EUROPEAN PARLIAMENT

DIRECTORATE-GENERAL FOR RESEARCH

RESEARCH AND DOCUMENTATION PAPERS

THE REGIONAL IMPACT OF COMMUNITY POLICIES

Regional policy and transport
Series

17

EN – 9 – 91

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THE REGIONAL IMPACT OF COMMUNITY POLICIES

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Foreword

On the occasion of the Second Conference of the European Parliament on 'Regions of the Community', to be held in Strasbourg in November 1991, the European Parliament's Directorate-General for Research has commissioned three studies on the role of the regions in an increasingly integrated Europe.

The three studies are:

The regional impact of Community policies;

The impact of 1992 and associated legislation on the less favoured regions of the European Community;

A new strategy for social and economic cohesion after 1992.

The research institutes which prepared the studies were chosen following a call for tenders.

This study, 'The regional impact of Community policies', was carried out by the DIW Institute of Berlin (Deutsches Institut für Wirtschaftsforschung) on behalf of the European Parliament's Directorate-General for Research.

The project's brief was to ascertain whether, and to what extent, Community policies have so far helped to reduce the regional disparities within the Community.

The main task was therefore to assess the regional impact of the Commission's budget. Which expenditure reduces regional disparities; which serves to widen them? What is the effect on the regions of the Community's competition policy?

How should this influence future policy decisions at Community, Member State and regional level?

The project was supervised and coordinated by Frank Wiehler and Anthony Comfort.

Directorate-General for Research

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List of Abbreviations

OJ	Official Journal of the European Communities
BALM	Bundesanstalt für Landwirtschaftliche Marktordnung (Federal Institute for Agricultural Market Regulation)
EAGGF	European Agricultural Guidance and Guarantee Fund
EAEC	(Treaty establishing) the European Atomic Energy Community
ECU	European currency unit
ERDF	European Regional Development Fund
EC 10	European Community before the accession of Spain and Portugal
EC 12	European Community after the accession of Spain and Portugal (from 1986 on)
ECSC	(Treaty establishing) the European Coal and Steel Community
EIB	European Investment Bank
EP	European Parliament
ESF	European Social Fund
EEC	(Treaty establishing) the European Economic Community
R&D	Research and development
GATT	General Agreement on Tariffs and Trade
IMP	Integrated Mediterranean Programme
Insead	Institut européen d'administration d'affaires
NCI	New Community instrument
NUTS	Nomenclature of territorial units for statistics
Onilait	Office national interprofessionel du lait et des produits laitiers

Summary

1. The European Community is marked by regional disparities. Since the mid-1970s, it has made efforts to boost regional policy measures taken by individual countries by granting additional financial aids from a regional Fund set up for this purpose. This has not resulted in rapid progress, even though the resources available have been substantially increased and concentrated. This is partly due to the fact that neither national nor Community economic and financial policies are exclusively devoted to regional policy aims. What we shall be considering here is the general trend of Community farming policy, regional policy, the operations of the European Social Fund and competition policy in terms of their effects. We then present an overall assessment.

2. The most important instruments of farming policy are: the purchase and storage (intervention) of certain agricultural products by the European Agricultural Guidance and Guarantee Fund (EAGGF) Guarantee Section; variable import duties (levies); export refunds; processing grants; grants from the EAGGF Guidance Section; direct aids to producers. Regional policy is dominated by grants towards public and private investment; loans from the EIB and the Commission; the monitoring of national regional policy; and coordination between the European Regional Development Fund and other Community policies. The operations of the European Social Fund focus on: funding, education and training, particularly for young people and the long-term unemployed; grants to enhance regional mobility; financial aid in creating long-term employment and setting up new businesses. Lastly, the instruments of competition policy are: better mutual market access, including public contracts; the monitoring of cartels and malpractice among companies that dominate the market; advance control of mergers; curbs on subsidies to companies; the approximation or reciprocal recognition of national laws.

These instruments differ in tangibility, the nature of their effects (direct or indirect) and magnitude. The most tangible are measures that affect the budget. The bulk of the spending continues to be directed towards farm guarantee payments: in 1990 they accounted for roughly 60% of the Community budget, whereas structural spending (excluding loans) accounted for only 20% (see Tables 1 and 2). The sharpest jump was in European regional Fund expenditure, which reached 8.4% in 1989. Spending on agricultural policy, on the other hand, showed only a moderate rise. The regionalized Community expenditure examined in this study accounted for 84% of the Community budget in 1989. On top of this there are bonded loans. The proportion considered here is something of the same order. The effects on competition must be largely measured separately from budgetary categories.

3. The usual standard for measuring a country's or region's state of development is per capita income. Within the scope of this study it is not possible to pinpoint the ways in which various Community policies influence regional economic development. But we explore how the regional incidence of political intervention works out in practice. In doing so, our prime concern is to see which region is directly favoured by the measure in question and to what extent. The following assumptions are made:

(i) Community expenditure has an effect on incomes. If regions that are lagging behind are helped with grants, this counteracts the regional income gap.

(ii) The extent to which particular policy objectives are likely to be achieved may be gauged from the importance assigned to it in the budget.

(iii) The revenue side of the Community financing system does not exacerbate disparities.

The major drawback in examining the problems involved here is that it is analytically extremely difficult to trace the effects of revenue on incomes. Ultimately it is only possible to measure the financial impact in terms of its regional distribution.

4. Much more difficult than measuring the impact of structural assistance is the question of how to assess the net advantage accruing from agricultural guarantee payments. The total sum of all these advantages for EEC farmers is not simply identical with the sum spent by the EAGGF on intervention and refunds. The bulk of output goes direct on to the Community's internal market and is thus subsidized by the consumer. In terms of safeguarding incomes under the market regulation system, it does not matter in which region of the Community the products on which guarantee funds are spent originate. Accordingly, it is not merely reasonable to allot the income-boosting effects of this guarantee expenditure on agriculture to the individual regions in proportion to their share in the output of the product in question as a makeshift solution in the absence of data on the direct regional incidence of guarantee expenditure; it is logically necessary, too.

5. A substantial proportion of payments go to trade and industry. But the guarantee payments cannot simply be described as inherently excessive to the extent of the amount spent on trade. If this part was removed, farmers' incomes would fall. The problem as far as we are concerned is that the guarantee payments allocated to trade and industry cannot strictly speaking be assigned to the regions in accordance with their agricultural production. There is no evidence that farm trade as a whole is distributed equally or similarly across the regions.

6. The method used here for measuring the effects of the EAGGF Guarantee on regional incomes does ignore the dynamic changes that would occur in the system as a whole if the Community's price support system was simply scrapped. The final outcome would be a world market price level that would be virtually impossible to predict. There would be a sharp drop in EC agricultural production and an even more dramatic fall in the number of farms. There would be greater regional concentration of production. The Community budget spending pattern would change completely, as would its regional distribution. Given the effects of dismantling farm price supports on the sectoral and regional economic structure as a whole, regional income distribution would also differ unpredictably from the current position. This analysis is unable to take account of potential developments of this kind. All it can do is engage in 'comparative statistics'.

7. The tendency to even out — or reinforce — regional divergences may be illustrated in compressed form by a concentration curve, using the Lorenz Curve. For this purpose, Community regions defined at NUTS Level 2 are ranked according to their pro capita incomes (as a measure of their standard of development). The aggregate payments are then compared with the aggregate populations of the regions in question. A search of regional databanks, from which the most important statistical data are available, does show that in individual cases aggregation must be stepped up. This analysis is, in fact, impossible without a considerable amount of guesswork. Only where the subordinate regional level (NUTS Level 2) receives the EC payment directly can the desired regional classification be made free of any element of doubt.

In view of these problems, a two-stage approach has been selected here for looking at the Community's structural policy operations. Only Community expenditure that has flowed direct to the NUTS Level 2 regions is covered by the study. This expenditure as a proportion of overall spending varies from fund to fund and from country to country. In the second stage, spending in the higher ranking regions was allocated to the regions corresponding to NUTS Level 2 with the aid of appropriate indicators. In the case of agriculture, the majority of those who benefit are not in receipt, either directly or indirectly, of Community payments. This means that the bulk of EEC expenditure, roughly three-fifths, can only be regionalized in a makeshift way by means of model calculations. In this case the notion of impact must disregard regionalized payment flows. Instead, we attempted to trace regional effects on the basis of production in respect of each group of intervention products.

The calculations cover the period from 1985 onwards. For a number of intervention areas, data was only available from the Eurostat's regional databank up to 1987. Data for the regional Fund, social Fund, guarantee payments and the ECSC subsidies for the period up to 1989/90 were supplied by the Commission. A complete overview was thus only possible for the brief period 1985-87. In 1985, Portugal and Spain had not yet joined the Community. Consequently the calculations were first carried out for the 10 original Member States over the entire period covered, and then again from 1980 on for the Community of Twelve.

8. The question of whether a category of payments has a harmonizing effect on regional income distribution or not should be decided on the basis of whether it is more or less equally distributed across the regions ranked according to per capita income than the income itself. If the regional distribution of payments is to the right of the income distribution curve, it is reinforcing regional imbalances. If it lies between the 45° line and the income distribution curve, it might mitigate these imbalances. Only when the payment curves run to the left of the 45° line is it quite clear that they are being more or less effective in evening out imbalances.

The regional income distribution curve is relatively stable in the medium term. Payment flows from the Community budget and the EIB, on the other hand, are largely subject to discretionary decisions and are thus far more liable to breaks in continuity. Differences in the territory covered may be clearly reflected in the curves. This is seen, for example, in a comparison of income distribution curves between EC 10 and EC 12. The EC 10 curve (Appendix B) is much flatter than the EC 12 curve, showing that the income gap between the EC regions was much less pronounced before the Community's enlargement than it was afterwards. Some sections of the payment distribution curves are severely

disrupted. In general it is true to say that the payments curve is steadier when payments are made more frequently, the annual payments are larger and the period under consideration longer.

9. Investment grants from the European Regional Development Fund do a great deal to even out regional disparities in the European Community. With the reform of the structural Funds these effects have become even stronger. In 1987 and 1990 some 80% of investment support granted went to the 20% of the Community population living in the poorest regions. Even so, the effects of financial levelling in favour of backward regions were somewhat stronger under the Community of Ten than for the present Community. Spain and Portugal evidently required an initial period of adjustment before making full use of the regional Fund.

In the backward regions of Spain and Portugal, which are among the economically weakest in the Community, the main thrust of regional assistance — even more than in the other regions — has been directed at infrastructure measures. A poor infrastructure has always been (and still is) a major obstacle to private investment. The Community of Ten, in which regional assistance was already well established and flaws in the infrastructure were anyway not so pronounced, enjoyed a much higher concentration of subsidies to promote private investment.

The regional concentration of aid is not quite so marked in the case of the European Social Fund, though it has increased somewhat over the years. It may be seen from the gentler curve for aid from the social Fund, compared with the regional Fund, that long-term and youth unemployment in the Community are not simply the problems of a few under-developed regions. Since the date of their accession, the Community has directed aid to Spain and Portugal from the social Fund more purposefully than in the case of the regional Fund.

The EAGGF Guarantee Section focuses its investment grants on the poorer regions. Funds were relatively evenly distributed between the poorer regions of the newly acceded countries and those of the older Member States.

ECSC credits exacerbate regional inequality. In a number of regions, including some of the poorest, there is simply no material basis for such payments.

The same applies to ECSC re-adaptation aid. In fact, it is even more unevenly distributed. Between 1986 and 1989 the trend was towards a lessening of these — adverse — regional effects. Even so, in 1989 the poorest regions of the Community of Twelve, with 40% of the population, did not even receive 5% of the ECSC aid granted. The regional concentration is less marked if we confine our analysis to the regions of the original Community.

Unlike ECSC aid, EIB loans have much more of an equalizing effect. It is plain that the rectification of regional imbalances is one of the EIB's declared aims, though this is a truer reflection of the position under the Community of Ten than under the present expanded Community. The problem here is presumably one of absorption; 1986 was the first year of Spanish and Portuguese membership. Until then the EIB policy had been geared towards regional equalization in the Community of Ten. The Iberian countries first had to develop projects eligible for EIB funding. In this connection, spending on infrastructure carries far greater weight than industrial investment. In the Community of Twelve as currently constituted, industrial credits clearly help to combat regional income disparities, despite less importance being attached to them. This shows that it is much harder to draw up infrastructure projects that will swiftly bear fruit than it is to provide support to industry.

10. With regard to agricultural guarantee payments, the study looks at the periods 1986-89 (EC 12) and 1985-89 (EC 10). The most important products subject to market organization are included; taken together, they account for more than nine-tenths of all price support payments, or 56% of the Community budget. Many of the curves are extraordinarily stable over time, while others fluctuate slightly or sharply. Unlike other comparisons over time, the curves for the two different Communities differ considerably in places, with their effects on income distribution in terms of equality sometimes going into reverse. The distribution curves for specific products occasionally diverge quite extraordinarily.

Taking all the products subject to market organization considered here, the guarantee payments made under the old Community of Ten appeared to have had a fairly consistent equalizing effect on regional income distribution, if not a substantial one, whereas under the Community of Twelve, no such effect is discernible. It is primarily regions with average per capita income that benefit from guarantee payments. These regions were among the poorer regions of the Community of Ten. EC agricultural policy is thus, on the whole, tailored more to the needs of the richer regions of the North. In the case of cereals, sugar, oilseed, milk, beef and veal — which accounted for some 70% of all guarantee payments in

the period 1986-89 — the poorer half of the Community of Twelve is disadvantaged by the regional distribution effects of the price support mechanism (see Table 3). The reform of agricultural price support in 1988 did trigger a clear change of course, though. Owing to the introduction of price stabilizers, 'northern' products are no longer so strongly supported, while 'southern' products are now receiving much more preferential treatment.

In respect of individual products, the regional distribution effects vary: for sugar, the richer regions of the Community (EC 12) are more favoured; in cereals, milk, oilseed, beef and veal, the poorer regions are at a disadvantage, and it is only in the economically stronger northern regions that there is any regional equalizing effect. Thus 70% of guarantee expenditure, or fully 40% of the entire Community budget, is in effect working against the Community's regional policy objectives. Only in tobacco, olive oil, sheep and goatmeat and — to a lesser extent — wine, fruit and vegetables, are the poorer regions of the Community favoured on any scale. These products account for less than 20% of all guarantee expenditure.

For certain product groups, the price support situation changed between 1986 and 1989. The distribution of expenditure on milk, beef and veal and tobacco has to all intents and purposes remained unchanged, though undesirable from a regional policy angle. In respect of most other products, guarantee expenditure was more in line with the objective of reducing regional disparities by the end of the period covered than it had been to begin with. The boost to incomes linked to guarantee expenditure in respect of wine, sheep and goatmeat, fruit and vegetables, has increasingly come to benefit the poorer regions, while the richer regions are no longer so heavily favoured with regard to cereals, oilseed and sugar as before.

11. To arrive at an overall judgment, the measures taken and their financial impact must be assessed and summarized. Strictly speaking, the Community's payments or commitments cannot be simply added up. The value of each individual measure as a subsidy varies too widely. Consequently the method adopted here can only provide a number of fairly rough-and-ready indicators.

Looking at the regional concentration of aid from the structural Funds (the regional Fund, the social Fund and the EAGGF Guarantee Section) — amounting to more than one-fifth of the Community's budget in 1990 — one detects a clear trend towards the dismantling of regional imbalances. In 1986 and 1987 half the funds on average went to the regions with the poorest 20% of the Community's population, whereas the 40% living in the economically strong areas received little more than 10% of the structural Funds. Regional concentration in the current Community is thus somewhat less than it was for the 10 original Member States. Looking at the development of the individual measures over the years, however, we find that this fact is largely attributable to the transitional problems of the new Member States.

If, in addition to the structural Funds, one takes into account EIB credits and credits and aids from the ECSC — equivalent to roughly 25 to 30% of the EC budget — the equalization effects are noticeably diluted. These credits are less geared to regional policy than the aid available from the structural Funds. Taking into consideration guarantee payments under the common agricultural policy — approximately three-fifths of the Community budget — we find a marked levelling-off in the financial incentives for rectifying regional imbalances. Agricultural policy as a whole does little to support regional policy objectives and hence runs counter to the structural Funds' equalizing effect. This is particularly true of the Community as a whole. For the 10 original Member States the equalizing effect remains somewhat stronger.

12. If one wishes to draw conclusions from these findings as regards the adaptation of the Community's structural and agricultural measures from the point of view of regional policy, it must be subject to reservations. The Community financial policy inducements influencing regional imbalances outlined in this study describe no more than a tendency; they cannot be used to gauge the actual impact of each individual measure.

Even in measuring these inducements a number of caveats are necessary. Of the commitments made for specific Community measures in the period 1981-87 (just under ECU 0.5 million) only some 60% were actually paid out over the same period, with substantial differences from one country to another.

This gap between commitments and payments is probably chiefly due to the slow rate at which programmes are developed and delays by national bureaucracies in processing applications and providing supplementary national funding. The possibility of drawing on Community funds more quickly in the form of advances does not always prove to be an automatic remedy.

The question of how far European financial contributions are merely a substitute for national expenditure is a question that is as old as European

structural policy itself, as a complement to national action. Community measures can only be said to have an effect in terms of regional equalization if they trigger off additional economic activity that would not have arisen under national policy alone. For several reasons this question is virtually unanswerable.

The question of the efficient use of funds has a number of aspects. First, there is the basic question of regional and structural policy, that is, whether the active or passive reorganization of regions and sectors is economically more efficient in the long run. If one opts for greater geographical balance instead, at the cost of purely economic efficiency, the question of the effectiveness of the means employed remains. Where there is doubt, case studies must be conducted in order to establish the facts.

Finally, the ability to absorb support must be taken into account. With the doubling in size of the structural Funds, fears are being voiced that the most disadvantaged regions, particularly in Greece and the Mezzogiorno, will not be sufficiently able to benefit from them.

As far as the overall trend is concerned, there can be no doubt that the structural Funds clearly help to narrow the gap between the regions, and that agricultural policy — if it is to be placed more squarely in the service of the Community's regional policy — is in need of adjustment. This, of course, does not relieve the Community of its responsibility for monitoring more closely than before the effectiveness of a policy more attuned to regional equalization.

13. As an alternative to the approach outlined here, an attempt could be made to track EAGGF Guarantee payment flows. An analysis of this type would have to cover revenue and expenditure, identify the payers and recipients in question and finally outline their regional structure. It would have to be extended to include at least the achievements made possible indirectly by the payments, revealing who, apart from the producers, derives any gain from agricultural policy and to what extent.

14. Preliminary classification of individual Guarantee Fund payments to the various parties involved shows that in 1989 less than one-third of EAGGF payments went direct to producers, two-fifths to the distributive trade and one-tenth each to the processing industry and to intervention agencies (see Table 6). As a rule, the funds disbursed by the Community do not, of course, remain in the hands of the initial recipients. It is not, however, possible to identify these sums on a regional basis.

15. In the final analysis, it is the producers who benefit from payments in the form of export refunds, processing aids and compensation for price falls, while the levies are a burden on the Community's consumers. 'Irregular' profit margins and leakage in conjunction with illegal transactions make it difficult to put a figure on such things.

An in-depth incidence study is therefore bound to yield a different picture of the recipients of the payments when broken down by groups from that resulting from the preliminary listing of recipients. Although the full extent of the effects described cannot be gauged, it is clear that the producers receive a higher percentage of the payments than is evident at first glance. The importance of the processors dwindles, as does that of the Community's consumers. The distributive trades profit less from export refunds, but benefit from their position as middlemen between producers and intervention agencies when it comes to public storage.

Adopting this broader approach makes it even more difficult, though not quite impossible, to explore the regional impact of the EAGGF Guarantee by tracking payments. The attempt to pin down the regional impact of Community farming policy via payment flows comes up against the difficulty of acquiring data, requiring estimates to be made on a very shaky basis.

16. In short, the method described above — that of distributing guarantee payments in proportion to production in individual regions — better reflects the regional incentives provided by EC farm policy than a superficial and inevitably incomplete attempt to track actual payment flows. This does not, however, rule out the possibility of identifying those who benefit on a regional basis — and the ensuing effects on regional incomes — in respect of a substantial proportion of EC expenditure, comprising as it does some three-fifths of the total. Calculations based on models are only able to outline general trends.

17. Expenditure under the Community budget on competition policy is a poor guide to its regional effects. For this reason, the essential macroeconomic and regional economic tendencies are outlined here with the help of theoretical analysis and empirical investigation.

In a broader sense, the objective of genuine, out-and-out competition pervades all the Community's Treaties. The general effects may be reduced in macroeconomic terms to welfare, growth and structural components. All regions benefit, in principle, from welfare gains, but the developed regions' share of the supra-regional trade in goods is far larger than that of the less-developed

regions. The welfare gains resulting from integration will only be distributed more evenly in the longer term.

Gains in growth result from welfare gains, as domestic and foreign demand respond positively to price reductions. There is considerable empirical evidence that the creation of trade in the 1960s linked with intra-Community liberalization boosted economic growth throughout the Community. At the same time it is repeatedly stressed that it was (only) in these years of strong growth that regional development gaps narrowed. This would seem to indicate that the completion of the internal market will further help to even out regional disparities. True, the evidence is not unambiguous. In the 1960s, the Community's centres of economic activity absorbed part of the labour surplus from the regions whose development was lagging behind. The reduction in disparities was thus due to wealth creation being distributed amongst more people in the urban centres, and fewer on the periphery of the Community.

The internal market is, however, already having an advance effect on the will to invest and the regional allocation of investment. These effects may achieve a magnitude many times greater than that of the Cecchini effects. This will stimulate regional equalization, not least in Spain and Portugal, countries which are considered to be favourable locations. Empirical estimates have shown that the Mediterranean Member States, in particular, will profit from the continuing international division of labour within the Community. In addition to the equalizing effects expected to stem from the economy, aid may also come in the form of the 'policy of cohesion'. The higher Community growth is by 1993, the higher the tax yield and the Community's own resources, which will provide the right conditions for replenishing the funds.

The welfare and growth effects of intensified competition go hand-in-hand with changes in production structure. If the static advantages were fully exploited in each case, the Mediterranean countries would be in danger of opting for obsolete structures from the very outset of the internal market. Given the dominance of infrastructure assistance, they should make themselves more appealing to technology-based firms by promoting the formation of human resources and by not discriminating in their investment premiums against the sectors where their true advantages (still) lie.

How do structural processes related to company size effect regional distribution? World-wide concerns tend to concentrate their main areas of operations in urban centres, spreading to the surrounding region when the problems of urban concentration get too bad. The high degree of organizational flexibility shown by these companies makes it, however, likely that they will exploit regional cost differentials, for example in wages, by relocating cost-intensive parts of their operations to the periphery.

18. The second way in which competition policy can influence the regional distribution of economic activity is by monitoring national regional policies. Until 1975 this job was mostly neglected. In 1985 EC regional policy was reviewed. The new regulation provided for tighter policing of Community-wide conformity and better coordination of national schemes for providing regional aid. The Commission was given a greater say in defining areas eligible for assistance.

Alongside activities specifically related to regional policy, since 1987 the Commission has been attempting to bring more transparency to the Member States' entire subsidy set-up. In 1989 the ERDF had more than ECU 4.6 billion to spend, while national regional aids are tending to decline. This increases the effectiveness of the Community's policy of cohesion. None the less, the problematic situation in Italy, a comparatively wealthy country with a large, underdeveloped, though highly subsidized region, shows that even a high level of support can be ineffective. The problem here is evidently not a financial one. In view of such cases, the Community would be well advised to build additional criteria governing 'soft factors' into its fund involvement policy.

19. The third aspect of EC competition policy that affects the regional developmental divide is the monitoring of non-regional aids against the backdrop of their regional incidence. Only for subsidies to the coal and steel industry and shipbuilding is there any reasonable justification for crediting them to specific regions — or at least to a specific type of disadvantaged region, support category II. In West Germany, Spain and Belgium no less than a third of all aid to enterprises goes to these three sectors, in the United Kingdom roughly a quarter, and in France just under a fifth. In other countries they are of little or no significance. The Commission has been endeavouring to limit the permissibility of subsidies, making them time-limited and tying them to reorganization plans. With the help of special crisis powers under the ECSC Treaty, it helped to ensure that the burden of readaption was shared out evenly across all the crisis-hit areas. In this way it managed to prevent regions from gaining unfair advantages at the expense of others by offering excessive subsidies.

But it also prevented the relatively efficient companies (and regions) from asserting their position in the market. In the steel industry the result of Commission policy was

to even out the regional divide within the Community, but by preventing the sector from developing its full potential.

In Germany the subsidizing of coal plays quite an exceptional role, but in Belgium, France, Spain and the United Kingdom, too, the sector attracts a major proportion of subsidies. The Commission used to be generous in authorizing the support of coal production for reasons connected with security of supply. In the Federal Republic, in particular, coal policy did a great deal to narrow the regional income gap by safeguarding large numbers of jobs in disadvantaged regions.

For some years now, the subject of German coal subsidies has no longer been taboo in the Community. The dismantling of subsidies will lead to a temporary increase in regional disparities in Germany. But increased competition between the regions will help speed up the process of modernization in the old mining areas.

20. The studies presented in this report may be continued or supplemented in a number of ways. Expenditure flows could be scrutinized, for example, in order to ascertain their effect on income. In respect of grants from the structural Funds, the static income effects approximate quite nicely with actual expenditure. In the case of loans, it would of course be necessary when performing an 'income' analysis to take the interest advantage into account.

The major problems would revolve around the agricultural guarantee payments. Three points would require particular consideration.

Firstly, farmers' incomes benefit from the difference between the EC-supported price level and the low world price level. An attempt could be made to explore the implications of trends in world prices for products subject to market organization.

Secondly, the price-related loss of income affecting private consumers is balanced by price-related growth in farmers' incomes. This could be dealt with by:

(a) coming up with quantitative estimates of the extent to which EC agriculture is subsidized by the EC consumer;

(b) by assigning the amount of the subsidy to the regions in line with their population and a plausible differentiation of consumer patterns, and offsetting the regional values of the guarantee payments thus allocated against the regional values of consumer subsidies.

Thirdly, the fund-raising aspect might be brought into the analysis. The Community's additional financial requirements are largely met out of VAT. The regional assessment basis for this should be estimated with the help of population statistics, per capita income and assumptions about patterns of consumption.

1. Introduction

The European Community is marked by regional disparities. In the Community's more central areas there are prosperous regions with high per capita incomes and a highly developed socio-cultural environment, while other, chiefly peripheral regions, often in the southern Member States, are economically backward, with low standards of public services and communications. Since the mid-1970s, the Community has made efforts to boost regional policy measures taken by individual countries by granting additional financial aid from a regional Fund set up for this purpose. This has not resulted in rapid progress, even though the resources deployed have been substantially increased over the early years and support measures have meanwhile been concentrated on a much smaller group of regions.

This is partly because regional economic development, as a dynamic process, is subject to many influences that may run counter to the levelling out of disparities in economic power and living conditions sought by politicians. For one thing, there are autonomous, centripetal forces at work. For another, it must be taken into account that national and Community economic and financial policies are not devoted solely to regional policy aims but may in fact contradict them. What we shall be considering here is the dominant trend where major areas of Community policy are concerned.

The theory underpinning this survey is that the Community's regions are affected in different ways by the policy of integration. But integration is a conglomeration of individual trends arising from the use of specific instruments. As these instruments interact and, sometimes, counteract each other, an overall assessment must be made in addition to the analysis of individual effects. In principle, there are no theoretical limits to the scope of an analysis of this kind. The data available and the amount of work involved, however, oblige us to stick to essentials.

2. Methodological approach

In defining the subject of this survey, three questions must first be asked:

(i) Which policy areas are to be analysed?

(ii) Which are the crucial instruments of these policies?

(iii) On what type of effect should the survey focus?

2.1. Policy areas

The question of policy areas must be decided against the background of the Community treaties and the key aspects of secondary Community law. As the analysis is only concerned with integration to date — and not the future of the process — new developments such as the Single European Act and, to a large extent, the 'Delors package' decisions of 1988 cannot be properly considered, since the statistics anyway only cover the years up to 1989.

The policy areas that come under consideration are, firstly, those affecting the EEC budget: farming policy, regional policy, social affairs, research and development, the environment and energy. But we must also include the Community's major regulatory fields, such as the customs union, freedom of establishment and to provide services, the liberalization of capital markets, transport policy and competition policy. It is not possible to consider all these policies in detail within the scope of this study. A selection has to be made.

One approach is to exclude all areas in which the Treaty calls for a joint policy but little has been achieved, at least until recently. This applies to transport policy and freedom to provide services. We may also exclude policies in which developments within the Community — despite progress towards integration — have differed little from the general trend in other Western industrialized nations. This applies to tariff cuts (except in agriculture) and freedom of capital movements, including freedom of establishment. Environmental policy is largely covered by the principle of subsidiarity, that is, the bulk of the Community's environmental measures are laid down nationally. For this reason, this policy area will also be excluded from the survey.

As for social policy, the Community has hitherto only taken action in certain areas: the principle of subsidiarity applies here, too. The Single European Act provided new impulses and triggered a series of Commission initiatives. For the rest, the Community has confined itself to developing and improving the European Social Fund, already provided for under the terms of the EEC Treaty.

The joint energy policy has been limited to setting up a joint market in nuclear fuel (on paper but not in practice in terms of joint supply) and may thus be dealt with in the same way as other internal and external aspects of trade policy. Furthermore, the Commission, as the monitoring authority, tolerated national subsidies to the coal and steel industry within certain limits. The markets in energy raw materials and particularly electricity are still regulated and structured nationally. Only in the run-up to the internal market are there any signs of change on this score.

Then there is research and development (R&D). Following the conversion of the Joint Nuclear Research Centre into an institute for other energy-related research, it makes sense to view it in this broader context. Current spending on R&D in the Community is currently running at ECU 1.5 billion annually. Compared with other areas this is not much: its proportion of the Community budget was a mere 4% in 1990. But the analysis of R&D expenditure from a regional point of view is an interesting undertaking. It would be reasonable to expect support for R&D to benefit the more developed regions. Of course, contributions to contract research covered here, which totalled a mere ECU 1.4 billion from 1983 to 1990, accounts for only a tiny part of all R&D spending. It is analysed here from the point of view of its regional distribution.

The following essential policy areas must remain for more intensive analysis: farm policy, regional policy, the work of the European Social Fund, R&D policy, EIB and ECSC loans and competition policy.

2.2. Instruments of Community policy

The Community employs the following instruments in these key areas.

Farming policy

To maintain a set, product-specific producer price level, certain farm products are bought into intervention by the EAGGF Guarantee Section, with subsequent action depending on the market regulation in force (sale, welfare operations and, in some cases, destruction).

Maintenance of guaranteed producer price levels against foreign competition by means of variable import duties

(levies) to make up the difference between the world market price and the internal Community producer price.

Export refunds equivalent to the difference between the Community and world prices, in order to ensure competitiveness in third-country markets, resulting in the fall in prices for sales from stock (losses).

Processing grants to the food and related industries, also designed to give preference to domestic products over imports from third countries.

Grants from the Guidance Section of the EAGGF for improving the structure of agriculture within the scope of existing Directives.

Direct aid to the producers of certain products in the form of income support.

The Community's price guarantee policy is 'disturbed' in the case of certain products by the special conditions set out in trade and cooperation agreements allowing certain groups of developing countries access to the Community market. This applies, for example, to textiles, sugar and beef.

Regional policy

Grants allocated on the basis of regional problem centres to public and private investment under regional programmes designed to reduce backwardness, exploit local potential, improve the structure of the economy and combat unemployment (in existence since 1975 and reformed several times; the ERDF resources, which come out of the Community budget, were greatly increased in 1988).

These grants are backed up by loans from the EIB and the Commission, financed by Community credits (the EIC, NCI, ECSC and Euratom). These loans are partly used for other purposes, too (for example, energy policy).

Monitoring of national regional policy through involvement in defining development areas, deciding on regional support programmes, adjudging the admissibility of national regional aids (transparency) and maximum aid intensity (by size of investment in individual types of regions and by investment type).

Coordination of Community regional policy, in particular ERDF operations, with other Community policies (in particular to other structural Funds) to reduce clashes to a minimum and help them complement each other as far as possible.

The activities of the European Social Fund

Funding the training and retraining of certain groups of workers, particularly the young and the long-term unemployed.

Removal subsidies to encourage the regional mobility of the unemployed and those threatened by unemployment.

Aid in creating long-term jobs and setting up new firms.

R&D policy

Part-funding of research projects under the R&D framework programme.

Concerted projects, for which the EC finances coordination only.

Direct research carried out by the Joint Research Centre.

Research scholarships.

Competition policy

Improved mutual market access through free trade internally — including liberalization of public contracts and the elimination of State-trading monopolies — combined with basically uniform and relatively liberal import conditions in trade with third countries.

Restrictions on cartels and monitoring malpractices by companies in a dominant position. Advanced control of mergers.

Restricting corporate subsidies to a small number of cases and monitoring the practice of national subsidies.

Approximation or mutual recognition of national laws.

The use of these instruments in the various policy areas differs in many respects. The following distinctions are of interest for the purposes of the current survey:

Size, particularly their effect on the budget.

Type of effect (direct or indirect) with regard to the targets in question, which are of relevance to a particular region's position relative to the others.

The importance of the measure in relation to the others, or in relation to the size of the problem. This criterion can only be employed within the group of quantitative instruments.

A look at the EC budget (*cf.* Tables 1 and 2) shows the financial importance of the policy areas to be studied. Excluding administrative costs and the European

Regional Development Fund, the Community spent just over ECU 46.8 billion in 1990. Although this is a large sum, it is equivalent to only 2.5% of government spending in the 12 Member States. The proportion is rising, however — in 1975 it amounted to only 1% — which is a logical corollary of the integration process, as more and more duties are transferred to Community level.

This transfer of duties emerges clearly from a scrutiny of the structure and dynamics of Community expenditure. Farm guarantee payments continue to account for the bulk of spending; in 1990 they accounted for approximately 60% of the EEC budget, while structural expenditure (excluding loans) accounted for only 20%. There has, admittedly, been some fall in the relative size of guarantee payments. On the other hand, spending on structural policy, and also on research and development, has risen. The European Regional Development Fund recorded the sharpest jump in spending, leaving all the other categories a long way behind. Spending on farm policy increased only modestly. While regional spending in the Fund's first year was only 2.4% of total expenditure, in 1990 it was 10%. The other structural Funds and R&D policy also increased their share of expenditure. Regional EC expenditure relevant to this study altogether accounted for 84% of the Community budget in 1989. In addition there are bonded loans. The proportion considered here is roughly of the same order.

2.3. Nature of the effect to be investigated

The usual standard for measuring a country's or region's state of development is per capita income, defined as the gross national product per inhabitant. It has the advantage that its various components can be broken down in terms of a homogeneous unit of measurement, *viz.* money. On the other hand, it is a very complex indicator, subject to a wide variety of determinants. To pin down the influence of various EC policies on regional development, a highly differentiated database is required as well as a sophisticated econometric model.

Table 1 — **Size, dynamics and structure of expenditures from EC budget by policy fields, 1975-90**

Year	EC Budget[1]						Loans		
	Total	EAGGF	ESF	ERDF	Industry, energy, R&D	Other	Total	of which: EIB	of which: ECSC
	Mio ECU						Mio ECU		
1975	6 213.6	4 586.6	360.2	150.0	99.0	1 017.8	1 545.0	814.0	731.0
1980	16 057.5	11 596.1	502.0	751.8	212.8	2 994.8	3 874.0	2 384.0	1 004.0
1985	28 223.0	20 546.4	1 413.0	1 624.3	706.9	3 932.4	8 168.0	5 699.0	1 265.0
1990	46 808.7	30 204.9	3 321.9	4 704.5	1 787.5	6 789.9	—	—	—
	% increase per year (average)						% increase per year (average)		
1985/75	16.3	16.2	14.6	26.9	21.7	14.5	18.1	21.5	5.6
1990/75	14.4	13.4	16.0	25.8	21.3	13.5	—	—	—
	% share						% share		
1975	100.0	73.8	5.8	2.4	1.6	16.4	100.0	52.7	47.3
1980	100.0	72.2	3.1	4.7	1.3	18.7	100.0	61.5	25.9
1985	100.0	72.8	5.0	5.8	2.5	13.9	100.0	69.8	15.5
1990	100.0	64.5	7.1	10.1	3.8	14.5	—	—	—

[1] ECSC Administrative Budget and European Development Fund excluded.

