating allowable aid to the magnitude of market failure.

The absence of sufficient analysis of the need for public support is most obvious in aid schemes for the rescue or restructuring of ailing companies. The main criteria used by EC rules are that aid should be transitory and kept to the minimum necessary and should make the recipient companies commercially viable again. It is not always clear what kind of imperfection such state aid awards seek to redress (apart from the imperfections and failures of the management of those firms).

Admittedly, aid is frequently sought in these situations in order to offset charges related to dismissal of workers and rationalisation of operations (e.g. compensation, pension liabilities, etc.). It is presumably in the broader national interest to facilitate industrial adjustment. The problem is that aid in cases of rescue and restructuring is not exclusively granted for those purposes.

More puzzling is the fact that aid is approved when it is demonstrated that the beneficiaries will be able to function profitably without it. But if they can live without public handouts, why do they need any at all? Why is private capital not able to bring that kind of change? Why are those companies not able to attract private capital if indeed they can demonstrate the feasibility of their long-term profitability?

The closest that the Commission comes to minimising explicitly any distortive effects of authorised aid schemes is when it imposes “compensatory” conditions. This conditional authorisation aims to prevent the recipient of the aid from using public handouts to strengthen its commercial position at the expense of firms in other member states. For example, aid to national airlines such as Air France, Alitalia, Olympic, Iberia and Sabena has been approved on condition that these airlines do not attempt to expand their market share by reducing prices or acquiring other airlines.

Under certain conditions, Article 87(3)(c) of the Treaty enables the Commission to authorise aid intended to promote the development of particular regions or economic activities, provided that it is not contrary to Community interest. The problem is that there is no definition of Community interest in the Treaty. Over the years it has been asserted that the interest of the Community has been advanced by aid such as that to attract ships back to EU registries [see the Guidelines on Maritime Transport] or to provide financial services to Central and East European

[12] *In a special seminar organised by EIPA under the auspices of the Danish Presidency in November 2002 and involving representatives from all the member states and a number of acceding countries, it transpired that no member state undertakes a proper and full impact and competition assessment of the state aid they grant. For a summary of the main points of the proceedings see P. Nicolaides and A. Geveke, Towards Efficient and Effective State Aid, that can be accessed at “http://www.eipa.nl/Topics/StateAid/”.*

countries [see Commission Decision on the Financial Services Centre in Triest]. The Treaty expresses so many different objectives that it is fairly easy for the member states and the Commission to claim that a certain project is not contrary to the Community interest. The EC also has a number of non-economic objectives and some of those inevitably creep into the Court's rulings on state aid and into the Commission's evaluations of state aid schemes [a case in point is economic and social cohesion]. The fact that those objectives are not explicitly economic does not make them costless.

In conclusion, theory provides no grounds for banning completely state aid. Some public assistance is necessary to remedy market failure. In practice, however, not all state aid is intended to remedy market failure or maximise overall or regional economic output. Nor, are conflicts between different policies totally avoided (e.g. competition versus cohesion). The granting of state aid requires judgement and balancing of opposing policy aims. That is why it is important to examine the actual impact of state aid on fundamental Community objectives such as cohesion.

Having examined the more general problems with state aid and the various exceptions which are allowed by the EC Treaty, we now turn our attention to regional aid. We begin in the next section with a brief explanation of the differences between regional state aid and other forms of regional spending. Then we review in more detail the Community rules on regional aid and test various empirical propositions on the impact of state aid on regional cohesion.

Differences between national spending in the regions and state aid

Not all types of public spending in the regions would qualify as state aid. The first difference is that the objectives of state aid are broader than regional development. State aid may finance, for example, the rescue or restructuring of an enterprise in difficulty. Rescue aid is operating aid that does not promote new investments or jobs. Moreover, rescue and restructuring aid may benefit enterprises located in areas which are not eligible for regional assistance. Of the estimated total amount of EUR 85 billion of state aid granted by the member states only about EUR 8 billion are explicitly earmarked for regional development ["87(3)(a)" areas]. It corresponds to about 25% of aid to manufacturing. Perhaps not surprisingly, Germany and Italy account for over 50% of the total regional aid granted by the member states.

Second, current rules on state aid, nevertheless, allow the granting of higher intensities of aid in assisted areas even when the aid in question does not have regional development as its primary objective. This is the case, for example, with aid for R&D or environmental protection. By contrast, national spending is not normally modulated on a regional basis.

Third, not all national spending in the regions is regional state aid. For example, national funding of infrastructural projects is not classified as state aid.

Fourth, not all national spending in the regions is intended for regional development and, therefore, it may have a different multiplier than regional state aid [see next section on regional state aid]. For example, spending of EUR 1 million on the construction of a school may have less impact on the local economy than the spending of EUR 1 million on the construction of a new factory (especially if the school is intended to house, say, just 30 pupils and it is being built because the government made a promise in its election manifesto).

Fifth, national spending in the regions may also be combined with EU structural funds and again have different multiplier effects due to different co-financing arrangements. For example, one euro of national public money may be combined with half a euro of EU funds and four euros of private money, while one euro of state aid may have to be matched with just three euros of private money.

Sixth, the funds for national spending in the regions come from public budgets. This means that they have an opportunity cost that reduces the net impact on both the national economy and regional economies. This opportunity cost is made up of the cost of tax collection and the related distortions of taxation plus other direct distortions caused by public expenditure. By contrast, in the absence of any negative externalities, the opportunity cost of private funds that co-finance projects receiving state aid can be safely assumed not to exceed their marginal

product because no firm would voluntarily invest in a project unless it was reasonably certain that it would be maximising its profits. Again, the end result is that a project financed by a combination of state aid and private money may have different multiplier and net economic impact than a similar project financed by public money that is not state aid (e.g. a building to be used as office by a company versus a similar building to be used by civic groups).

Regional state aid

State aid for the purpose of regional development is allowed by Article 87(3)(a) & (c). Article 87(3)(a) exempts aid intended "to promote the economic development of areas where the standard of living is abnormally low or where there is serious underemployment". This condition covers areas with per capita income at PPS that falls below 75% of the EU average. This is exactly the same criterion as for Objective 1 regions. Areas that qualify for aid under Article 87(3)(a) are defined at NUTS II level, which is also the same for Objective 1.

However, in practice Objective 1 regions and 87(3)(a) areas do not coincide precisely so there are some differences in the areas covered by national funds and areas covered by EU funds. For example, Sweden has a large Objective 1 region which, however, is not classified as "Article 87(3)(a) area". This means that Swedish authorities are prevented from granting state aid to their Objective 1 region at the higher rates of intensity that are allowed for 87(3)(a) areas.[13]

Regional aid is also allowed by Article 87(3)(c) because it provides for "aid to facilitate the development of ... certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest". These areas are defined by the Commission in cooperation with the member states. In principle, areas that qualify for this kind of aid should coincide with Objective 2 regions defined at NUTS III level. However, here too there is a small degree of discrepancy.

In the previous financial perspective of 1994-99, the discrepancy between structural funds and state aid was as follows:[14]

- Areas eligible for regional state aid [87(3)(a & c)] = 47% of EU population
- Regions eligible for structural funds = 51% of EU population.

According to the Commission's calculations, 6.6% of the EU population lived in regions receiving structural funds but precluded from obtaining state aid. By contrast, 2.7% of EU population lived in regions which were covered by national regional aid schemes but were not eligible under the structural funds.

For the current financial perspective of 2000-6, the Commission wanted to reduce the percentage of population covered by state aid to 42% of total EU population and bring about coincidence between the regions that receive EU structural funds and national state aid. Since the population eligible for Objective 1 or 87(3)(a) status was objectively determined on the basis of income, the Commission considered that not more than 50% of the remaining population in each member state could benefit from state aid under 87(3)(c). It therefore, invited each member state to determine eligible areas using a formula based on below-average regional income and above-average regional unemployment rates.[15]

Following the Berlin European Council of March 1999, where a number of member states managed to obtain transitional arrangements for some of their regions receiving structural assistance from the EU, the coincidence of regions that the Commission was seeking was not completely achieved. Some areas are eligible for structural funds but not for state aid and vice versa. The current situation is as follows (Eligible population across the EU in %):

- in 87(3)(a) area = 19.8% but in Objective 1 region = 22%
- in 87(3)(c) area = 22.9% but in Objective 2 region = 18%

This means that while only 40% of the EU

[13] *For an excellent review of the changes in national support schemes in the current financial perspective of 2000-2006 see D. Yuill and F. Wishlade (2001), Regional Policy Developments in the Member States, University of Strathclyde, Glasgow (UK).*
[14] *Commission Communication on the Links between Regional and Competition Policy, OJ C90, 26/3/1998.*
[15] *See Commission Guidelines on National Regional Aids, OJ C74,10/3/1998.*

population qualifies for EU structural action, 43% are eligible for regional state aid. It appears that in this financial perspective the coverage of structural funds and regional state aid has been reversed. More people are eligible for state aid than they are eligible for structural funds.