Source: Kommission der Europäischen Gemeinschaft (Hrsg.), Jahreswirtschaftsbericht 1989-90, Statistischer Anhang. *Europäische Wirtschaft,* No 42, Nov. 1989.

The former is not available: the latter was not feasible within the scope of this study, even with the differentiated statistical information available.

Though a precise analysis of effects is thus impossible, we should at least explore the regional impact of political intervention. The chief factor here is to see which region is directly favoured by each particular measure and to what extent, whether directly (through discretionary action) or indirectly (in line with the purpose of the operation).

In analysing the financial flows to the regions stimulated by EC expenditure, the following assumptions are made:

(i) the Community's regional policy objective is to lessen regional disparities in development.

(ii) Per capita income is the yardstick for measuring regional disparities in development.

(iii) Community expenditure has a direct or indirect effect on incomes. If regions lagging behind are helped with grants from public funds — whether

Table 2 — **Use of EC budget for payments by policy sectors, 1986-90**

Policy sector	1986	1987	1988	1989	1990	1986	1990
	Mio. ECU					%	
Agricultural policy	23 002.2	24 002.1	27 845.9	26 082.2	27 315.7	67.3	64.2
EAGGF-Guarantee (title 1 and 2)	22 120.0	22 963.0	26 391.3[1]	24 409.5	25 065.0	64.7	58.9
EAGGF-Guidance	727.1	863.2	1 142.3	1 349.0	1 826.3	2.1	4.3
Fisheries	115.7	150.4	260.0	260.0	322.7	0.3	0.8
Other measures	39.4	25.4	52.3	63.7	101.7	0.1	0.2
Social policy	2 375.6	2 780.7	2 365.5	2 773.8	3 314.2	6.9	7.8
ESF	2 321.2	2 715.3	2 298.8	2 676.1	3 212.0	6.8	7.5
Employment, social security, health	—	—	—	65.5	79.1	0.0	0.2
Disaster relief (within EC)	—	—	—	32.2	23.1	0.0	0.1
Other measures	54.4	65.5	66.7	—	—	0.2	0.0
Regional policy	2 539.9	2 664.9	3 301.7	4 113.7	4 877.2	7.4	11.5
EFRD	2 483.8	2 535.1	3 092.8	3 920.0	4 554.0	7.3	10.7
Mediterranean programmes	17.3	116.1	151.1	83.8	191.9	0.1	0.5
PEDIP (Portugal)	—	—	—	80.0	101.0	0.0	0.2
Other measures	38.9	13.8	57.8	29.9	30.3	0.1	0.1
Other policy sectors	1 781.3	1 770.9	2 379.3	2 747.8	3 210.4	5.2	7.5
Cooperation with LDCs	853.4	814.7	1 041.3	1 063.8	1 225.1	2.5	2.9
Education and culture	27.4	47.0	107.1	155.1	182.1	0.1	0.4
Environment and consumer protection	17.0	26.2	23.9	30.1	48.0	0.0	0.1
Traffic	46.2	24.3	46.6	30.6	24.6	0.1	0.1
Research and investment	683.1	683.1	929.2	1 211.3	1 425.2	2.0	3.3
Energy policy (incl. nuclear safety)	83.6	92.9	134.4	137.9	151.6	0.2	0.4
Refunds to Member States	2 972.4	2 408.8	3 447.4	3 268.3	2 381.0	8.7	5.6
Staff and administration costs	1 521.4	1 080.5	1 908.2[2]	2 006.9	1 471.2	4.4	3.5
Total	34 192.9	34 708.1	41 248.0	40 992.7	42 569.7	100.0	100.0

[1] As reported by the Member States.
[2] Taken from the budget draft.
Source: Annual activity reports of the EC, 1987-90.

for investing in infrastructure, stimulating private investment or raising household incomes — the overall effect is to counteract the regional income gap. This, then, constitutes a step in the direction of the Community's regional policy objective. But if it is the better off, more central areas that benefit, this reinforces the regional divide and the approach in question is failing to achieve the regional policy goal.

(iv) The extent to which a particular policy objective is actually achieved is not considered. But it is assumed that the contribution of a policy area may be gauged from the importance assigned to it in the budget.

(v) The revenue side of the Community financing system does not exacerbate disparities. However, it is only since 1988 that some hesitant progress has been made towards this objective. Until then, revenue raising had a regressive effect, if anything, as the bulk of revenue was determined by the VAT assessment base, which was relatively higher in the poorer regions with lower levels of investment and export quotas than in the richer. As a result, a fourth revenue source was introduced, relating each country's financial contribution to its national product.

The method described is obviously subject to the following restrictions:

(i) It is fundamentally only applicable to policy areas affecting the budget. Consequently, the regional effects of competition policy must be studied using other methods.

(ii) The less impact a policy area has on the budget, the more the non-budgetary elements, neglected here, will overlap the demonstrated 'quantitative' influence on the relative position of the region, whether as a strengthening or compensating factor.

Training grants to a backward region from the social Fund, for example, are too little to increase per capita income in any direct way. If better qualifications lead to a new job or a move to another region, this indirect influence on per capita income is all the greater. It is, of course, not plain whether this benefit should be assigned to the region of origin or — via the migratory effects — to other regions. Another example is indirect R&D financing through grants to companies. In relation to aggregate corporate expenditure on R&D it plays an extremely minor part. It is always possible to stimulate large-scale research with small contributions. It is just as likely that resources will be diverted into other R&D applications that were not originally proposed, with their opportunity costs not being taken into account. In other cases, resources are simply 'transferred' to activities that are already proceeding under their own impetus and would probably have gone ahead anyway even without Community support. Direct effects must also be distinguished from indirect effects where support to backward regions through the promotion of infrastructure and industrial investment are concerned. A strengthening of investment no doubt also benefits with the regions supplying the necessary goods and services. Spin-offs like this, however, are extremely difficult to pin down.

The major problem in examining the issue involved here is that the analytical difficulty of deriving the direct and indirect income effects from the revenue effects posited — let alone to quantify them — is tremendous. This not only applies to the three structural Funds but even more to the awarding of loan financed credit and the EAGGF's Guarantee expenditure. In the case of loan financed credits, the advantage of EC involvement to the recipient is probably no more than 1 to $1^1/_2$% of the gross proceeds. This also reduces overall the quantitative importance of this equalization instrument. Ultimately it is only possible to measure the financial impulse in terms of its regional distribution, using actual or forecast payment flows, but not the economic effect resulting from this impulse.

2.4. The CAP — a special problem

Much more difficult than measuring the impact of Community structural assistance is the evaluation of the net advantage to a region of agricultural guarantee payments. They are chiefly designed to maintain farmers' incomes at an adequate level. They do this not by raising them directly but by supporting the prices paid to farm producers. The income advantage for the farmer, all other things being equal, is equivalent to the difference between the Community price and the world market price, multiplied by the total volume sold at home or abroad. The sum total of these amounts for all Community farmers is not simply identical with the sum spent by the EAGGF on intervention. The EAGGF buys part of the output but does so at the full price, including the margins of the intermediary traders, and for another part (that goes to export) it pays the difference between the Community and world prices. The bulk of output goes straight on to the Community's internal market.

The cost of buying is increased still further by storage costs, though reduced by revenue from sales from storage, at prices close to the world market level, sometimes lower. The entire budgetary costs of maintaining farmers' incomes (without direct income support) is thus equivalent to the total of all intervention amounts, the value of net changes in stocks held and export refunds.

Although only part of the EAGGF's guarantee disbursements goes to farmers, they are required in their entirety, under the present system of productivity and marketing, in order to maintain farmers' incomes at the desired level. This should not disguise the fact, as repeatedly revealed by the Court of Auditors of the European Communities, that systematic attempts made to inflate the budget, in conjunction with the 'irregularities' favoured by the system, lead to excess expenditure on agriculture. To take the criticism one step further, it is true to say that the Community's whole farm policy set-up, with its fatal, inherent tendency to produce enormous surpluses, is a highly extravagant way of handling the Community's financial (and real) resources, which in countless cases even fails to achieve its main aim, income maintenance, thus forcing farmers to abandon their farms. But this is not the topic under discussion.

In terms of safeguarding incomes under the market regulation system, it does not matter in which region of the Community the products on which guarantee funds are spent originate. Instead, selective intervention benefits all Community suppliers. Regional price differences, over and above differences in transport costs, can only be briefly maintained, with the exception of the price gap that has arisen as a result of the 'monetary gap' (the difference between the 'green rates' and official conversion rates), as the Community's regional Fund markets are largely interdependent. Accordingly, it is not merely reasonable to allocate the income-boosting effects of the guarantee expenditure on agriculture to the individual regions in proportion to their share in the output of the product in question as a makeshift solution, in the absence of data on the direct regional incidence of guarantee expenditure; it is logically necessary. The only sensible exceptions to this are cases of targeted aid to producers.

To the extent that agricultural products are marketed at excess prices, this represents a direct subsidy of the farm sector by consumers; exports and stocks bought into State intervention represent a subsidy from the Community budget, which is ultimately funded by the taxpayer.

Now it is not only farming that derives benefit from the agricultural support system; owing to the very nature of farming policy, a substantial part of the support payments end up in other areas such as trade and industry, creating income that would not otherwise have arisen. It should be noted that guarantee payments cannot simply be described to the extent of the amount that accrues to trade. If this part was removed, farmers' incomes would fall unless they themselves took over the distribution of their produce. This is a task for which they are hardly fit. However, the guarantee price system also creates income in the commercial sector. The problem as far as we are concerned is that the part of the guarantee payments to be allocated cannot strictly speaking be assigned to the regions on the basis of agricultural output or the balance of the regional incidence of guarantee payments, on the one hand, or the estimated consumer subsidies and the revenue contribution, on the other. There is no prima-facie evidence to suggest that farm trade as a whole is distributed equally or similarly across the regions. One hypothesis is that trade is organized at several levels and at the lower, less tightly-knit level is more closely tied to production, in its regional structure as well as in other ways. The part of the guarantee payments that 'trickles down' to this first level may be treated in exactly the same way as that which reaches the farmers in terms of its regional classification.

The second stage, on the other hand, is probably concentrated on far fewer regions. A major criterion governing localization is proximity to manufacturing centres, ports, internal Community consumer centres and intervention points. The organizational structure and regional distribution of farm trade can only be ascertained by questioning federations, individual companies and authorities (intervention agencies, ministries and the Commission). This also applies to the usual trading margins and profit-sales ratios: some data on these matters is required if guarantee expenditure as a whole is to be divided up into farming sector and the various stages of the distributive trade. Problems relating to this are raised in Chapter 4.

Arguments such as these take, of course, no account of the dynamic changes in the system as a whole that would occur if the Community's price support system was simply scrapped and replaced by world market forces. Initially, EC markets would be swamped by imports from third countries, while domestic output would only be marketable after corresponding price cuts. Farmers' incomes would fall accordingly. The next phase would see a world-wide drop in supplies, as an exceedingly large number of Community farms would be forced out of

business at very short notice. This would lead to a rise in world market prices, speeded up by consumer reaction to the original price cuts within the Community, which would be to buy more. This would be followed by a period in which supply began to pick up once more, as the surviving farms took over land from those that had closed, with productivity improvements ensuing from the advantages of scale and keener competition. In the mean time, suppliers from third countries would also have increased production, the market offering them higher prices compared with their initial position and more — production-stimulating — security as with the loss of the Community markets price stability it will no longer be possible to pass on all fluctuations in supply and demand to the world market, which would in effect have shrunk into a residual market. (A final phase would see the formation of a hard-to-predict world market price level, with relatively stable regional demand structures in accordance with comparative cost advantages. The one thing that is beyond doubt is that these structures would differ substantially from today's.) Community farming production as a whole would be much smaller and there would be far fewer farms, as only highly productive concerns would stay in business. There would be greater regional concentration of production within the Community. Budget-funded spending would be differently structured, also reflecting its regional distribution. Owing to the effects of the elimination of farm price support on the sectoral and regional economic structure as a whole, regional income distribution would differ unpredictably from the current position. This analysis is unable to take account of potential changes of this kind. All it can do is to present 'marginal comparative statistics'.

3. Regional concentration of EC spending

3.1. Preliminary note

The tendency for the regional divide within the Community to be evened out (or accentuated) depends on the extent to which the stimuli provided by payments in individual policy areas are concentrated on the backward (or affluent) regions. This may be illustrated in compressed form by a concentration curve derived from the Lorenz curve.

For this purpose the Community regions are ranked by per capita income (as a measure of their level of development). The aggregate payments are then compared with the aggregate populations of the regions thus ranked. The resulting graphs show how far payments are concentrated on the population of backward regions, whether they tend to counteract the elimination of regional disparities or, being evenly distributed, are neutral from a regional policy angle. A curve following a line emerging at 45° from the centre of the coordinate system would imply equal per capita distribution. [1] A concave curve signifies disadvantageous treatment of the poorer regions, while a convex curve indicates preferential treatment. For the sake of simplicity and comparability, it must be assumed for the purposes of this presentation that investment promotion does not alter the regional ranking in any fundamental way.

When it comes to a regional breakdown of the analysis, the obvious course is to choose the level at which the requisite data are available without any major gaps and which the Community's explicit regional policy aims to tackle.

Allowing for differences of definition arising from factors peculiar to each country, these are essentially the 176 regions defined by the Commission at NUTS Level 2. A search through regional databanks, from which the most important statistical data are available, does show that in individual cases a greater degree of aggregation must be accepted, particularly in respect of the United Kingdom, which has scarcely any NUTS 2 regions to date, with the result that recourse has to be had to the NUTS Level 1. There is also a lack of data on the Portuguese islands of Madeira and the Azores and the French overseas departments, and consequently these regions have been entirely excluded from the analysis. From the period up to 1986, before Spain and Portugal joined the Community, calculations have to be performed separately for the Community of Ten.

An analysis of this type cannot be performed without a considerable number of estimates. In sifting the available data we found that regional payment flows are by no means documented in the form required. In all cases in which regionalized data is available at all, payments are recorded at the level of local government, which is the direct recipient.

Where the Community makes a payment, for example to advanced vocational training programmes in Germany within the framework of social policy, to federal institutions such as the Federal Institution for Labour, this is recorded as a payment to the Federal Republic of Germany. It is not possible to make any regional classification without further information. The same applies to payment flows to the German *Länder* which are used there to fund programmes in various regions of those *Länder*. Only where the NUTS Level 2 region is the direct recipient of the Community payment is it possible to arrive at the desired regional classification without any element of doubt. The German example may be applied to all the other Community countries, except those that are regarded as a single region, such as Luxembourg and Ireland.

It is hardly feasible to acquire the Community-wide data required for a closer regional breakdown of the EC funds paid out to the higher levels of local government. At national level — the ministries responsible and the institutions answerable to them — this information is available for that part of the funds that is administered by them. [2] What is more, it is often impossible to tell when it comes to the lower levels of local government from what source — European or national — the funds received by them come. [3] Detailed regional classification of European payments would, therefore, only be feasible after the most painstaking research at all the different regional levels of the recipients of such funds. This is quite feasible for case studies, focusing on individual regions. But overall it should be underlined that in all areas in which the Community is active only part of the funds can be subjected to a more far-reaching regional breakdown in line with the NUTS 2 subdivision.

[1] This theoretical extreme would, of course, rule out the possibility of ranking the regions.

[2] The German Federal Institution for Labour, for example, classifies its spending regionally by employment areas; these are not synonymous with NUTS Level 2 regions.

[3] According to representatives of the Court of Auditors of the European Communities, this also makes it much more difficult to keep a check on the efficient use of Community funds.

The proportion of funds going to higher levels of local government varies widely, both as to time-span and according to Member State. National peculiarities in assigning tasks to the different levels of local government and consequent differences in spending levels, shifts in emphasis in the provision of assistance and changes in the support frameworks are undoubtedly just as important in this respect as a pragmatic approach to fund allocation.

Thus Greece, Spain and Portugal evidently received a great deal of EC money in the first few years of their membership for the direct co-financing of national programmes for which, in consequence, no regionalized data are available. In the area of employment policy there are often national institutions responsible for the entire country, so a substantial proportion of the European funding contribution goes to the national institution as the body responsible for the measures. Further there are programmes, such as those under ECSC credit operations, which are expressly designed as global measures, whose exact regional application is not set out in advance. True, the reform of the structural Funds did stipulate stricter linkage to programmes and more intensive coordination of the various national and Community instruments in order to make the measures more efficient. On the other hand, this implies more flexibility in the use of funds, allowing money from the funds to be made available to national organizations and administered for the benefit of small and medium-sized projects in accordance with Community rules. So in cases like these too, it is possible to speak of complete regional transparency with regard to EC spending, only after the individual measures have been carried out and the final statements have been cleared.

In view of these problems, a two-stage approach for looking at the Community's structural policy operations has been selected. The first stage only covers Community expenditure that has flowed direct to the NUTS Level 2 regions with regard to its effect in equalizing or reinforcing imbalances between the European regions. In real terms this expenditure is naturally smaller — in fact sometimes substantially smaller — than spending on each area of activity. This varies from one fund to another and from one country to another. In the second stage, spending in the larger regions was imputed to the regions corresponding to NUTS Level 2 with the aid of appropriate indicators. For example, European Social Fund payments to the Italian South were assigned to the NUTS Level 2 regions which it comprises, *viz.* Puglia, Basilicata and Calabria. This procedure can only give a rough estimate of the actual regional use of funds, but should at least not give rise to any major distortions, regional data being taken into account as far as possible. We shall return to this point when discussing our findings.

In selecting the indicators, we tried to take into account the specific goal of each policy area. In distributing the supraregional payments made by the European Social Fund, for instance, we considered the regional structure of long-term unemployment, as combating this widespread phenomenon is one of the main aims of European employment programmes. In classifying regional Fund expenditure, we took into account that it is only a clearly demarcated group of regions that is able to benefit from European support funds. The same applies to ECSC credits and subsidies designed to aid the restructuring of coal and steel regions. As an indicator here we took the structure of spending that has a direct regional effect.

In the case of EIB credits, the main emphasis of which is on achieving a fairer provision of infrastructure to the people of the European regions, population structure was used to achieve better regional breakdown of the supra-regional loans, for want of adequate information on infrastructure endowment, which would have been a better indicator.

Despite the above difficulties, breaking down the distribution of the Community's structural resources among the regions constitutes a relatively minor problem compared with the dilemma of classifying guarantee payments under the EAGGF. For one thing, regionalized data are available for a substantial proportion of structural policy operations. Secondly, the number of regions, sectors and individuals that benefit is quite clearly defined, with the result that classification is unlikely to be highly contentious, despite a certain amount of uncertainty over detail.

As explained above in our description of the methodological approach employed, this is particularly true of agriculture, as the majority of those who benefit are not in receipt, either directly or indirectly, of Community payments. These are more a way of covering the costs arising from the system used to maintain producer prices which would be untenable in market conditions in an economy open to foreign competition and are ultimately financed by the consumer and not by the Community. In many cases, however, the costs of the system do not arise in the farming regions. [1] This means that the bulk of EEC expenditure, roughly three-fifths, can only be regionalized in a makeshift way by means of model calculations.

[1] Cf. Chapter 4.

The approach used in this section means disregarding regionalized payment flows in the case of agriculture. For one thing, there is hardly any data of this kind available; for another, such a method would be inadequate from the point of view of the actual impact of Community fund policy. Instead, we have tried to trace the regional effects on the basis of production. This called for a differentiated approach. Each group of intervention products was divided up separately. With regard to aids to producers, it is safest to assume that such aid benefits producers directly rather than indirectly via market stabilization. [1] This is why the EAGGF financial reports list payments made separately by Member State, and also by regional production for each individual country separately. In respect of the other costs of the system, the incidence of which, being relatively independent of the place/country of intervention, is more widely spread owing to the interdependence of national farming markets, support spending was also broken down in accordance with regional production structure, but across the EC. Spain and Portugal were generally dealt with separately since under their treaties of accession these countries are still subject to transitional provisions, with the result that they do not benefit from the CAP to the same extent as the other Member States. For this reason, country-specific spending was regionalized.

The calculations cover the period from 1985 onwards. For R&D contracts information was available for the period 1983-90. For a number of intervention areas, data was only available from the Community Statistical Office's Regional Data Bank up to 1987. Data for the regional Fund, social Fund, guarantee payments and ECSC subsidies for the period up to 1989/90 was supplied by the Commission. A complete overview was thus only possible for the brief period 1985-87. In 1985, Portugal and Spain had not yet joined the Community, so the figures for the year are not directly comparable with those for following years. Consequently, the calculations were initially performed for the 10 original Member States for the entire period studied, and were then reworked from 1986 on for the Community of Twelve. By comparing these findings it is possible to find clues as to whether the Community managed suitably to involve the new structurally weak countries in the process of structurally orientated financial adjudication or whether there may have been certain 'teething troubles'.

[1] In so far as product-specific data are available, this also applies to refunds, guidance and set-aside premiums and co-responsibility levies. Some of these measures, of course, are more related to market stabilization. See Chapter 4.

With the above reservations, the following payments by the European Community have been studied with regard to their regional distribution:

grants from the European Regional Development Fund for infrastructure projects, private investment and other

grants from the European Social Fund

grants from the European Agricultural Guidance and Guarantee Fund, Guidance Section

Commission contributions towards R&D contracts

EIB spending on infrastructure, industrial projects and other

grants and loans from the European Coal and Steel Community

payments made by the Agricultural Guidance and Guarantee Fund Guarantee Section covering a whole range of products.

3.2. Income distribution as a reference curve

Assuming that EC payments to the regions are proportionate to the effects on income in those areas, the question of whether a category of payments has an equalizing effect on regional income distribution — or the reverse — can be decided on the basis of whether it is more or less evenly distributed across the regions when ranked by per capita income than income itself. As per capita income is the criterion used in this study and there is never any question of a perfectly even distribution of income (equal earnings for all), the Lorenz curve for income distribution is always concave, that is, to the right of the 45° line. The further it moves to the right, the more unequal income distribution becomes. If the regional distribution of payments is still to the right of the income distribution curve, it is reinforcing this inequality. If it lies between the 45° line and the income distribution curve, it might be mitigating this inequality but, no matter how substantial, the payments would still not be able fully to offset the inequality of the primary income distribution. (This can never be the goal: it is merely intended to help explain what our demonstration can and cannot show.) If these incentives produce substantial knock-on effects, they may even lead to an increase in inequality. Only when the payments curve is to the left of the 45° line is it quite clear that they are having an effect in evening out regional income distribution (varying according to the size of the payments involved and the convexity of the curve) and are in theory capable of making the income distribution curve congruent with the 45° line.

Since the primary income sources (labour, capital and land) are factors whose regional distribution is not easily influenced even over a period of several years, the curve for medium-term regional distribution is comparatively stable. For this reason, it is enough for the purposes of this study to illustrate it with a single year (1988) — see Graph 1. The secondary income and payment flows from the EC budget and the EIB, however, are subject to largely discretionary decisions and are thus more liable to breaks in continuity.

Differences in the EC's territorial size are apt to show up clearly in the course taken by the curve — the wider the development gap between the original and the new areas, the larger the differences. This shows up clearly in a comparison between the income distribution curves for EC 10 and EC 12. As might be expected, the EC 10 curve (Appendix B) is much flatter than the EC 12 curve, showing the income gap between the EC regions was much less pronounced before the Community's enlargement than it was afterwards. This is most clearly seen in the course taken by the original curve. Whereas in the Community of Ten, the poorest 20% of the population still earned roughly 12% of EC income in 1988, this fell to 8% in the Community of Twelve. [1]

3.3. Comments on the debate about the distribution of payments

The curves for the distribution of payments generally differ from the income distribution curves in several respects.

First, they are liable to intersect the 45° line. This is because they are not genuine Lorenz curves, as the study is based on an alien criterion (per capita income). Only when the area formed by the payments curve and the diagonal above the diagonal line is larger than the area beneath it can the payment flow exert an overall equalizing effect. The payments may be said to be having a retrograde distribution effect if the curve in the area of origin, that is, in the area of the poor regions, is below the 45° line.

Second, the payments curves are severely disrupted in places. This is chiefly to do with the fact that payments often involve only a small number of projects, are often linked with drawing facilities based on irregular intervals and the projects concerned are most unevenly distributed across the regions in terms of the purpose of the payments. Naturally, ECSC loans are never granted to regions where there is no coal and steel sector.

Third, curves for individual years are even less constant than those for the entire period under consideration. This is merely an automatic effect resulting from compensation for conflicting discontinuity trends in individual years. In general it is true to say that the payments curve is more constant when payments are spread over a wider area, annual payments are larger and the period under consideration longer.

3.4. Regional distribution of individual payment flows

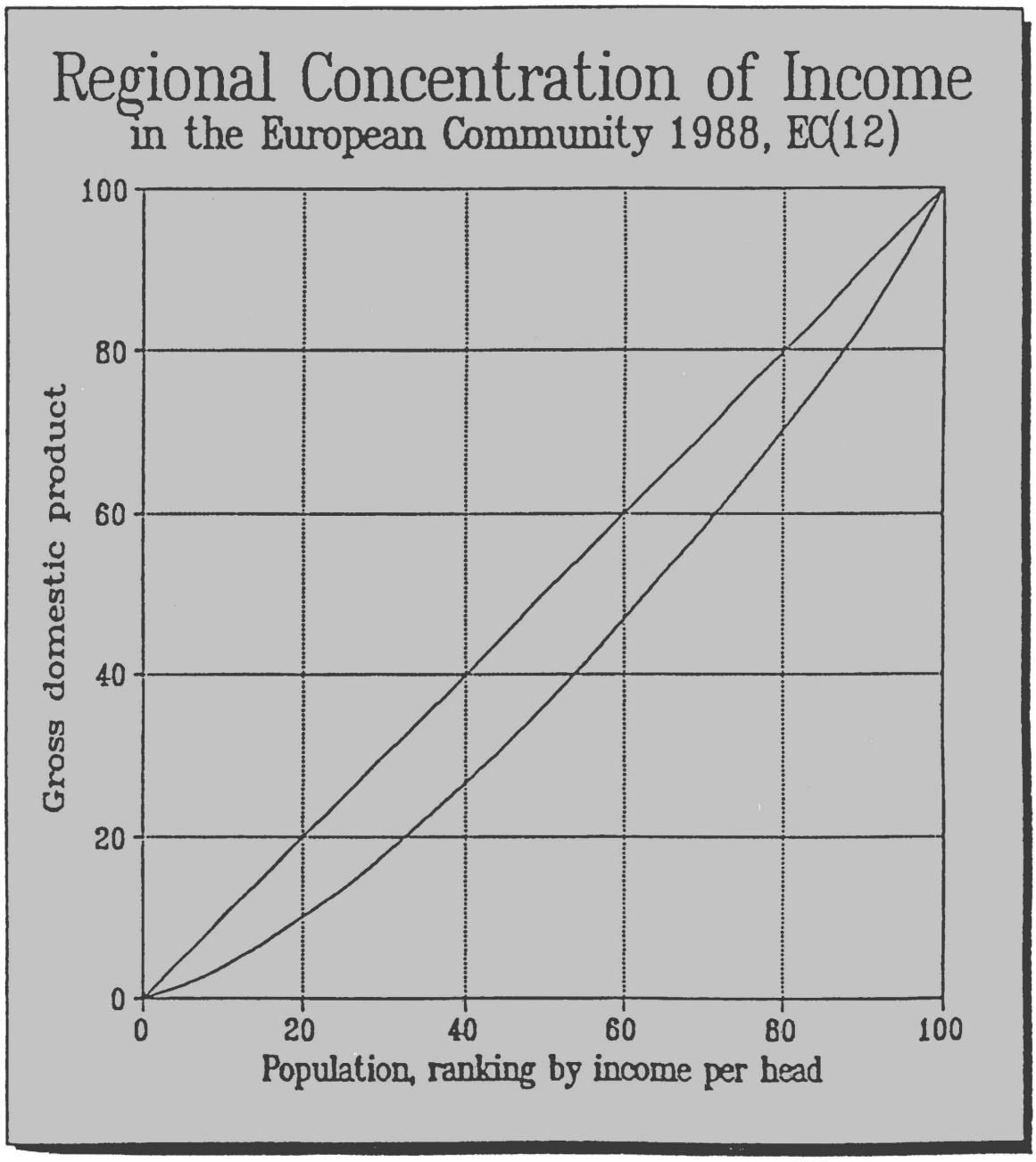
Regional Fund

European Regional Development Fund investment grants — around 10% of the EEC budget in 1990 — are a powerful factor in evening out the regional disparities in the European Community. The compensatory effects have even increased over the period under consideration, a result that is undoubtedly linked with the reform of the structural Funds and the ensuing concentration of assistance on a small number of regions (see Graphs 2 and 3). In 1989 and 1990 an average of some 80% of investment support granted went to the 20% of the Community population living in the poorest regions. Even so, the effect of financial equalization in favour of backward regions was somewhat stronger under the Community of Ten than for the present Community. In 1985 the same Community regions (EC 10) received only 70% of the investment subsidies; by 1986, under the Community of Twelve, the proportion benefiting the fifth of the population living in the least developed regions had shrunk to little more than 60% (see Appendix B). Spain and Portugal evidently required an initial period of adjustment before making full use of the regional Fund, with the result that they were not able to extract as much benefit from the first few years of their membership as the other backward regions.

This applies to basics such as infrastructure measures. When it comes to investment support for industry the differences are even more pronounced. In the backward regions of Spain and Portugal, which are among the economically weakest in the Community, the main thrust of regional assistance — even more than in the other regions — has been directed at infrastructure measures (see Graph 4). Poor infrastructure has always been (and still is) a major obstacle to private investment in these areas. Empirical studies show that the existence of infrastructure servicing companies — and households —

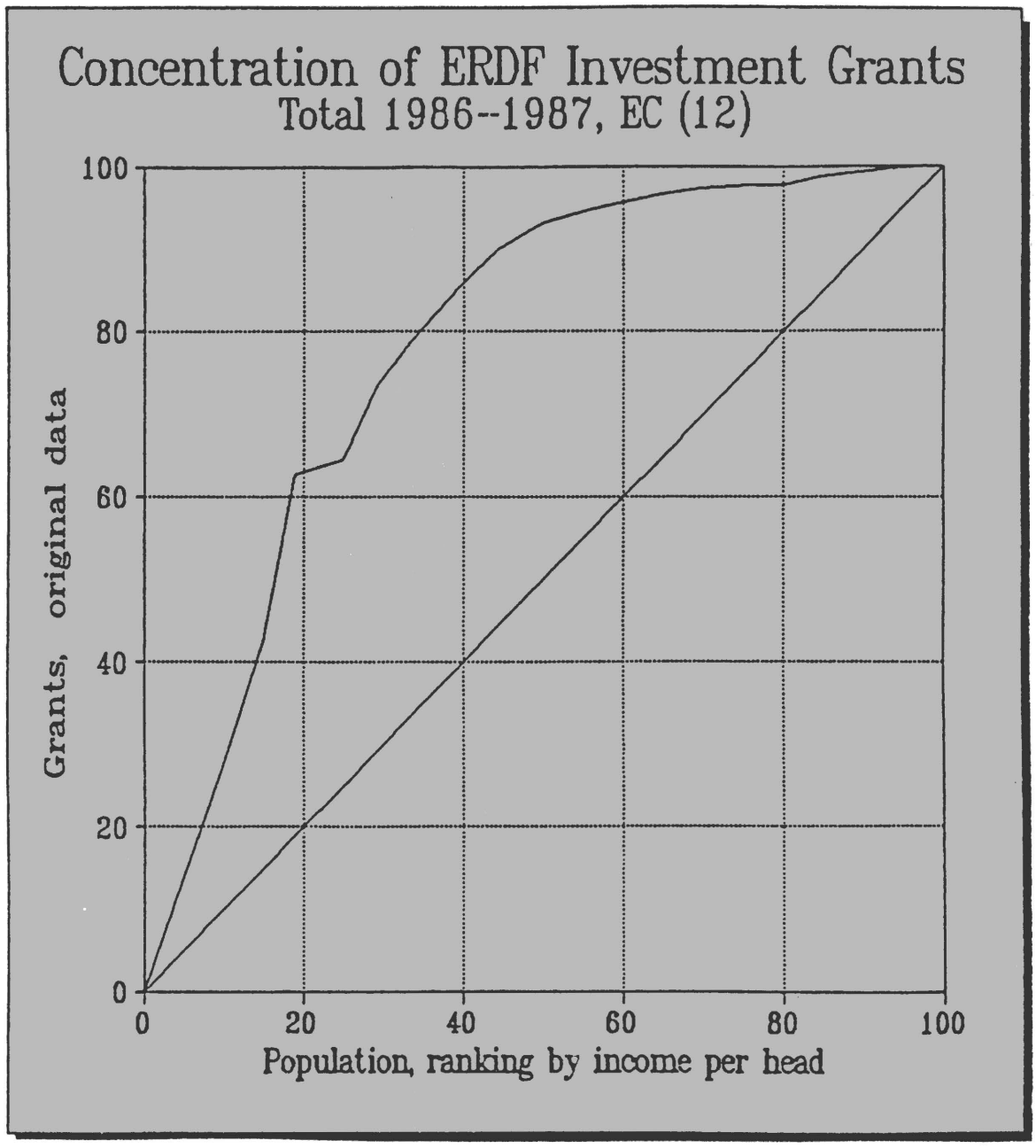
[1] As these calculations are based on average regional income, they do not reflect the fact that 'poor' regions also have their share of high income earners.

Graph 1 — **Regional concentration of income in the European Community 1988, EC 12**



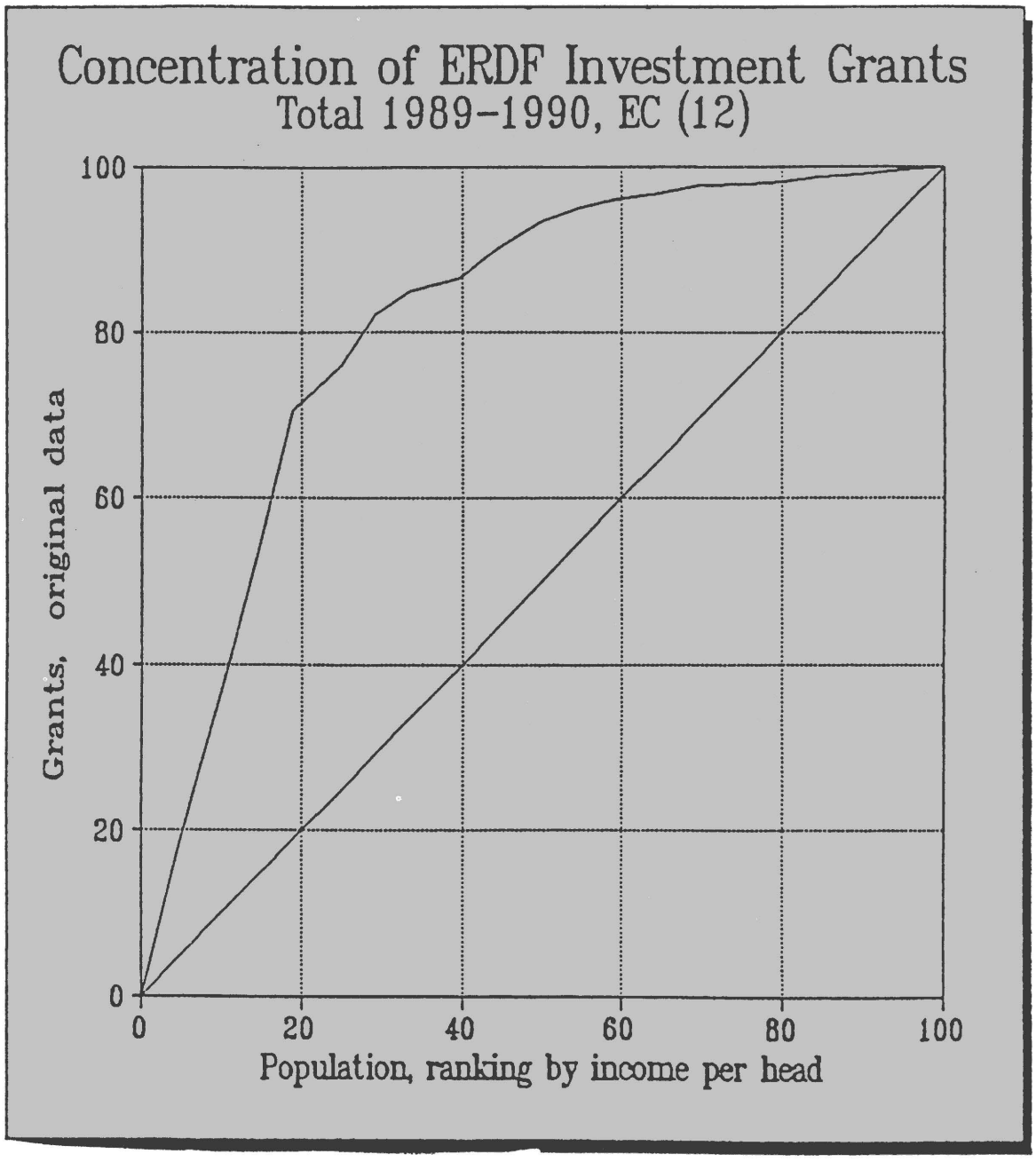
Income distribution curves lie always beneath the 45° line. For structural reasons they are in the short and medium term, rather stable for the overall economy. Payments' distribution curves on the right of income distribution reinforce regional imbalances and on the left of it they mitigate them.

Graph 2 — **Concentration of ERDF investment grants, total 1986-87, EC 12**



The European Regional Development Fund (ERDF) amounted in 1990 to ECU 4.5 billion, i.e. nearly 11% of the EC budget. In 1986-87, ERDF investment grants were highly concentrated on economically weak regions. More than 50% of all grants were spent on the poorest regions, where 20% of the EC's population live.

Graph 3 — **Concentration of ERDF investment grants, total 1989-90, EC 12**



From 1989 onwards, due to the reform of the structural Funds, the impulse from the regional fund's investment grants was markedly shifted to the poorer regions in the EC: 70% was spent on the lowest fifth of the regions.

is a crucial factor in attracting private investors to such regions. [1] In this situation not even the attractive financial incentives of Community investment support, with investment grants rising to 70% of total costs, have sufficient bite. In 1986 and 1987, for example, the poorer regions of the Community (EC 12), containing 10% of the Community's population, received less than 5% of investment subsidies to trade and industry, with the lowest fifth receiving no more than 40% of this money (see Graph 5). In the Community of Ten, in which regional assistance was already well-established at this time and had brought substantial benefits to backward regions in the form of infrastructure measures — or where infrastructure deficits were anyway not so pronounced as in most of the Iberian regions, the concentration of private investment subsidies is tangibly higher. It is not substantially lower than the level for infrastructure measures. Comparing the calculations based on investment subsidies to the NUTS Level 2 regions from the regional Fund with the modified accounts which routinely include payments initially directed to the higher ranking regional authorities and administered and distributed by them, we find no major difference in the outcome. This is partly due to the fact that the additional amount to be taken into account is not very big. What affected the outcome most, however, was that the model calculation had to take into account the restriction that the group of regions to be favoured should not be extended beyond the eligible areas laid down in the regulations (see Appendix B).

Overall the calculations show, as expected, that the financial impact of European regional policy is largely in line with the desired compensatory function. In this process, the promotion of infrastructure plays something of a pioneering role, with investment in trade and industry lagging somewhat behind, with the result that the take-up rate has not up to now been uniform throughout the regions. In so far as it is possible to draw conclusions from the short period under study, there is however a noticeable trend towards greater regional equalization in this area, too.

Social Fund

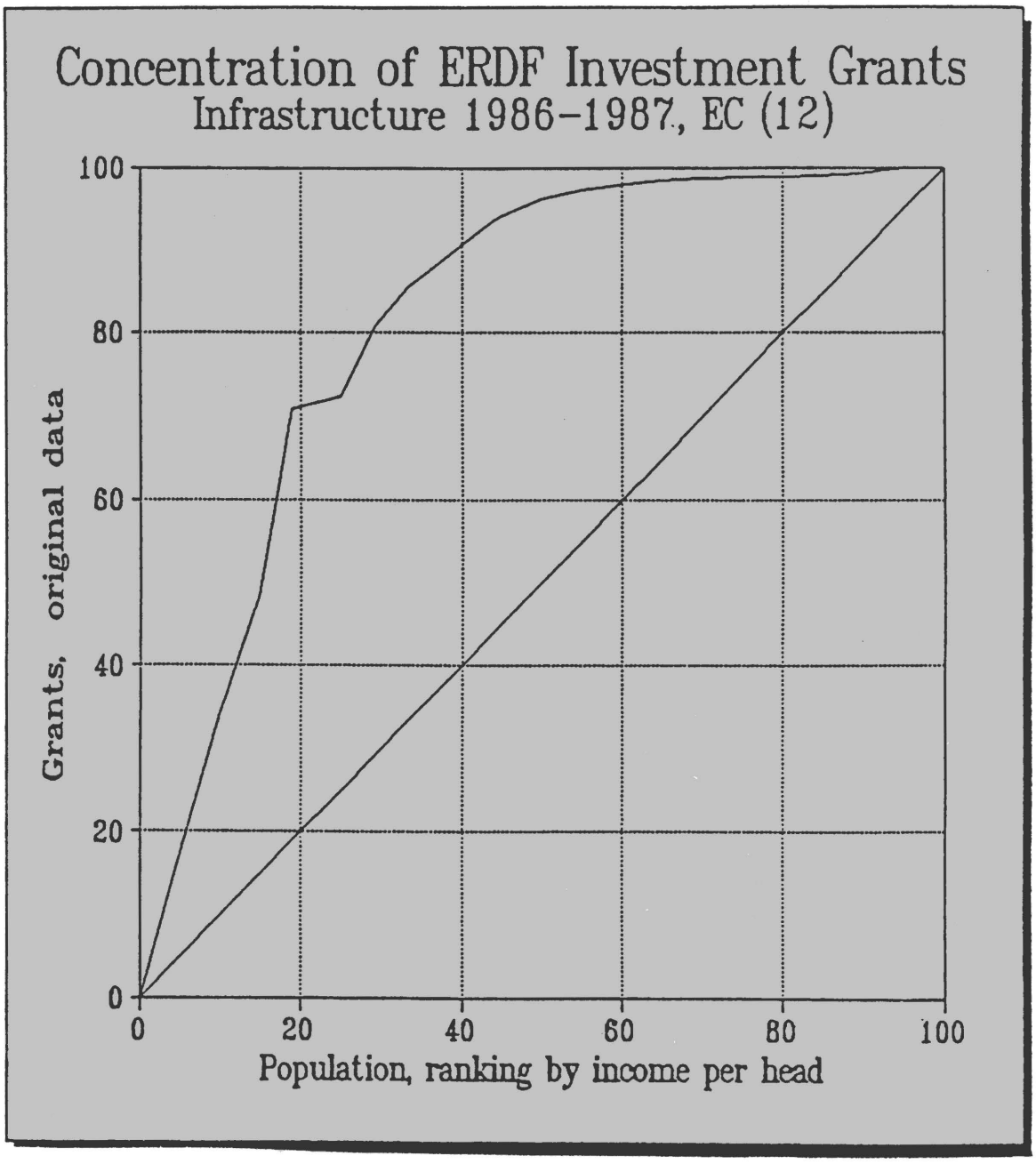
Like the regional Fund, the European Social Fund — the second most important structural Fund, with 7% of the EEC budget in 1990 — is also a strong force in evening out regional imbalances in the Community. The regional concentration of aid is not quite so pronounced: its operations have a broader regional spread. None the less, in 1989, something like one half of the strictly regional resources were tied to measures in the poorest regions, with a fifth of the Community's population. Over the years this regional concentration has become somewhat more pronounced (see Graph 6). This is undoubtedly due partly to some of the funds being committed to the underdeveloped regions and to better coordination of the various Community operations that come under the support programmes. Finally, it is evident from the social Fund's gentler curve compared with the regional Fund that despite long and continuous growth in the 1980s long-term and youth unemployment in the Community are not only the problem of a small number of underdeveloped regions but are relatively widespread.

With a clearer sense of purpose than was the case with the regional Fund, the Community channelled ESF resources to Spain and Portugal from the earliest days of their membership. For this reason, the distribution of resources at the start of the period under observation for the Community of Twelve is only slightly less favourable to the poorer regions in terms of concentration than demonstrated by the calculations for EC 10 (see Appendix B). Comparison over time indicates that the better treatment for backward regions occurred in the late 1980s, i.e. mainly in the Community of Twelve, thus obviously benefiting the Spanish and Portuguese regions, while the regional concentration of social Fund resources on the basis of need in the regions of the 10 original Member States hardly changed.

A substantial proportion of the social Fund's resources is not credited directly to the NUTS Level 2 regions that benefit from employment measures but to the higher ranking regions or to State level. The estimated distribution of these sums to the regions yields a somewhat different picture of regional concentration, with an unmistakeable trend towards a more even distribution of resources (see Graph 7). This can undoubtedly be traced back to the method of classification. Given the relative importance of fund payments at State level, classification using an indicator for this purpose — long-term unemployment was selected — inevitably leads to a more balanced regional distribution than the payments themselves actually seem to warrant. Nevertheless, the general trend of our findings is unaffected. The equalizing function of Community employment policy is unmistakeable; its effects are more marked under the Community of Twelve than they were under EC 10; and the compensatory effect is increasing — if only slowly — with the passage of time.

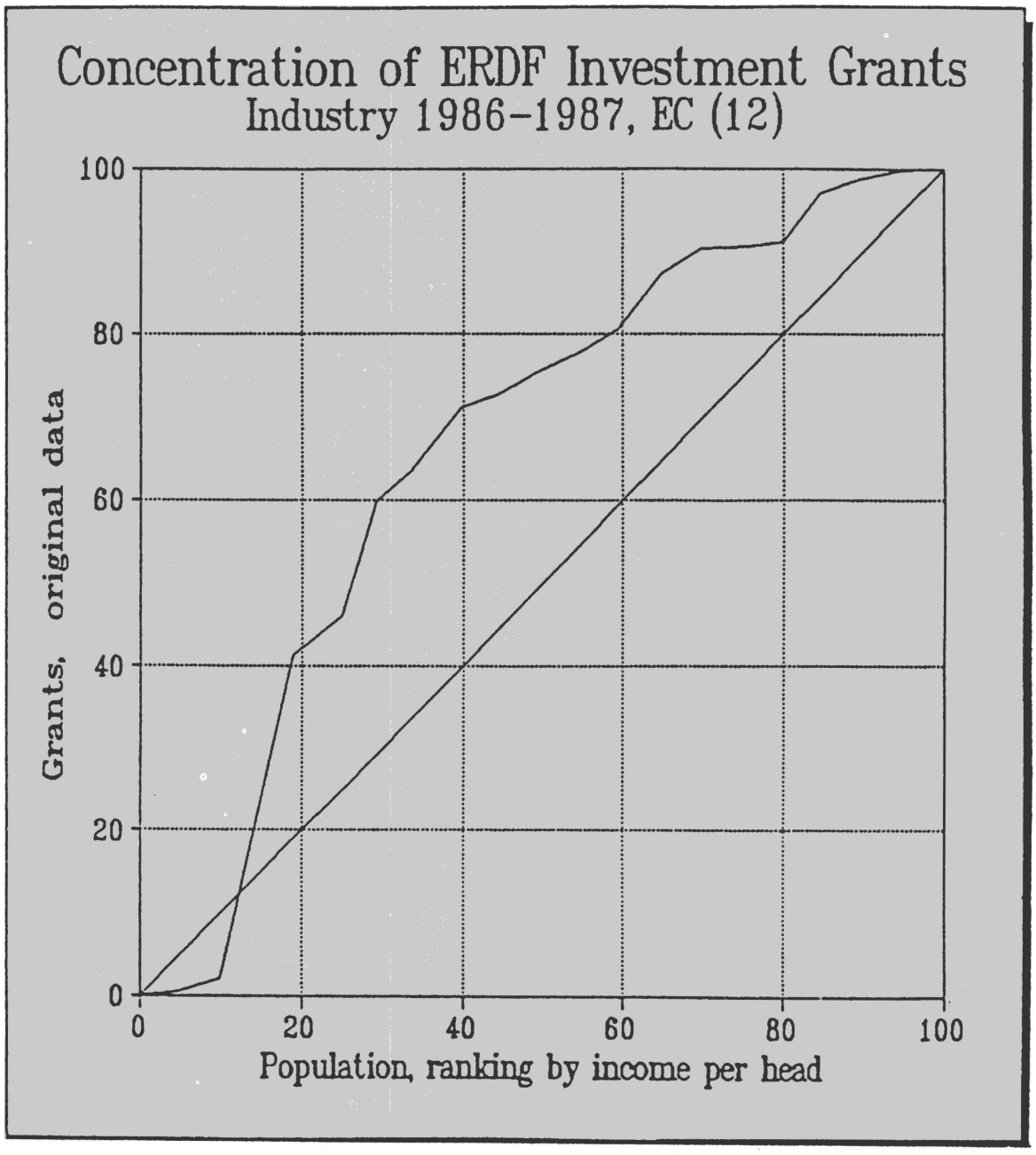
[1] Cf. Biehl and Dieter, *The contribution of infrastructure to regional development.* Luxembourg 1986 (ed. by the Commission of the European Communities), especially p. 114 ff., 347 ff.; Nam, C. W. *et al., An empirical assessment of factors shaping regional Competitiveness in problem regions,* Luxembourg 1990 (ed. by the Commission of the European Communities), especially p. 29 ff.

Graph 4 — **Concentration of ERDF investment grants, infrastructure 1986-87, EC 12**



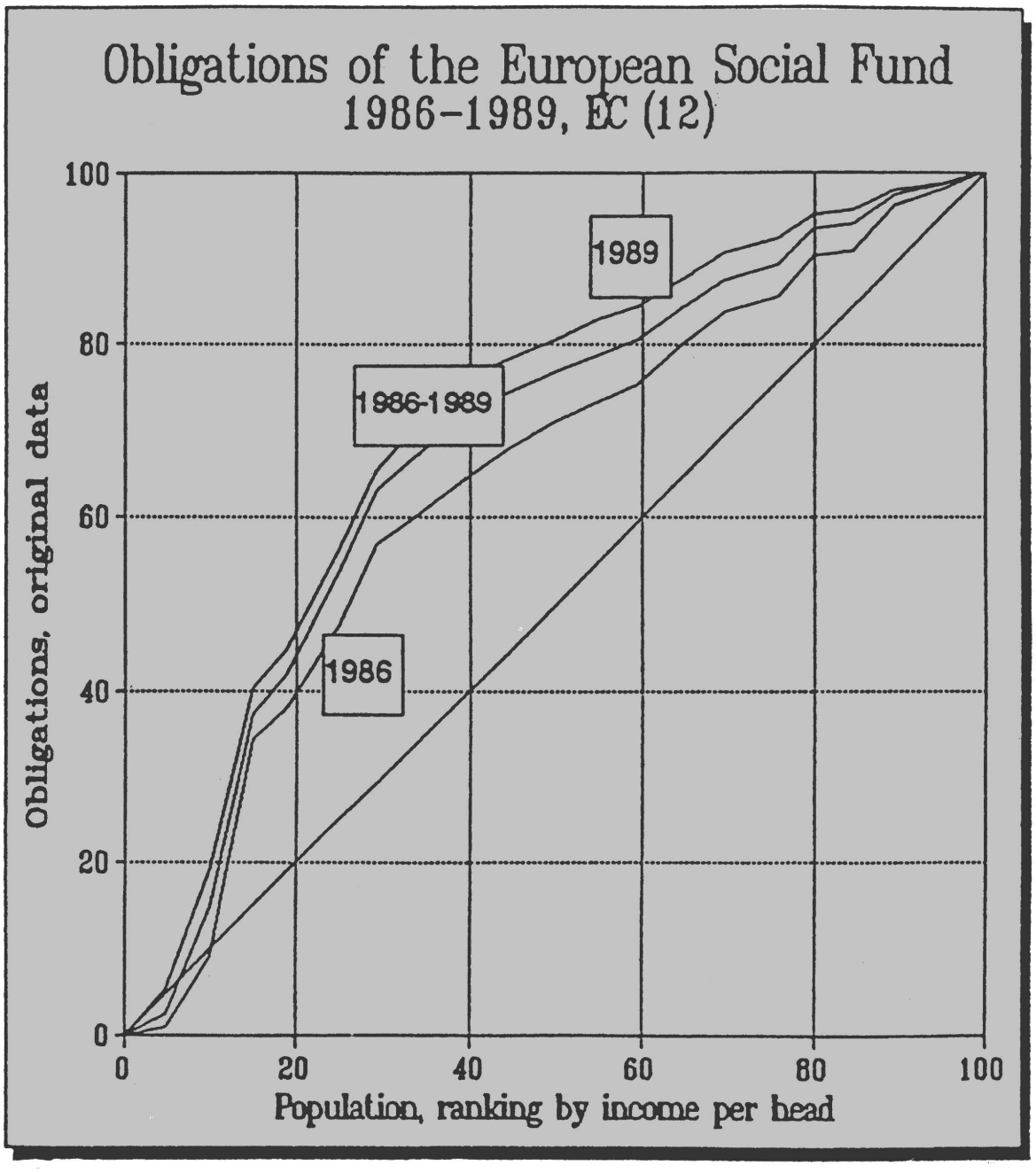
Incentives for infrastructure investment have a high priority in development programmes for underdeveloped regions. They amount to three-quarters of total ERDF grants and have the highest ratio of regional concentration: in the years 1986-87, 70% of those grants was spent on the weakest regions, with 20% of the EC's population.

Graph 5 — **Concentration of ERDF investment grants, industry 1986-87, EC 12**



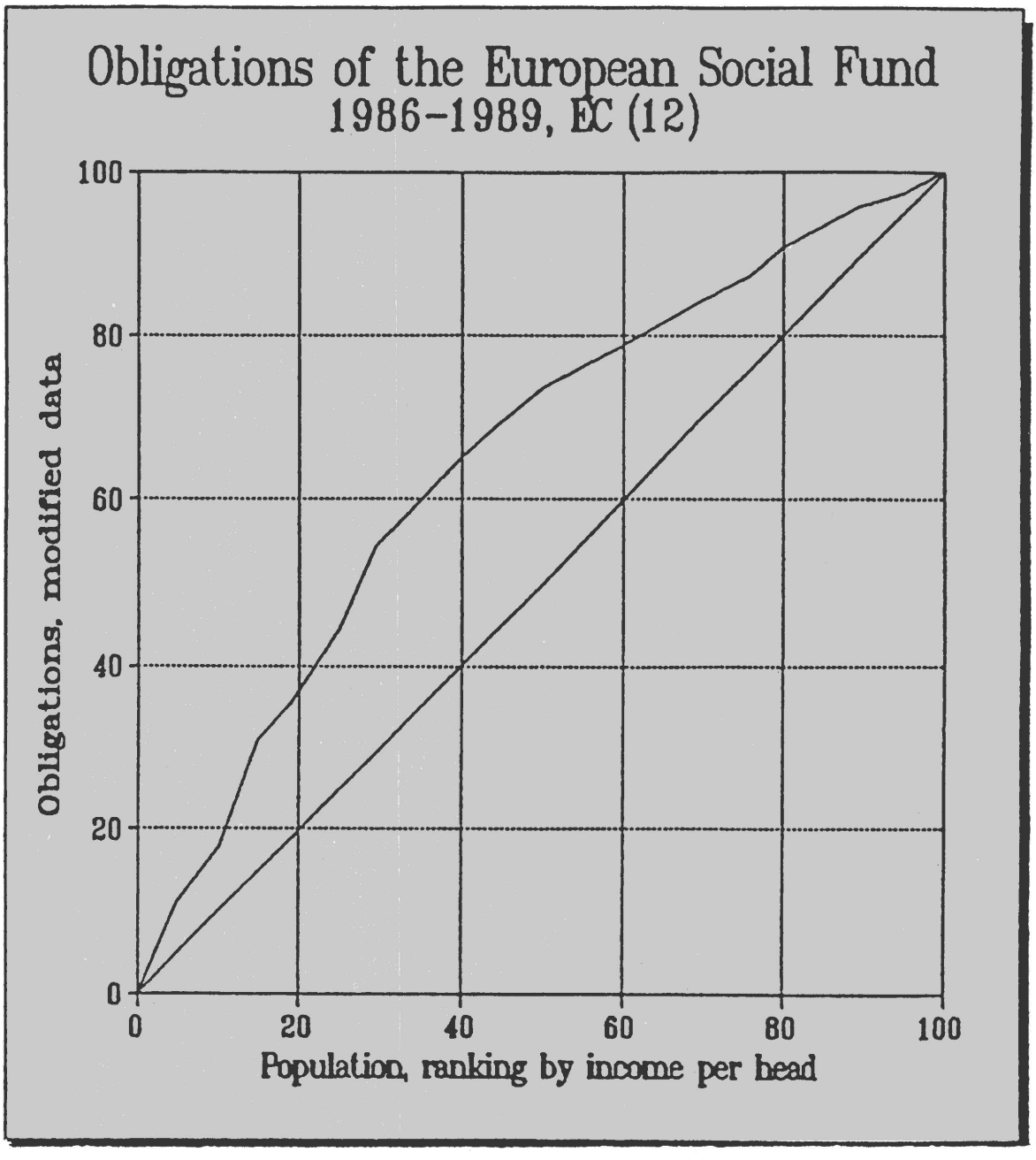
About one-quarter of ERDF grants is spent on the private sector. The weakest regions of the Community make use of investment grants for private investment to a lesser extent as compared with grants for infrastructure purposes: in 1986 and 1987 the lowest tenth of the regions received hardly any.

Graph 6 — **Obligations of the European Social Fund, 1986-89, EC 12**



In the last five years the expenses of the European Social Fund (ESF) amounted to about ECU 3 billion a year. Compared to ERDF expenses they were regionally less concentrated. Nevertheless, they gave remarkable impulses to lower the regional imbalances. These impulses became stronger in the course of the period observed. Taking the average for 1986 to 1989, 45% of the ESF obligations were concentrated on the poorer regions, with 20% of the EC's population.

Graph 7 — **Obligations of the European Social Fund, 1986-89, EC 12**



The regional distribution of the modified ESF data enclosing financial flows to the State or Nuts 1 level which were distributed to the Nuts 2 regions by model calculations shows a slightly lower extent of regional concentration than those flows spent directly to the Nuts 2 level.

EAGGF Guidance

With about ECU 2 billion, the Guidance Section of the European Agricultural Guidance and Guarantee Fund accounts for over 4% of the EEC budget. It promotes the improvement of agricultural structures, in particular by granting investment subsidies. These resources thus chiefly benefit rural areas which, compared with regions dominated by manufacturing and service industries, are amongst those most in need of help. The reform of the structural Funds caused the objectives of regional policy to become even more closely identified with those of the agricultural structures policy. [1] This regional equalization function can also be detected in the concentration of investment subsidies to the Community's poorer regions. In 1986 and 1987, for example, about half the subsidies on average went to the poorest regions of the EEC, where a fifth of the Community's population lives. On the other hand, the top 40% of the rich regions received only 20% of the Guidance Fund's investment grants (see Graph 8). Resources were relatively equally distributed between the poorer regions of the new Community countries and those of the other Member States and there is no significant difference between the two concentration curves (see Appendix B). The investment grants shown in the statistics could all be directly allocated to NUTS Level 2 regions, so that there was no need for any extra model calculation.

R&D expenditure

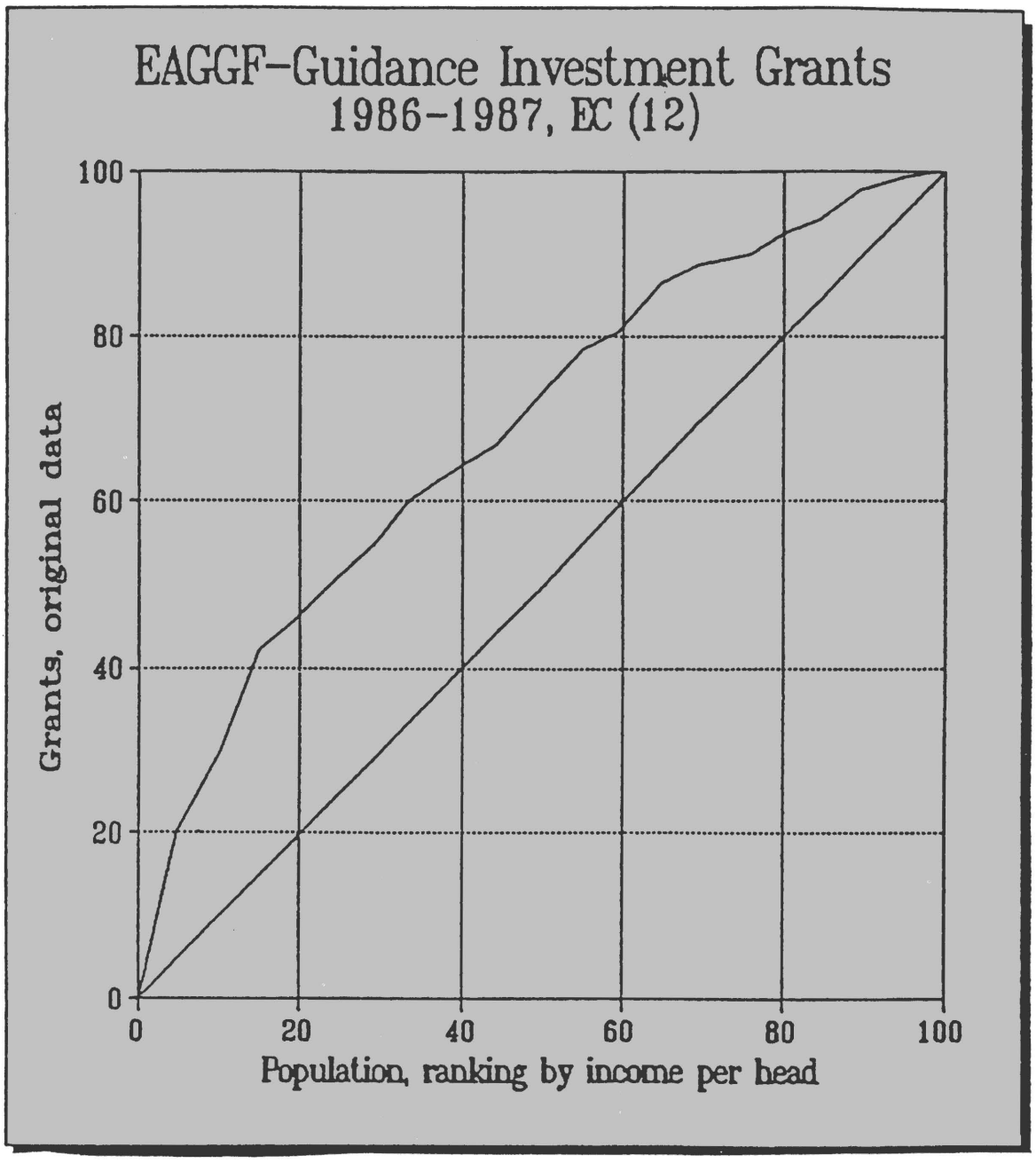
With little more than ECU 1.5 billion from 1983 to 1990, the amounts granted by the European Community to businesses and research institutions for R&D projects as part of contractual research (excluding research into fusion) comprises no more than a tiny fraction of the EEC budget. Subsidies benefit developed regions more than regions whose development is lagging behind. Over the same period, at least two-fifths of these resources was spent in the economically strongest regions of EC 12, with roughly one-fifth of the Community's population (see Graph 9). The lowest fifth of the population, from the weakest economic regions, did not receive as much as a tenth of the Community's R&D expenditure. Support for R&D thus tended, if anything, to counteract the levelling out of regional disparities. If one looks at the figures for the Community of Ten separately, the regional distribution of R&D resources is rather more balanced. Evidently the new countries have not yet been able to make much use of support for R&D. It must be pointed out, of course, that the study looked at the Community's contributions to R&D contracts over the entire period of 1983-90. But the older Member States (EC 10) received these resources over a longer period of time than the new Member States. This introduces a complication into the issue of comparability. Yet there is a trend towards more pronounced regional imbalances as a result of more intensive R&D operations within the Community of Ten. This is not so surprising. For one thing, highly skilled staff are required to carry out research and development; as a rule such personnel are not available in underdeveloped areas. For another, businesses have a tendency to locate their own research operations within a reasonably comfortable distance of company headquarters or to employ local research institutes in order to ensure smoother communications between company management and research institutions. Finally, the fact that universities and research institutes have been established in less-developed areas on regional policy grounds has not yet resulted in any practical reversal of this trend. As long as the Community's economic structure remains regionally imbalanced, the centripedal effect of R&D operations, despite substantial financial incentives for regional diversification, will continue to be a fact of life.

ECSC credits

At roughly ECU 1 billion (1986 and 1987), ECSC credits are among the more modest financial flows. For a number of regions, including some of the poorest, there is simply no material basis for such payments. This is all the truer for the Community of Twelve. The 15% of the population in the poorest regions derive virtually no benefit at all from them. This is particularly true of Portugal and Greece. Overall, ECSC loans exacerbate regional inequality. While this is definitely the case for the 'original data' that can be imputed with precision (see Appendix B), the effect is even stronger if one includes payments that can only be imputed indirectly (Graph 10). Under the Community of Ten and over the period 1985-87, the distributive effects of ECSC loans have been largely neutral, taking into account all financial flows — including those that can only be imputed indirectly. No broad trend is in evidence. Between 1986 and 1987, under the Community of Twelve, inequities of distribution in the true poverty area widened, though the overall regional distribution of ECSC loans actually became more even than before.

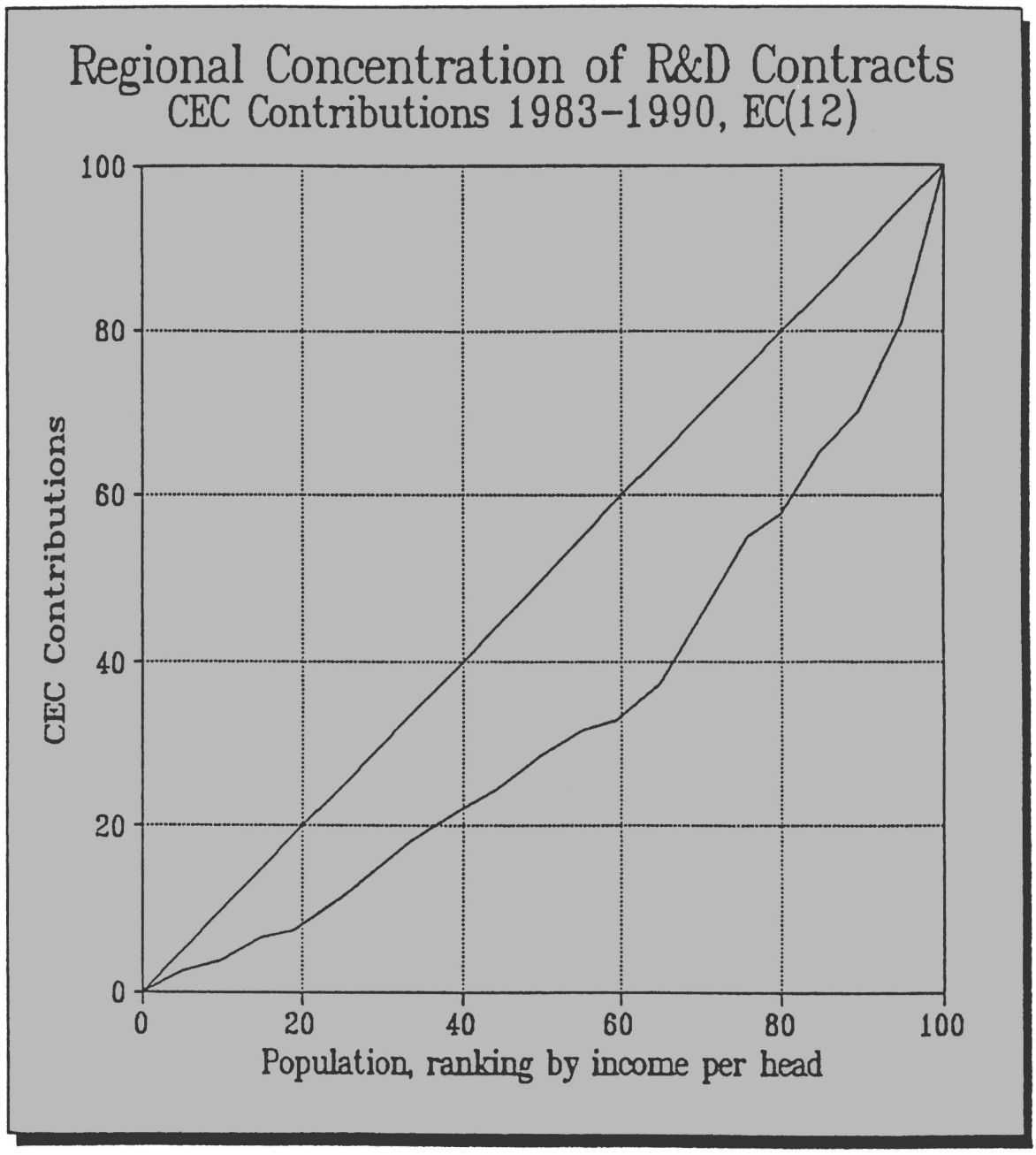
[1] See Commission of the European Communities (Ed.), *Guideline for the reform of the Commmunity's structural Fund.* Luxembourg 1989.