At this point it is necessary to point out a political factor that has crept into the process of designating assisted areas and may have a bearing on the new regional aid maps after enlargement. For the identification of Article 87(3)(a) areas the process is virtually objective as it is based on the 75% threshold. Although the Commission tried to follow an equally objective process with respect to Article 87(3)(c) areas, in the end subjective considerations could not be avoided. This is because according to the rules defined in the guidelines on regional aid no member state could include more than 50% and no less than 15% of its non-objective 1 regions under Article 87(3)(c) status. In addition, any reduction in the eligible population in relation to the previous period was not to exceed 25%.

Notwithstanding these problems, the situation within each member state is currently as shown below in Table 1. There are five member states without areas eligible for aid under Article 87(3)(a). ***(See Table 1 at the end of the article)***

The Commission Guidelines on regional state aid

Given that the provisions of the Treaty on the types of state aid that may be exempted are very general, the Commission has issued detailed guidelines on regional state aid to help member states to design and notify regional aid schemes that can be authorised by the Commission. As is well known, guidelines of this nature are binding only on the Commission. Member states in theory may deviate from the guidelines but there has been no member state that has successfully challenged such guidelines before the Court [I will return on this point in the third part of the paper when I consider likely future reform].

The European Court of Justice has accepted that certain forms of regional aid are compatible with the common market because they serve to reduce regional handicaps. However, in the landmark case of Philip Morris versus Commission, C-730/79, the Court explained that state aid may be exempted only when the advantage which is given to the regions that receive the aid outweighs the distortion to competition. So there is a balancing act to be performed here that only the Commission has the competence to do. In addition, the Court has clarified that the greater the regional handicap, the greater that the advantage which may be granted via state aid [see Spain versus Commission, C-169/95].

In line with these judgements, the regional aid Guidelines serve primarily three functions: to identify the various categories of eligible areas, to determine the allowable instruments of state aid and to modulate the intensity of state aid that is received by different eligible areas.[16] Since the delineation of eligible regions was explained in the previous section, the rest of this section examines only the rules on the instruments and the modulation of aid intensities.

With respect to the instruments of state aid, the Guidelines permit only two instruments: investment and job creation linked to investment. They also exceptionally allow operating aid but only for 87(3)(a) areas and only when it is temporary, degressive over time and clearly linked to offsetting regional handicaps (by a separate Notice, the Commission has in the meantime allowed operating aid on a permanent basis to the outermost regions of the EU and for the partial compensation of transport costs in the low density regions; i.e. the polar regions of Finland and Sweden).[17]

Investment aid is restricted to initial or extension investment. Replacement investment is not allowed. Subsidised assets must also be kept by the beneficiary firm for at least five years. Aid for job creation is restricted only to jobs that are linked to either initial or extension investment. The jobs must be made available within three years of the investment and

[16] *OJ C212, 12/8/1988.*
[17] *Commission Notice in OJ C285, 9/9/2000.*

must be also be maintained for at least five years.

It is worth noting that the recently adopted Regulation on Employment Aid 2204/2002, has severed the link between investment and aid for jobs.[18] Under that Regulation firms may receive aid for hiring more people as a result of expansion in their operations rather than a net addition to their asset base. Moreover, the Regulation requires beneficiary firms to keep new employees for a minimum of three years instead of five, while SMEs can keep them only for two years.

Lastly, the Guidelines set maximum ceilings for the intensity of granted aid. Intensity is measured as a percentage of aid in relation to the eligible costs. It is important to understand that while the Guidelines define maximum rates, the rates which are applicable to each region are those approved by the Commission individually and included in each member state's regional aid map. Table 2 shows the rates defined in the Guidelines. As can be seen, there is considerable variation across regions.**(See Table 2 at the end of the article)**

The Multisectoral Framework

An innovation of the Commission for the present financial perspective has been the introduction of rules of the individual notification and the reduction of aid to large projects. These rules were introduced in 1998 by the "Multisectoral Framework". A new Framework has partially come into effect since the expiry of the Treaty on the European Coal and Steal Community in July 2002. The new Framework will fully be in force as of 1 January 2004.[19]

The Multisectoral Framework reduces allowable aid intensities for large projects because such projects have a bigger impact on competition, they are more likely to be undertaken by multinational companies which are less affected by regional handicaps (e.g. they have access to capital markets or cutting-edge technology) and because these companies can exert much more pressure on regional and local authorities to grant aid up to the permitted ceiling. The adjustment that is made is shown in Table 3. ***(*****See Table 3 at the end of the article*****)***

For example, a project costing EUR 160 million in area with a 25% ceiling can obtain aid up to EUR 23.85 million. This is equivalent to aid intensity of only 14.9%.

Notification is required for every case where the amount of aid exceeds the aid that corresponds to an investment costing EUR 100 million. It follow, that notifiable projects vary from area to area depending both on the size of the project and also on the aid intensity allowed for each area.

For example, in an area with aid ceiling of 20%, a factory costing EUR 250 million can benefit from aid up to a maximum of EUR 25.2 million. Since, however, in the same area an investment costing EUR 100 million can obtain EUR 15 million of aid, any amount of aid for that factory that exceeds EUR 15 million will have to be notified individually. In other words, that factory will have to obtain aid of less than to EUR 15 million to escape notification. This means that the intensity of that aid will have to be less than 6% (= 15/250), even though in principle the rate is 20% for that area.

Mention should also be made that other Guidelines and Regulations on state aid allow for increased rates of aid when the recipient companies are located in eligible areas. Table 4 summarises the main possibilities for higher aid intensities. (**See Table 4 at the end of the article**)

An assessment of the workability of the Guidelines on regional aid

It is very difficult to know how the Guidelines have been complied with by the member states, let alone how they have been implemented. My intention here is to make a number of observations with respect to the user-friendliness of the Guidelines. These observations are based on conversations with national officials and on my own work in advising national authorities on the application of the Guidelines.

Overall, there is no doubt that the current Guidelines represent a major improvement over the previous Guidelines and the multitude of flanking

[18] *OJ L337, 13/12/2002.*
[19] *OJ C70, 19/3/2002.*

rules they replaced. The aspects of the Guidelines that appear to have caused problems to national authorities are the following:

1. The distinction between truly new investment and replacement investment: What can be classified as new investment in an existing company very much depends on the nature of the industry in which that company operates. For example, whereas a printing firm would need to update regularly its printing software, the same software would represent a genuine extension investment for a training firm that wants to start publishing its own information and other training material.

2. The difficulty of national authorities to prevent companies from receiving aid to replace old machinery: Companies can simply buy new machines and equipment which they can declare as additional assets. After they receive aid, they get rid of the old machinery and equipment because granting authorities do not keep track of assets that have not previously benefited from aid. Replacement investment is regarded by the Commission as operating aid and therefore exceptionally approved only in the case of 87(3)(a) areas. But when aid is exceptionally approved, the Commission normally imposes extra conditions so that aid is temporary and degressive. It also ensures that aid does not spill over into non-eligible areas. See to this effect Commission Decision 2002/780 concerning investment aid to the new German Länder and Decision 1999/678 concerning aid to the creditors of a firm that went bankrupt in Sicily.

3. Aid for new jobs, not job maintenance: As with investment, firms that receive aid for jobs must be adding new positions rather than maintaining the same number of positions. For two reasons, it is difficult for granting authorities to comply with this requirement. First, national authorities have a tendency to grant aid even if its for job maintenance when they know that firms would fire their workers unless they receive aid. Second, jobs must be linked to new investment. But if replacement investment can be disguised as new investment, it follows that the beneficiary firms may only maintain existing jobs when they subsequently close down old capacity and make redundant the workers related to the disposed machinery. This can also happen when firms hire new workers [the Guidelines require a net increase in the workforce in terms of full-time equivalent at the point in time when the aid is awarded] but then get rid of workers in other divisions of the firm.

4. The practice that investment must be new with respect to the existing assets of the company: While regional authorities can check whether a company adds new premises or equipment in the assisted area, it is difficult for them to ensure whether such things are new for the company. In other words, they cannot easily verify that the company that receives investment aid has not simply transferred operations from one area to another for the sole purpose of obtaining aid. The Commission in its Decision 2000/795 concerning the shift of the operations of the firm Ramondin from one Spanish region to another partially prohibited the aid that was granted to Ramondin because it found that the company was merely seeking to benefit from the availability of regional aid in the new region. Although in that case it was obvious that Ramondin was trying to exploit state aid (by transferring its plant to another location literally a few kilometres away) and that the Decision has since been confirmed by the Court of First Instance [in Territorio Histórico de Álava - Diputación Foral de Álava versus Commission, T-92/00], it still leaves unanswered the very important question whether a company may not move its operations to an assisted area. After all, this is indeed the purpose of regional aid – to induce companies to locate their operations in handicapped regions. The regional Guidelines do not clarify whether the aid is intended for location of new assets or re-location of existing assets.

5. The requirement that assets and hired workers have to be kept for a minimum of five years: Although national authorities routinely ask past recipients of aid to declare whether they retain

the assets they bought and jobs they created with the help of state aid, it is difficult for them to carry out any systematic on-site inspections. [Apparently, the on-site-inspection powers that were conferred to the Commission by Regulation 659/99 have never been used either.]