Graph 8 — **EAGGF guidance investment grants, 1986-87, EC 12**



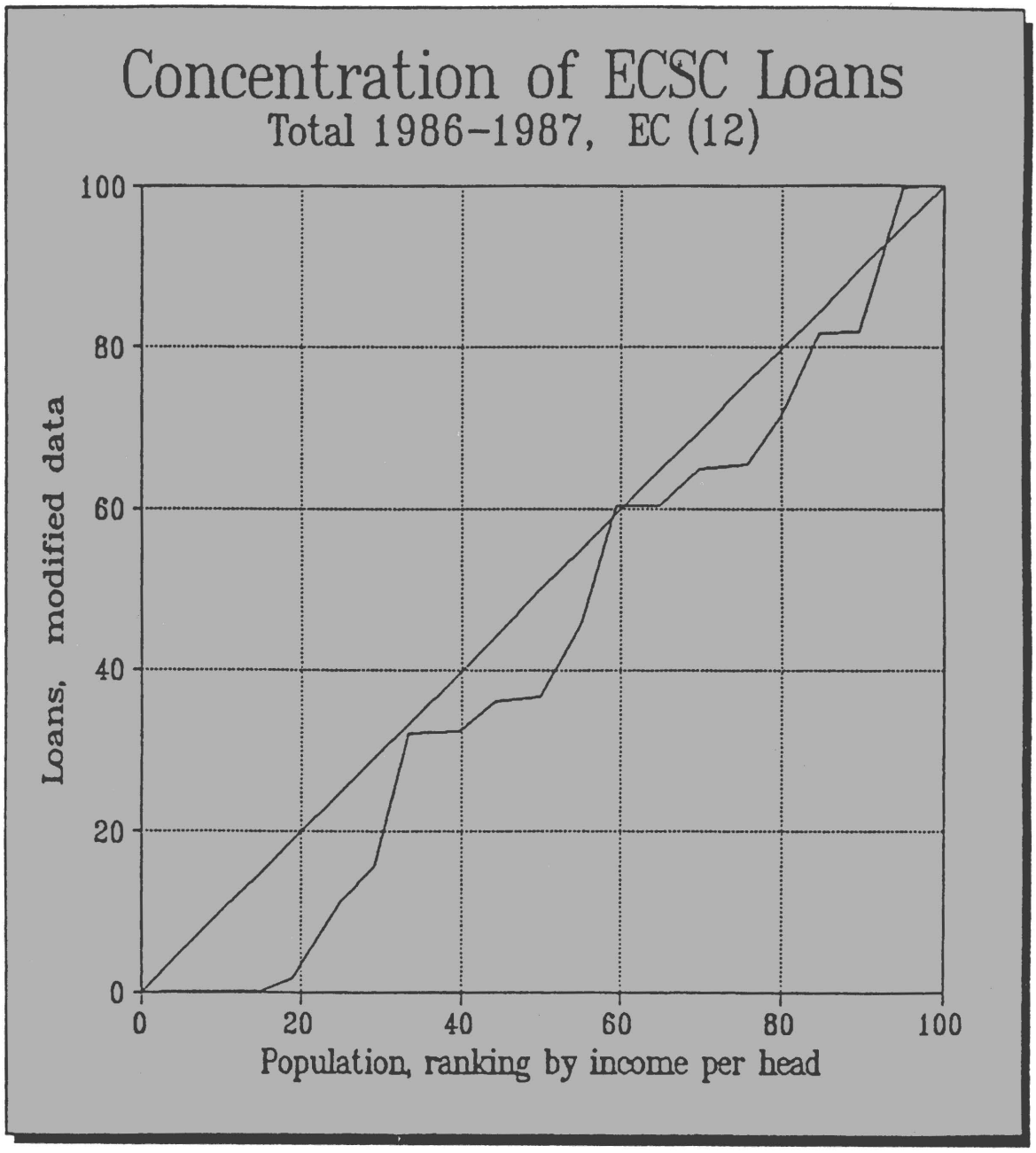
The investment grants, paid by the European Agricultural Guidance and Guarantee Fund, help especially rural areas with low income to restructure the production capacities and the market infrastructures. In 1986, the Fund spent ECU 0.7 billion, in 1990 ECU 1.8 billion, i.e. 2% or 4% of the EC budget. Taking the average for 1986 and 1987, nearly half of the investment incentives were granted to the weakest EC regions, where 20% of the EC's population live.

Graph 9 — **Regional concentration of R&D contracts, CEC contributions 1983-90, EC 12**



CEC contributions for R&D contracts amount to ECU 1.4 billion from 1983 to 1990. They are granted to a greater extent to firms which are resident in the richer EC regions.

Graph 10 — **Concentration of ECSC loans, total 1986-87, EC 12**



In 1986 and 1987 ECSC loans totalled about ECU 1 billion a year. Coal and steel industry is not just typical for the poorest regions of the Twelve. Therefore, regional distribution of ECSC loans is less favourable as compared to the EC 10, where the distribution curve oscillates around the 45° line.

ECSC aids

The same applies to ECSC readaptation aids as to credits. They favour companies and employees from structurally weak areas dominated by the coal and steel sector. In relation to the Community average, these regions are not necessarily those with the lowest incomes, even though their economic outlook may be poor and structural help badly needed. On the other hand, most of the Community's poorer regions derive no benefits from this specific form of sectoral aid. In any event, the aids are of no great size. In 1989 they still amounted to little more than ECU 60 million.

ECSC aids are even more unevenly distributed than the corresponding readaptation credits, tending to boost, if anything, regional income inequalities. The adverse regional effects of this trend show the tendency to fall off somewhat between 1986 and 1989, although in 1989 the Community's poorest regions, accounting for 40% of the population, received less than 5% of ECSC aids, while the more prosperous regions with more than a fifth of the Community's population received something over a fifth of these aids (see Graph 11).

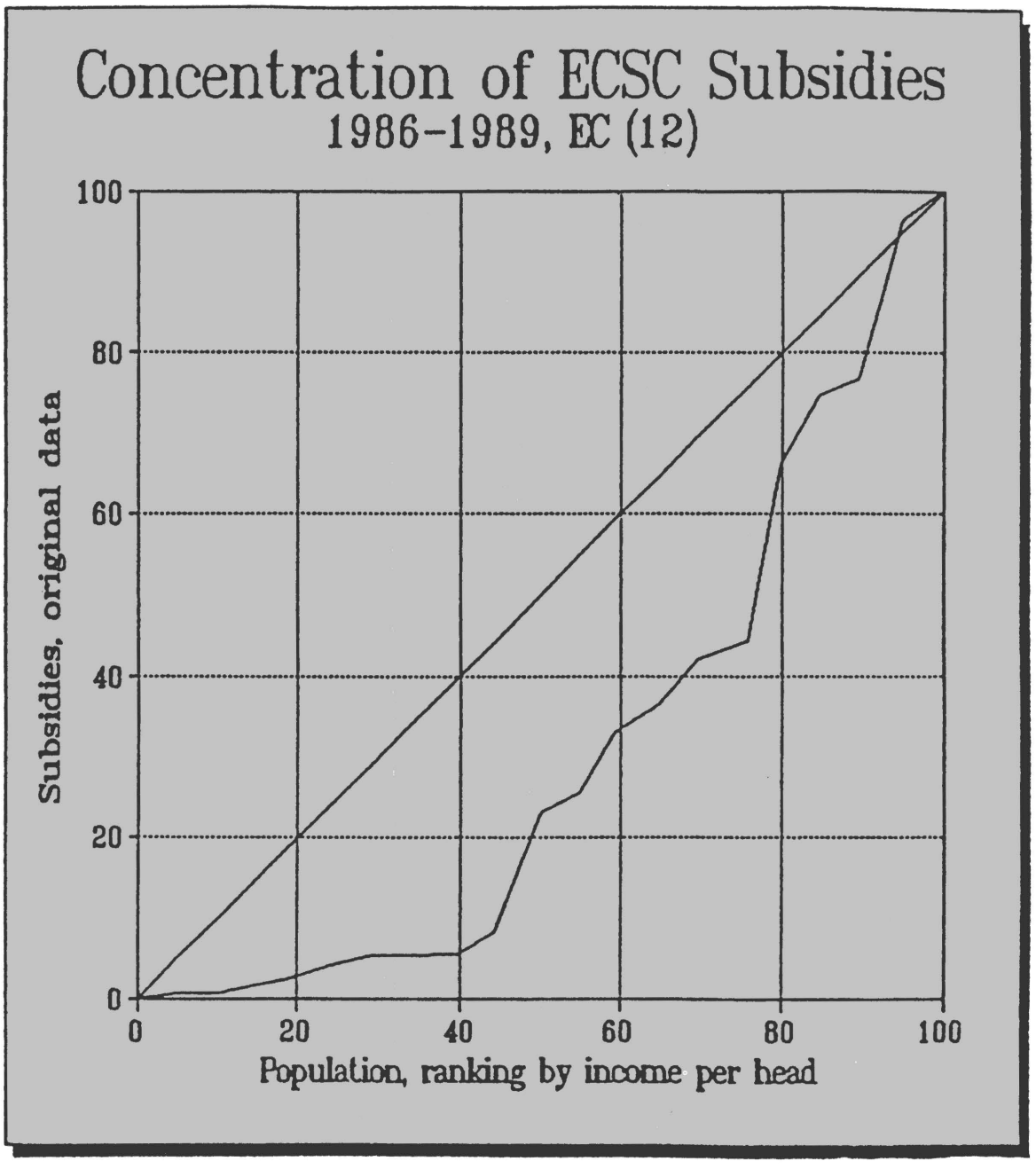
The regional concentration is less marked if we confine our analysis to the region of the original Community. There is also a certain levelling effect when aids credited to groups of regions are imputed to NUTS Level 2 regions in accordance with the model. The differences between directly credited and indirectly imputable aids obviously have a greater effect in countries and regions with an average per capita income than in the higher and lower income regions (see relevant diagrams in Appendix B). In evaluating this finding — rather an unwelcome one from a regional policy point of view — it should be borne in mind that in terms of their financial volume ECSC aids are of far less consequence than the structural Funds.

EIB loans

Unlike ECSC aid, loans granted by the European Investment Bank amounting to the fairly substantial sum of ECU 7 billion (1986 and 1987), have an altogether equalizing effect on regional income distribution. The distribution curves were convex in respect of all the aspects and modifications studied. It is plain from this that the rectification of regional imbalances is one of the EIB's stated aims, though this is a truer reflection of the position under the Community of Ten than under the present expanded Community. The curves for EC 12 in the poverty area even drop below the 45° line in places (see Graph 12 and Appendix B). First we examined all EIB credits, irrespective of their purpose. As there are no significant differences between the curves based on the original figures on the one hand, and those taking into account amounts that can only be imputed indirectly on the other, we may limit discussion to the curves taking all financial flows into account. An interesting point here is to compare the figures for different dates. It turns out that the regressive effects in the poverty area were still clearly discernible in 1986 and had disappeared by the following year. Making due allowance for the brevity of the period under consideration, it seems plausible that the uneven distribution of 1986 was not a problem of discrimination, but one of absorption and political adaptation: 1986 was the first year of Spanish and Portuguese membership. Until then, EIB policy had been geared towards regional equalization within the Community of Ten (see Graph 13). Projects with longer lead times had gradually reached maturity, bringing follow-up projects in their wake. In this process project-related commitments are established years in advance. The Iberian countries first had to develop projects eligible for EIB funding. This takes time. For its part, the EIB could initially only make cash available to Spain and Portugal within the limits of its available surplus. In addition, it is also obliged to carry out an exact appraisal of the business risks involved. This presupposes established arrangements for gathering and processing information.

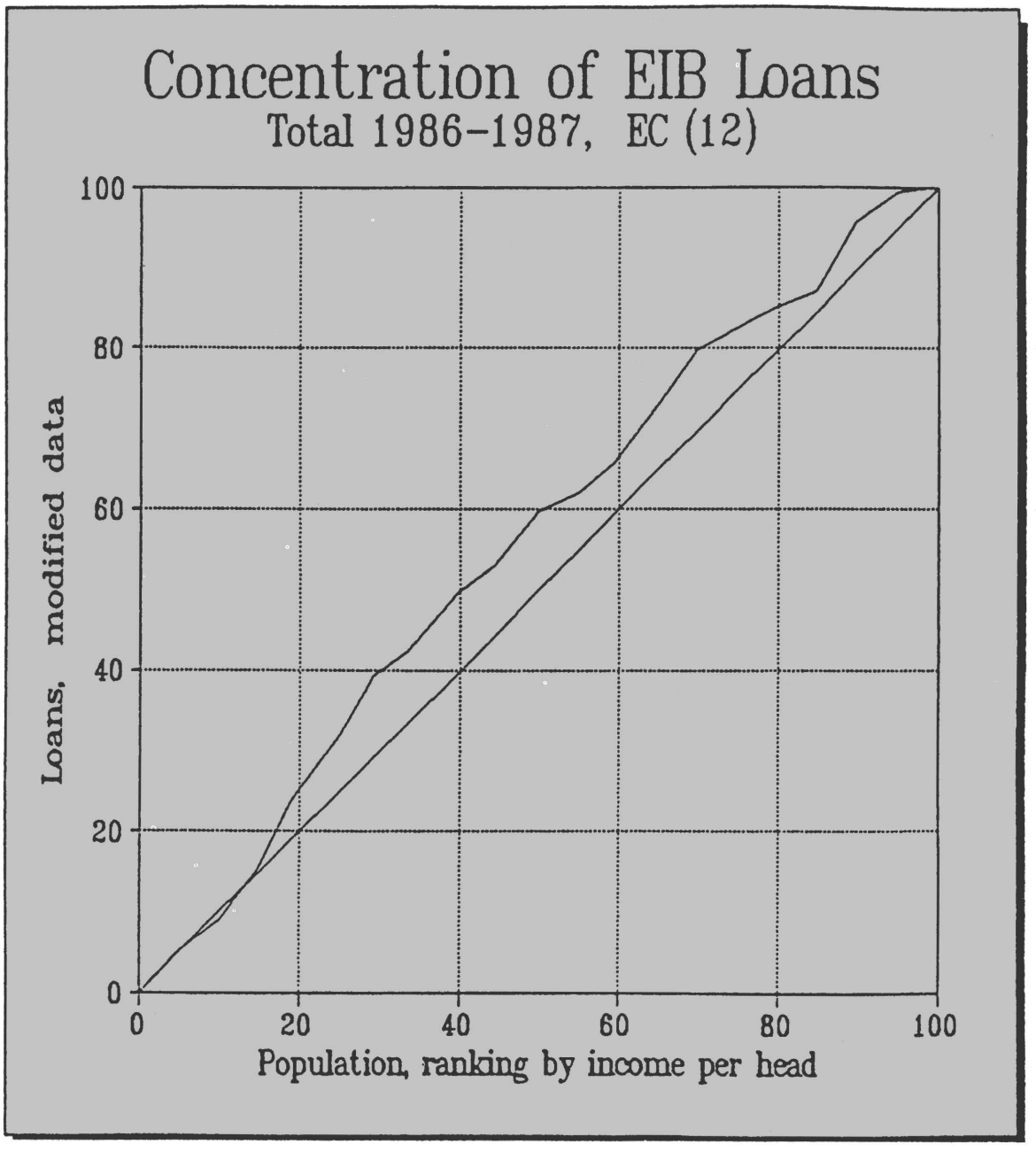
In so far as would-be borrowers in the needy regions create the conditions necessary for meaningful and promising loans take-up, the EIB is able to offer the two new countries preferential finance from amounts returning to it from old loans and the accumulating value of its overall resources. This trend was first noted in 1987. It emerges more clearly from the modified data than from the directly imputable original data (see Appendix B). This might confirm the above considerations with regard to the capacity for absorption. For in the absence of competent or established contractual partners on the spot, and wishing to provide aid with the minimum of delay, the EIB originally employed supra-regional project managers to channel its financial aid. If the EIB does not wish to abandon its policy of regional equalization in the original territory of the Community, its ability to switch its resources to recently acceded regions is limited. This emerges perfectly clearly from the way the curve for EC 10 develops over time. In 1985 it was still markedly convex; the way in which funds were being distributed was therefore clearly having an equalizing effect. The diversion of money to the Iberian Peninsula from 1986

Graph 11 — **Concentration of ECSC subsidies, 1986-89, EC 12**



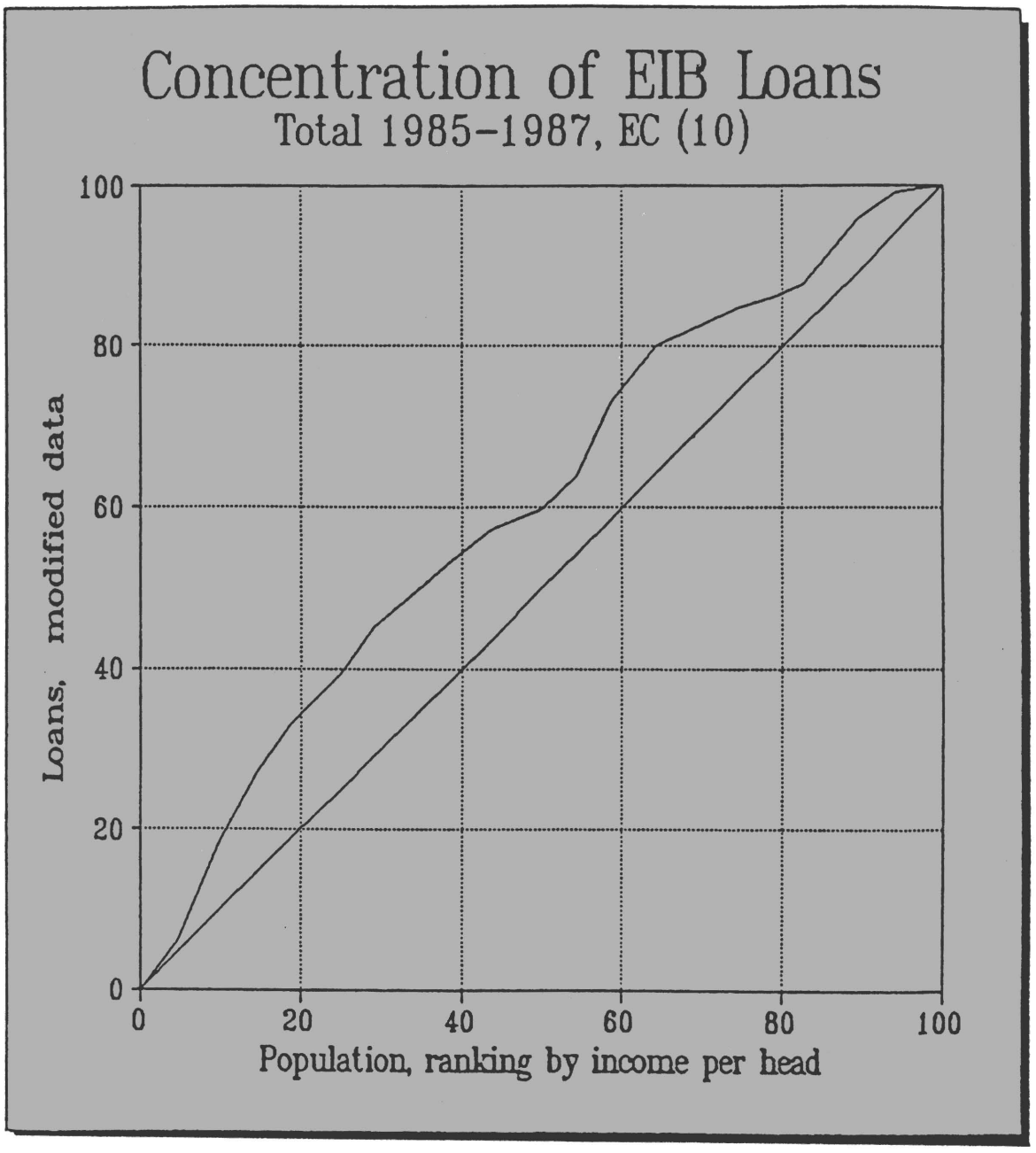
In 1989 the subsidies of the European Coal and Steel Community amounted to ECU 60 million. They were spent on regions where a need for restructuring existed because of the dominance of the declining coal and steel sector. With respect to their income per head, these regions are not the poorest ones in the Community. Therefore, the subsidies do not contribute to equalizing existing global regional imbalances, but could prevent the aggravation of individual regional problems.

Graph 12 — **Concentration of EIB loans, total 1986-87, EC 12**



In 1986 and 1987, the EIB loans for EC regions totalled up to ECU 7 billion a year. After the enlargement by Spain and Portugal, the equalizing effect of EIB credits in regional terms diminished significantly as compared to the EC 10. This was because the Iberian regions were only able to attract EIB money in proportion to their share in population.

Graph 13 — **Concentration of EIB loans, total 1985-87, EC 10**



EIB credits counteract regional imbalances significantly albeit not sharply. Part of the distribution of credits could not be calculated directly but had to be estimated. Probably, actual flows were somewhat more concentrated on the poor regions than shown here.

on leads to progressive flattening of the curve in the two following years. This process may be expected to continue after 1987, too. For the Community of Twelve, on the other hand, the distribution curve will continue to bulge outwards, becoming steeper in the lower section, especially. Unless there is a major boost to the overall funds available, this will inevitably be at the expense of the old Community of Ten.

In the distribution calculations presented here, EIB operations were also analysed separately on the basis of the purpose of the loan — infrastructure or industry. Spending on infrastructure was by far the greater of the two and dominates the picture. But the difference in relative importance apart, there are significant differences between the distribution of spending on industry and spending on infrastructure (see Graphs 14 and 15). On the basis of the Community of Twelve, industrial credits overall are more unevenly distributed — thus helping to counteract regional income disparities, within the limits set by their size — than infrastructure credits. As far as poverty is concerned, their effects are not regressive. Yet the curves for infrastructure spending stick relatively closely to the 45° line and in both the years under observation are strongly regressive in the poverty area after the end of each period.

This shows that it is much harder to draw up infrastructure projects that can be swiftly put into effect than it is to provide support to industry. The problems involved are often complex and considerable preliminary planning is required. The financial outlay is considerable and it is necessary to recruit co-financiers. It takes several years to find ways round these obstacles. This may be demonstrated by comparing the distribution of EIB spending on infrastructure over a period of time with spending according to size of the Community. The original data show that the regressive effect fell off sharply even between 1986 and 1987 (implying a switch of funds to the poorer regions). And in 1985, four years after Greece's accession, no regressive distribution is detectable in the poverty sector under the Community of Ten. This is not of course quite so true for the years that follow, but the impact of the general flow of money out of the Community of Ten mentioned above as a result of the southward enlargement is quite evident. Further, this might also be an indication that the EIB is not able to distribute its resources purely according to need. Instead, we find a number of roughly similar poorer regions competing for scarce financial resources, and it is on this score that Greece has lost ground to Portugal during the second half of the 1980s. This might also explain why, when it comes to support for industry, the distribution curve did not flatten out with the second southward enlargement in the territory of the old Community of Ten all at once, like spending on infrastructure, but did so a year later. As direct investment shifted away from Greece towards Spain and Portugal, fewer and fewer applicants for these funds came forward in Greece. In the Community of Twelve, this is clearly reflected in a simultaneous concentration of financial assistance to industry in the lower sector (where Portugal is heavily represented).

Agricultural guarantee payments

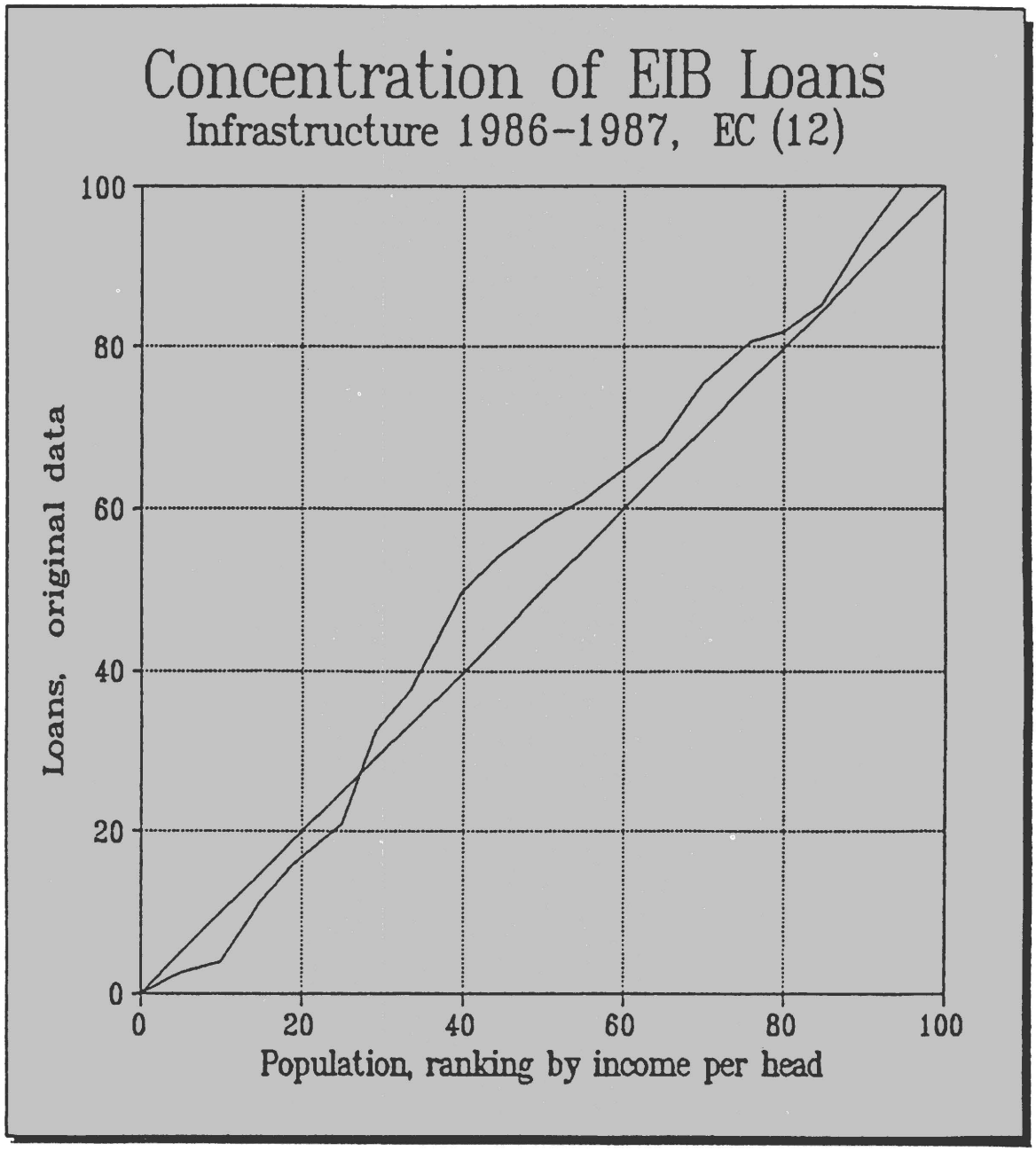
As agricultural guarantee payments were imputed to the regions by product, on the basis of their share of production, and production statistics are relatively up to date, the study was able to cover the periods 1986-89 (EC 12) and 1985-89 (EC 10). It included all the major products subject to market organization, accounting for more than nine tenths of all price support payments, or 56% of the Community budget.

Many of the curves are remarkably stable over time, while others vary to a greater or lesser extent. The reasons for this have to be explored from case to case. In contrast to other comparisons over time, the curves for EC 10 and EC 12 differ considerably in places, with their effects in terms of equalizing income distribution occasionally going into reverse. It also emerges from the analysis that the distribution curves for specific products diverge very sharply at times. In particular, they include a number of extremely convex curves indicative of a strongly equalizing effect — though commensurate, of course, with their often modest importance.

Despite reservations about lumping together different categories of expenditure on account of their different effects, we first look at the two summary distribution curves (1986-89 and 1985-89) for all the selected products combined and the product-specific components of these curves. The most conspicuous difference is that guarantee payments made under the old Community of Ten appear to have had a fairly consistent — if not substantial — effect on regional income distribution, whereas no such effect is discernible in the Community of Twelve seen as a whole (see Graphs 16 and 17).

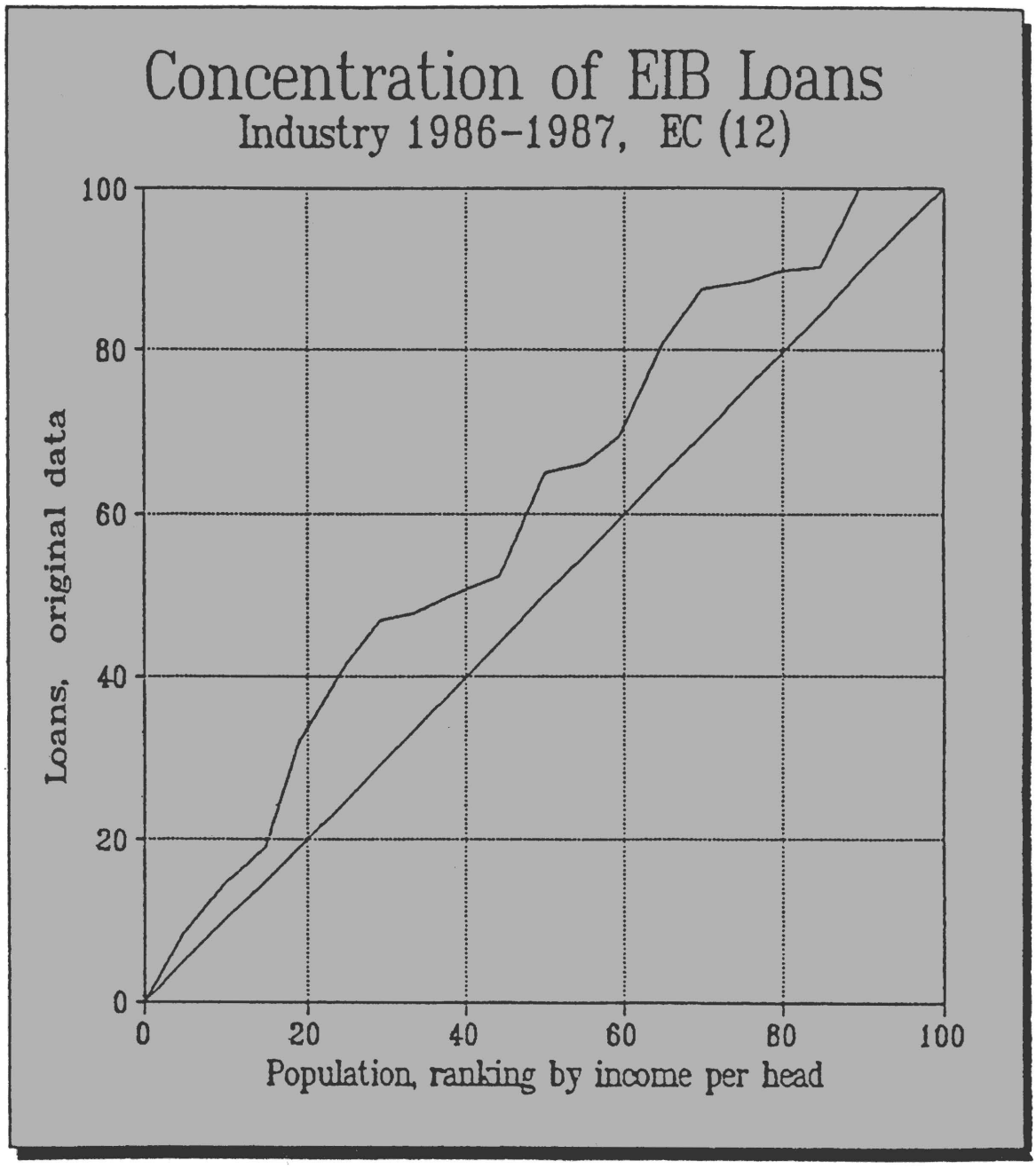
The way the curve intersects the diagonal around the middle of the population range reflecting the shift in the accumulated financial flows from less than proportional to more than proportional shows that it is primarily regions with average per capita income that benefit from guarantee payments. These regions were among the poorer regions of the Community of Ten. EC

Graph 14 — **Concentration of EIB loans, infrastructure 1986-87, EC 12**



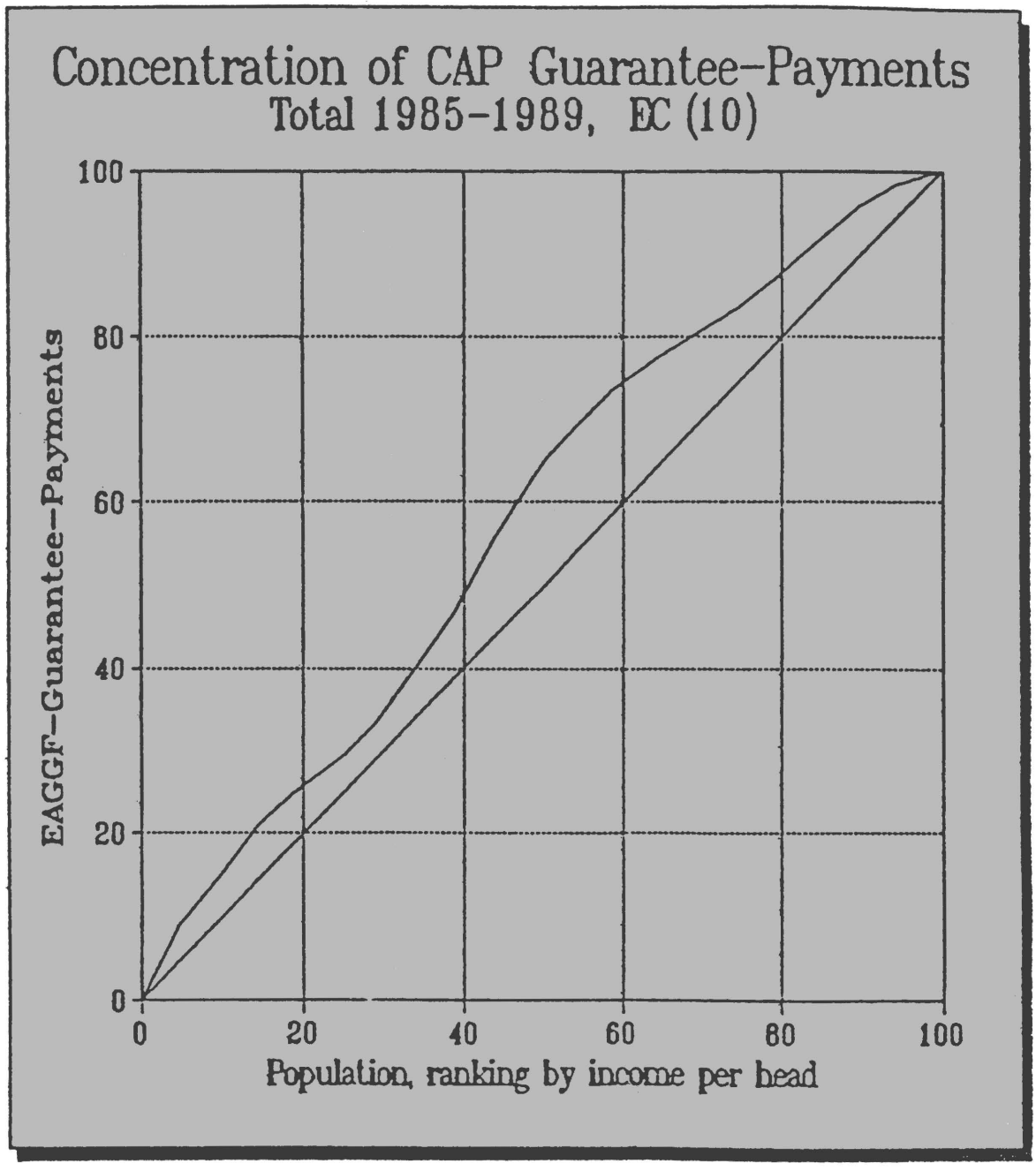
Loans for infrastructure purposes amount to three quarters of total EIB loans. The flattening of the concentration curve for total EIB credits results only from the distribution of payments for infrastructure. Here the South obviously has problems of absorption. It is mainly the directly calculable figures, which are free from equalizing estimates, that show this.

Graph 15 — **Concentration of EIB loans, industry 1986-87, EC 12**



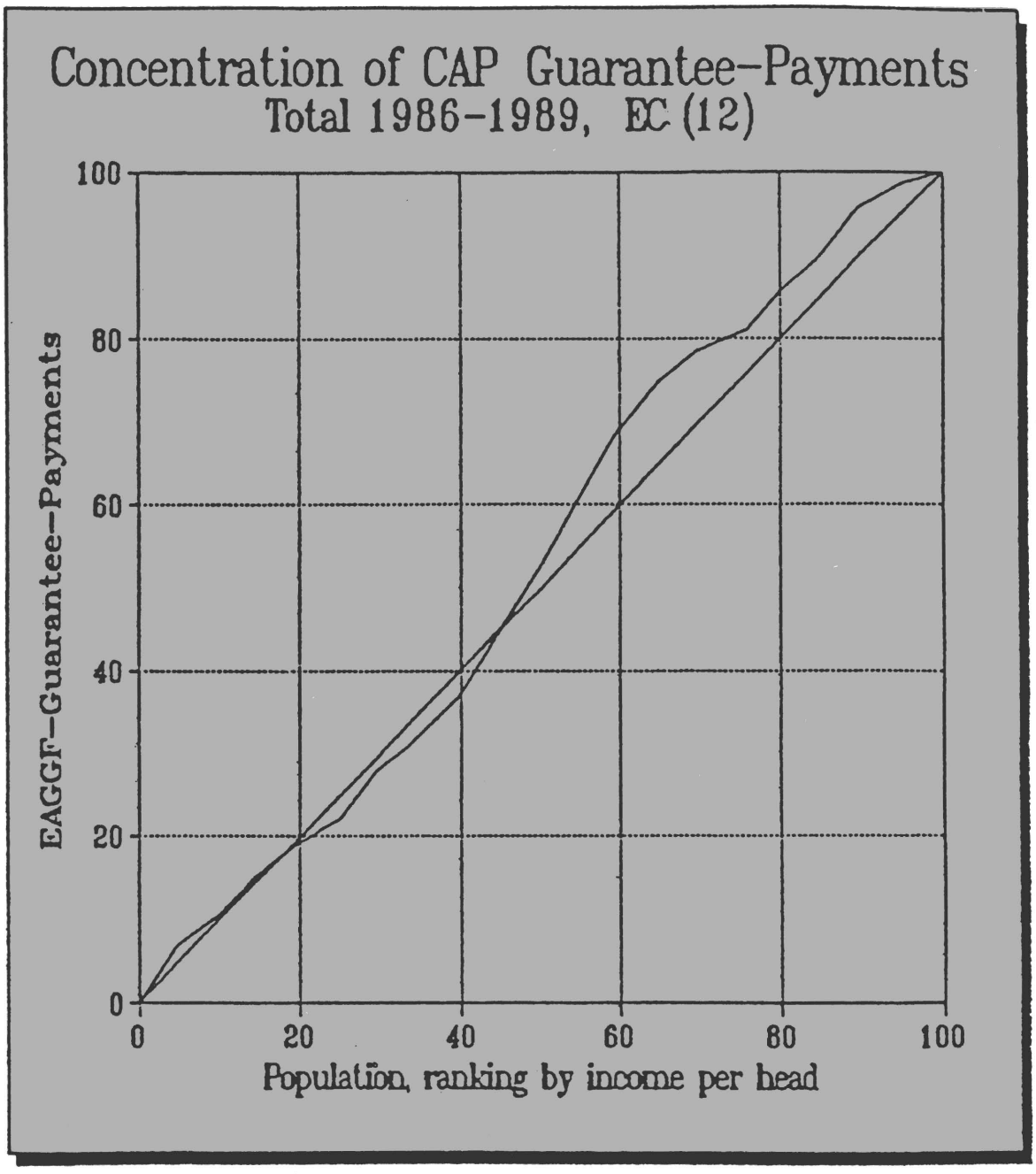
Loans to the private sector amount to one quarter of total EIB loans. Industry projects eligible for EIB credits mature faster than those in infrastructure. The curve is expected to show somewhat more concentration in the years after 1987 as may be deducted from comparison with that for the EC 10.

Graph 16 — **Concentration of CAP guarantee payments, total 1985-89, EC 10**



In 1990, EAGGF guarantee payments totalled ECU 25 billion, i.e. nearly 60% of the EC budget. A comparison with the EC 12 shows a distribution of total guarantee payments which is, with respect to the poorer regions, more clearly counteracting income gaps. This indicates that the original CAP was constructed for a 'Community of the North'.

Graph 17 — **Concentration of CAP guarantee payments, total 1986-89, EC 12**



In the EC 12 the poorer regions attract guarantee money only in proportion to (or somewhat less than) their share in population. Within the upper 60% of population there is some income-equalizing *effect*.

agricultural policy was thus, on the whole, tailored more to the needs of the richer regions of the north. In the case of cereals, sugar, oilseed, milk, beef and veal — products which accounted for some 70% of all guarantee payments over the period 1986-89 (see Table 3) — the poorer half of the Community of Twelve is disadvantaged by the regional distribution effects of the price support mechanism whereas in the Community of Ten there was no such effect in the case of milk and beef, and at any event 40% of the Community population at most (EC 10) were affected.

In 1988 the system for providing agricultural price support was reformed. With the aid of a number of measures (stabilizers) the support level is now automatically lowered whenever set production thresholds are exceeded. Since then there has been a marked change in the distribution effects of guarantee payments. Whereas in 1987 the curve in the area of the poorer half of the population of the EC 12 was still clearly concave, by 1988 it already largely represented a proportional distribution along the 45° line, moving completely above it in 1989. The reasons for the noticeable equalization of regional income distribution linked with this might be that owing to the introduction of price stabilizers northern products cease to enjoy the heavy support they had received previously while southern products began to receive much more favourable treatment. This might also apply to the Community of Ten, that is, including Greece, the Italian Mezzogiorno and some regions of southern France.

Below we show how the individual product groups studied contribute to the overall distribution curve and which of them may be credited with bringing about a change in the situation which is undoubtedly beneficial from the regional policy point of view.

The regional distribution effects vary in respect of the individual products (see Graphs 18-21 and the relevant diagrams in Appendix B). In the case of sugar, it is the richer regions of the Community (EC 12) that benefit; in the case of cereals, milk, oilseed and beef the poorer regions are also disadvantaged, with the regional equalization effects being confined to the economically stronger northern regions. Thus 70% of guaranteed expenditure, or fully 40% of the entire Community budget, is in effect working against the Community's regional policy objectives. Only in tobacco, olive oil, sheep and goat meat and — to a lesser extent — wine, fruit and vegetables are the poorer regions of the Community of Twelve favoured to any extent. These products attract less than 20% of guarantee payments.

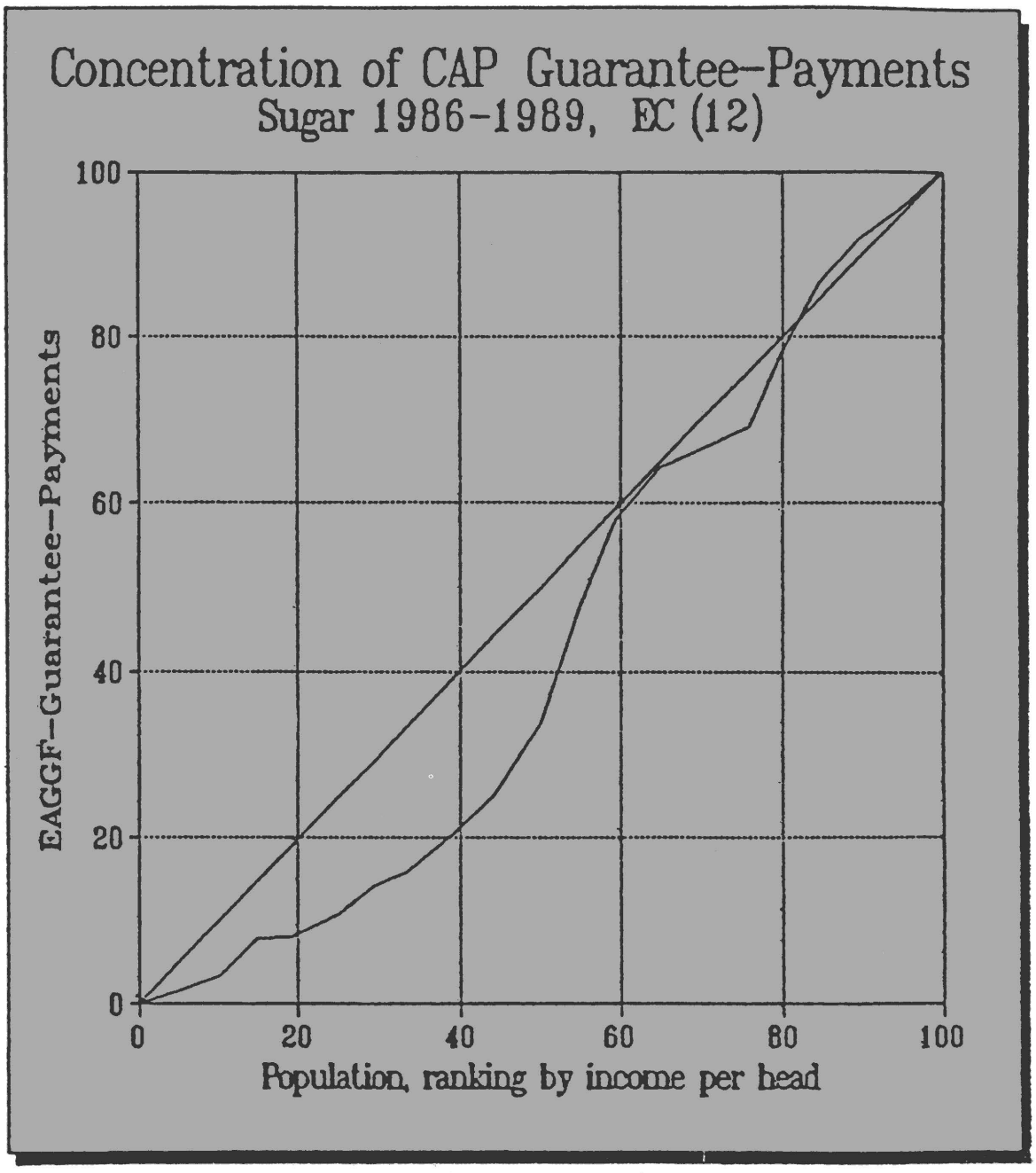
For certain product groups, the price support situation changed between 1986 and 1989. The distribution of expenditure on milk, beef and veal and tobacco has to all

Table 3 — **EAGGF guarantee payments for selected products**

Product	EC 10 1985-89		EC 12 1986-89	
	Mio. ECU	%	Mio. ECU	%
Cereals and rice	17 067.3	15.8	15 320.2	16.4
Milk	27 065.2	25.1	21 320.9	22.9
Tobacco	4 361.5	4.0	3 690.7	4.0
Cattle (meat)	13 187.7	12.2	10 534.7	11.3
Sugar	9 274.1	8.6	7 822.7	8.4
Wine	4 425.6	4.1	4 124.4	4.4
Sheep and goats (meat)	3 556.8	3.3	3 937.2	4.2
Fruits and vegetables[1]	4 710.2	4.4	3 658.5	3.9
Olive-oil	4 415.7	4.1	4 153.0	4.5
Oleaginous products	10 878.8	10.1	10 360.3	11.1
Selected products total	98 942.9	91.8	84 922.6	91.1
EAGGF guarantee payments total	107 781.2	100.0	93 185.5	100.0

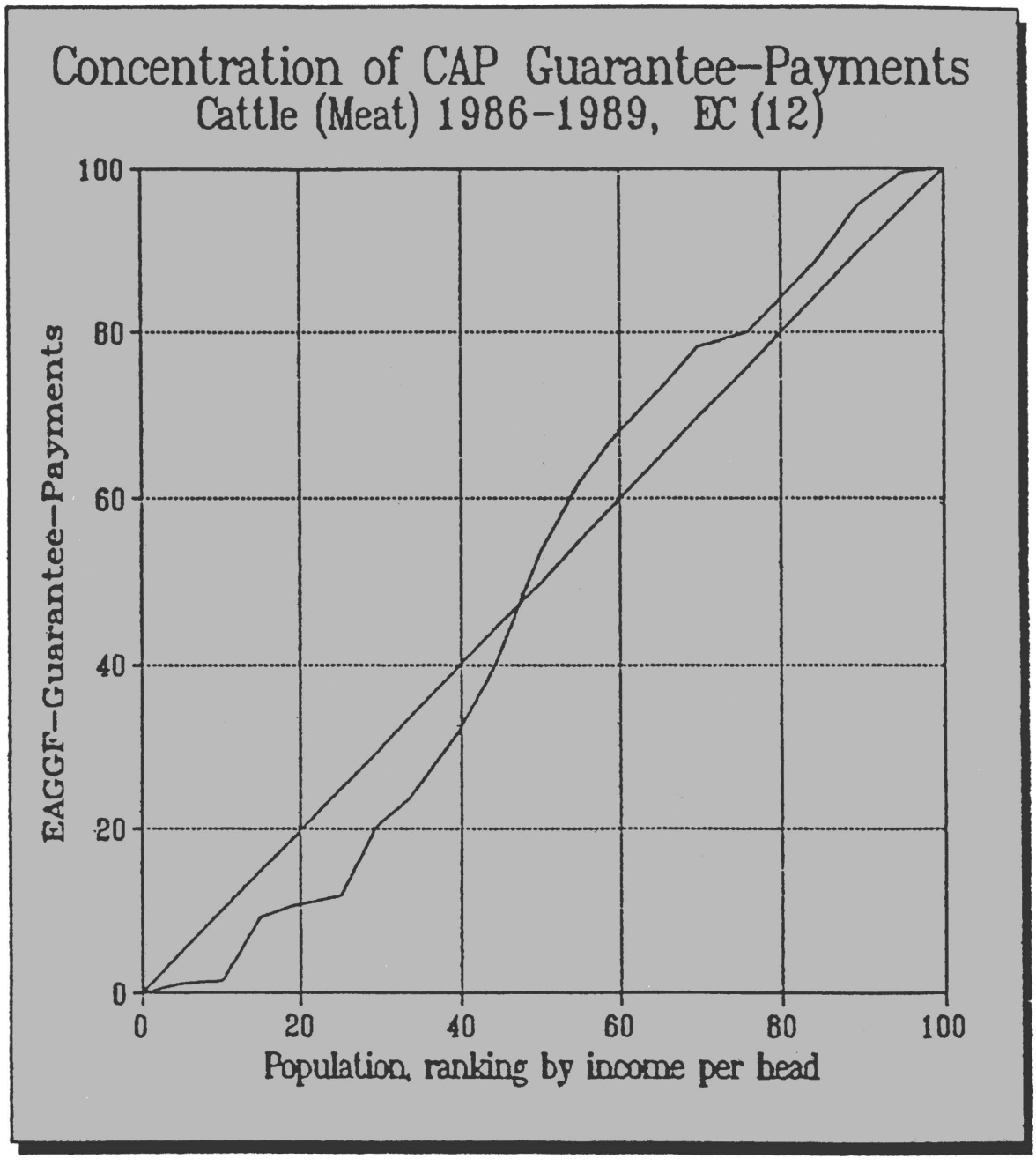
[1] Excluding pineapple.
Sources: Eurostat, database Regio; EAGGF financial reports; DIW calculations.

Graph 18 — **Concentration of CAP guarantee payments Sugar 1986-89, EC 12**



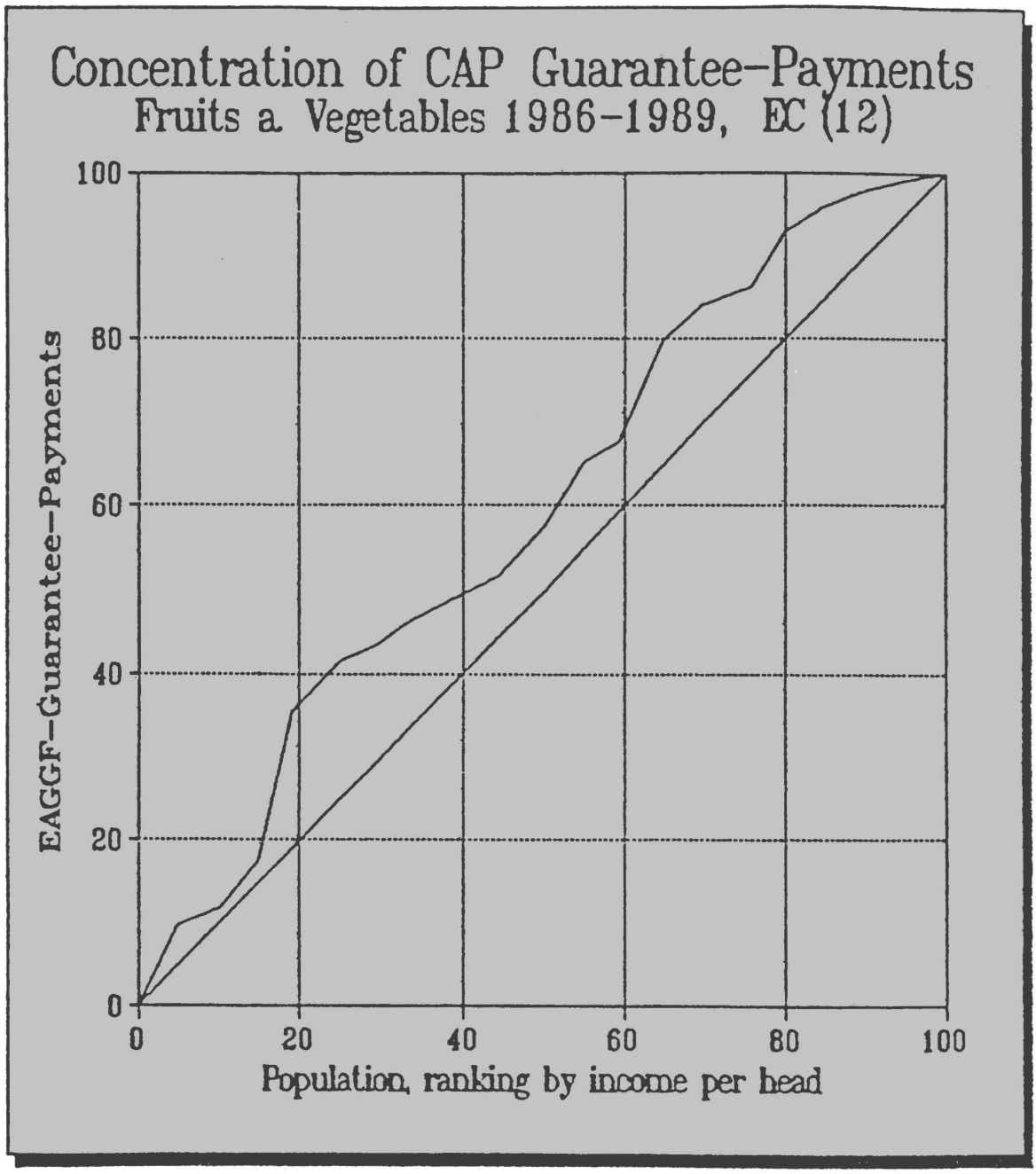
Payments for sugar amount to 8.5% of total EAGGF guarantee payments. The poorest 45% of the people are at a disadvantage, more than with any other product. In the EC 10, this imbalance is weaker. Distribution there resembles more that for cereals, milk and cattle meat showing that sugar is more a northern product, too.

Graph 19 — **Concentration of CAP guarantee payments Cattle (meat) 1986-89, EC 12**



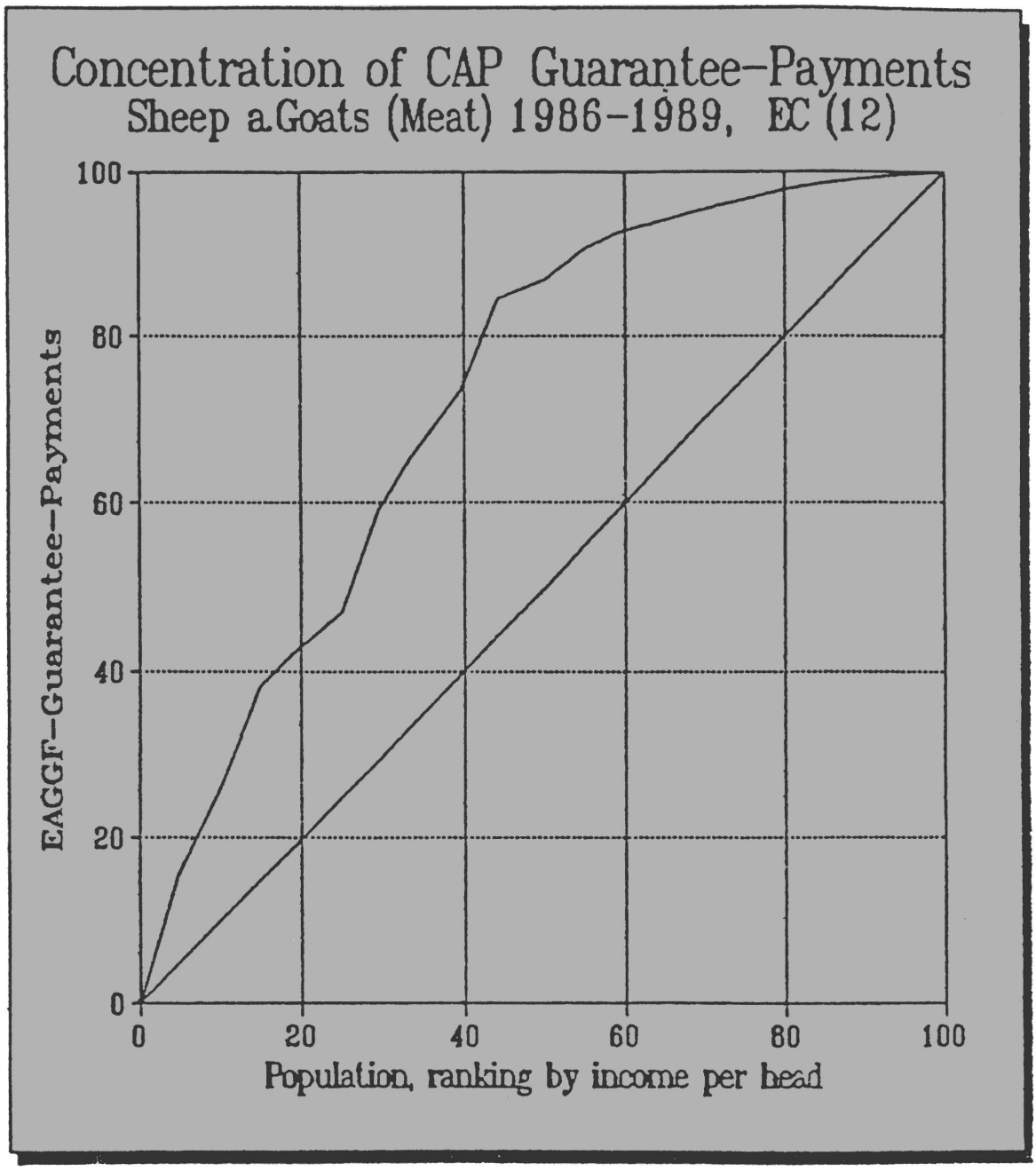
Payments for cattle amount to 11% of total EAGGF guarantee payments. The poorer regions run short of payments, here. Similar distribution curves can be found with cereals and rice, milk and oleaginous products. The curve for this typical 'northern product' is relatively invariant over time.

Graph 20 — **Concentration of CAP guarantee payments Fruit and vegetables 1986-89, EC 12**



Payments for fruit and vegetables amount to 4% of total EAGGF guarantee payments. This distribution is strongly in favour of the second poorest tenth of the people which is the poorest tenth in the EC 10. Total payments significantly counteract regional gaps. Concentration on poorer regions increases over time with production there growing fast under CAP. (Similar but flatter with wine.)

Graph 21 — **Concentration of CAP guarantee payments Sheep and goats (meat) 1986-89, EC 12**



Payments for sheep and goats amount to 4% of total EAGGF guarantee payments. These payments, even more than those for tobacco and olive oil, are in strongest contrast to regional income imbalance. Especially the richest regions receive little or nothing (olive oil).

intents and purposes remained unchanged, undesirable though it is from a regional policy angle. In respect of most other products, guaranteed expenditure was more in line with the objective of reducing regional disparities by the end of the period covered than it had been to begin with. The boost to incomes linked to guarantee expenditure in respect of wine, sheep and goat meat, cheese and vegetables, has increasingly come to benefit the poorer regions, while the richer regions are no longer so heavily favoured with regard to cereals, oilseed and sugar as they were at the start.

All in all, the evidence confirms the theory that less preferential treatment of some (though not all) northern products and more preferential treatment of major (again, not all) southern products have resulted in the EAGGF guarantee payments — which ultimately constitute the bulk of Community expenditure — helping to counteract the regional income gap in some way.

If one compares the distribution curves for EC 12 with EC 10, taking each product group separately, one finds both similarities and differences.

The curves for tobacco, beef and veal have remained unchanged, even compared with the Community of Ten. This demonstrates that their production is concentrated in the original Community of Ten. It also attests to the fact that between 1985 and 1986 (following the accession of Spain and Portugal) the relevant flow of guarantee funds to the regions in question continued unchanged. But in respect of fruit and vegetables, cereals including rice, sheep and goat meat and sugar, the distribution curves for EC 10 have remained practically constant, while on the basis of EC 12 a shift towards a more equalizing effect was noted. Many of these are product groups for which output levels are far higher in the south. As the northern regions did not forfeit any funds, and the south received more than its due proportion (more than it had before), the overall effect is an equalizing one. In respect of oilseed, distribution was worse for EC 10 than it was for EC 12. What has happened here is that the southern regions of the old EC have 'ceded' produce bought in to intervention to the Iberian countries as a result of competition. Comparison of the curves shows that for olive oil the opposite is true. In the case of wine, finally, there were equalizing distribution effects at either end of the period. Guarantee payments were more heavily concentrated on Italian, Greek and/or southern French wine, as well as Spanish varieties.

As with oilseed, this is not necessarily to be welcomed. It may also mean that amid the already tense market conditions prevailing for table wines, price support has stimulated production to the extent that large quantities can only be absorbed through intervention. This issue cannot be explored in detail here.

Overall effects

Scrutiny of the regional concentration of the Community's aids, credits and support to agriculture showed whether each package of measures tended to reduce or reinforce disparities, although this was not related to actual financial impact. To arrive at an overall assessment of these measures, they must be evaluated, along with their financial impact and then summarized. The difficulties of doing so were pointed out in the introduction. Strictly speaking, the Community's payments or commitments cannot be simply added up. The subsidy value of each individual measure varies too widely; when it comes to credits, it is often called in question completely. It is also likely that the income effect resulting from the support programmes — hard though it is to gauge — is fairly widely scattered. Finally, the boost to economic development in the region concerned — or in another region that profits indirectly — by Community financial assistance is far from uniform.

Consequently, the approach adopted here for want of a better one — simple addition of the financial flows within the Community — can only provide a number of fairly rough-and-ready indicators. Closer examination of the regional concentration of aid from the structural Funds (regional Fund, social Fund and EAGGF Guarantee Section) — amounting to more than one fifth of the Community's budget for 1990 — shows a clear trend towards the elimination of regional disparities. In 1986 and 1987 half this money on average went to the regions with the poorest 20% of the Community's population, whereas the 40% living in the economically powerful areas receive little more than 10% of the structural Funds (see Graph 22). Regional concentration for the Community as a whole is somewhat less than it was for the 10 original Member States. Thus while the tenth of the population living in the poorest regions of EC 10 received 40% of the resources allocated to these countries by the structural Funds, the figure for the corresponding group of regions in the Community of Twelve was only 25% (see Graph 23). Looking at the development of specific measures, however, we found that this was largely due to the new Member States' transitional problems. With the reform of the structural Funds, their regional equalization effects should turn out to be even more tangible than for the period 1986-87.

If, in addition to the structural Funds, one takes into account the Community's other structural policy operations of financial significance — EIB credits and ECSC credits and aids, amounting to roughly 25-30% of the Community budget — a substantial dilution of the equalizing effect is noticeable. This is partly because ECSC money has no impact whatsoever on regional equalization and partly because EIB credits are significantly more dispersed throughout the Community region by region. While the bottom fifth of the regions [1] received over half the resources provided by the structural Funds, they received little more than 40% of the structural assistance provided. As a form of aid, credits play a minor part and their levelling effects have undoubtedly been overstated. The tendency was greater for the regions of the Community of Ten than it is for the Community as a whole. Owing to the relatively small amounts involved — little more than half a million ECU for the period 1985-87 — the curve remains virtually unchanged even if financial contributions to R&D contracts are included in this spending, despite their adverse impact on regional equalization.

But taking into consideration guarantee payments under the common agricultural policy — roughly three-fifths of the Community budget — we find a marked levelling off in the financial incentives for regional equalization, farm policy as a whole doing little to support regional policy objectives and hence running counter to the structural Funds' equalizing effect. The concentration curve clearly approaches the diagonal, that is, assistance in the form of financial policy incentives was not, on the whole, geared to regional poverty measured on a per capita income basis. This is particularly true of the Community as a whole. For the 10 original Member States the equalizing effect of farm spending is slightly more pronounced, being countries at a generally advanced stage of development where there is a closer correlation between regional income lows and agricultural structures.

In assessing these findings it must be borne in mind that where there is room for doubt the regional equalizing effects of agricultural policy tend to be overrated, whereas their tendency to level out structural spending in terms of impact is underrated, if anything. For under the existing farm system, because of the price support mechanism the income effect is greater than it appears to be in the expenditure of the agricultural fund. Furthermore, the effect on income is greater with regard to a number of northern products subject to traditional market organization than in the case of many southern products and the deficiency payments for special products, which are even more expensive for the Community. The extent to which the levelling effect of EIB and ECSC payments is overestimated is probably at least offset by agricultural spending.

3.5. Assessment of findings

If one wishes to draw conclusions from these findings with a view to the adjustment of the Community's structural and agricultural measures from the point of view of regional policy, it is essential to bear in mind the reservations to which the statements made are subject, owing to the methodological and statistical problems and shortcomings we encountered. The main point to bear in mind is that the tendency of the Community's financial instruments to narrow or widen regional disparities described in the study cannot represent more than a trend; it cannot be used to gauge the actual effect of each individual measure. This would have entailed constructing a highly complex, differentiated model of interdependent regional development, which was not feasible here in view of the limits set. In any event, it is debatable whether models of this kind provide a sufficiently accurate portrayal of reality to be of any practical use.

Even in measuring the various financial stimuli a number of caveats are necessary. These relate to:

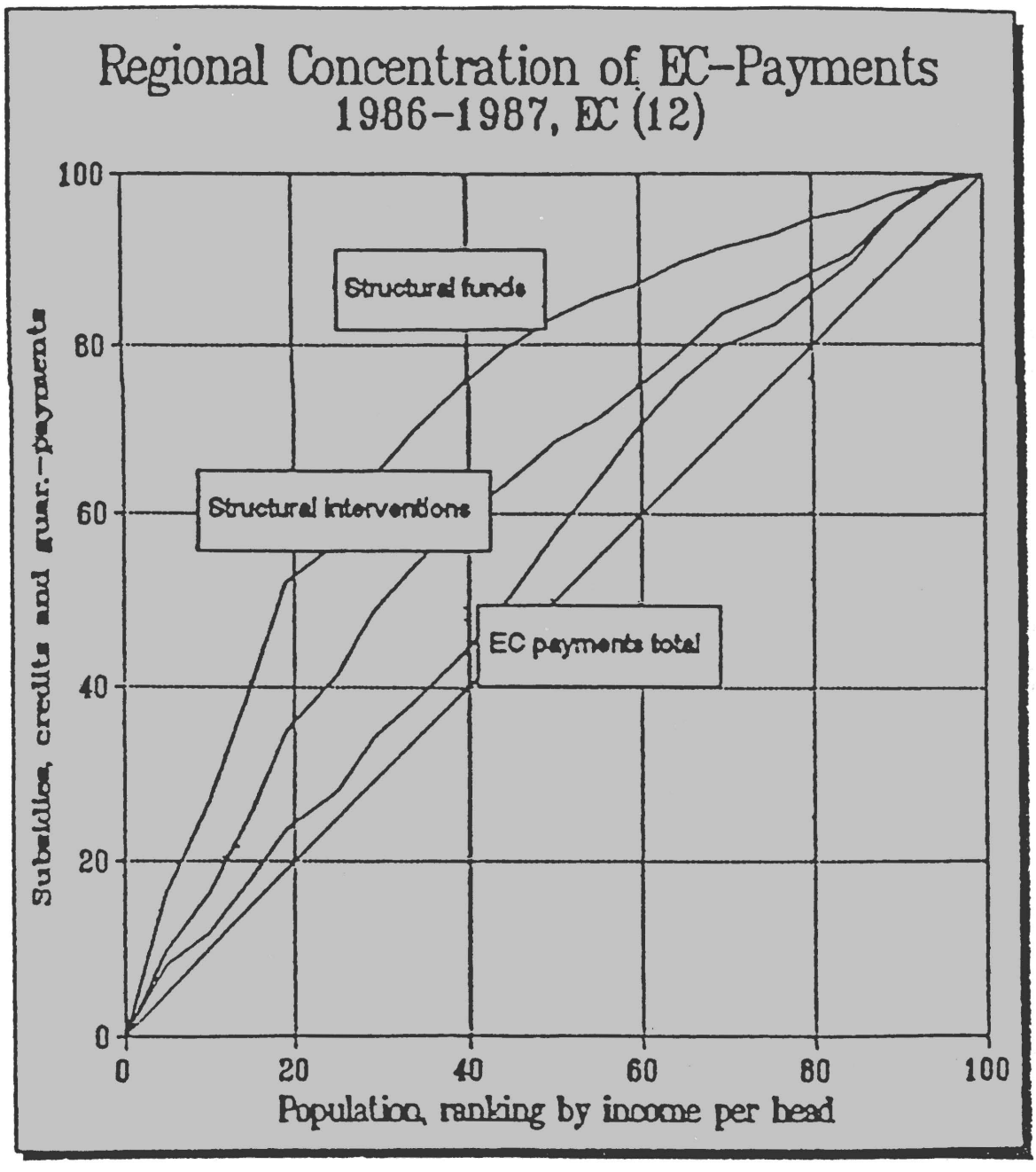
- the question of money outflow,
- progress in programme implementation,
- the problem of the additionality of Community resources,
- the efficiency of the specific measures taken,
- the knock-on effect,
- and, last but not least, the ability of eligible regions to absorb aid.

If there are regional peculiarities in these areas, equal financial input will produce different effects. This may cause major shifts in the overall picture of the trends towards regional equalization, with corresponding changes in the position and course of the concentration curves in question.

Calculations involving Community payments from the three structural Funds are based on data on

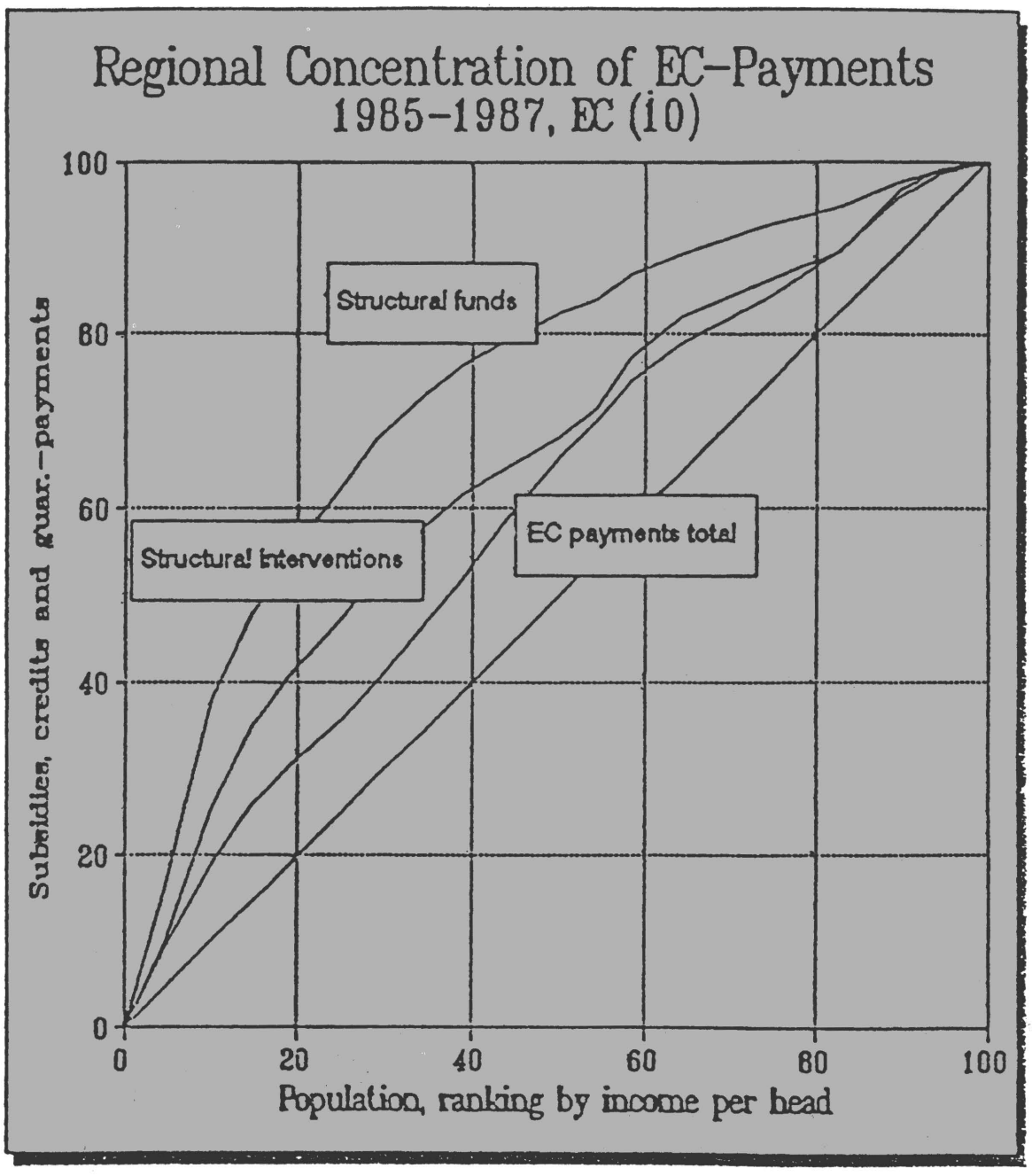
[1] By population.