6. Hiring from outside the assisted area: Aid for job creation is allowed by the Guidelines because it contributes directly to reducing regional unemployment and indirectly to raising the disposable income and hence prosperity of assisted areas. It is virtually impossible for granting authorities to confine the hiring of workers only to those who reside in eligible areas (perhaps in some member states it is also unconstitutional). The situation is even worse when firms intentionally move their operations from a non-eligible area to an eligible area and re-hire workers who commute from outside the assisted area. The Commission in its Decision 1999/686 prohibited a German scheme for teleworking (i.e. working from home) because some beneficiary firms employed workers who lived outside assisted areas. This of course raises two uncomfortable questions: how can granting authorities know where workers live (especially in cases involving firms located in border areas) and if the intention is to create employment in eligible areas does that not contribute to unemployment in non-eligible areas when firms shift their operations? The Guidelines do not deal with these issues.

Impact of state aid on cohesion

As explained earlier, national regional spending and state aid have a different impact on cohesion within member states. The same applies to EU structural funds, on the one hand, and national regional aid, on the other. This is because their objectives and the regions they cover are only partly overlapping.

What then should we postulate the impact of state aid to be? Only regional aid may be expected to be positively correlated with regional development and cohesion. Although other types of aid may allow for higher intensities of aid in assisted areas, the absolute amounts of aid granted in those areas may be significantly smaller than the amount of similar aid granted in non-assisted areas. There are no consistent data on the regional distribution of the different types of state aid.

In the cohesion literature there are two competing hypotheses about the effect of investment on cohesion. The neo-classical hypothesis suggests that due to declining marginal productivity, regions converge because the impact of investment on the income of poorer regions is proportionally larger than the impact in richer regions with larger stocks of capital. This suggests that even though the state aid granted in poor regions may be smaller in absolute amount than the state aid in richer regions, the higher marginal productivity of the former will have a compensatory effect.

On the other hand, some analyses based on the new theories of economic geography lead exactly to the opposite predictions, although even within these theories there are conflicting perspectives. On balance, a euro of state aid has a much smaller impact on the income of poorer regions because agglomeration effects and externalities are much stronger in rich or central regions. This impact is attenuated further when the absolute amount of aid is larger in the rich regions.

On the whole, however, the empirical literature has found considerable evidence that there is some positive relation between regional investment and convergence of regional incomes. This suggests that in general neo-classical factors outweigh agglomeration factors. The implication of this is that a negative relationship between state aid and cohesion is likely to be the result of too much state aid to rich regions, which overwhelms the higher marginal productivity of poorer regions.

Generally, we expect regional state aid and horizontal state aid at the margin to have a positive effect on cohesion because most types of state aid allow for higher intensities in assisted areas. What is unknown is the total amount of aid that is granted within non-assisted regions.

State aid for agriculture (and fisheries) and transport

is likely to have neutral effects for the reasons explained earlier. Certain sectoral state aid, such as for shipbuilding, automobiles and textiles, is also likely to have a positive impact, at least on employment, because most of the recipient industries are based in the old industrial regions many of which are assisted areas.

In terms of the opportunity cost of state aid, since most aid is financed by revenue from taxation and since richer areas contribute a larger amount of tax revenue, state aid must also have an indirect positive effect on assisted areas because it imposes a smaller tax burden on them.

If there is a negative relationship between non-regional types of state aid and cohesion, then there must also be a policy conflict. On the one hand, member states grant regional aid so as to promote the development of less prosperous regions. On the other, they grant aid for other purposes which may indirectly have a negative impact on cohesion because it makes other regions more attractive. If this is the case, then member states themselves neutralise the effectiveness of their own policies.

The EU has a system of state aid control precisely in order to avoid this kind of policy conflicts. Naturally, the aim of Community control of state aid is to prevent subsidy wars between member states rather than between regions of the same member state. Nonetheless, the Commission, in its various guidelines, tries to take into account the possibly contradictory objectives of various state aid policies. It is unknown whether it succeeds.

More importantly, if the member states neutralise the impact of regional aid, then by implication, they must also weaken the effect of structural policies. This is indeed an issue of concern for the EU.

Empirical tests

In order to gain a better understanding of how member states use state aid as a tool in combating regional disparities, we have formulated the hypothesis that state aid is positively related to divergent rates of regional income (or positively related to disparities). This means that, other things being equal, more state aid is granted when disparities are larger and vice-versa.

More precisely the proposed test can be formulated as follows:

Dt+1 = a + bSt + e

meaning that differences in regional income in period t+1 are a function of state aid in period t plus an unknown error term. The independent variable is lagged by a year because state aid is a policy instrument that can be used proactively.

Data on state aid are divided into four categories each of which is tested separately:

- regional state aid,
- horizontal state aid other than regional aid (e.g. environmental aid),
- transport and agricultural (plus fisheries) aid,
- total state aid.

We run two types of regressions. The first type is over time for each member state. The relevant period is 1990 to 2000. Given that we lag the independent variable we lose one year so that we have only ten observations per country. The second type of regression pools data from all the member states for two periods: 1999 and 2000.

We measure the independent variable (i.e. state aid) in terms of state aid per capita and state aid as a share of GDP (both expressed in real figures) to account for the fact that larger countries are more populous and grant larger amounts of state aid in absolute terms. We measure cohesion or differences in regional income in terms of deviations from national average income per capita expressed in PPS.

Our most significant data problems are the discontinuities in available statistics. For the time-series regressions, we have omitted Austria, Finland and Sweden because for them data on state aid start in the mid-1990s. We have also omitted Denmark, Ireland and Luxembourg because for Ireland the data on regional disparities do not go beyond the mid-1990s while for Denmark and Luxembourg we do not yet have data on disparities. For the cross-country regressions we have excluded Denmark and Luxembourg for which we have no data on regional disparities.

Regression results

All the regression results on time series are shown in **Table 16** and on cross-country data in **Table 17** at end of the paper. The time series results

indicate the following:

- In many cases, the sign of the slope of the independent variable is negative, implying that larger amounts of state aid are granted when regional disparities are smaller.
- The coefficient of correlation (R-squared) is in many cases very low.
- Regional aid has relatively high R-squared values only in two countries, Belgium and Spain.
- Horizontal aid appears to be significantly related to disparities in Belgium, Greece and the Netherlands, but in all three countries the correlation is negative.
- Agricultural and transport aid has a negative sign and is relatively significant only in Spain.
- Total state aid appears to be significant but negatively related to regional disparities in Belgium and Greece. Where it is positively related to disparities it does not appear to be significant, except perhaps in the case of Germany.

The cross-country results for 1999 and 2000 indicate the following:

- In most cases, the sign of the slope of the independent variable is positive, implying that larger amounts of state aid go hand in hand with larger regional disparities.
- However, the coefficient of correlation (R-squared) is in almost all cases very low and lower than in the time series.
- Regional aid is negatively related to regional disparities, but the values of R-squared are very low.

Country studies

The regression results obtained above are based on analysis of data from Commission sources – primarily the State Aid Scoreboard. We have also gathered data directly from national and regional sources. These sources are indicated in the Annex at the end of the paper. On the whole, the main difficulties we encountered in the collection of data from diverse sources were to ensure the consistency of available data with the definition of state aid and to classify them in categories which are comparable to those used by the Commission in the Scoreboard.

As will be seen below, the data from those countries for which national sources exist, do not match those reported in the Commission's Scoreboard. Some times our own numbers exceed those of the Scoreboard, some times they fall below those of the Scoreboard. By and large, categories of state aid do not match either across countries or with the Scoreboard.

The data reported below reveal three features of national state aid schemes which are common in most countries. First, the amounts of state aid granted in each region vary considerably from year to year. This holds even when the national amounts appear to be either stable or declining over time. The implication is that the overall reduction of state aid reported in the Scoreboard does not apply to all regions.

Second, the regional distribution of state aid varies, depending on the type of aid. Some types of aid such as aid to R&D appear to be granted mostly in richer regions. Some other types such as aid for regional investment go mostly to poorer regions.

Third, although most regional aid is granted to poorer regions, within the groups of these regions there is no precise correspondence between the allocated amount of aid and the need of each region as indicated by its level of income. This means that regional aid is not concentrated in the regions that need it the most.

Austria

The Commission's Scoreboard puts Austria's state aid at EUR 2.06 billion in 2001 (at 2000 prices). More than 70% of that aid goes to agriculture, fisheries and transport. Only 5% of total aid or 20% of non-farm aid aims to promote regional development.

Given the federal structure of the country, state aid may be granted by the federal authorities, Länder authorities, and by local authorities such as municipalities. Länder authorities also co-finance expenditure under the European Union's common agricultural policy and structural funds.

As revealed by the tables below, Länder governments grant more state aid than the federal

government. If richer Länder are able to grant larger amounts of state aid, this raises an important question concerning the impact of aid by lower tiers of government on regional cohesion within Austria.

During the past few years, Länder authorities have tended to establish entities with the status of corporations for the purpose of managing funds, such as investment aid, channelled to the private sector. This trend makes it more difficult to measure the precise amount of state aid granted. **(See Table 5, 6, 7 & 8 at the end of the article)**

Finland

All the regions of the country at NUTS II level (five regions plus Åland Islands) have areas eligible for regional state aid. The population coverage for the 2000-6 period has been reduced to 42.2%.

The Scoreboard indicates that in 2001 Finland granted a total of EUR 2,074 million of state aid (in 2000 prices). More than 80% of that aid goes to farmers (65%) and transport (17%). The independently collected data reveal a different picture. Aid for purposes other than agriculture is almost as large as aid to agriculture. Admittedly, however, these data may underestimate the true amount of state aid because it is not possible to determine the aid element in the EUR 770 million of loans and loan guarantees granted by public authorities or agencies under the control of the state.

In terms of regional distribution of the different types of aid, the data present a conflicting picture. Aid to agriculture goes to northern regions in proportion of almost three to one. Most aid for investment goes to the three poorest regions (60%). Investment aid accounts for 65% of all horizontal aid except R&D. The case of R&D is quite different. More than 80% of that kind of aid goes to the two richest regions.

It follows, therefore, that the regional distribution of aid varies depending on the purpose for which it is granted. Since most companies undertaking substantial R&D are likely to be located in the most economically active areas, R&D is concentrated in the richer Finnish regions. By contrast, larger amounts of investment aid are granted to the poorer regions, even though the second richest region also receives substantial investment aid.***(Tables 9 & 10)***

France

The Scoreboard indicates that France grants the second largest amount of state aid in the EU. In 2001, it reached EUR 15.84 billion (in 2000 prices). Two thirds of that aid goes to agriculture and transport. Only EUR 0.7 billion or 4% of total aid or 12% of non-farm and non-transport aid is granted explicitly for regional development.

The data relate to "DATAR" on state aid granted to firms located in areas of "difficulty", the so-called "zones PAT" (Prime d'Aménagement du Territoire). These areas are defined at NUTS IV level. The amounts which are shown in the ***table 11*** are very small; EUR 75.4 million over the three-year period of 1999-2002. Even with these relatively small amounts of state aid, we can see that there is considerable variation in their regional distribution, as indicated by the amount of aid per head. ***(Table 11)***

Germany

Germany is the largest grantor of state aid in the EU. According to the Scoreboard, the total amount of state aid provided in 2001 was EUR 23,274 million (in 2000 prices) with almost 50% going to agriculture and transport.

Given the federal structure of the country, state aid may be given by the federal government, the Länder governments and local or municipal authorities. The ***table 12*** reveals that Länder governments grant larger amounts of state aid than the federal authorities. Just as in the case of Austria, if richer German Länder are able to grant larger amounts of aid, this raises an important question concerning the impact of regional cohesion within Germany. (**See Table 12 at the end of the article)**

In terms of the regional distribution of state aid, the following breakdown between "new" and "old" Länder has been obtained. (**See Table 4 at the end of the article)**

Given the fact that the "new" Länder are poorer than the "old" ones, this kind of aid is, therefore, largely directed to the less prosperous regions by a factor of about eight to one. Substantial financial

assistance to the "new" Länder is also granted in the context of support for social housing but it is not possible to determine the proportion, if any, of state aid that it may include. Overall, there is a reduction in the amount of state aid granted by the federal authorities over time.

Greece

The Scoreboard indicates that for 2001, Greece granted EUR 1.3 billion of state aid. Agriculture, fisheries and transport absorb EUR 840 million. Of the remaining aid, EUR 419 million or 90% went to regional development. Indeed the main state aid instrument in Greece is Law 2601/98 on investment incentives for economic and regional development. Under that law, 420 and 465 investment projects were approved in 2000 and 2001, respectively.

However, when the amount of state aid granted through the approved investment projects is quantified, the reported figures show only EUR 201.07 million and EUR 220.92 million for 2000 and 2001, respectively. That is about half of the amount shown in the Scoreboard.

The ***table 14*** indicates that some regions experience considerable annual variability in the amount of state aid. The table also indicates that most investment incentives for regional development actually go to relatively richer regions which are economically more active. (**See Table 14 at the end of the article)**

Ireland

The Scoreboard shows that in 2001, Ireland granted a total of EUR 1.3 billion in state aid (in 2000 prices). Agriculture, fisheries and transport absorbed almost half of that aid (46%). Regional aid accounted for 33% of total aid or 60% of non-farm and non-trasnport aid. This is a very high proportion of aid devoted to regional development. Of the 15 EU member states, only Greece grants a higher proportion of regional aid.

Until 1999, Ireland comprised a single NUTS II region. Since 2000 it has been divided into two NUTS II regions: the Southern & Eastern region with per capita income (PPS) at 126% of the EU average (2000) and the Border, Midland and Western region with per capita income at 84% of the EU average.

Data have been obtained from the agencies responsible for attracting investors and are shown in the **Table 15 at the end of the article.**

Italy

The Commission's Scoreboard indicates that in 2001 Italy granted EUR 4.11 billion of aid (in 2000 prices) in sectors other than agriculture, transport and fisheries. Our data show a much higher amount for the same year, reaching EUR 5.2 billion. Of this amount the largest category of aid was for "reduction of territorial inequalities" (46%). In this connection, it is worth noting that Germany and Italy accounted for 50% of all regional state aid granted in the EU in 2001.

The second and third largest categories of aid in Italy, other than for agriculture and transport, were aid to R&D and aid to investment, accounting for 24% and 10% of total aid to manufacturing and services, respectively. Apparently, Italy has introduced "automatic" incentives for R&D, investment and purchasing of new equipment. This raises the question whether all of these incentives can count as state aid. If they are state aid, then this may also explain the higher amount of aid recorded in the statistics we have obtained.

Of the aid that was granted to business in 2001, 62% went to SMEs. However, in the south, SMEs received 67% of aid while in the centre and north they accounted for only 53% of aid. This suggests that in richer regions of Italy, a higher proportion of aid is absorbed by large companies.

The ***table 16*** presents the amounts of aid to businesses per region in the years 2000 and 2001. As is the case with other countries, larger amounts of aid are granted in the poor regions than in the richer regions. This is also indicated by the significance of the aid to the recipient regions. The proportion of aid in relation to non-farm valued-added was 0.20% in the centre and north while in the south it rose to 1.10%.

However, and in common again with other countries, there is significant variation of the amount of aid within poor and within rich regions, with no close correlation between the income of the region and the amount of state aid within each group. There

is also variation from year to year in the reported amount of aid granted in each region. (**See Table 16 at the end of the article)**

Spain

In Spain, state aid may be granted by public authorities at different levels of government. Unfortunately, we have not been able to find data on state aid granted by each of Spain's autonomous regions.

The regional distribution of regional state aid is shown in the ***table 17***. Two things stand out from the table. First, for some regions the amount of aid varies considerably from year to year. Second, there is no strict correlation between the prosperity of each region and the amount of state aid. (**See Table 17 at the end of the article)**

United Kingdom

Most of state aid in the UK is granted to agriculture, transport and fisheries (75% in 2001). Of the aid that is granted to sectors other than agriculture, fisheries and transport, most of it goes to horizontal objectives (90%) such as training, R&D and for SMEs.

For the 2000-6 period, the UK has four 87(3)(a) areas at NUTS II level. Northern Ireland has a special status as "exceptional region" enjoying higher rates of aid intensity than other 87(3)(c) areas.

The most important regional instrument is the Regional Selective Assistance (RSA). England also operates the Enterprise Grant (EG). The ***table 18*** shows payments under these two schemes for fiscal year April 2001 to March 2002. As it can be seen, there is a rough concentration of regional aid to areas with lower per capita income. However, the amounts of aid do not correlate strictly with the need of each area as indicated by its per capita income. (**See Table 18 at the end of the article)**

The UK is also one of the very few member states that have carried out regular evaluations of its regional development policies. A recent report by the National Audit Office has cast doubt on the effectiveness of state aid in contributing to regional development.[20] The report has found that only about half of the jobs created through state aid are in fact truly new jobs while a quarter of new jobs simply displace other jobs. In addition, the process of application for grants and selection of eligible firms generates bureaucratic costs which are equivalent to about 5% of the amount of grants for firms and another 5% for the public authorities concerned. The NAO estimated that the financial cost per net new job in the 1991-95 period was about £21,000 (2002) resulting in a decrease of unemployment by less than half of one percent. If these findings are generalisable, they indicate that state aid achieves about half of its objectives at considerable cost to taxpayers and non-assisted regions and it is accompanied by non-negligible waste of resources in bureaucratic procedures.

Main findings and policy implications

On the basis of the empirical testing and the data collected directly from national sources, we reach the following conclusions:

- There appears to be no overwhelming evidence that member states grant more state aid when regional disparities grow larger or that state aid correlates with reduced regional disparities.
- Although the overall amounts of state aid in the EU have recently declined, some regions have received larger amounts of aid.
- The amounts of state aid received by regions fluctuate considerably from year to year.
- Some types of state aid like R&D aid are inversely related to regional income, with the richer regions receiving larger amounts of such aid.
- By and large, most regional state aid goes to poorer regions. However, when examining only poorer regions, there appears to be no precise correspondence between regional income and either the overall amount of state aid or regional aid received by the poorer regions.
- In member states with federal structures, regional authorities grant significant amounts of state aid. Since richer regions can afford to grant

[20] *National Audit Office, Regional Grants in England, (London: Stationery Office, 2003).*

larger amounts of aid, the policy decisions of sub-national governments may also have a considerable impact on national cohesion.

These findings have a significant policy implication. If the purpose of regional state aid is to contribute to regional development and if the poorest regions are facing more handicaps than less poor regions, it follows that member states should limit the geographic spread of aid so that it benefits proportionally more the poorest of the poor regions.