Graph 22 — **Regional concentration of EC payments, 1986-87, EC 12**



The subsidies of the European structural Funds give considerable impulses to the economically weak regions. More than half of them were concentrated on the poorest regions, with 20% of the EC's population. Grants and loans of ECCS and EIB were less concentrated. Therefore, the poorest fifth of the regions made use of only 35% of the EC's structural interventions as a whole. Total EC payments for structural and agricultural purposes, of which CAP's guarantee payments have the biggest weight, do not contribute much to global regional equalization.

Graph 23 — **Regional concentration of EC payments, 1985-87, EC 10**



Among the regions of the Member States of the EC 10 the expenses for CAP contribute more to distributive goals than in the overall EC 12, due to the fact that in the EC 10 countries' rural structures and relative economic weakness are correlated more strongly.

commitments, not payments. Yet the desired economic boost is linked with payments actually made and not with the Community's willingness to make funds available to the regions. It depends, then, whether the funds set aside are actually utilized. This constitutes a major problem, particularly in respect of the years prior to the reform of the structural Funds. There were often substantial time-lags between commitment and payment. Of the commitments made for specific Community measures over the period 1981-87 (just under ECU 0.5 billion), only some 60% was actually paid out over the same period, with substantial differences between various countries. [1] In the case of the social Fund, this backlog problem was partly dealt with by suspending commitments where authorized projects were not carried out or where funds were shown to have been only partially or incorrectly spent. [2] This backlog problem not only reduces the efficiency of European structural policy but also greatly complicates matters when it comes to payments to be made in the current financial year arising from earlier commitments. The European institutions concerned can only step in to help here if they themselves are contributing to the delay or if they might be able to prompt the recipients into taking swifter action on projects. The reform of the structural Funds made provision for this by empowering the Commission to make greater use of advances than hitherto.

Yet the gap between commitments and payments is probably chiefly due to the slow rate at which programmes are implemented and delays by national bureaucracies in processing applications and providing supplementary national funding. [3] The possibility of drawing on Community funds more quickly in the form of advances does not always prove to be an automatic remedy. Experience, if anything, points in the other direction. There is no visible speeding up in the implementation of programmes, [4] though transparency with regard to the state of operations and the recipients' financial management suffered as a result. [5] This is only a way of dealing with the problem for bookkeeping purposes, to make it less obvious, as it were; basically it is no solution to it.

As old as European structural policy as a complement to national measures is the question of how far European financial contributions really are additional payments or simply a substitute for national expenditure. Community action can only be said to have an effect in terms of regional equalization over and above that of national policies if it triggers off additional economic activity.

For several reasons the question of whether Community money reinforces national efforts in the field of regional and structural policy is virtually unanswerable. In individual cases, such as the integrated Mediterranean programme for Greece, the empirical evidence — based on investment trends — tends to show that it does not. [6] Of course, there is no clear benchmark to show what would happen, or would have happened, without the European contributions to structural policy operations. For another thing, the Community does not generally run any independent projects of its own but — particularly since the reform of the structural Fund — makes a financial contribution to programmes either conceived and funded jointly or nationally. Lastly, the willingness or ability to initiate fresh projects may suffer considerably from the co-funding requirement — not least where there are major problems with the national budget, as in Greece and Italy for example. In this sort of situation, however, Community financial support is most welcome, with the result that the national bureaucracy will in any event furnish evidence that the money forthcoming from Europe is used as additional funding. In the final analysis, recent recipients occasionally appear to be unaware that the European Community is involved in funding a specific measure as well as the national government, especially as the lower levels of local government have no financial autonomy in many of the EC countries.

The question of the efficient use of allocated funds cannot be answered on the basis of a financial flow analysis. There are a number of different aspects to the issue. First, there is the basic question of regional and structural policy, that is, whether the active or passive reorganization of regions and sectors is economically

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[1] *Cf.* Commission of the European Communities (Ed.), *European Regional Development Fund. 14th Annual Report (1988) from the Commission to the Council, the European Parliament and the Economic and Social Committee.* Luxembourg 1990, p. 26.

[2] CF. European Parliament (Ed.), 'Report on behalf of the Committee on Budgetary Control on the problems relating to the financial management and administration of the European Social Fund in the period 1981-87 (special report by the Court of Auditors, No. 1/88, OJ C 126 of 16 May 1988)'. Rapporteur: Claude Wolff. PE Doc. A2-297/88, p. 12 ff.

[3] *CF. inter alia,* the Court of Auditors, 'Special report 2/86 on the specific Community regional development measures of the ERDF (non-quota measures) together with the Commission's replies'. OJ C 262, 20 October 1986, p. 6.

[4] Ibid., p. 6.

[5] *Cf.,* for example, the 'Court of Auditors' Annual report on the financial year 1989 together with the institutions' replies'. OJ C 313, 12 December 1990, p. 124.

[6] *Cf.* Court of Auditors, 'Special report No 4/90 on the integrated Mediterranean programmes (IMP) together with the Commission's replies'. OJ C 298, 28 November 1990, p. 16 f.

more efficient in the long run. If the knock-on effect of State support is greater in modern industries and go-ahead regions, this can result in a more rapid boost to growth and employment and — given manpower mobility — in the right circumstances lead to the levelling up of the general standard of living and prosperity than is feasible via the protracted procedures of providing financial support to economically weak regions and sectors. But if one opts for greater geographical balance instead, even at the cost of purely economic efficiency, one is still faced with the question of the effectiveness of the means employed, and the evaluation of individual financial instruments in relation to the desired objective. Where there is doubt, case studies must be conducted in order to establish how efficient the selected measures are in comparison with alternative projects and to provide some idea how the implementation of measures can be made more effective, that is, cheaper or economically more successful.

A clear line must be drawn between the problem of efficiency and the question of the magnitude of impact. However necessary, sensible and efficient they may be, support measures — whether taken alone or coordinated with others — do not have the same knock-on effects in relation to incomes. What is more, the level of assistance must be related to the degree of disadvantage. This must also be borne in mind when the regional concentration of support funds is considered.

Finally, it must be taken into account that the ability to absorb financial resources may be limited, particularly on a regional basis, so that if it is to remain efficient the regional concentration of funds cannot be increased at will. Following the European Council's decision in February 1988 to double the size of the structural Funds within six years, smoothing the way for the completion of the internal market, people are voicing growing misgivings that the most disadvantaged regions, particularly in Greece and the Mezzogiorno, will be unable to benefit fully from them. The reasons given for this are both the particular economic conditions in these regions, particularly the neglect of human resources and the resulting lack of popularity with private investors, and administrative problems, chiefly the lack of coordination between the various levels of the administration and the specific official instance responsible for a particular matter. On top of this there are various technical implementation problems and national socio-cultural peculiarities. [1]

Taking all these reservations into account, caution is called for in drawing political conclusions. Broadly speaking, there can be no doubt that the structural Funds clearly help to narrow the gap between the regions, and also that agricultural policy — if it is to be placed more squarely in the service of the Community's regional policy — is in need of adjustment. This, of course, does not relieve the Community of the job of monitoring more closely than before the effectiveness of such a policy, more attuned to regional equalization.

[1] *Cf.* 'The Community's structural Funds and problems of absorption, memorandum from the Directorate-General for Research, Internal Market Division, of 25.9.1990, IV/WIP/90/09/053'.

4. The regional impact of EAGGF (Guarantee Section) spending — breakdown by financial flows

4.1. Preliminary observations

To achieve the objectives set out in Articles 38-42 of the EEC Treaty, Community agricultural policy has introduced a system based on interlocking organizations of the market (COMs) that now covers more than nine-tenths of farming output. There is no single form of COM applicable to all products but they are all designed to ensure that Community products are given preference in Community markets, that is, to protect producers from foreign competition. The system of Community preference, necessary because of the excessively high price level in the EC's internal market as compared with third country markets, is backed up by the principle of financial solidarity, which lays down that all Member States shall assume responsibility for funding the common agricultural policy.

The market organization policy on the basis of common producer prices was originally intended to play the dual role of guaranteeing producers a 'fair' income, that is compared with non-agricultural incomes, and regulating the markets, that is, maintaining the balance between supply and demand. It is a well-known fact that the policy has failed to achieve these aims, with this failure being reflected in the static or declining incomes of Community farmers and in the growing market surpluses, which are only disposed of — chiefly outside the Community — at considerable economic loss.

Producer prices for COM products are supported by intervention measures and export refunds provided by the European Agricultural Guidance and Guarantee Fund (EAGGF), Guarantee Section. The resources of the EAGGF Guarantee Section account for the bulk of Community spending. In 1989 it amounted to just over ECU 26 billion, approximately 63% of all expenditure. [1] A question often raised in connection with farming spending is which group of the population derives direct benefit from the specific farming policy measures, and to what extent. In any event, the real target group — the producers — are by no means the chief recipients of these EC payments.

An analysis of the regional income impact of farming spending would require a clear breakdown of Guarantee Fund spending at least at product level and would also have to take costs into account. Even if we were successful in doing this for the EC as a whole, or just for individual Member States, the agricultural peculiarities of the regions, such as farm size and use of labour, would have to be taken into account. It is often held against farming policy that considerable sums from the Guarantee Fund never reach agriculture directly or indirectly, but 'trickle down' into the distributive and processing trades. This is to imply that it is ultimately the exporters, warehousing firms, shipping lines, processing companies and banks that are the chief beneficiaries of agricultural policy, whereas the producers are left by and large empty-handed. It is also argued that these payments conflict with regional policy objectives in that they favour the region in which the company receiving them is based. Although it is true that, as corroborated by our talks with the Community authorities, companies commercially involved in warehousing, processing and export within the framework of the agricultural policy derive additional income therefrom and, in so doing, attempt to exploit every possibility to maximize their profits, it must be borne in mind that these are spin-offs of the support system that was originally devised for farming policy reasons and cannot be avoided without a radical overhaul of the system; indeed it could be claimed that it would otherwise not be capable of functioning.

We shall now attempt to establish whether there is any reasonable prospect of gauging the regional effects of agricultural market organizations by looking at the revenue and expenditure incurred, identifying the payer and recipient in each case and, finally, tracing their regional structure. If the direct recipients of payments could be ascertained, an analysis of this type would have to be extended further: revenue in one place may lead to income in entirely different places. But in exploring regional disparities, the increases in income are of greater interest than revenue growth in the absence of data on expenditure. This section sets out to describe the methodological approach when establishing regional financial flows in connection with the Community's agricultural market organization. The difficulties of obtaining data are discussed along with a number of theoretical reservations.

4.2. Direct participants in financial flows

As well as expenditure under the Community's agricultural market organizations, the volume of which

[1] *Cf.* Court of Auditors, 'Annual report on the financial year 1989 together with the institutions' replies', p. 51, OJ C 313/01 of 12 December 1990, and the Commission of the European Communities, '23rd general report on the activities of the European Communities 1989', p. 65.

is determined by political debate, the agricultural policy may also generate revenue that is not directly offset against Guarantee Fund expenditure but appears in the accounts as a separate source of funds. [1]

These are the levies imposed on the exports of agricultural products from non-Community countries to offset the competitive advantage of lower prices. In 1989 the levies contributed ECU 1.3 billion to the Community's own resources. With the principle of non-assignment applying, the monies thus received are not assigned to any particular purpose. [2] They are of no imputable benefit to individual, social or regional groupings. It is primarily the trading sector that meets the cost of the levies.

Less well known but more significant in terms of volume at ECU 1.4 billion in 1989 were the various sugar levies. They are divided into production, disposal and storage levies for sugar and isoglucose. Furthermore, according to the 19th financial report, in the sugar sector farmers and processing companies meet the costs of the market support measures that arise in connection with sales of Community surpluses. Again it is not possible to say who benefits from these payments. But the costs are a burden on domestic producers and processors, and should be examined from the point of view of regional distribution.

Other revenue under the agricultural market organizations is treated as agricultural market intervention and is deducted direct from expenditure in respect of the products in question. We shall consider this again below.

The largest item of Guarantee Fund expenditure in 1989 was export refunds, amounting to ECU 9.7 billion (see Tables 4 and 5). Qualitatively, too, this instrument is of major importance. Only refunds bridging the difference for exporters between purchase price (Community producer price) and sales price (world market price) make it possible to market Community surpluses abroad and thus take some of the strain off the Community farming system, with its buy-in guarantee. [3] The recipients of these payments are trading companies. The money is paid out, irrespective of the regional origin of the goods or of the exporter, at the place where the customs formalities relating to the export transaction are carried out. Refunds apply not only where sales from intervention stocks or via the free market are concerned but also in the case of food aid measures for developing countries. The cost of these supplies to the development budget is limited to the relevant world market price (including transport costs, etc.).

Withdrawals are not widely employed except in the case of a number of products and cost relatively little (some ECU 800 million in 1989). This instrument is of relatively major importance in wine production and also in cheese and vegetables. The Community pays relatively low withdrawal prices for surplus produce. The goods are withdrawn from the market so as to cut available supplies. This enables producers to achieve relatively high market prices for their remaining stocks. Goods withdrawn are destroyed (80% of cheese and vegetables), with small quantities being distributed free of charge, used as animal feed or distilled, though even so the marketing opportunities for distillates of this kind are slim indeed. In many cases EAGGF withdrawal is more profitable to producers than selling on to the processing industry. Furthermore, it is possible that goods sold to the processor are of poorer quality than those withdrawn from the market. [4] There is a clear correlation between export refunds and producer aids, the second most expensive specific measure (ECU 7.8 billion in 1989). Each group of products is dominated by one or the other, cereals, sugar, milk, beef and veal receiving refunds but no or very small producer aids. Producer aids account, however, for almost 100% of market organization expenditure on oilseeds, protein crops and textile plants. Both measures cause market prices to fall: the refunds depress world market prices, and producer aids reduce internal Community prices.

There are also price compensation aids for processing and consumption (ECU 3.6 billion). These are of special importance in the case of milk, cheese and vegetables. Recipients of this aid are chiefly processors. Consumer aids apply chiefly to olive oil, although financial flows cannot be traced with any accuracy, and — to a lesser extent — milk and milk products. [5] The criteria for classifying a measure as a production or processing and consumption aid are not always clear. For example, the

[1] *Cf.* Commission of the European Communities, '19th financial report on the EAGGF — financial year 1989 — Guarantee Section and food aid and accounts clearance', Brussels 1990 (hereafter referred to as: 19th financial report); see on this point p. 37 f.

[2] See Office for Official Publications of the European Communities, *Community public finance — the European budget after the 1988 reform,* Luxembourg 1989, p. 39.

[3] *Cf.* Commission of the European Communities, *The EAGGF — significance and mode of functioning,* 1986, p. 24. In the exceptional cases in which Community prices are lower than world market prices, export levies must be paid which are not treated as negative refunds but counted directly as Community revenue.

[4] *Cf.* Court of Auditors: 'Special report 2/89 on the organization of the markets in fresh and processed cheese and vegetables together with the Commission's answers'. OJ C 128, 24 May 1989, p. 56 ff. and p. 66.

[5] *Cf.* 19th financial report, Annexes 2 and 10.

Table 4 – EAGGF guarantee 1989: expenditure committed by chapter and by economic nature

(Mio ECU)

Chapter	Sector	Total	Refunds	First category interventions							Second category interventions (public storage)								Other expenditure
				Withdrawal	Price compensation aids		Guidance premiums	Private storage	Levies	Total	Technical expenses	Financial expenses	Losses					Total	
													Depreciation			Other			
					Production	Processing and consumption							Old stocks (beginning of year)	New stocks (during year)	Total				
(1)	(2)	(3) = (4) + (11) + (18) + (19)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11) = (5) + ... + (10)	(12)	(13)	(14)	(15)	(16) = (14) + (15)	(17)	(18) = (12) + (13) + (16) + (17)	(19)
10	Cereals	3 150.1	2 597.1	–	365.0	300.7	–	–	-689.2	-23.5	209.5	59.6	–	553.3	553.3	-245.9	576.5	–
10	Rice	111.4	45.2	–	–	66.2	–	–	–	66.2	–	–	–	–	–	–	–	–
11	Sugar	1 979.8	1 451.3	–	–	106.9	–	423.0	–	529.9	-1.4	–	–	–	–	–	-1.4	–
12	Olive oil	1 464.5	93.2	–	817.8	506.4	–	–	–	1 324.2	40.8	37.4	–	0.4	0.4	-31.5	47.1	–
12	Oil seeds	2 673.7	5.8	–	2 672.2	–	–	–	–	2 672.2	2.2	2.6	–	1.0	1.0	-10.1	-4.3	–
13	Protein plants	642.9	–	–	642.9	–	–	–	–	642.9	–	–	–	–	–	–	–	–
14	Textile plants and silkworms	600.6	–	–	599.2	–	–	1.4	–	600.6	–	–	–	–	–	–	–	–
15	Fruit and vegetables	1 018.6	78.7	283.7	19.8	634.4	–	2.0	–	939.9	–	–	–	–	–	–	–	–
16	Wine	1 147.7	45.3	501.0	–	91.3	157.9	67.4	–	817.6	7.3	8.5	–	269.0	269.0	–	284.8	–
17	Tobacco	1 138.9	62.0	–	972.3	–	–	–	–	972.3	8.5	3.8	–	81.5	81.5	10.8	104.6	–
18	Others sectors	83.8	–	–	83.8	–	–	–	–	83.8	–	–	–	–	–	–	–	–
20	Milk and milk products	4 987.1	2 868.6	–	0.1	1 661.2	775.8	184.4	-890.3	1 731.2	10.1	172.6	–	1.2	1.2	203.4	387.3	–
21	Beef and veal	2 428.5	1 343.1	–	158.1	223.7	40.6	102.5	–	524.9	109.4	49.1	–	270.1	270.1	131.9	560.5	–
22	Sheepmeat and goatmeat	1 452.8	–	–	1 452.8	–	–	–	–	1 452.8	–	–	–	–	–	–	–	–
23	Pigmeat	261.0	199.0	–	–	–	–	62.0	–	62.0	–	–	–	–	–	–	–	–
24	Eggs and poultrymeat	234.1	234.1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
25	Products not covered by Annex II	552.0	552.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
27, 28	ACAs, MCAs	364.2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	364.2
29	Other expenditure	111.4	132.6	–	–	–	–	–	–	–	–	–	–	–	–	–	–	-21.2
	Total Titles 1 and 2	24 403.1	9 708.0	784.7	7 784.0	3 590.8	974.3	842.7	-1 579.5	12 397.0	386.4	333.6	0.0	1 176.5	1 176.5	58.6	1 955.1	343.0
39	Set-aside	6.0	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6.0
40	Fisheries	24.0	–	9.6	–	14.3	–	0.1	–	24.0	–	–	–	–	–	–	–	–
81(0)	Depreciation of old stocks	650.2	–	–	–	–	–	–	–	–	–	–	650.2	–	650.2	–	650.2	–
81(1)	Reimbursement for disposal of butter stocks	792.7	–	–	–	–	–	–	–	–	–	–	792.7	–	792.7	–	792.7	–
	Grand total	25 876.0	9 708.0	794.3	7 784.0	3 605.1	974.3	842.8	-1 579.5	12 421.0	386.4	333.6	1 442.9	1 176.5	2 619.4	58.6	3 398.0	349.0

Source: Revenue and expenditure account for the budget year 1989 and 19th financial report on the 1989 EAGGF year – Guarantee Section.

Reproduced from: 'EC Court of Auditors, annual report 1989', in: OJ C 313/01, 12.12.1990.

Note: Levies should be read as co-responsibility taxes.

Table 5 – EAGGF guarantee 1989: expenditure committed by economic nature and by Member State

(Mio ECU)

Code	Member State	Total	Refunds	First category interventions							Second category interventions (public storage)							Other expenditure
				Withdrawal	Price compensation aids		Guidance premiums	Private storage	Levies	Total	Technical expenses	Financial expenses	Losses				Total	
													Depreciation			Other		
					Production	Processing and consumption							Old-stocks (beginning of year)	New stocks (during year)	Total			
(1)	(2)	(3) = (4) + (11) + (18) + (19)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11) = (5) + ... + (10)	(12)	(13)	(14)	(15)	(16) = (14) + (15)	(17)	(18) = (12) + (13) + (16) + (17)	(19)
002	Belgium	585.9	198.1	1.5	244.7	82.9	25.6	50.6	-57.2	348.1	2.1	3.6	28.3	5.3	33.6	-5.3	34.0	5.7
008	Denmark	1 015.1	710.6	1.6	170.2	97.6	39.3	26.9	-77.2	258.4	6.3	4.4	12.9	4.6	17.5	-6.3	21.9	24.2
004	FR of Germany	4 191.8	1 632.2	8.4	855.0	451.1	198.1	136.4	-224.5	1 424.5	137.4	82.4	438.0	420.8	858.8	25.4	1 104.0	31.1
009	Greece	1 650.9	97.4	108.1	1 035.6	237.2	3.9	10.1	-6.2	1 388.7	3.9	1.2	13.6	10.7	24.3	4.9	34.3	130.5
011	Spain	1 903.1	322.0	59.8	994.4	158.5	51.8	54.1	-80.2	1 238.4	52.8	35.5	40.7	164.8	205.5	-24.4	269.4	73.3
001	France	4 810.4	2 156.1	184.8	1 187.2	886.1	268.5	200.4	-577.6	2 149.4	55.6	37.7	190.8	222.6	413.4	8.2	514.9	-10.0
007	Ireland	1 241.3	540.6	1.0	106.8	160.7	56.9	67.4	-34.5	358.3	19.1	34.4	154.5	62.9	217.4	42.3	313.2	29.2
005	Italy	4 621.8	615.8	421.5	2 027.4	923.9	90.1	197.8	-125.1	3 535.6	75.1	42.6	129.9	254.0	383.9	2.4	504.0	-33.6
012	Luxembourg	1.8	1.5	–	0.7	1.1	2.1	0.1	-3.6	0.4	–	–	–	–	–	-0.1	-0.1	–
003	Netherlands	3 749.9	2 773,0	3.0	270.1	325.3	120.9	54.8	-185.4	588.7	8.6	44.8	253.4	3.3	256.7	47.4	357.5	30.7
010	Portugal	174.4	5.0	0.7	132.5	31.7	–	0.9	–	165.8	0.8	0.6	–	-0.1	-0.1	-10.7	-9.4	13.0
006	United Kingdom	1 917.0	655.7	3.9	756.6	239.2	117.1	43.3	-208.0	952.1	24.7	46.4	180.8	27.6	208.4	-25.2	254.3	54.9
000	Commission	12.6	–	–	2.8	9.8	–	–	–	12.6	–	–	–	–	–	–	–	–
	Grand total	25 876.0	9 708.0	794.3	7 784.0	3 605.1	974.3	842.8	-1 579.5	12 421.0	386.4	333.6	1 442.9	1 176.5	2 619.4	58.6	3 398.0	349.0

Source: Revenue and expenditure account for the budget 1989 and 19th financial report on the 1989 EAGGF year – Guarantee Section.

Reproduced from: 'EC Court of Auditors, annual report 1989', in: OJ C 313/01, 12.12.1990.

Note: Levies should be read as co-responsibility taxes.

ECU 182 million suckler cow premium is shown in the Court of Auditors' report as a processing aid and in the Commission's financial report as a production aid. These payments are interesting in the light of the current budgetary difficulties, which are partly attributed to strain imposed by rising surpluses in beef and veal production. [1]

This trend may have been accentuated by the calving premiums (ECU 41 million in 1989), which are included among the guidance premiums (total of ECU 970 million). Apart from this, these premiums are only applied to wine and milk, for the voluntary definitive abandonment of wine-growing areas and milk production and also as compensation for the temporary freeze on quotas. [2] It is the producers who receive these payments.

The set-aside premiums are similar in purpose to guidance premiums. In 1989, ECU 20 million was earmarked for these new budget items. Owing to start-up difficulties and inadequate incentives, only ECU 6 million was actually used. [3] These funds also benefit producers directly.

The co-responsibility levies for cereals and milk are producer payments into the EC budget. They do not count as the Community's own resources — as do the levies — but as agricultural market intervention designed to finance the marketing of surpluses. There are simple co-responsibility levies and additional levies to come into effect when the maximum amount is exceeded. [4] These entailed EAGGF guarantee expenditure of nearly ECU 1.6 billion in 1989.

The purpose of the storage provided for in most market organizations is the temporary equalization of supply and demand, reducing price variations to a minimum and improving market stability. A distinction is drawn between public and private storage. Under public storage, products bought into intervention become the property of these agencies, whereas private storage merely commits the owners of the produce to store it in return for costs and to observe technical requirements. Only the technical and financial costs of storage are refunded. The economic risk of depreciation is shouldered by the owner of the produce, though exceptions are made.

In comparison with public storage, private storage plays only a minor role overall, applying to only a small number of products. It is subsidized to the sum of ECU 843 million. Half of this (ECU 423 million) is spent on sugar; this should be compared with the ECU 469 million spent by sugar producers and processors on the storage levy in 1989. [5]

After export refunds and the intervention measures dealt with so far, public storage is the third most important area of EC agricultural policy with an effect on expenditure. In 1989 it cost the Community budget ECU 3.4 billion, the Member States also bearing part of the cost.

Unlike other market organization measures, public storage is really financed by the Member States. [6] The EC reimburses the technical costs of storage, the financial costs and also the depreciation. Whereas the storage firms benefit from the payments covering the costs of taking goods into store, warehousing and removing them from store, it is no simple matter to identify the recipients of interest payments on the national funds thus employed. It is up to the specific agencies involved to find the money required for purchases into intervention and this may be done in various different ways. The Federal Institute for Agricultural Market Organization, for example, is in part funded by discount business. The most expensive aspect in 1989 was depreciation. This does not refer to possible depreciations of quality for technical reasons connected with storage but to bridging the difference between the intervention price and a realistic market price.

Depreciation is inevitable sooner or later, but the sooner it occurs and the more far-reaching it is, the more drastic the decline in the book value of the goods in storage and the lower the interest charges incurred by the Community. There is a clash of interest here between current liquidity and avoiding future expenditure. Thus in 1987 no provision was made for depreciation owing to the tense budgetary situation. [7] Community spending on depreciation cannot be classified directly in terms of individual recipients but benefits the budgets of the national intervention agencies.

The heading 'other losses (and profits) from public storage' is essentially the result of Community

[1] *Cf.* '60 Prozent für die Landwirtschaft', *Frankfurter Allgemeine Zeitung* of 13 February 1991.
[2] *Cf.* 19th financial report, Annex 2.
[3] *Cf.* 19th financial report, p. 7 f.; EC Commission, 23rd general report 1989, p. 65.
[4] *Cf.* 19th financial report, p. 37.
[5] *Cf.* 19th financial report, p. 38.
[6] *Cf.* Commission of the European Communities, *The EAGGF — significance and mode of functioning,* 1986, p. 37.
[7] *Cf.* 19th financial report, p. 32.

Table 6 — **First-round division of EAGGF expenditure by group of receivers, 1989**

Group	Measure	EAGGF expenditure in 1989	
		Billion ECU	%
Producers	Withdrawals, price compensation aids, guidance premiums (co-responsibility taxes paid by producers deducted)	8	31
Trade	Refunds	9.7	38
Processing	Price compensation aids	2.7	10
Consumers	Price compensation aids	1	4
Storage companies	Private storage, technical expenses for public storage	1.2	5
Creditors	Financial expenses for public storage	0.3	1
Intervening agencies	Depreciation	2.6	10
—	Other	0.3	1
Total		25.8	100

Source: EC Court of Auditors; estimation of DIW.

accounting guidelines. Part of them stem from the fact that at the end of the year standard Community-wide transfer prices for stocks in store are set, in the form of weighted average values of national book values, replacing the book values of the individual Member States. [1] Accounting profits also arise through the inclusion of the disposal of goods for distribution free of charge to needy persons in the Community and as food aid to the developing countries in the guise of sales at the intervention price, although the intervention product already appears in the accounts at the intervention price. Similarly enhanced values also appear under the heading 'other expenditure' (Guarantee Fund) and export refunds. Yet food aid to the countries of Eastern Europe is shown as zero-rate sales, giving rise to corresponding losses. [2] In addition to the cost of free distribution to the needy, the heading 'other expenditure' also includes contributions to the cost of accession, monetary compensatory amounts, interest payments arising from the financial reform and the clearance of accounts for earlier financial years and residual resources. Apart from the recipients of free produce, there are no identifiable beneficiaries of the last-mentioned categories of Community expenditure.

These reflections make it possible to draw up a preliminary summary classification of the individual guarantee fund payments to the various players (see Table 6). Producers are remunerated via withdrawals, price compensation aids, guidance premiums and set-aside premiums and pay co-responsibility levies. This amounts to a total of about ECU 8 billion, or more than 30% of total expenditure. The trading sector receives ECU 9.7 billion in respect of refunds, 37.5% of all expenditure. Processing and consumer price compensation aids are not fully classifiable. According to estimates on the basis of information available [3] processors receive roughly 75% of this budget item, that is ECU 2.7 billion or one-tenth of the Guarantee Fund. Consumers get cheap produce (school milk, 'social butter', free distribution, and so on) to the value of ECU 1 billion (4%). Warehousing companies receive the funds for private storage and technical costs of public storage, totalling ECU 1.2 billion or roughly 5%. Creditors for financial expenses for public storage are paid ECU 334 million (2% of expenditure), with the intervention agencies accounting for one-tenth of EEC expenditure in the form of depreciation (ECU 2.6 billion).

[1] *Cf.* Court of Auditors: 'Special report No. 5/88 on management and control of public storage together with the Commission's replies'. OJ C 274, 24.10.1988, p. 21.

[2] *Cf.* Court of Auditors, annual report 1989.

[3] *Cf.* 19th financial report, Annex II.

Table 7 — **Regional structure of cereals storage capicity, BR Deutschland, 1990**

NUTS region		Capacity of intervening storage				
Code	Name	total '000 tons	as % of R1	thereof harbour-linked		
				'000 tons	as % of total	as % of R1
R 11	Schleswig-Holstein	1 169.2	14.0	631.6	54.0	7.6
R 12	Hamburg	524.5	6.3	485.1	92.5	5.8
R 13	Niedersachsen	1 816.8	21.7	998.1	54.9	11.9
R 14	Bremen	305.9	3.7	305.9	100.0	3.7
R 15	Nordrhein-Westfalen	1 870.3	22.4	988.0	52.8	11.8
R 16	Hessen	354.5	4.2	165.3	46.6	2.0
R 17	Rheinland-Pfalz	456.7	5.5	297.4	65.1	3.6
R 18	Baden-Württemberg	468.7	5.6	297.9	93.6	3.6
R 19	Bayern	1 344.4	16.1	265.3	19.7	3.2
R 1A	Saarland	48.5	0.6	11.3	23.3	0.1
R 1	BR Deutschland	8 359.4	100.0	4 445.9	53.2	53.2

Source: BALM statistics.

In the form in which we have looked at them hitherto, these payments can be regionalized. Turning to Table 5 and taking only the columns significant for our purposes (4 to 10, 12, 13 and 16) and deleting the insignificant values for each country, approximately 60% of the measures are open to analysis. This does not entail any further division according to individual products, in excess of the usual division into two-digit budget chapters. There are 43 Community agencies and institutions in existence to deal with the implementation of agricultural policy. Their division of labour in the national context is highly specialized. [1] They are responsible for overseeing intervention operations. National laws and regulations take precedence with the result that the corresponding structures and procedures differ widely. [2] Irrespective of the question of the theoretical meaningfulness of tracing individual financial flows, comprehensive study would entail enormous expense, while quantitative statements based on a *pars pro toto* analysis, on the other hand, would inevitably fail to yield much in the way of useful information. We can only ask here according to what criteria money for individual measures reaches individual recipients and thus exercises a regional impact. To illustrate this we take a brief look at the storage of cereals in Germany.

The Federal Republic has substantial capacity for public and private storage of cereals (see Table 7). The trend is towards increasingly large facilities, particularly at the so-called main stores and harbour-linked locations. Total storage capacity at the disposal of the Federal Institute for Agricultural Market Organization (BALM) amounts to approximately 8.4 million tonnes. The major warehouses usually have on average more than 25 000 tonnes' capacity. Individual warehouses average about 13 000 tonnes. The biggest warehouses are in the seaports of Hamburg, Bremen and Kiel. Two-thirds of total capacity is to be found in the northern *Länder* of Germany and those bordering on the Rhine. Large harbour-linked storage facilities provide the best conditions for export-oriented intervention agency storage operations. According to the agencies concerned, whenever products are bought into intervention in Germany increasing efforts are made to ensure that these cereals are transported to or near the major harbour warehouses at the earliest opportunity. The rule that cereals should be bought into intervention as close as possible to the places of production has been greatly relaxed. Smaller and less technically advanced intervention stores are now only used as a back-up. The trend towards larger size is matched by the intention of raising the minimum amount subject to intervention from the present 100 tonnes to 700 tonnes (as already practised in the new German *Länder*).

[1] *Cf.* OJ C 313, 8.12.1988, pp. 9-20.
[2] Commission of the European Communities, *The EAGGF — significance and mode of functioning*, 1986, p. 40 f.

These efforts to concentrate storage result in the intensification of regional imbalances in financial flows from the Guarantee Fund, but could reduce the unit cost of intervention. Providing that lower costs for the companies are passed on to the intervention agencies (for example, a reduction in the various all-in rates), they help ease the pressure on the Community budget.

4.3. Inclusion of indirect effects

As mentioned above in Section 2, it would not be possible to draw any apposite conclusions on the regional effects of EC farming policy on the basis of financial flow analysis. As a rule money spent by the Community does not remain in the hands of the initial recipients, and even if this were the case its effect on income would generally be substantially smaller, as it is offset by other expenditure (for example, for the production of the amounts bought in to intervention). But even revenue flows at this second stage are hard to monitor in terms of size. Though the group of recipients is certainly bigger, it is less clearly defined than the institutional recipients of the original flow of payments. In any event, there are considerable shifts in the relative importance of the beneficiaries considered hitherto.

In the first stage, export refunds were imputed entirely to the traders. But these are not the only beneficiaries. Refunds are ultimately designed to bridge the gap between Community and world market prices, that is, by scaling down the export trade's high purchasing prices to a competitive level. Disregarding trading profits, wastage and other losses, it is then to this extent the producers as a group who benefit indirectly from the payments, for without export support domestic prices could not be maintained at this level given the existing volume of output. Withdrawals and production aid, on the other hand, go directly to producers. The technical cost linked with them — for example, in the case of withdrawals for the destruction of fruit and vegetables — may be regarded as negligible in relation. The processors, on the other hand, are not the final recipients of processing aid. Frequently it is more practical and hence more economical for the Community to support processors instead of paying aids to a large number of small producers, obliging them to purchase their inputs at specific minimum prices. In this case, aids must be of such a size that it is no longer profitable to utilize substitutes. Once more — again disregarding trading profits, wastage and other losses — it is ultimately the producers who are the beneficiaries.

Under the existing intervention arrangements, it is above all the estimate of expenditure on depreciation that must be altered. This merely signifies that the product in question was bought into intervention at prices above world market level. It is initially entered into the accounts at the set intervention price, from which 30 to 70% is then deducted, [1] to achieve a realistic valuation for marketing purposes and to reduce interest charges.

This section of the expenditure is thus clearly part of the system of costs from which producers chiefly profit. From this angle, even Community levy revenue causes problems within the Community. They ultimately result in foreign suppliers quoting higher prices, which cannot be countered by rationalization as the levies are specifically designed to raise foreign prices to Community level and are therefore managed flexibly. It is the Community's consumers who pay.

Trading profits, wastage and other losses make it difficult to put an exact figure on these things. Exporters' trading profits — most exporters are major international trading companies — are a politically explosive topic. They are reluctant to supply useful information on these points, and neither is it available from official agencies. A better idea may be derived from the administrative minimum prices on which aid to processors is calculated. The amount by which they exceed the prices that could be obtained otherwise may be regarded as the subsidy to the producer by the processor made possible by the processing aid. But there is no knowing how high these prices would be, particularly in view of Community protection against foreign competition. The problem of wastage and other losses also affects public storage, as producers do not sell into intervention directly but via the distributive trades.

Nor is the final distinction of expenditure connected with the technical and financial costs of public storage fully evident. The Community reimburses the Member States at a standard all-in rate, worked out on the basis of the real costs reported. [2] This is intended to encourage all Member States to cut costs or keep them as low as possible. This system inevitably generates revenue for those countries in which the real costs are lower than the rates offered. It is not clear who benefits from this revenue. Where real costs are relatively high, however, the system generates corresponding additional costs. In theory these two effects should offset each other at Community level; but this does not, of course, apply to the individuals concerned, so that these considerations cannot simply be disregarded.

[1] *Cf* OJ L 244, 7.9.1990, p. 13 f.
[2] Court of Auditors: 'Special report on public storage', p. 20.

The pressures resulting from levy payments are easier to classify. Suppliers continue to calculate their business on the basis of world market prices and pass on their expenditure on import duties to the customer. [1] This Community revenue is thus entirely at the expense of Community consumers.

Finally, there is one further point which casts doubt on any attempt to classify payments in terms of individual groups of recipients where such a classification is based solely on the purpose of the measures or the underlying administrative regulations: the grey area of illegal transactions, the 'irregularities'. This is not necessarily a problem if the analysis is confined only to the initial recipients. However, it does make it difficult to estimate the wastage and other losses which hitherto have been discussed only in the context of ideal patterns of behaviour by the participants. For example, if export refunds are paid for a transaction which never took place, it is clear that these payments never reach the producers. The special reports by the Court of Auditors contain numerous examples of inadequate controls and further evidence that substantial payments are being made which do not reflect the original intentions of the market organization measures. [2] The situation becomes a problem with public storage, for example, because in some cases it is not possible to verify information on quantities and quality of stored goods and because there are suspicious incidents of traders on the supply and purchase side being identical to the operators of the stores. With regard to the system of all-in rates, the Court of Auditors states in its special report on public storage that the 'special declarations that the Member States send in of their real technical costs and their interest rates ... are in practice not subject to real audit verification'. [3] There is therefore 'an inherent tendency for uniform rates to be set at an unnecessarily high level, since all Member States stand to gain if costs are overstated by any of their number in the context of the periodic declaration to the Commission'. [4]

Hence, an analysis of the actual incidence necessarily presents an entirely different picture of the recipients or beneficiaries of the payments made to different groups than is shown in the original list of recipients of payments. Even if it is not possible to assess the extent of the effects described above, it is clear that the producers account for a higher percentage of payments than seems obvious at first sight. The importance of the processors diminishes, as does that of the consumers. Traders derive less benefit from export refunds, but on the other hand profit from their position as intermediaries between producers and intervention agencies in public storage.

Determining the regional impact of the EAGGF guarantee by monitoring payments becomes even harder, even if not outright impossible, in this in-depth approach. For example, it would be necessary to establish the regional origin of the exported goods. The same line of enquiry would have to be pursued for the input of the processing industries. It would also be necessary to determine the regional sales structure of foreign agricultural products in the Community. [5] Stocks in public storage would also have to be classified by place of origin. Answering most of these questions would involve recourse to the records of private firms, which in practice would not be acceptable. But even where public bodies are concerned — in respect of the regional origin of stocks and the intervention of stores — the information available is barely adequate. It also has to be borne in mind that the proportion of products which are bought in or further processed on the basis of processing aids by no means emanate from the same producers every year.

The following examples will illustrate these general observations:

Tobacco: Large quantities of raw tobacco produced in Greece have recently been supplied to German intervention agencies. Although the direct financial flows have been to the place of intervention in Germany, the money is clearly being used to support the Greek tobacco market.

Wine distillation: Subsidies for voluntary and compulsory distillation of wine are paid to processors who have to furnish proof that they have paid the wine producers the minimum prices set down for processing wines. In this instance the processor receives revenue for a product which does not have to be produced in either the region or the country in which the distillation enterprise is located. For example, a well-known company in Rüdesheim usually processes wine from

[1] The crucial disadvantage of levies for foreign suppliers is that there are far fewer transactions as a result than might be expected under a free trade system. But here we are only dealing with pressure resulting from levies paid.

[2] *Cf.* Court of Auditors: 'Special report No 2/90 on the management and control of export refunds accompanied by the replies of the Commission'. OJ C 133, 31.5.1990, pp. 3, 30 ff., 33 and the 'Special reports on fruit and vegetables, p. 65 ff. and on public storage', pp. 7 ff., 14 and 18.

[3] Court of Auditors: 'Special report on public storage', p. 19.

[4] Ibid., p. 20.

[5] Simply offsetting levies against payments made to EC consumers is not possible, even if the sums in question are roughly the same: the consumers and the regions are not necessarily identical.

southern France into brandy. However, the distillation aid is paid to this German enterprise. To avoid having to pay the subsidy to a large number of individual producers, the 'bottleneck principle' is used, as is often the case with processing and producing aids.

Seeds: This is also true of aids for seeds. Production aid for quality seed is paid exclusively via the producer associations. The registered offices of the association — as a rule a largish administrative centre — give no indication of the regional effect of this special form of aid. The funds are passed on by the producer association to the producers of quality seeds, who may be scattered quite widely.

Ewe premium: As the main instrument of income support of sheep and goat meat producers, the market organization provides for 'variable slaughter premiums' (Great Britain only) and 'ewe premiums'. The financial costs of this market organization have shot up since 1988, currently accounting for some ECU 5 billion (circa 6% of guarantee expenditure). As with a whole variety of market support measures, the Community does not bear the full costs: the Member States also contribute. In some instances, official bodies of the Member States at a level lower than that of central government are responsible for organization, funding and supervision. In Germany, the *Länder* are responsible for the ewe premium. Apart from the considerable problems involved in monitoring the use of this instrument, [1] it is not possible in practice to make a further classification of the transfer payments for producers made to the *Länder* or regional authorities of the Member States. However, the initial 'recipient' of the payments — which for budgetary purposes appears as the *Land* of the Federal Republic or as the 'Federal Office for Food and Forestry' [2] — merely passes on the payments to the target group: the approximately 0.5 million sheep and goat farmers in the Community.

Aids for the consumption of skimmed milk

Although it is a high-protein by-product of butter, only 9% of skimmed milk in the Community is sold directly at market prices for human consumption. Because of the intervention price policy of the last few decades, skimmed milk is far too expensive a product to be sold inside or outside the Community without a subsidy.

Aid for the sale of skimmed milk is payable in the following instances:

skimmed milk powder for feeding calves,

liquid skimmed milk for feeding calves,

skimmed milk powder for other feeding purposes,

skimmed milk for the production of casein.

In 1988 these programmes accounted for some ECU 1.6 billion (circa 27% of market organization costs for milk and 6.4% of all market organization expenditure). At roughly ECU 850 million, subsidies for skimmed milk powder for calf feeding accounted for half of this part of the intervention costs. [3] Approximately 94% of this aid was paid to only three Member States: the Federal Republic of Germany, France and The Netherlands. The aid was passed on to the recipients via the appropriate agencies (in Germany the 'Bundesamt für Ernährung', in France 'Onlilait' and in The Netherlands 'Produktschap voor Zuivel').

The aid paid to dairies for liquid skimmed milk as feed is passed on indirectly to producers: the skimmed milk they receive after the milk they have supplied is processed is available at a rate reduced by the amount of aid.

These examples show that a whole range of bodies are involved in the distribution of aid to producers. A detailed, comprehensive corpus of data would therefore be needed to enable the regional incidence of individual measures to be described. Although regionally-specific effects could be deduced from this corpus, for example from the subsidized return deliveries of liquid skimmed milk, this hardly applies to the subsidizing of skimmed milk mixed in with calf feed, and it is completely irrelevant to the subsidized production of casein since in this case, because a cheap product is produced, the effects can be attributed to the purchaser only indirectly.

The two by-products of milk production are, moreover, a good example of the overlapping effects of intervention instruments on regions and on Member States:

(a) The major milk-processing plants, which in some cases operate exclusively for intervention purposes, obtain some of their raw materials from quite remote regions and, because of the differences between the 'green currencies', from other Member States too.

[1] *Cf.* Court of Auditors, 'Annual report on the 1988 financial year accompanied by the replies of the Commission', OJ C 312, 12.12.1989.

[2] The Federal Office for Food and Forestry is an agency within the meaning of Article 4 of Regulation (EEC) No 729/70. *Cf.* also OJ C 313, 8.12.1988.

[3] *Cf.* 18th financial Report, p. 75, and 'Report of the Court of Auditors on the 1988 financial year', OJ C 312, 12.12.1989.

Table 8 — **Cereals stocks of intervention 1985-89, as at 31 December**

('000 tons)

Product		1985	1986	1987	1988	1989
Cereals	EC	16 427	12 880	8 153	8 399	8 636
	D	5 741	5 184	3 147	4 182	4 128
	D % of EC	34.9	40.2	38.6	49.8	47.8
thereof: durum	EC	1 023	1 211	1 442	1 280	927
	D	—	—	—	—	—
	D % of EC	—	—	—	—	—
wheat	EC	10 027	7 703	2 909	3 322	2 633
	D	3 383	1 765	1 765	2 400	1 675
	D % of EC	33.7	45.1	60.7	72.2	63.6
rye	EC	1 062	1 112	750	904	1 312
	D	805	711	521	717	1 025
	D % of EC	75.8	63.9	69.5	79.3	78.1
barley	EC	4 315	2 854	3 022	2 789	2 763
	D	1 553	1 001	861	1 065	1 404
	D % of EC	36.0	35.1	28.5	38.2	50.8
corn	EC	—	—	22	18	998
	D	—	—	—	—	25
	D % of EC	—	—	—	—	2.5

Sources: Official statistics, BR Deutschland.

(b) The nature of sales of skimmed milk powder to the foodstuff industry, the intervention stores and in various Member States does not permit a detailed identification of regional effects. Italy, which produces virtually no skimmed milk powder itself, uses almost exclusively skimmed milk powder (mainly from Germany and France). However, the aid is paid directly by the payment authority of the exporting State to the exporting enterprise. The same is also true of subsidized casein production from skimmed milk: the main intention here is to induce the foodstuffs industry to substitute EC casein for cheap protein from third countries. The main objective of all these intervention measures is to relieve the pressure on what is still an imbalanced supply and demand relationship.

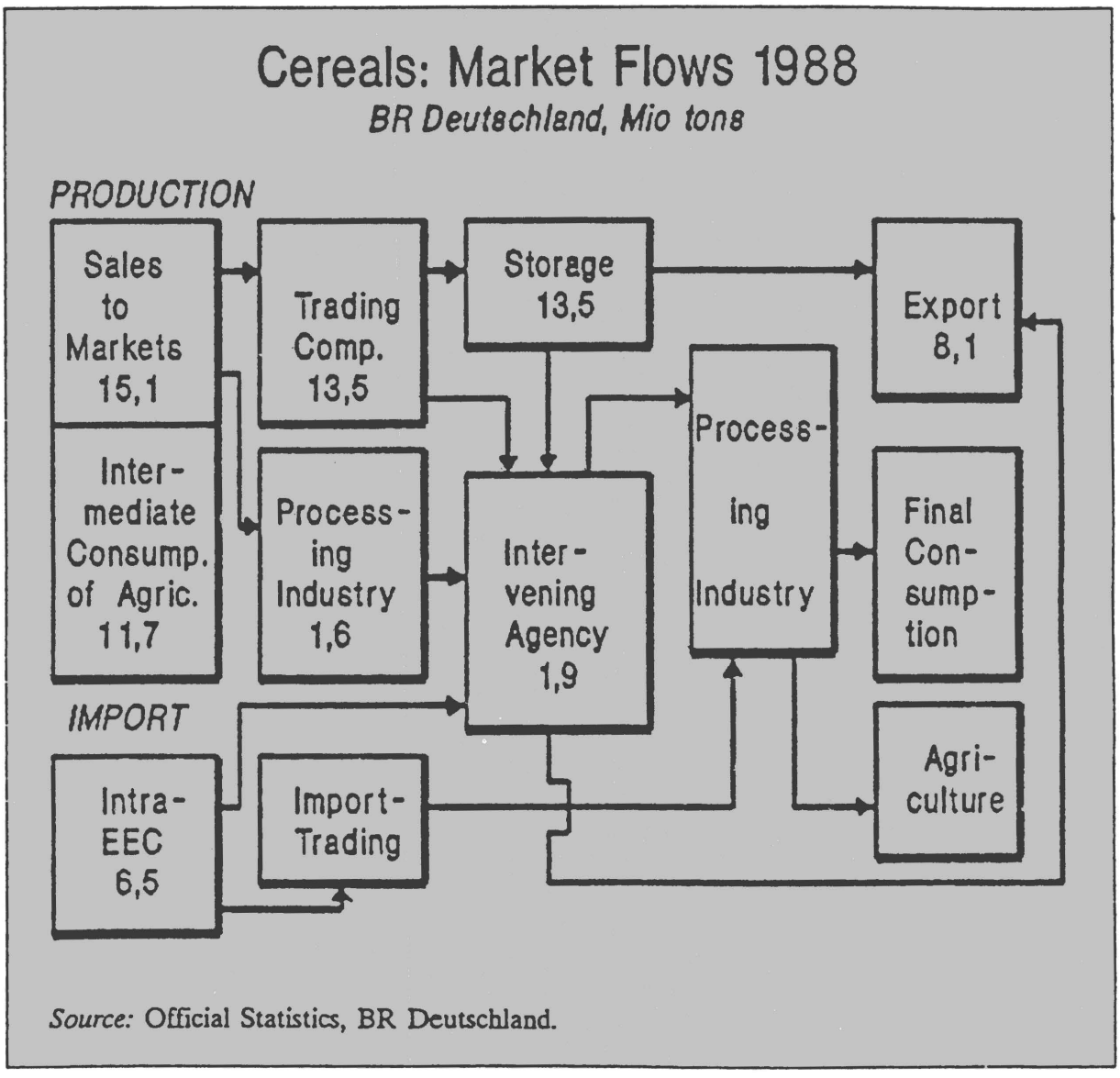
Aid for fruit and vegetables

In the 1988 financial year some ECU 708 million was spent on the fruit and vegetable market organization. Withdrawal and processing aids accounted for 90% of this figure. Greece and Italy enjoyed the lion's share of this (80%). [1] In the opinion of the Court of Auditors [2] it is extremely difficult to monitor the accounting of Community funds in this sector; it would be even harder to provide a regional breakdown of guarantee expenditure on the basis of payments.

Cereals: Budget expenditure for the EAGGF for cereals varies quite considerably from year to year, and the same is true of export refunds and interventions. There are obvious differences in the use of instruments between the Member States, or at least between the major cereals-producing Member States: whereas France tends overwhelmingly to use the EAGGF to pay export refunds, payments in Germany are predominantly for storage costs. The comparison between Germany's share in EAGGF payments for storage of cereals with the corresponding share of other EC countries shows that in recent years the largest quantities were stored for intervention in Germany. Although the cereals are predominantly produced in Germany, they also include significant quantities from other Member States. No information on this matter has been forthcoming from

[1] 18th financial report.
[2] *Cf.* Court of Auditors, 'Special report on fruit and vegetables'.

Graph 24 — **Cereals: market flows 1988, BR Deutschland**



Source: Official Statistics, BR Deutschland.

the agencies in Germany. Table 8 shows cereals intervention stocks stored in Germany. It is interesting to note that the Federal Republic has apparently become increasingly attractive as an intervention place for the main types of cereals, but particularly wheat and barley: the structure of storage has shifted rapidly towards Germany. With the exception of durum which is neither produced nor placed in intervention storage in Germany and corn which has been placed in store only since 1987, up to 80% of Community intervention stocks are currently held in German stores. In 1989 the figure, as an average of all varieties of cereals, was 50%, compared with some 35% of total intervention stocks in 1985 (end-of-year figures in both cases).

It is important to bear in mind that these statistics relate to stocks on 31 December and that the cereals stored account for by far the smaller proportion of the total volume of cereals sold in Community markets.

Graph 24 shows the cereal flows in the German market in 1988. Just over half the volume is bought up by private and cooperative traders and the processing industry, the remainder being retained by enterprises as intermediate inputs for further production. According to a recent analysis, [1] in 1988 there were, in the Federal Republic, 2 524 cereals enterprises (half private and half cooperative) and 1 603 processing enterprises, including 608 mills, 200 malthouses and 685 producers of feedstuffs. In recent years roughly half the cereals have been taken up by the cooperatives.

The first stage in the trading process involves converting the cereals into batches of commercial quality. Since the stores are as a rule inadequate, the trade sells to wholesalers and the processing industry. Cereals which cannot be sold on the free market and cannot be exported immediately, are stored privately in the first instance, or supplied to the BALM. In 1988 this intervention agency bought up 1.9 million tons; however, this volume should not be confused with the stocks at the end of 1988 (4.2 million tons). The graph shows that only a relatively small proportion of the cereals on the market end up in the intervention stocks. Most remain on the free market, some being exported under the protection of the cereals market organization. In 1988 — thanks, not least, to favourable conditions on third country markets — some 8 million tons were exported and stocks as a whole were reduced.

4.4. Impact of the payments on the farming sector as a whole

One way of resolving the difficulties of classification which are apparent from the examples is a proportional breakdown of payments by production in the individual regions. The disadvantage is that a picture of absolute amounts of ecus reaching the recipients directly or indirectly is not quite so precise, since the extent of the trade profits and the irregularities is difficult to estimate.

However, this approach quite clearly reflects the impact of EC agricultural policy. This is also true even if the payments under the Guarantee Fund do not always reach the regions in proportion to their production results. Simply following the financial flows past the initial recipients to those directly affected by the payments is not enough. The question is, what are the direct effects of the Guarantee Funds? Only a part of EC agricultural production is directly affected by the intervention measures: for example, only excess production is found in the public stores. Even minor fluctuations in harvests have a considerable impact on the intervention system. For example, if the level of utility in the EC is 110%, an increase in supply by ten percentage points means a doubling of expenditure for export refunds and/or storage costs. However, it is not only the additional ten (or twenty) per cent which benefits from intervention. In the final analysis intervention hampers market forces and a price collapse is prevented by the system of regulating volumes. The beneficiaries are all EC producers without exception.

Monitoring the financial flows is, therefore, an inappropriate means of determining the regional impact of the EC's agricultural policy. An attempt to chart the regional structure of those who receive payments and those who benefit directly from payments presents a range of problems. Firstly, the problems involved in data collection are extraordinarily complex even for a selective, exemplary approach. Secondly, a whole number of areas require estimates which have no sound basis. But even if these difficulties were to be overcome, the results would not reflect the regional impact of agricultural policy. Measures pursuant to the Guarantee Fund are used to stabilize a situation in which all agricultural producers could obtain higher producer prices than would be possible under conditions of free

[1] Scientific Council of the Federal Ministry of Food, Agriculture and Forestry: Agrarpolitische Konsequenzen der Realisierung des EG-Binnenmarktes bis 1992 (the impact on agricultural policy of completion of the EC internal market by 1992). Schriftenreihe des BML: *Angewandte Wissenschaft,* 384, Hiltrup-Münster, 1990.

trade. Consequently, their regional impact cannot in any way be adequately described using regional production results in the given system of market regulations.

The fact remains that the approach described above of a proportional break-down of guarantee payments by production in the individual regions is still a better way of showing the regional impact of the EC's agricultural policy than a superficial, and inevitably incomplete, progress of following up specific payment flows. What this also means is that as far as a substantial proportion (three-fifths) of total EC expenditure is concerned, it is not possible to provide a precise survey by regions of the beneficiaries, let along to describe the regional income effects flowing from it. Calculations based on models can only outline general trends.

5. Regional effects of EC competition policy

Fostering competition between Community enterprises and standardizing the terms of competition are amongst the fundamental original objectives of the Community. They should also be included in a study of the regional impact of the most important EC policies. However, the intensity and effects of this area of policy can only be described *en passant,* on the basis of Community budget expenditure. This chapter is therefore substantially different from the others. Firstly, it describes the main elements of EC competition policy. Then it uses theoretical considerations and empirical studies to describe the essential macroeconomic and regional economic tendencies. It also takes into account sectoral considerations to the extent that they have clear implications for the regional distribution of activities.

In a broader sense the objective of vigorous competition without distortions permeates all the entire EC treaties: the abolition of obstacles to trade between the Member States and the basic principles of the market economy. Even in foreign trade the Community is committed to a competition-based approach, for example in the preamble to the EC Treaty ('... to contribute, by means of a common commercial policy, to the progressive abolition of restrictions on international trade ...') and Article 110 ('... the harmonious development of world trade, the progressive abolition of restrictions on international trade and the lowering of customs' barriers.'). In the iron and steel sector the Member States retain far-reaching competences in respect of commercial policy (Article 71, ECSC). In a more narrow sense, certain parts of the Community treaties are specifically devoted to competition policy. These include legislation on cartels and mergers and on (national) aids to enterprises.

Article 65 of the ECSC Treaty prohibits concerted practices in respect of prices, quotas and territories, although specialization agreements or joint-buying or joint-selling agreements may be authorized under certain circumstances. Concentrations are subject to prior authorization (Article 66, ECSC). There are special regulations on 'manifest crises' which give the Commission interventionist powers (compulsory quota cartels) (Article 58) and on minimum prices (Article 61b and c) to ensure the survival of enterprises suffering from a substantial shortage of demand. As far as Euratom is concerned, 'undertakings which are of fundamental importance to the development of the nuclear industry in the Community' may be granted 'Joint Undertaking' status (Article 45, EAEC), which gives them fiscal and customs exemption and other advantages (Article 48 and Annex III) although otherwise they are subject to the 'rules applying to industrial or commercial undertakings' (Article 49, paragraph 4).

Under the EEC Treaty which applies to the great majority of sectors and enterprises, concerted practices are forbidden in principle pursuant to Article 85; however, certain agreements, decisions or concerted practices or categories of concerted practices may be exempt if they contribute to rationalization, technical progress or an improved distribution of goods or if they do not go beyond the necessary minimum, are not directed solely towards increasing profits but also allow consumers a fair share of the resulting benefits and if they are not a substantial restriction on competition. A series of regulations and implementing legislation was enacted pursuant to this article in the 1980s (exclusive right of purchase and supply, specialization, licensing and R&D agreements, franchising, transfer of knowhow; legal status of 'joint enterprise'). Abuse by enterprises with a dominant position within the market is monitored pursuant to Article 86.

By contrast, the Community did not originally have the opportunity pursuant to the EEC Treaty of preventive monitoring of mergers (by analogy with the coal and steel sector). After many vain attempts it did not succeed in adopting an appropriate regulation pursuant to Article 235 until the end of 1989; it came into effect in September 1990. Aid which distorts competition is prohibited pursuant to Article 92(1). This does not apply to aid having a social character, aid to make good the damage caused by natural disasters or acceptable occurrences and aid granted to the peripheral areas of the Federal Republic and Berlin (Article 92(2)). Under certain conditions regional aid, sectoral aid in periods of economic crisis and aid to promote projects of common European interest may be explicitly allowed (Article 92(3)). Article 90 grants public undertakings the same status as other undertakings, provided this does not prevent them from fulfilling certain functions of general economic interest or having the character of a revenue-producing monopoly.

An examination of the regional impact of the Community's competition policy shows the following basic broad areas:

- regional distribution of general effects of increasing competition while harmonizing the conditions of competition
- the effect of the EC on the regional policy of the Member States

Synopsis 1 — **EC competition policy, macroeconomic and regional effects**

Elements	Macroeconomic effects	Transmission regions	Short- to medium-term effect on regional gaps
Liberalization	● Gains from trade ● Economic growth ● Innovation ● European firms' strategy	● Comparative advantages ● Financing infrastructure ● Capital mobility ● Agglomeration of firms' residences ● Deglomeration of firms' establishments	● Higher income for all regions in absolute terms ● Development in relative terms uncertain ● Structural diversification in case of big regional gaps ● Structural assimilation in case of small regional gaps
Merger control	● Guaranteeing liberalization effects ● Optimizing firms' size	● Better market access for periphery	Equalizing
Controlling national subsidies	● Optimizing economic structure ● Budget shifts	● Pressure to modernization ● Social problems from monostructure	Disequalizing in the short run Equalizing in the longer run

the regional impact of the effect of the EC on other forms of aid granted by the Member States which are not directly concerned with regional equalization.

In macroeconomic terms the general effects can be reduced to prosperity, growth and structural components. Prosperity increases if production is increased for the same use of resources or if production remains the same while resources are reduced. Specialization, rationalization and product innovation all play their part in this. Liberalization of trade has a positive effect on all three of these processes. If there are effective controls on monopolies, competition ensures that greater prosperity means not only higher profits but also lower prices.

In theory these price reductions benefit all regions; however, the share in demand in the more developed regions of goods in question sold on an inter-regional basis is disproportionally greater than in the less developed regions. Another factor is that the distribution system is not ideal in the latter: firms enjoying a monopoly of trade are often able, by buying in cheap and selling dear, to cream off the increased prosperity for themselves rather than passing it on to the consumer or — where intermediate inputs are involved — to local small businesses. Only in the long term when the entire process has reached a stage where the State is responsible for improving the infrastructure for more advantageous supra-regional purchasing or there is a greater movement by enterprises of production and/or marketing activities from the centres into the periphery for reasons of costs (wages, the cost of premises) or to develop the market, will there be a more balanced distribution of the increased prosperity resulting from integration.

Price comparisons for homogeneous products in the Community [1] show that even today the markets for many products are highly compartmentalized, but without EC integration this would without doubt be even more pronounced. Moreover, the price differences show the potential gains in prosperity which can still be achieved through completion of the internal market. This could be of particular significance for the costs of loans to local enterprises. On the one hand, the Cecchini Group feels there is above-average scope for reducing prices for financial services. [2] On the other hand, banking is still very underdeveloped in the backward regions. Participation by this sector in the increased prosperity therefore presupposes a greater presence of competing banks and insurance institutions on the spot. Telecommunications would be of great importance for this sector, since it favours a regionally decentralized organizational structure designed to be close to the customer without increased information and transaction

[1] *Cf.* Buigues, P., The impact of the internal market by industrial sector: the challenge for the Member States, in: Franzmeyer, F. (Ed.), *Die Regionen im Europäischen Binnenmarkt* (The regions in the European internal market), DIW special series No 146 (appearing in summer 1991).

[2] *Cf.* Cecchini P., *Europe '92 — The advantage of the internal Market,* Baden-Baden, 1988, p. 61 ff.

charges. The Padoa-Schioppa Group sees good prospects here for the periphery, the wage cost advantages of which would become increasingly attractive as the disadvantages disappear. [1] Another study carried out on behalf of the EC, [2] however, believes there are risks particularly for the financial sector: as a result of trends towards concentration, highly skilled activities would be removed from the financial sector of the less-favoured regions and transferred to the centres. On the other hand, at the customer interface the increased pressure of competition could launch a trend towards computerization and hence a reduction in staff numbers. However, the empirical results are not necessarily pessimistic. The centres in the southern Member States in particular would have scope for development, albeit without the access to the financial metropolises of the EC. But this presupposes political support. Given the expected takeovers, it is the function of competition policy, the study says, to ensure that the best possible level of services is retained in the less favoured regions.

Increased growth results from increased prosperity if domestic and foreign demands have a positive effect on price cuts. It is important to remember here, however, that a reduction in the resources used also means a reduction in primary income. Furthermore, exchange rates could change in such a way that the original price advantage is lost. Nevertheless, in this scenario there are still positive terms of trade effects which will enhance the increased prosperity correspondingly.

Although estimates vary quite widely, [3] the empirical evidence is that the creation of a customs union and, in particular, the creation of trade in the 1960s as a result of intra-Community liberalization has had a positive effect on economic growth in the Community. At the same time it is always stressed in the literature that (only) in those years of strong growth were the regional differences in development minimized. This would suggest that the future completion of the internal market would also tend towards reducing the differences between the regions. However, the evidence is not very conclusive. In the 1960s the centres of economic activity in the Community absorbed some of the surplus labour from the underdeveloped regions. In other words, the trend towards equalization resulted from real output in the centres being distributed among more people and amongst fewer people on the periphery. In the 1970s there was low economic growth, and the flow of migrant labour came to a virtual standstill. As a result, the differences in developments became more pronounced. This process continued in the first half of the 1980s when the growth rate was still weak on the whole. The effect of powerful growth in the second half of the 1980s was not to reverse the trend but simply to bring it to a halt. It is significant that because of the high cushion of unemployment in most countries the long phase of recovery since 1983-84 has not meant a return to the 1960s, with a flow of migrant labour into the more developed, northern countries of the Community.

After eight years of growth the level of economic activity in the Community has slowed down again since 1990. Will this result in widening disparities between the regions? This will depend on three main factors: demography, economy and financial solidarity. In the more developed countries of the Community, the demographically determined increase in the potential labour force will come to a halt in the next few years. In the developing regions, by contrast, it will on the whole increase, and at a higher rate. The economic downturn will also wipe out the increase in employment which has been quite considerable in recent years: more than two million extra jobs were created in Germany alone between 1983 and 1990. If the low level of economic activities continues over a period of several years, there will be no compensatory movement of migrant labour.

The question is, however, whether in the near future there will be a significant growth effect from the internal market. The level of the 'Cecchini impact' on growth will not be enough in the years to come to compensate for the economic weaknesses determined by the world economy (temporary failure of the GATT round, the Gulf Crisis) and/or endogenous sources (anti-inflationary monetary policy). The internal market is already having different, anticipatory effects, particularly on the willingness to invest and the regional allocation of investments. [4] According to

[1] *Cf.* 'Effizienz, Stabilität und Verteilungsgerechtigkeit — Eine Entwicklungsstrategie für das Wirtschaftssystem der Europäischen Gemeinschaft (Efficiency, Stability and Proper Distribution — A development strategy for the Community's economic system)', report by a study group set up by the Community under T. Padoa-Schioppa, Brussels, 1987, p. 125.

[2] PA Cambridge Economic Consultants Ltd., *The regional consequences of completion of the internal market for financial services,* 1990.

[3] *Cf.* Mayes, D. G., The effects of economic integration on trade in: *Journal of common market studies,* No 1/1978, pp. 1—25 and the bibliography.

[4] *Cf.* Franzmeyer, F. 'Die Auswirkungen des Binnenmarktes auf Arbeitsmarkt und Beschäftigung (The effect of the internal market on the labour market and employment)' in: R. Birk and Arbeitskreis Europäische Integration (Eds.), *Die soziale Dimension des Binnenmarktes* (The social dimension of the internal market). Schriften des Arbeitskreises Europäische Integration e.V., Vol. 27, Baden-Baden 1990, p. 36 ff.

R. Baldwin [1] these effects could be much greater than those of the Cecchini effect. If this trend continues (in particular if investors are not disappointed because the 'Cecchini world' has only been partially realized), this will tend to reduce regional imbalances. At least, this will be true of Spain and Portugal, which are favoured by investors because of intra-Community freedom of trade and the lack of regulations on the movement of capital. Empirical estimates [2] have shown that the southern Member States in particular will benefit from the continuing international division of labour within the Community.

In addition to the equalization effects expected to stem from the economy under favourable terms of growth, aid in the form of solidarity may come from the 'policy of cohesion' which after the substantial increase in the Community structural Funds will have a very positive effect in the regions of Greece, Portugal and Ireland: in 1989 payments in these countries were already accounting for between 2.2 and 2.7% of gross domestic products, and in 1993 the level will be between 2.7 and 3.7%. [3] The higher the economic growth up to 1993 in the Community as a whole, the more favourable the prospects for building up the stocks again from fiscal revenue and hence the EC's own resources.

The prosperity and growth effects of greater competition go hand-in-hand with changes in the structure of production. As income increases, so the structural demand changes and, at the same time, new supply factors emerge (productive capital, skilled workforce, technology, level of wages), the distribution of which by countries and regions reflects comparative cost advantages. The Commission study of the relationship between sectoral structure and internal market effects in the EC Member States [4] shows — as one might expect — comparative advantages for Portugal, Spain and Greece for wage-intensive products and comparative advantages for the 'northern' members of the Community for technology-intensive products and modern services.

Autonomous structural processes can be influenced by regional policy. If the various advantages were to come fully into play, the EC study sees the risk for the southern countries of reliance on obsolete structures in the internal market. Given the competition from developing countries this could be particularly serious if the Community's foreign trade follows liberal principles. The study refers in this respect to Ireland, which was initially in the same position as the southern countries and which systematically favoured and attracted high-technology firms, albeit with the result of creating a vulnerable, dual economic structure with an international sector dominated by multinationals and a largely underdeveloped domestic economy.

The Community's regional policy was not uninvolved in this development. The Irish example therefore suggests a parallel strategy for the southern countries. While emphasizing development of the infrastructure, they should make themselves attractive to technology-oriented firms by promoting human resources and by not discriminating in their investment premiums against those sectors where their true advantages (still) lie.

However, competition affects not only the structure of sectors but also the structure of company size. While internal company growth and mergers and takeovers eliminate or 'absorb' competitors, specialization causes a trend towards the vertical distribution of labour with the result that numerous companies become established or have better scope for development upstream or downstream. This process is particularly favourable to small businesses. Internal or external company growth is not harmful to competition provided the frontiers between the national markets are removed, thereby giving new competitors access to markets. Company growth consistently parallels growth in the market until optimal technical and managerial use of the advantages of scale are achieved. It is precisely this increase in the size of the market which the internal market was intended to achieve. Companies have been adapting themselves to this objective for a number of years. The number of mergers and takeovers has been increasing, disproportionately so between European companies. This trend towards concentration is an effect not only of the internal market but also an expression of the globalization of the markets: European industry is seeking a company structure which will make it better able to withstand intense competition on the world market. Preventive monopolies controls were introduced in 1990 at world level so that this process would not unintentionally undermine competition in the EC itself as a result of a small number of large enterprises dominating the market, or as a result of the reduction in the number of suppliers encouraging collusion.

[1] *Cf.* Baldwin, R., 'The growth effects of 1992', in: *Economic policy*, October 1989, pp. 247—81, in particular pp. 265 and 269.
[2] *Cf.* Neven, D., 'EEC integration towards 1992: some distributional aspects', Insead Working Papers No 90/23/EP/SM, Fontainebleau 1989, p. 40 ff.
[3] The Commission of the European Communities, 'The regions in the 1990s — Fourth periodic report on the social and economic situation and development of the regions of the community', Luxembourg, 1990, Tab. 8.2, p. 73.
[4] *Cf.* Buigues, P.

How will the structural processes related to company size, which Community policy has launched, effect the regional distribution of economic activity? World growth markets are mainly concentrated in high-technology goods. Large European companies are directing their activities towards this end. They need highly trained staff, proximity to research institutions, a well-developed industry-friendly infrastructure, and close contacts with key upstream and downstream enterprises. The needs of a discriminating, well-paid staff also call for an attractive local infrastructure. Multinationals therefore tend to concentrate their main areas of operations in urban centres, spreading to the surrounding region when the problems of urban concentration become intolerable (price of land, the environment, transport chaos). The high degree of organizational flexibility shown by these companies, however, makes it likely that they will exploit regional cost differentials (for example, wages) by relocating cost-intensive parts of their operations to the periphery. By contrast, to the extent that they are able to grow through increasing their product range and producing higher quality goods which can be sold supraregionally, local firms on the periphery will be willing and able to shift their research-based and administrative functions closer to the centres. To the extent that the Community competition policy favours a growth in company size, it may help consolidate temporarily the intersectoral division of labour between the centre and the periphery. However, since it also favours growth in income in the peripheral regions, and since there is a relationship between level of incomes and economic structure, in the medium-term it will help modernize the economic structure of the periphery.