Conclusion

The European Union is on the verge of experiencing its most ambitious enlargement ever. All of the ten countries scheduled to enter the EU in May 2004 are relatively poorer than the EU average. All of them, with the exception of Cyprus, will have their whole territories or significant size of them designated as Objective 1 regions. This means that many assisted areas in the existing member states will lose their eligibility for state aid under Article 87(3)(a). Politically member states treat this as an adverse development. The findings of this paper suggest that it should not necessarily be so.

The impact of state aid on regional cohesion is ambiguous, partly because, as shown in this paper, state aid is not proportionally granted to the most needy regions. It follows, therefore, that member states should limit the geographic coverage of regional aid and should be aware that there are probably trade-offs between other types of state aid and regional development or cohesion.

Tables

Table 1: Eligible population for regional state aid

Member state	% of eligible population	Type of 87(3) area
Belgium	30.9	c
Denmark	17.1	c
Germany	34.9	a + c
Greece	100	a
Spain	79.2	a + c
France	36.7	a + c
Ireland	100	a + c
Italy	43.6	a + c
Luxembourg	32	c
Netherlands	15	c
Austria	27.5	a + c
Portugal	100	a + c
Finland	42.2	a + c
Sweden	15.9	c
United Kingdom	28.7	a + c
EC	**42.7**	

Table 2: Maximum allowable intensities of regional aid
(expressed in terms of amount of aid as % of eligible cost)

	87(3)(a) area	87(3)(c) area
Maximum rate	50	20
- if regional GDP > 60%	40	-
- if GDP > EU average & unemployment < EU average	-	10
- if next to 87(3)(a) area	-	20
Outermost region	65	30
- if regional GDP > 60%	50	-
- if GDP > EU average & unemployment < EU average	-	20
Low density region	50	30
- if regional GDP > 60%	40	-
- if GDP > EU average & unemployment < EU average	-	20
SME	+ 15	+ 10

Table 3: Multisectoral Framework: Aid intensities for large projects

Eligible expenditure	Adjusted regional ceiling (R)
A: up to EUR 50 million	100% of ceiling
B: EUR 50 – 100 million	50% of ceiling
C: over EUR 100 million	34% of ceiling
Formula for adjusting ceiling: **Maximum eligible aid = R(A + 0.5B + 0.34C)**	

Table 4: Rates of aid intensity allowed by the various Guidelines & Regulations

	Standard rates	87(3)(a) area	87(3)(c) area
Regional aid	--	50/RAM	20/RAM
- for SMEs		+15	+10
Environmental aid	30/40	+10	+5
- for SMEs	+ 10		
R&D aid	25/50/100	+10	+5
- for SMEs	+ 10		
SME Regulation	7.5/15	+15	+10
Training Regulation	25/50	+10	+5
- for SMEs	+ 10/20		
Employment Regulation	--	RAM	RAM
- for SMEs	7.5/15	+ 15	+ 10

RAM: Regional Aid Map – it specifies rates of intensity for each region of every EU member state.

Table 5. Austria: Federal state aid
(EUR, million)

Region	GDP/head (2000, PPS)	Technology aid		Technology aid per head		Technology aid as % of regional GDP	
		2000	**2001**	**2000**	**2001**	**2000**	**2001**
Wien	157	104.48	85.83	64.93	54.18	0.18	0.15
Salzburg	131	22.73	17.26	43.97	34.07	0.15	0.11
Vorarlberg	118	36.48	32.37	104.53	94.51	0.39	0.35
Tirol	113	53.25	19.38	79.48	29.51	0.31	0.11
Oberösterreich	109	91.33	81.12	66.23	60.36	0.27	0.24
Niederösterreich	97	37.18	31.89	24.11	21.06	0.11	0.09
Kärnten	96	23.27	21.16	41.33	38.13	0.19	0.17
Steiermark	96	65.23	44.27	54.27	37.46	0.25	0.17
Burgenland	73	4.50	18.22	16.19	66.54	0.10	0.40
Total		438.51	351.51	54.1	44.16	0.21	0.17

Region	GDP/head (2000, PPS)	Regional aid		Regional aid per head		Regional aid as % of regional GDP	
		2000	**2001**	**2000**	**2001**	**2000**	**2001**
Wien	157	0	0	0.00	0.00	0.00	0.00
Salzburg	131	0.33	0.45	0.64	0.89	0.00	0.00
Vorarlberg	118	0	0	0.00	0.00	0.00	0.00
Tirol	113	5.17	3.21	7.72	4.89	0.03	0.02
Oberösterreich	109	3.21	24.64	2.33	18.33	0.01	0.07
Niederösterreich	97	12.72	34.09	8.25	22.51	0.04	0.10
Kärnten	96	13.79	28.32	24.49	51.04	0.11	0.23
Steiermark	96	24.86	22.24	20.68	18.82	0.10	0.09
Burgenland	73	25.24	49.96	90.79	182.47	0.55	1.09
Total		85.32	162.91	10.52	20.47	0.04	0.08

Region	GDP/head (2000, PPS)	Environment aid		Environment aid per head		Environment aid as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Wien	157	1.16	0.58	0.72	0.37	0.00	0.00
Salzburg	131	4.27	2.09	8.26	4.13	0.03	0.01
Vorarlberg	118	3.92	2.53	11.23	7.39	0.04	0.03
Tirol	113	6.44	5.15	9.61	7.84	0.04	0.03
Oberösterreich	109	10.41	8.52	7.55	6.34	0.03	0.02
Niederösterreich	97	11.98	17.56	7.77	11.59	0.04	0.05
Kärnten	96	2.35	3.01	4.17	5.42	0.02	0.02
Steiermark	96	18.24	12.49	15.17	10.57	0.07	0.05
Burgenland	73	0.79	0.32	2.84	1.17	0.02	0.01
Total		59.56	52.25	7.34	6.56	0.03	0.02

Region	GDP/head (2000, PPS)	SME aid		SME aid per head		SME aid as % of regional GDP	
		2001	2001	2000	2001	2000	2001
Wien	157	30.41	27.20	16.90	17.17	0.05	0.05
Salzburg	131	15.93	13.78	26.65	27.20	0.10	0.09
Vorarlberg	118	10.44	7.56	21.66	22.07	0.11	0.08
Tirol	113	22.14	20.64	30.81	31.43	0.13	0.12
Oberösterreich	109	33.41	43.69	31.68	32.51	0.10	0.13
Niederösterreich	97	36.54	23.33	15.13	15.40	0.11	0.07
Kärnten	96	13.75	17.86	31.72	32.19	0.11	0.15
Steiermark	96	22.06	16.87	14.03	14.27	0.08	0.06
Burgenland	73	7.41	8.27	29.75	30.20	0.16	0.18
Total		192.09	179.20	23.69	22.51	0.09	0.09

Region	GDP/head (2000, PPS)	Total aid		Total aid per head		Total aid as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Wien	157	132.84	113.61	82.56	71.71	0.24	0.20
Salzburg	131	41.11	33.58	79.52	66.29	0.28	0.22
Vorarlberg	118	47.96	42.46	137.42	123.97	0.55	0.46
Tirol	113	85.50	48.38	127.61	73.67	0.51	0.28
Oberösterreich	109	148.64	157.97	107.79	117.54	0.41	0.46
Niederösterreich	97	85.21	106.87	55.26	70.56	0.29	0.32
Kärnten	96	57.27	70.35	101.72	126.78	0.44	0.58
Steiermark	96	125.20	95.87	104.16	81.12	0.50	0.37
Burgenland	73	38.80	76.77	139.57	280.39	0.82	1.67
Total		770.08	748.28	95.62	93.71	0.37	0.36

Table 6. Austria: Länder state aid
(EUR, million)

Region	GDP/head (2000, PPS)	Aid to energy		Aid to energy per head		Aid to energy as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Wien	157	0	0	0.00	0.00	0.00	0.00
Salzburg	131	1.286	1.805	2.49	3.56	0.01	0.01
Vorarlberg	118	0	0	0.00	0.00	0.00	0.00
Tirol	113	0	0	0.00	0.00	0.00	0.00
Oberösterreich	109	4.146	3.823	3.01	2.84	0.01	0.01
Niederösterreich	97	0.103	0.401	0.07	0.26	0.00	0.00
Kärnten	96	5.54	6.647	9.84	11.98	0.05	0.05
Steiermark	96	1.805	1.811	1.50	1.53	0.01	0.01
Burgenland	73	0.766	0.973	2.76	3.55	0.02	0.02
Total		13.646	15.460	1.68	1.94	0.01	0.01

Region	GDP/head (2000, PPS)	Aid to tourism		Aid to tourism per head		Aid to tourism as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Wien	157	13.837	13.948	8.60	8.80	0.02	0.02
Salzburg	131	9.419	8.655	18.22	17.08	0.06	0.06
Vorarlberg	118	4.331	4.384	12.41	12.80	0.05	0.05
Tirol	113	41.075	45.738	61.31	69.65	0.24	0.27
Oberösterreich	109	18.008	19.307	13.06	14.37	0.05	0.06
Niederösterreich	97	19.369	20.202	12.56	13.34	0.06	0.06
Kärnten	96	1.581	0.246	2.81	0.44	0.01	0.00
Steiermark	96	10.816	19.844	9.00	16.79	0.04	0.08
Burgenland	73	15.493	15.652	55.73	57.17	0.34	0.34
Total		133.929	147.976	16.52	18.59	0.06	0.07

Region	GDP/head (2000, PPS)	Aid to trade & industry		Aid to trade & industry per head		Aid to trade & industry as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Wien	157	126.341	94.072	78.52	59.38	0.22	0.16
Salzburg	131	15.289	10.917	29.57	21.55	0.10	0.07
Vorarlberg	118	11.667	13.768	33.43	40.20	0.13	0.15
Tirol	113	24.131	30.394	36.02	46.28	0.14	0.18
Oberösterreich	109	52.493	86.579	38.07	64.42	0.15	0.25
Niederösterreich	97	30.748	32.607	19.94	21.53	0.09	0.10
Kärnten	96	37.324	46.217	66.29	83.29	0.31	0.38
Steiermark	96	38.468	25.372	32.00	21.47	0.15	0.10
Burgenland	73	61.239	48.599	220.28	177.50	1.33	1.06
Total		397.700	388.525	49.04	48.81	0.19	0.19

Region	GDP/head (2000, PPS)	Agricultural aid		Agricultural aid per head		Agricultural aid as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Wien	157	1.364	2.612	0.85	1.65	0.00	0.00
Salzburg	131	41.78	44.235	80.81	87.32	0.27	0.29
Vorarlberg	118	27.492	28.426	78.77	83.00	0.30	0.31
Tirol	113	49.609	52.702	74.04	80.25	0.29	0.31
Oberösterreich	109	102.382	118.061	74.24	87.84	0.30	0.35
Niederösterreich	97	144.489	144.542	93.70	95.43	0.43	0.43
Kärnten	96	49.119	52.27	87.25	94.20	0.40	0.43
Steiermark	96	100.474	85.863	83.59	72.65	0.39	0.33
Burgenland	73	57.094	41.476	205.37	151.48	1.24	0.90
Total		573.803	570.187	70.76	71.64	0.27	0.27

Region	GDP/head (2000, PPS)	Total aid		Total aid per head		Total aid as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Wien	157	141.524	110.632	87.96	69.83	0.25	0.19
Salzburg	131	67.774	65.666	131.09	129.62	0.44	0.43
Vorarlberg	118	43.490	46.578	124.61	135.99	0.47	0.50
Tirol	113	131.226	147.634	195.86	224.81	0.77	0.86
Oberösterreich	109	177.029	227.770	128.37	169.47	0.52	0.67
Niederösterreich	97	194.709	197.752	126.27	130.56	0.58	0.59
Kärnten	96	93.564 /	105.380	166.19	189.91	0.77	0.86
Steiermark	96	151.563	132.890	126.09	112.44	0.58	0.51
Burgenland	73	134.592	106.700	484.14	389.70	2.92	2.32
Total		1135.47	1141.00	140.03	143.35	0.54	0.54

Table 7. Austria: Municipal state aid
(EUR, million)

Region	GDP/head (2000, PPS)	Agricultural aid		Agricultural aid per head		Agricultural aid as % or regional GDP	
		2000	2001	2000	2001	2000	2001
Salzburg	131	2.962	2.655	5.73	5.24	0.02	0.02
Vorarlberg	118	2.486	3.272	7.12	9.55	0.03	0.04
Tirol	113	3.996	3.852	5.96	5.87	0.02	0.02
Oberösterreich	109	4.682	4.961	3.40	3.69	0.01	0.01
Niederösterreich	97	12.060	14.774	7.82	9.75	0.04	0.04
Kärnten	96	5.006	6.693	8.89	12.06	0.04	0.05
Steiermark	96	22.587	19.632	18.79	16.61	0.09	0.08
Burgenland	73	7.836	8.300	28.19	30.31	0.17	0.18

Region	GDP/head (2000, PPS)	Energy aid		Energy aid per head		Energy aid as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Salzburg	131	0.044	0.049	0.09	0.10	0.00	0.00
Vorarlberg	118	0.257	0.040	0.74	0.12	0.00	0.00
Tirol	113	0.043	0.035	0.06	0.05	0.00	0.00
Oberösterreich	109	0.074	0.107	0.05	0.08	0.00	0.00
Niederösterreich	97	1.470	1.374	0.95	0.91	0.00	0.00
Kärnten	96	0.140	0.108	0.25	0.19	0.00	0.00
Steiermark	96	0.092	0.110	0.08	0.09	0.00	0.00
Burgenland	73	0.072	0.090	0.26	0.33	0.00	0.00

Region	GDP/head (2000, PPS)	Tourism promotion aid		Tourism promotion aid per head		Tourism promotion aid as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Salzburg	131	20.504	16.816	39.66	33.19	0.13	0.11
Vorarlberg	118	19.362	22.411	55.48	65.43	0.21	0.24
Tirol	113	11.117	9.146	16.59	13.93	0.07	0.05
Oberösterreich	109	9.165	6.957	6.65	5.18	0.03	0.02
Niederösterreich	97	15.660	15.581	10.16	10.29	0.05	0.05
Kärnten	96	22.545	24.260	40.04	43.72	0.18	0.20
Steiermark	96	18.723	19.300	15.58	16.33	0.07	0.07
Burgenland	73	2.123	2.166	7.64	7.91	0.05	0.05

Region	GDP/head (2000, PPS)	Trade & Industry aid		Trade & Industry aid per head		Trade & Industry aid as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Salzburg	131	4.175	4.018	8.08	7.93	0.03	0.03
Vorarlberg	118	2.650	3.412	7.59	9.96	0.03	0.04
Tirol	113	7.629	9.658	11.39	14.71	0.04	0.06
Oberösterreich	109	25.816	22.489	18.72	16.73	0.08	0.07
Niederösterreich	97	31.015	17.683	20.11	11.68	0.09	0.05
Kärnten	96	12.921	15.613	22.95	28.14	0.11	0.13
Steiermark	96	27.488	38.417	22.87	32.50	0.11	0.15
Burgenland	73	3.146	3.390	11.32	12.38	0.07	0.07

Region	GDP/head (2000, PPS)	Total economic development aid		Total economic development aid per head		Total economic development aid as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Salzburg	131	27.685	23.538	53.55	46.46	0.18	0.15
Vorarlberg	118	24.755	29.135	70.93	85.07	0.27	0.31
Tirol	113	22.785	22.691	34.01	34.55	0.13	0.13
Oberösterreich	109	39.737	34.514	28.82	25.68	0.12	0.10
Niederösterreich	97	60.205	49.412	39.04	32.62	0.18	0.15
Kärnten	96	40.612	46.674	72.13	84.11	0.33	0.38
Steiermark	96	68.890	77.459	57.31	65.54	0.26	0.30
Burgenland	73	13.177	13.946	47.40	50.93	0.29	0.30

Table 8. Austria: Total state aid
(EUR, million)

Region	GDP/head (2000, PPS)	Total state aid		Total state aid per head		Total state aid as % of regional GDP	
		2000	**2001**	**2000**	**2001**	**2000**	**2001**
Wien	157	277.57	224.24	172.51	141.54	0.49	0.39
Salzburg	131	138.72	122.78	268.32	242.37	0.91	0.80
Vorarlberg	118	119.09	118.17	341.22	345.03	1.28	1.27
Tirol	113	241.01	218.71	359.72	333.04	1.41	1.28
Oberösterreich	109	355.13	420.25	257.52	312.69	1.04	1.23
Niederösterreich	97	353.33	354.03	229.14	233.75	1.05	1.05
Kärnten	96	187.34	222.40	332.75	400.80	1.53	1.82
Steiermark	96	350.84	306.22	291.88	259.09	1.35	1.18
Burgenland	73	185.71	197.42	668.02	721.02	4.04	4.29
Total		2208.74	2184.23	272.38	274.43	1.05	1.04

Table 9. Finland: Regional distribution of aid to agriculture
(EUR, million)

	2000	**2001**
Aid for northern agriculture	349	337
Aid for southern agriculture	138	125
Total agricultural aid	576	554

Table 10. Finland: Regional distribution of state aid
(EUR, million; 2002)

Regions at NUTS II (excluding Åland)	GDP/head (PPS, 2000)	Aid for R&D	Aid for other horizontal objectives (investment aid)	R&D aid / head	Other hor. obj. aid / head	Total aid / head
Uusimaa	143	80.4	6.9 (0.5)	57.71	4.95	62.67
South	96	30.8	38 (24.6)	16.86	20.81	37.67
North	91	11.3	20.2 (14.6)	20.20	36.11	56.31
Middle	83	4.8	16.1 (10.6)	6.78	22.75	29.53
East	74	6.4	33.4 (24.5)	9.32	48.65	57.97
Total	-	133.7	114.6 (74.8)			

Regions at NUTS II (excluding Åland)	GDP/head (PPS, 2000)	R&D aid as % of regional GDP	Other hor. aid as % of regional GDP	Total aid as % of regional GDP
Uusimaa	143	0.18	0.02	0.19
South	96	0.08	0.10	0.17
North	91	0.10	0.18	0.27
Middle	83	0.04	0.12	0.16
East	74	0.06	0.29	0.35
Total	-	-	-	-

Table 11. France: Regional distribution of state aid
(EUR, million)

Region	GDP/head (2000, PPS)	State aid		State aid per head (euros)	
		1995-1998	**1999-2002**	**1995-1998**	**1999-2002**
Ile-de-France	158	0.00	0.00	0.00	0.00
Rhône-Alpes	103	3.09	4.05	0.55	0.72
Alsace	103	1.75	4.48	1.01	2.58
Haute-Normandie	95	5.48	2.65	3.08	1.49
Champagne-Ardenne	95	1.96	0.45	1.46	0.33
Bourgogne	93	0.77	1.30	0.48	0.80
Centre	91	0.58	0.97	0.24	0.40
Provence-Alpes-Côte d'Azur	91	15.14	3.79	3.36	0.84
Aquitaine	90	1.78	2.87	0.61	0.99
Pays de la Loire	90	5.11	7.96	1.59	2.47
Midi-Pyrénées	89	4.31	4.52	1.69	1.77
Franche-Comté	88	0.78	3.28	0.70	2.94
Auvergne	87	2.24	3.63	1.71	2.77
Bretagne	86	6.44	4.33	2.22	1.49
Basse-Normandie	85	2.72	5.09	1.91	3.58
Lorraine	84	12.74	4.31	5.51	1.86
Poitou-Charentes	83	2.02	3.18	1.23	1.94
Picardie	82	1.68	1.32	0.91	0.71
Limousin	82	2.51	1.47	3.53	2.06
Nord-Pas-de-Calais	81	10.44	1.42	2.61	2.86
Languedoc-Roussillon	78	0.98	4.54	0.43	1.98
Corse	76	0.17	na	0.67	na
Total	101	82.25	75.35	1.41	1.29

Table 12. Germany: State aid by the three levels of government
(EUR, billion)

	2000	**2001**
Federal	10.1	9.5
Länder	11.2	11.2
Local	1.6	1.6
Total	22.9	22.3

Table 13. Germany: Subsidies to investment undertaken by companies
(EUR, million)

	1999	2000	2001 (budgeted)
"New" Länder	899	800	697
"Old" Länder	100	96	115

Table 14. Greece: Aid to investment and regional development
(incentives granted through Law 2601/98) (EUR, million)

Region	GDP/head (2000, PPS)	State aid		State aid per head		State aid as % of regional GDP	
		2000	2001	2000	2001	2000	2001
Notio Aigaio	80	8.36	11.05	30.62	44.81	0.17	0.22
Attiki	77	39.80	13.14	11.52	3.26	0.07	0.02
Sterea Ellada	76	45.22	23.02	68.10	49.97	0.39	0.20
Kentriki Makedonia	68	21.04	42.33	11.63	23.69	0.08	0.15
Dytiki Makedonia	67	1.80	1.43	5.92	5.38	0.04	0.03
Voreio Aigaio	66	5.45	5.22	29.78	28.84	0.20	0.19
Kriti	66	13.91	12.30	24.58	23.79	0.16	0.15
Thessalia	61	13.32	7.90	17.90	11.49	0.13	0.08
Ionia Nisia	59	4.34	5.19	21.17	29.44	0.16	0.19
Peloponnisos	57	3.98	14.02	5.93	27.37	0.05	0.16
Anatoliki Mak.-Thr.	55	22.70	62.51	40.25	111.1 1	0.33	0.90
Dytiki Ellada	51	11.21	9.91	15.13	15.95	0.13	0.12
Ipeiros	47	9.94	12.91	26.44	43.12	0.25	0.32

Table 15. Ireland: Incentive schemes (grants and equity)
(EUR, million)

Region	GDP/head (2000, PPS)	Grants & equity		Grants & equity per head		Grants & equity as % of regional GDP	
		2000	2001	2000	2001	2000	2001
S&E	126	214.38	215.67	76.65	76.29	0.27	0.27
BM&W	84	96.22	65.56	96.03	64.79	0.51	0.35
Total		310.60	281.23	81.76	73.26	0.31	0.28

Table 16. Italy: Aid to business
(EUR, million)

Region	GDP/head (2000, PPS)	Aid to business		Business aid per head		Business aid as % of regional GDP	
		2000	**2001**	**2001**	**2001**	**2000**	**2001**
Trentino	136	11	8	11.68	8.42	0.04	0.03
Lombardia	135	309	541	33.92	59.01	0.11	0.20
Emilia-Romag.	129	180	214	44.97	53.12	0.15	0.18
Piemonte	120	196	230	45.75	53.54	0.17	0.20
Valle d'Aosta	123	1	2	8.33	16.49	0.03	0.06
Veneto	119	192	161	42.35	35.26	0.16	0.13
Friuli-Venezia	114	158	124	133.11	104.17	0.52	0.41
Toscana	114	147	144	41.49	40.49	0.16	0.16
Lazio	113	169	184	31.92	34.53	0.13	0.14
Liguria	108	102	173	63.00	107.06	0.26	0.44
Marche	102	75	68	51.12	46.05	0.22	0.20
Umbria	101	48	41	57.21	48.58	0.25	0.21
Abruzzo	84	143	123	111.81	95.70	0.59	0.51
Molise	79	49	40	149.85	122.27	0.84	0.69
Sardegna	76	218	246	132.44	149.13	0.78	0.88
Basilicata	73	101	147	167.22	243.15	1.01	1.47
Puglia	67	405	482	99.24	117.70	0.65	0.78
Campania	65	558	782	96.64	134.85	0.65	0.92
Sicilia	65	379	667	74.75	131.26	0.51	0.89
Calabria	62	224	382	109.80	187.01	0.78	1.33

Table 17. Spain: Regional aid
(EUR, million, 2001, 2002)

Region	GDP/head (PPS, 2000)	Regional aid		Regional aid per head		Regional aid as % of regional GDP	
		2001	2002	2001	2002	2001	2002
Madrid	110						
Navarra	105						
Pais Vasco	102						
Catalunia	100						
Balearic Ils	98						
Rioja	91						
Aragon	88	18.5	8.8	15.83	7.54	0.08	0.04
Cantabria	80	15.7	10.3	29.73	19.41	0.16	0.11
Valencia	79	33.6	34.9	8.32	8.43	0.05	0.05
Canary Ils	78	27.6	33.3	16.34	18.73	1.28	1.54
Castilla Leon	76	38.0	26.7	15.38	10.86	0.09	0.06
Asturias	71	36.2	15.3	34.38	14.58	0.21	0.09
Murcia	69	12.9	48.0	11.47	41.61	0.07	0.27
Ceuta&Melilla	68	0	0	0.00	0.00	0.00	0.00
Castilla Mancha	67	4.6	7.7	2.69	4.45	0.02	0.03
Galicia	65	18.0	31.7	6.63	11.60	0.05	0.08
Andalucia	61	57.7	42.0	7.97	5.72	0.06	0.04
Extremadura	53	5.8	9.8	5.40	9.06	0.05	0.08

Table 18. UK: Regional selective assistance and enterprise grants
(GBP, million; April 2001- March 2002)

Region	GDP/head (PPS, 2000)	RSA	EG	Regional aid per head in euro (2002)	Regional aid as % of regional GDP
London	147	0.84	0.38	0.27	0.00
South East	111	3.71	0.58	0.85	0.00
East	104	0.71	0.22	0.27	0.00
East Midlands	94	6.07	1.23	2.78	0.01
West Midlands	92	10.57	1.39	3.58	0.02
South West	91	5.82	0.57	2.06	0.01
Yorkshire	88	6.19	1.46	2.42	0.01
North West	87	31.44	2.23	7.81	0.04
North East	77	32.65	2.16	21.50	0.12
Scotland	97	42.55	--	13.33	0.06
Wales	81	52.16	--	28.27	0.16
Northern Ireland	78	--	--	--	--

Table 19
State aid in the EU

Country	**State aid in 2001** (euro million, 2000 prices)				**State aid as percentage of GDP** (2000)			
	Regional	**Horizontal**	**Agr. + Trans.**	**Total**	**Regional**	**Horizontal**	**Agr. + Trans.**	**Total**
A	108.2	403.7	1,509.5	2,056	0.05	0.15	0.77	0.99
B	273.8	495.2	2,551.9	3,330.3	0.11	0.21	1.04	1.37
DK	9.1	1,136.4	1,188.5	2,369	0.0	0.68	0.69	1.51
D	2,107.4	5,405.7	11,420.3	23,273.5	0.11	0.32	0.56	1.26
E	408.2	1,046.2	2,035.8	4,658.6	0.07	0.23	0.35	0.88
FIN	47.6	315.7	1,698.4	2,073.9	0.05	0.26	1.40	1.76
F	704.7	2,501.4	9,739.4	15,844.3	0.08	0.19	0.71	1.22
GR	419.2	42.9	840.4	1,305.7	0.48	0.02	0.56	1.07
I	684.8	3,252.7	7,878.1	11,998.6	0.12	0.24	0.66	1.06
IRL	429.9	117.1	595	1,300.7	0.48	0.06	0.62	1.33
L	10.1	18.7	240.3	273.3	0.09	0.10	1.20	1.41
NL	48	516.6	3,362.8	3,992.2	0.04	0.12	0.81	0.98
P	64.3	306.5	323.3	1,225.1	0.07	0.28	0.30	1.17
S	19.1	374.2	1,356.8	1,862.9	0.01	0.16	0.55	0.77
UK	526.4	1,874.5	7,910.8	10,550.1	0.05	0.13	0.21	0.41

Table 19 continued

Country	State aid per capita (2001)			
	Regional	Horizontal	Agri. & Trans.	Total
A	13.32	49.71	185.88	253.17
B	26.68	48.26	248.67	324.53
DK	1.70	212.45	222.19	442.89
D	25.64	65.77	138.94	283.16
E	10.34	26.49	51.55	117.97
FIN	9.19	60.93	327.81	400.29
F	11.84	42.03	163.63	266.20
GR	39.68	4.06	79.55	123.59
I	11.84	56.23	136.20	207.43
IRL	112.54	30.65	155.76	340.50
L	22.90	4240	544.90	619.50
NL	3.00	32.32	210.40	249.78
P	6.42	30.58	32.26	122.23
S	2.15	42.13	152.74	209.72
UK	8.80	31.33	132.33	176.33

Table 20
***Income Disparity(t+1)* = _ + _*(State Aid)(t)* + _ (1990-2000)**
[per capita GDP at PPS vs real state aid as % of GDP & real state aid per capita]

Country Type of state aid	**Intercept**	**Independent Variable**	**R-squared**
Belgium			
Regional	0.796	258.440	0.547
	10.964	0.787	0.313
Horizontal	50.217	-41.147	0.959
	51.304	- 0.203	0.960
Agric. & Transport	59.920	-26.134	0.094
	29.179	2.28E-02	0.003
Total	65.738	- 18.650	0.936
	66.705	- 8.7E-02	0.870
France			
Regional	31.384	- 29.423	0.207
	30.718	- 0.100	0.149
Horizontal	26.256	10.244	0.401
	26.964	2.94E-02	0.285
Agric. & Transport	27.419	1.598	0.037
	27.498	6.72E-03	0.033
Total	26.457	1.510	0.106
	26.643	6.06E-03	0.094
Germany (1991-2000)			
Regional	24.140	7.053	0.216
	25.295	2.82E-02	0.115
Horizontal	33.777	- 32.639	0.039
	38.477	- 0.219	0.073
Agric. & Transport	20.147	10.302	0.175
	26.556	1.37E-02	0.010
Total	15.66	6.017	0.524
	16.133	2.78E-02	0.342
Greece			
Regional	6.832	4.312	0.110
	5.734	6.80E-02	0.327
Horizontal	10.146	- 3.492	0.821
	10.085	- 3.6E-02	0.830
Agric. & Transport	7.176	3.426	0.255
	7.351	2.45E-02	0.149
Total	14.397	- 4.172	0.722
	13.707	- 3.8E-02	0.567
Italy			
Regional	28.699	- 3.343	0.216
	29.284	- 0.024	0.418

Table 20 continued

Horizontal	30.613	- 11.590	0.213
	32.329	- 0.090	0.557
Agric. & Transport	30.489	- 4.099	0.448
	30.132	- 0.019	0.605
Total	30.204	- 1.711	0.351
	30.618	- 0.010	0.598
Netherlands			
Regional	14.761	- 29.531	0.149
	14.304	- 0.109	0.106
Horizontal	18.831	- 28.385	0.804
	17.486	- 0.094	0.685
Agric. & Transport	6.765	11.957	0.389
	7.568	0.0453	0.386
Total	16.068	- 3.125	0.038
	14.830	- 0.0084	0.020
Portugal			
Regional	17.488	- 14.780	0.178
	15.300	- 0.0159	0.002
Horizontal	16.930	- 6.462	0.065
	15.015	0.0256	0.008
Agric. & Transport	16.142	- 1.106	0.007
	13.578	0.0483	0.060
Total	13.826	1.469	0.151
	13.217	0.0190	0.246
Spain			
Regional	11.263	93.673	0.477
	11.435	0.672	0.606
Horizontal	15.091	10.296	0.318
	15.349	0.0560	0.147
Agric. & Transport	18.916	- 4.113	0.692
	18.931	- 0.032	0.617
Total	21.279	- 3.990	0.203
	21.335	- 0.030	0.439
UK			
Regional	48.925	- 212.176	0.371
	39.259	- 0.604	0.241
Horizontal	29.893	- 18.105	0.024
	29.108	- 0.079	0.026
Agric. & Transport	26.464	4.791	0.001
	18.118	0.159	0.100
Total	18.945	16.407	0.062
	25.907	0.0116	0.004

Table 21
Income Disparity(t+1) = _ + _(State Aid)(t) + _ **(1999, 2000)**
[per capita GDP at PPS vs real state aid as % of GDP & real state aid per capita]

Type of state aid	**Intercept**	**Independent Variable**	**R-squared**
2000			
Regional	26.134	- 18.294	0.107
	24.410	- 0.03	0.020
Horizontal	14.987	46.526	0.185
	12.35	0.29	0.379
Agric. & Transport	20.100	4.919	0.041
	18.94	0.03	0.112
Total	22.418	0.836	0.001
	24.61	- 0.01	0.023
1999			
Regional	24.946	- 9.584	0.059
	23.71	- 0.02	0.006
Horizontal	16.639	37.896	0.162
	14.83	0.24	0.289
Agric. & Transport	20.060	4.477	0.042
	19.14	0.03	0.105
Total	20.667	1.980	0.007
	15.39	0.03	0.145

Annex: Data and Sources

This annex explains the sources of information used in this paper.

The figures on state aid in Tables 15, 16 and 17 have been drawn from the online country-specific tables in the Commission's online state aid Scoreboard.[21] These tables provide data categorised into different types of aid for the years 1997-2001 in millions of euro.

The three categories of state aid used in our Tables (regional, horizontal and agricultural, fisheries and transport aid) do not sum up precisely to the total amount of state aid shown in the fourth column of the Tables because total aid also includes sectoral aid. More precisely we have omitted aid to shipbuilding, coal, etc.

We express all figures in 2000 prices which is the base year of our calculations. The state aid data for the periods 1996-1994, 1993-1992 and 1991-1990 are extracted from the Sixth, Fifth and Fourth State Aid Surveys in the EU, respectively. The Surveys use three-year averages, because the Commission wanted to iron out the difference between payments and commitments and the differences caused by inflation. There are no state aid data available for Austria, Finland and Sweden prior to their accession to the EU in 1995.

In order to convert the state aid figures from the years before 1997 in real 2000 prices, we have used the rates of inflation reported in the OECD main economic indicators. But for Table 17, it has been possible to use Eurostat's harmonised indices of consumer prices (HICPs) from the Eurostat statistical yearbook 2002.

The Gross Domestic Product (GDP) of the member states has been extracted from the same yearbook. Since they are expressed in current prices, real GDP has been calculated with the OECD deflator for Table 16 and with HICPs for Table 17. The aid per capita is calculated from the population numbers, also given in the Eurostat statistical yearbook 2002.

The regional income disparities have been drawn from the Commission's Second Progress Report on Economic and Social Cohesion 2003 (table 2).[22] Denmark and Luxembourg have been omitted from our calculations because they do not have NUTS II regions.[23] Ireland has also been omitted because data on Irish income disparities are only available from 1995 onwards.

The country-specific state aid figures are drawn from reports as indicated below. The regional population numbers have been drawn from Eurostat's main regional indicators. The regional GDP figures have been extracted from Eurostat's statistics in focus publication.[24] Regional GDP figures for 2001 are not yet available so we have used the 2000 GDP figures to calculate aid as % of regional GDP for 2001 and 2002. In the case of the UK, the amounts of state aid have been converted into euro according to the ECB's average exchange reference rate in that period (1£ = 0,62€).

Sources of the data used in the following tables:

Table 5: FINKORD Data Base, BKA 2003 (Federal Chancellery)

Tables 6 & 7: ISIS Data Base, Statistik Austria

Tables 9: Information centre of the Ministry of Agriculture and Forestry

Table 10: Tekes and TE-Centres

Tables 11 & 12: Bundesministerium der Finanzen (2001)

http://www.bundesfinanzministerium.de/Anlage11114/18-th-Subsidies-report-of-the-Federal-Government-Summery.pdf

http://www.bundesfinanzministerium.de/Anlage6737/18.-Subventionsbericht-der-Bundesregierung.pdf

Table 13: Ministry of National Economy, Greece

http://www.mnec.gr/ypourgeio/Pinakes_n.2601.98.htm

Table 15: Ministry of Productive Activities (2001)

Table 16: Ministerio de Hacienda: La programación regional y sus instrumentos. Informe Anual 2001 y 2002. http://www.mineco.es/dgps/PaginasWeb/inicio.htm

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21 *http://europa.eu.int/comm/competition/state_aid/scoreboard/*

22 *Second progress report on economic and social cohesion, Brussels, 30.1.2003, COM(2003) 34 final*

23 *See: European Regional Statistics: Reference Guide, Luxembourg: Office for Official Publications of the European Communities 2003*

24 *Behrens, A. (2003), Regional Gross Domestic Product in the European Union 2000, Luxembourg: Eurostat*