The second way in which competition policy can influence the regional distribution of economic activity in the Community is by monitoring national regional policies. Until 1975 all that the Commission could do, by virtue of the EEC Treaty, was to examine whether national regional aid was not in reality sectoral aid tending to distort competition. This was an extremely difficult task and therefore tended to be neglected. The creation of a regional Fund increased the EC's influence to some extent. Aid from the Fund is now dependent on the Member States producing a regional development plan. The national fund quotas were fixed on the basis of political considerations. Within the quotas the Commission had to approve national applications for refunds, regardless of whether it felt a measure was sensible. Defining the recipient regions was the sole responsibility of the Member States, although they undertook only to provide investment-based regional aid and in the more centrally situated regions at least not to exceed a specific level of aid, the 'net grant equivalent'. The purpose of this agreement was to increase the effectiveness of regional aid. The lower the inducement to invest in central regions, the greater the inducements on the periphery, provided the funds are available. The sole criterion was the profit margin. In 1985 EC regional policy was revised. With regard to the activities of the Member States, the new Regulation provided for tighter policing of Community-wide conformity and better coordination of national schemes for providing regional aid. [1] The intention was that activity outside the defined regions would no longer be possible. One of the objectives was to concentrate national regional policy on the regions really requiring aid. The Commission played a greater role in defining the regions. For example, it took a restrictive attitude towards the Federal Republic. The dispute was over whether significant deviations from the national average were sufficient grounds for qualification as a development region or whether deviation from the EC average — a more stringent requirement for the richer Member States — should be the criterion. Upper limits for the level of aid for all regional categories were also fixed.

Alongside this specific regional activity, the Commission has been endeavouring since 1987 to inject greater transparency into all Member States' subsidies. In 1988 it published its 'First report on State aid in the European Community' which reviewed the period 1981 to 1986. In 1990 the second Report updated the figures to 1987 and 1988 and included data on Spain and Portugal.

Table 9 includes data extracted from the second Report. It shows the importance of direct regional aid in the Member States. For the processing industry such aid accounts for one-third of all aid. At a level of some ECU 8 billion (1986-88 average) the level of funding was 2.2 times the funds available under the ERDF before the reforms increasing its funds (1988: ECU 3.67 billion).

This is clearly no longer the case. In 1989 the ERDF had ECU 4.66 billion, whereas — as Table 7 shows — national regional aid has tended to decline. This increases the effectiveness of the Community's policy of cohesion and is to some extent a success for that policy. It should also be borne in mind, however, that the Commission has not yet succeeded in determining the subsidy value of all the benefits, particularly those of a fiscal nature. [2]

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[1] *Cf.* Franzmeyer, F., Seidel, B., Regional und Sozialpolitik (Regional and social policy) in: Weidenfeld, W., Wessels, W. (Eds.), *Jahrbuch der Europäischen Integration,* 1984, Bonn 1985, p. 165.

[2] Commission of the European Communities, Directorate-General for Competition: 'Second report on State aid in the European Community in the processing industry and in a number of other economic sectors', Brussels 1990, p. 26.

Table 9 — **Member States' financial help to manufacturing industry[1] in regions with severe backwardness and high unemployment (Art. 92 (3)a EEC Treaty) as well as in other regions**

Country	Averages 1981-86			Averages 1986-88			Population and income in problem regions[2]		
	Article 92 (3)a	Other regions	Total	Article 92 (3)a	Other regions	Total	Population share	Income	ECU per capita[3]
	Mio. ECU			Mio. ECU			Mio. ECU		
BR Deutschland	—	427	427[4]	—	1 133	1 133[5]	37.5	20.90[6]	54.21
France	132	307	438	161	273	443	40.2	22.27	19.89
Italia	4 248	556	4 804	4 261	655	4 916	38.8	22.21	221.34
Nederland	—	172	172	—	161	161	14.7	2.14	75.23
Belgique	—	203	203	—	215	215	33.1	3.26	65.95
Luxembourg	—	12	12	—	19	19	79.5	0.29	65.52
United Kingdom	270	1 305	1 575	242	904	1 149	37.7	21.40	53.69
Ireland	200	—	200	159	—	159	100.0	3.54	44.92
Danmark	—	14	14	—	20	17	20.7	1.06	16.04
Ellada	276	—	276	406	—	406	65.7	6.55	61.98
Espana	—	—	—	—	65	65	66.4	25.68	2.53
Portugal	—	—	—	23	—	23	100.0	10.21	2.25
EC total	6 459	3 344[7]	9 803	5 252	3 445	8 058	43.8	139.37	57.82

[1] Equal to 41% of total subsidies in the EC.
[2] 1986.
[3] Average 1986-88 in relation to population 1986.
[4] To be added 3 227 mio ECU 'Berlinhilfe' and financial help for 'Zonenrandgebiete'.
[5] To be added 3 340 mio ECU 'Berlinhilfe'.
[6] Berlin excluded.
[7] Published figure; difference to sum from individual items (2 996) unimputable.

Sources: Commission of the EC (Ed.) 'The regions in the 1990s — Fourth periodic report on the social and economic situation and development of the regions of the Community'; Statistische Grundzahlen der Gemeinschaft, 26. Ausgabe 1989; calculations by DIW.

In Italy, Luxembourg, Ireland, Greece and Great Britain regional subsidies account for a high proportion of all financial and fiscal aids for the processing industry. In Spain and Portugal, by contrast, and in France and Denmark too the proportion is noticeably very low. In the Iberian Peninsular raising the overall level of development of the economy evidently enjoys absolute priority, in contrast to Greece. In France the lion's share of horizontal and sectoral aid already has a regional bias, with the result that the figures do not adequately represent the government's intentions with regard to regional policy. In Luxembourg and Great Britain the high regional support quotas are an expression of the serious problems in regions with declining industrial sectors. In Italy, by contrast, there is the traditional North-South divide. However, the fact that regional aid accounts for a high proportion of total aid may conceal significant differences in per capita amounts. On the assumption that the group of regions covered by structural Fund Objectives 1, 2 and 5b is identical to the problem regions in Table 9, the per capita figures for Italy are extremely high, whereas even on this basis extremely low levels of funding are made available explicitly for regional policy in Spain and Portugal.

The following are the general conclusions from summarizing the information in respect of Community control of national region policy in the Member States:

(i) Until the late 1980s it was not possible to shed light on all aspects of national aid policy, and to this extent it was not possible to exercise controls.

(ii) Nor apparently, was it, possible to induce Member States to accept a regional level of aid which reflected the actual problems.

(iii) However, the reason for this does not lie in the misapplication of high aid rates, for example in The Netherlands, Belgium or Great Britain. The reason might be that in the poorer countries the funds (or planning capacity) made available are inadequate to exploit the maximum levels of aid to the full, or that because of the predominance of horizontal or (legitimate) sectoral aid objectives the funds are diverted into non-specific regional applications which cannot easily be allocated to the regions.

(iv) The problematic situation in Italy (a comparatively wealthy country with large, underdeveloped, though highly subsidized regions) shows that even a high level of support can be ineffective. The problem here is evidently not a financial one. In view of such cases, the Community would be well advised to build additional criteria governing 'soft factors' into its fund involvement policy, to enable it to withhold funds for as long as the national government is incapable of independently mastering its own regional problems. If need be it could increase its administrative and technical aid.

(v) The general structures of the amounts of aid have in a course of time proved fairly inflexible. This suggests fairly low Community influence on national regional policy. Where developments have been along lines acceptable to the Commission (e.g. reduction in the total amount available in Great Britain) this has been due principally to other causes, for example the change in economic policy under Thatcher and the alleviation of the problems as a result of the economic recovery.

The third aspect of EC competition policy that affects the regional developmental divide is the monitoring of non-regional aids against the backdrop of their regional incidence. The Commission's second report on subsidies makes a distinction here between horizontal aid, i.e. aid available in theory to all economic sectors, and specific sectoral aids. Allocating the horizontal aids on a regional basis is beyond the scope of this paper. It may be assumed, however, that there is a fairly even distribution within each country in proportion to general economic level of activity. However, there are differences — in some cases quite considerable — between the Member States. This can be seen if this category of aid is applied to the national population. Most of this aid is also used for the precompetitive modernization of the economy and it is permissible pursuant to EC legislation, with the result that the Commission has virtually no influence on the regional distribution (except in specifying co-funding programmes such as Esprit for example). The 'other' sectoral aids have a similar, non-concentrated regional basis. Transport, and more precisely rail transport, is the predominant sector here. Railway tariffs — which do not cover costs — benefit the regions similarly, largely in accordance with the distribution of economic activity in the regions. Where sectors of the processing industry receive considerable subsidies — as in the case of Spain, France, Italy or Great Britain, they only appear in statistics as totals. Even if there were more specific information on the branches of industry a regional classification would not be possible.

Only subsidies to the coal and steel industry and shipbuilding can be reasonably classified by specific regions — or at least by specific type of disadvantaged region (support category II). In Germany, Spain and Belgium no less than a third of all aid to enterprises goes to these three sectors, in the United Kingdom roughly a quarter, and in France just under a fifth. In other countries they are of little or no significance. However, the report on subsidies contains figures only for 1986-88. In that period trends in the steel industry were particularly favourable, and shipbuilding too benefited from the world-wide economic recovery. Aid to these sectors was therefore comparatively small; it had been significantly higher up until the early 1980s. At the time — following severe criticism from Germany of the practice of providing subsidies, particularly in Italy, which was regarded as distorting competition — the Commission endeavoured to tighten up what had been fairly lax controls hitherto, i.e. by restricting, for example in terms of time, the admissibility of subsidies and making them dependent on rationalization plans. With the help of the special crisis powers pursuant to the ECSC Treaty, it helped ensure that the burden of readaptation was shared equally amongst all the crisis areas. It thus prevented any given region being unduly favoured as a result of excess subsidies compared with other regions, but it also prevented the comparatively efficient enterprises (and regions) from establishing themselves on the market.

For example, the steel areas were modernized in a 'linear' fashion, whereas under competitive conditions dynamic, regional differences would have arisen between the areas as a result of firms collapsing and regionalized mass unemployment. Hence, in the steel sector the policy of the Commission has had an equalizing effect on differences between the regions in the Community, but on the other hand it has prevented the sector from developing its potential efficiency to the full.

Table 10 — **Member States' financial help to firms, by purposes, 1986-88**
Average amounts per year

(Mio ECU)

Country	Agri-culture and fishery	Manufac-turing hori-zontal help	'Goal 2' regions sectoral help	Iron and steel	Ship-building	Coal mining	Other sectoral help	of which: transport-ation	Regional help	Total	of which %	
											regional directly imput-able[1]	regional indi-rectly imput-able[2]
BR Deutschland	2 367	2 622	7 521	60	166	7 295	6 899	6 579	1 132[3]	20 540[3]	5.5	36.6
France	2 206	2 630	2 936	16	476	2 444	7 062	4 952	435	15 269	2.8	19.2
Italie	3 288	3 050	581	357	224	0	8 804	7 790	4 916	20 641	23.8	2.8
Nederland	534	840	30	0	30	0	797	758	161	2 362	6.8	1.3
Belgique	170	713	1 212	0	31	1 181	1 541	1 447	215	3 853	5.6	31.5
Luxembourg	17	15	0	0	0	0	165	165	19	217	8.8	0.0
United Kingdom	779	1 221	1 595	20	452	1 123	1 814	1 085	1 146	6 557	17.5	24.3
Ireland	171	193	0	0	0	0	186	130	159	709	22.4	0.0
Danmark	239	200	57	0	57	0	379	378	17	892	1.9	6.4
Ellada	150	430	0	0	0	0	316	109	406	1 302	31.2	0.0
Espana	220	365	1 916	891	103	922	3 332	1 827	65	5 898	1.1	32.5
Portugal	158	299	47	21	24	2	207	108	19	731	2.6	6.4

[1] Column: Regional help.
[2] Iron and steel, shipbuilding and coal mining; the assumption is that these amounts fully flow into 'goal 2' regions.
[3] Berlin excluded.

Source: Commission of the EC (Ed.), *The regions in the 1990s — Fourth periodic report on the social and economic situation and development of the regions of the Community.*

In Germany the subsidizing of coal plays quite an exceptional role, with the support hitherto of a restrictive policy on imports and through contracts with industry and public electricity suppliers via guaranteed purchasing. In Belgian, France, Spain and the United Kingdom too, however, the sector attracts a major proportion of subsidies. The Commission used to be generous in authorizing the support of coal production for reasons connected with security of supply. With or without this control there would have been similar regional effects. In the Federal Republic, in particular, coal policy did a great deal to narrow the regional income gap by safeguarding large numbers of jobs in disadvantaged reasons. At the same time, however, there was less incentive to modernize the coal region.

For some years now, the subject of German coal subsidies has no longer been taboo in the Community. Such distortions of competition compared with other sources of energy are harder to reconcile with a single internal market. In future supply security can only be identified at the Community level; the urgency of the problem is, moreover, to be seen in the context of diversification of energy use and of supply sources. Doing away with subsidies will temporarily increase the gap between the regions in Germany. However, the Ruhr region has been catching up for a number of years. Given the excellent infrastructure and the central position, the increased 'competition between the regions' will ensure that the modernization process is accelerated.

6. Future research requirements

The studies presented in this report may be continued or supplemented in a number of ways.

Some of these possibilities are purely quantitative in nature: in the first place, it would be useful to update the results in a number of years' time. This would show:

(i) the extent to which and rate at which existing EC policies have adapted in terms of budget effectiveness to the expansion of the Community to include Spain and Portugal and, by contrast, the extent to which these two countries have been able to exploit the new sources of funding;

(ii) how significant reforms of old policy areas and the inclusion of new Community policy areas which have not yet been properly reflected in the statistics have had an overall effect on the regional distribution of funds.

Secondly, an attempt might be made to include in the analysis a number of categories of expenditure which have hitherto been excluded, in particular R&D, so that an even greater proportion of total expenditure is covered. However, this would be unlikely to show any significant shift in the trend overall and the expenditure involved would be disproportionably high.

More important than these quantitative updatings and additions are qualitative improvements in respect of objectives and methodology. The distribution calculations presented in the foregoing have been concerned solely with expenditure flows. We would have a better picture of how these flows affect living conditions in the individual regions if we could scrutinize such flows to ascertain the effect on income. The static income effects approximate quite closely with actual expenditure in terms of a number of categories, at least for subsidies from the structural Funds. In the case of loans, an 'income' analysis would have to take only the interest advantage into account. The dynamic effects (creation of jobs, higher level of skills, growth in productivity and real income) could be indicated only as trends, given the numerous reservations (*cf.* Section 3.5.) in respect of the differences in the efficiency of similar measures in different regions.

The major problems even in respect of static effects would revolve around the agricultural guarantee payments. Three points would require particular consideration.

(i) Firstly, farmers' incomes benefit from the difference between the EC-supported price level and the low world price level. It might be possible to explore the implications of trends in world prices for products subject to market organization. However, it would not be possible to leave the world of 'marginal comparative statics' (*cf.* the comments on the methodology). Since there is no such thing as a world price as such, it would only be possible to discuss long-term trends at the average quality level typical for the EC.

(ii) Secondly, the income-oriented analysis would need to concentrate not only on the target group of guarantee payments (farmers) but also on the regional population as a whole. In this way the price-related loss of income affecting private consumers is balanced by price-related growth in farmers' incomes. The regional distribution of consumers differs from the regional distribution of agricultural production not least because agricultural regions are, by their very nature, more thinly populated than industrial regions. Agricultural regions are therefore subsidized from consumer income in the centres of population. Inasmuch as the rural regions of the EC are also the poorer regions, the equalization effect of the EC system of agricultural price support is greater than reflected in the regional distribution of guarantee expenditure. This could be dealt with by

(a) producing quantitative estimates of the extent to which EC agriculture is subsidized by the EC consumer,

(b) allocating the amount of the subsidies to the regions in line with their population, and

(c) offsetting the regional values of the guarantee payments thus allocated against the regional values of consumer subsidies.

Consumer subsidies are calculated as EC production multiplied by the difference between the EC price and the world market price. Exports (including intermediate inputs included in exports of processed products) which are subsidized by EC citizens as a whole in the form of export refunds and processing aid would need to be extracted from the volume of production. Variable levies on agricultural imports and the high duties on imports of processed products also mean a reduction in regional income for consumers.

This method of calculation presupposes that all people living in the EC have the same standard of living as well as the same structure of consumption of agricultural products (directly or via processed products). It also assumes that exports are allocated to regions in accordance with production and imports in accordance with the number of inhabitants. Since the regional average income is known, the actual regional inequality in consumption could be taken into account by assuming a similar quota of consumption of food and kindred products or — more realistically — a falling quota as income rises. The other-distorting elements would simply have to be accepted, since not enough statistical information is available and assumptions of similar plausibility cannot be made.

(iii) Thirdly, the fund-raising aspect might be brought into the analysis, since the balances estimated in the foregoing do not by any means represent the full regional income effects of the Community's agricultural guaranteed price policy. Guarantee expenditure must be funded in some way. The Community's additional financial requirements are largely met out of VAT. The regional assessment basis for this should be estimated with the help of population statistics, per capita income and assumptions about patterns of consumption. Once the maximum VAT share of the EC is exhausted, expansion of the Community budget is financed in proportion to the social product (fourth source of income). However, the amounts in question will be paid by the Member States. Since it is not possible to analyse the regional incidence of such payments, they would have to be left out of account here.

Appendix A

Tables of EC financial flows by region

Table A.1

Population and income in the European Community by regions

Code	Region Nuts 2 [1]		Population 1988		Gross Domestic Product 1988		
			1 000	%	Mio ECU	%	ECU/head
RC11	P	Norte	3602	1.11	10176	0.25	2823
RC14	P	Alentejo	557	0.17	1734	0.04	3094
RC15	P	Algarve	341	0.11	1056	0.03	3100
RA41	GR	Voreio Aigaio	196	0.06	634	0.02	3240
RC12	P	Centro	1783	0.55	6055	0.15	3382
RA21	GR	Ipeiros	321	0.10	1094	0.03	3404
RA13	GR	Dytiki Makedonia	300	0.09	1137	0.03	3788
RA43	GR	Kriti	514	0.16	2024	0.05	3934
RA23	GR	Dytiki Ellada	652	0.20	2646	0.07	4060
RA22	GR	Ionia Nisia	181	0.06	737	0.02	4074
RA14	GR	Thessalia	696	0.21	2915	0.07	4189
RA12	GR	Kentriki Makedonia	1654	0.51	7084	0.18	4284
RA42	GR	Notio Aigaio	238	0.07	1073	0.03	4513
RA11	GR	Anatoliki Makedonia, Thraki	577	0.18	2630	0.07	4556
RA25	GR	Peleponnisos	574	0.18	2629	0.07	4581
RC13	P	Lisboa e Vale do Tejo	3463	1.07	16277	0.40	4697
RA3	GR	Attiki	3526	1.09	16755	0.42	4752
RB43	E	Extremadura	1096	0.34	5391	0.13	4909
RB63	E	Ceuta y Melilla	126	0.04	672	0.02	5329
RA24	GR	Sterea Ellada	563	0.17	3077	0.08	5464
RB61	E	Andalucia	6798	2.10	39170	0.97	5759
RB42	E	Castilla-La Mancha	1690	0.52	10327	0.26	6093
RB11	E	Galicia	2847	0.88	18283	0.45	6398
RB62	E	Murcia	1011	0.31	6669	0.17	6596
R393	I	Calabria	2147	0.66	14838	0.37	6924
RB41	E	Castilla-Leon	2623	0.81	18723	0.46	7114
RB7	E	Canarias	1448	0.45	10464	0.26	7221
RB13	E	Cantabria	527	0.16	3832	0.10	7250
R392	I	Basilicata	622	0.19	4689	0.12	7542
RB52	E	Comunidad Valenciana	3762	1.16	28476	0.71	7553
R8	IRL	Ireland	3539	1.09	27494	0.68	7771
RB12	E	Asturias	1135	0.35	8927	0.22	7833
R37	I	Campania	5731	1.77	44881	1.11	7886
RB24	E	Aragon	1208	0.37	9836	0.24	8091
R3A	I	Sicilia	5141	1.59	42307	1.05	8269
RB51	E	Cataluna	6090	1.88	51390	1.27	8417
RB3	E	Madrid	4909	1.52	41764	1.04	8498
R425	NL	Flevoland	194	0.06	1572	0.04	8560
R391	I	Puglia	4043	1.25	34527	0.86	8568
R3B	I	Sardegna	1651	0.51	14544	0.36	8832
RB22	E	Navarra	520	0.16	4615	0.11	8856
RB21	E	Pais Vasco	2194	0.68	19656	0.49	8933
RB23	E	Rioja	259	0.08	2343	0.06	9031
R7B	UK	Northern Ireland	1578	0.49	14344	0.36	9085
R382	I	Molise	335	0.10	3120	0.08	9313
R523	B	Hainaut	1272	0.39	12670	0.31	9909
R527	B	Namur	415	0.13	4140	0.10	10004
R79	UK	Wales	2857	0.88	28634	0.71	10072
R283	F	Corse	247	0.08	2506	0.06	10138
R526	B	Luxembourg	227	0.07	2316	0.06	10257

Table A.1, continued

Code	Region Nuts 2 [1]		Population 1988		Gross Domestic Product 1988		
			1 000	%	Mio ECU	%	ECU/head
R381	I	Abruzzi	1258	0.39	13146	0.33	10462
R71	UK	North	3071	0.95	32457	0.81	10524
R412	NL	Friesland	599	0.19	6445	0.16	10630
R424	NL	Gelderland	1784	0.55	19449	0.48	10868
R77	UK	West Midlands	5207	1.61	57048	1.42	10950
RB53	E	Baleares	672	0.21	7384	0.18	10954
R72	UK	Yorkshire and Humberside	4913	1.52	53851	1.34	10963
R263	F	Limousin	732	0.23	8283	0.21	11272
R281	F	Languedoc-Roussillon	2080	0.64	23360	0.58	11279
R78	UK	North West	6354	1.96	72016	1.79	11279
R13C	D	Lüneburg	1447	0.45	16684	0.41	11304
R423	NL	Overijssel	1010	0.31	11492	0.29	11331
R7A	UK	Scotland	5094	1.57	58113	1.44	11341
R73	UK	East Midlands	3970	1.23	44958	1.12	11377
R452	NL	Limburg	1095	0.34	12673	0.31	11479
R225	F	Basse-Normandie	1385	0.43	15959	0.40	11520
R23	F	Nord-Pas de Calais	3925	1.21	45695	1.13	11607
R76	UK	South West	4634	1.43	53426	1.33	11616
R253	F	Poitou-Charentes	1600	0.49	18575	0.46	11617
R262	F	Midi-Pyrénées	2377	0.73	27702	0.69	11647
R272	F	Auvergne	1328	0.41	15516	0.38	11651
R352	I	Umbria	818	0.25	9562	0.24	11656
R252	F	Bretagne	2773	0.86	32530	0.81	11727
R515	B	Limburg	737	0.23	8734	0.22	11888
R74	UK	East Anglia	2034	0.63	24021	0.60	11901
R518	B	Oost-Vlaanderen	1329	0.41	16043	0.40	12047
R451	NL	Noord-Brabant	2156	0.67	26306	0.65	12181
R241	F	Lorraine	2321	0.72	28394	0.70	12192
R524	B	Liège	992	0.31	12167	0.30	12247
R251	F	Pays de Loire	3055	0.94	37998	0.94	12438
R353	I	Marche	1429	0.44	17958	0.45	12545
R243	F	Franche-Comté	1088	0.34	13681	0.34	12546
R172	D	Trier	472	0.15	5908	0.15	12578
R222	F	Picardie	1783	0.55	22439	0.56	12580
R413	NL	Drenthe	437	0.13	5552	0.14	12659
R519	B	West-Vlaanderen	1095	0.34	13871	0.34	12681
R226	F	Bourgogne	1614	0.50	20527	0.51	12704
R471	NL	Utrecht	965	0.30	12301	0.31	12795
R474	NL	Zeeland	356	0.11	4679	0.12	12991
R16B	D	Gießen	956	0.30	12775	0.32	13152
R282	F	Provence-Alpes-Côte d'Azur	4148	1.28	54500	1.35	13166
R13D	D	Weser-Ems	2128	0.66	28178	0.70	13202
R261	F	Aquitaine	2737	0.85	36193	0.90	13227
R193	D	Oberpfalz	970	0.30	12809	0.32	13241
R192	D	Niederbayern	1029	0.32	13552	0.34	13253
R224	F	Centre	2348	0.73	31500	0.78	13428
R221	F	Champagne-Ardenne	1360	0.42	18297	0.45	13435
R153	D	Münster	2392	0.74	32615	0.81	13514
R171	D	Koblenz	1351	0.42	18503	0.46	13684
R351	I	Toscana	3568	1.10	49087	1.22	13686
R333	I	Friuli-Venezia Giulia	1210	0.37	16739	0.42	13705
R473	NL	Zuid-Holland	3208	0.99	44181	1.10	13736
R11	D	Schleswig-Holstein	2555	0.79	36190	0.90	13789
R332	I	Veneto	4375	1.35	60509	1.50	13792

Table A.1, continued

Code	Region Nuts 2 [1]		Population 1988		Gross Domestic Product 1988		
			1 000	%	Mio ECU	%	ECU/head
R196	D	Unterfranken	1207	0.37	16682	0.41	13818
R331	I	Trentino-Alto Adige	882	0.27	12241	0.30	13870
R36	I	Lazio	5137	1.59	71327	1.77	13912
R311	I	Piemonte	4377	1.35	61807	1.53	14023
R313	I	Liguria	1750	0.54	24855	0.62	14031
R194	D	Oberfranken	1036	0.32	14867	0.37	14269
R502	B	Brabant	2222	0.69	31806	0.79	14304
R271	F	Rhône-Alpes	5205	1.61	75174	1.86	14453
R16C	D	Kassel	1161	0.36	17073	0.42	14511
R75	UK	South East	17344	5.36	257309	6.38	14823
R242	F	Alsace	1614	0.50	23994	0.60	14875
R902	DK	Ost For Storebaelt, Ex.Hovedst	587	0.18	8736	0.22	14877
R6	L	Luxembourg	372	0.11	5555	0.14	14878
R34	I	Emilia-Romagna	3924	1.21	59499	1.48	15066
R154	D	Detmold	1798	0.56	27082	0.67	15086
R472	NL	Noord-Holland	2353	0.73	35579	0.88	15086
R155	D	Arnsberg	3609	1.11	54205	1.34	15138
R223	F	Haute-Normandie	1711	0.53	26094	0.65	15270
R1A	D	Saarland	1054	0.33	15993	0.40	15277
R183	D	Freiburg	1876	0.58	29038	0.72	15285
R184	D	Tübingen	1538	0.48	23950	0.59	15531
R197	D	Schwaben	1551	0.48	24447	0.61	15713
R312	I	Valle d'Aosta	114	0.04	1810	0.04	15854
R511	B	Antwerpen	1588	0.49	25284	0.63	15928
R13A	D	Braunschweig	1587	0.49	25656	0.64	16030
R173	D	Rheinhessen-Pfalz	1811	0.56	29107	0.72	16117
R152	D	Köln	3870	1.20	63032	1.56	16140
R13B	D	Hannover	2001	0.62	32630	0.81	16169
R32	I	Lombardia	8886	2.75	144331	3.58	16197
R903	DK	Vest For Storebaelt	2828	0.87	46318	1.15	16388
R182	D	Karlsruhe	2408	0.74	42392	1.05	17510
R151	D	Düsseldorf	5075	1.57	89678	2.22	17731
R195	D	Mittelfranken	1528	0.47	27247	0.68	17830
R1B	D	Berlin (West)	2029	0.63	34397	0.85	18221
R181	D	Stuttgart	3509	1.08	68401	1.70	19508
R191	D	Oberbayern	3628	1.12	73878	1.83	19683
R901	DK	Hovedstadsregionen	1715	0.53	35944	0.89	20940
R14	D	Bremen	659	0.20	14093	0.35	21446
R16A	D	Darmstadt	3408	1.05	74259	1.84	21707
R21	F	Ile de France	10320	3.19	225272	5.59	21846
R411	NL	Groningen	557	0.17	13035	0.32	23013
R12	D	Hamburg	1594	0.49	42112	1.04	26680
EC (10)			275064	84.97	3708353	91.98	-
EC (12)			323723	100.00	4031573	100.00	-

[1] For United Kingdom Nuts 1; without Departements d'Outre-Mer, Açores and Madeira.
The regions were put in order according to their regional GDP per head.
Sources: Eurostat, database Regio; DIW calculations.

Table A.2

European Regional Development Fund, investment grants by regions, original data [1]

(Mio ECU)

Code	Region Nuts 2 [2]		Total				Industry		Infrastructure	
			1986	1987	1989	1990	1986	1987	1986	1987
RC11	P	Norte	84.2	142.1	55.2	32.6	-	-	84.2	142.1
RC14	P	Alentejo	79.7	40.2	17.9	13.1	-	-	79.7	40.2
RC15	P	Algarve	12.5	30.5	13.5	9.3	-	-	12.5	30.5
RA41	GR	Voreio Aigaio	0.2	0.2	10.5	8.9	0.2	0.2	-	-
RC12	P	Centro	109.9	51.2	74.6	14.2	-	-	109.9	51.2
RA21	GR	Ipeiros	15.8	15.7	26.4	10.4	-	-	23.0	15.6
RA13	GR	Dytiki Makedonia	5.3	5.3	17.1	10.3	-	-	7.8	5.3
RA43	GR	Kriti	37.0	36.7	46.2	58.2	-	-	24.9	16.9
RA23	GR	Dytiki Ellada	-	-	2.5	-	-	-	-	-
RA22	GR	Ionia Nisia	-	-	0.7	0.3	-	-	-	-
RA14	GR	Thessalia	21.9	21.7	16.3	24.0	0.1	0.1	31.8	21.6
RA12	GR	Kentriki Makedonia	13.2	13.1	90.3	91.0	-	-	19.3	13.1
RA42	GR	Notio Aigaio	0.5	0.5	1.4	-	0.6	0.5	-	-
RA11	GR	Anatoliki Makedonia, Thraki	13.7	13.6	76.4	96.0	0.6	0.5	19.3	13.1
RA25	GR	Peleponnisos	0.1	0.1	152.3	24.7	0.1	0.1	-	-
RC13	P	Lisboa e Vale do Tejo	26.6	40.8	111.0	59.6	-	-	26.6	40.8
RA3	GR	Attiki	-	-	-	-	-	-	-	-
RB43	E	Extremadura	71.8	24.7	37.4	50.2	0.6	-	71.2	24.7
RB63	E	Ceuta y Melilla	-	-	-	4.8	-	-	-	-
RA24	GR	Sterea Ellada	-	-	-	-	-	-	-	-
RB61	E	Andalucia	247.2	269.0	281.2	331.8	4.7	-	242.6	269.0
RB42	E	Castilla-La Mancha	62.9	107.7	135.4	157.1	1.4	-	61.5	107.7
RB11	E	Galicia	42.3	39.5	49.8	57.5	3.4	-	38.9	39.5
RB62	E	Murcia	23.0	38.7	24.1	42.7	-	-	23.0	38.7
R393	I	Calabria	66.8	35.1	17.9	26.6	15.6	-	51.2	35.1
RB41	E	Castilla-Leon	139.7	84.8	101.4	141.8	1.1	-	138.6	84.8
RB7	E	Canarias	10.5	14.6	16.0	65.7	-	-	10.5	14.6
RB13	E	Cantabria	-	-	1.2	31.2	-	-	-	-
R392	I	Basilicata	103.1	93.5	17.5	16.9	20.4	51.2	82.7	42.3
RB52	E	Comunidad Valenciana	-	-	45.5	52.5	-	-	-	-
R8	IRL	Ireland	126.8	163.5	209.1	291.3	22.0	24.8	102.6	69.5
RB12	E	Asturias	37.7	53.0	82.6	62.8	-	-	37.7	48.7
R37	I	Campania	415.2	504.4	377.2	221.4	71.0	32.9	344.2	471.5
RB24	E	Aragon	-	5.5	4.5	17.1	-	-	-	5.5
R3A	I	Sicilia	55.5	159.3	110.4	129.8	12.8	-	42.3	157.2
RB51	E	Cataluna	-	-	10.8	93.3	-	-	-	-
RB3	E	Madrid	-	-	18.6	0.4	-	-	-	-
R425	NL	Flevoland	-	-	-	-	-	-	-	-
R391	I	Puglia	34.6	17.7	28.9	67.8	17.0	1.0	17.6	10.5
R3B	I	Sardegna	39.3	21.5	39.7	35.8	10.9	-	28.4	21.5
RB22	E	Navarra	-	-	0.7	1.6	-	-	-	-
RB21	E	Pais Vasco	-	-	11.8	31.7	-	-	-	-
RB23	E	Rioja	-	-	-	1.5	-	-	-	-
R7B	UK	Northern Ireland	61.6	56.4	66.4	92.7	25.0	5.8	33.6	50.6
R382	I	Molise	26.6	5.9	29.3	1.4	4.0	-	22.7	4.1
R523	B	Hainaut	-	-	1.0	6.1	-	-	-	-
R527	B	Namur	0.7	-	0.6	0.0	-	-	0.7	-
R79	UK	Wales	67.1	79.3	34.4	0.5	14.3	7.2	39.5	72.0
R283	F	Corse	5.0	10.8	10.8	6.0	-	-	5.0	0.1
R526	B	Luxembourg	3.1	0.6	12.6	6.8	-	-	3.1	0.6

Table A.2, continued

Code	Region Nuts 2 [2]		Total				Industry		Infrastructure	
			1986	1987	1989	1990	1986	1987	1986	1987
R381	I	Abruzzi	41.1	32.2	51.1	18.6	17.0	10.0	24.1	22.2
R71	UK	North	58.0	89.5	11.2	13.0	4.4	1.3	53.4	68.4
R412	NL	Friesland	2.6	6.8	10.7	5.5	-	-	2.6	6.8
R424	NL	Gelderland	-	-	-	-	-	-	-	-
R77	UK	West Midlands	59.7	94.3	10.1	16.7	1.1	5.5	58.5	67.2
RB53	E	Baleares	-	-	-	-	-	-	-	-
R72	UK	Yorkshire and Humberside	59.4	43.8	3.7	57.5	6.9	8.0	52.5	35.7
R263	F	Limousin	6.9	22.2	13.6	7.9	0.4	-	6.5	6.5
R281	F	Languedoc-Roussillon	5.6	29.1	35.7	31.1	0.8	-	4.8	10.9
R78	UK	North West	70.1	53.0	8.9	0.1	4.6	3.5	35.0	49.3
R13C	D	Lüneburg	3.9	3.8	3.2	5.3	1.0	1.2	2.9	0.8
R423	NL	Overijssel	-	-	0.8	0.2	-	-	-	-
R7A	UK	Scotland	80.9	164.8	20.3	44.2	24.6	7.9	44.5	69.2
R73	UK	East Midlands	4.0	3.6	-	4.5	3.1	1.1	0.9	2.5
R452	NL	Limburg	17.9	8.4	7.6	5.1	-	-	17.9	8.4
R225	F	Basse-Normandie	4.7	0.9	0.3	4.6	1.3	-	3.4	-
R23	F	Nord-Pas de Calais	36.3	33.2	14.8	57.4	1.5	0.2	22.4	5.7
R76	UK	South West	33.5	40.1	10.8	-	0.1	3.5	33.4	36.5
R253	F	Poitou-Charentes	12.2	11.4	9.1	6.7	0.5	0.6	11.0	6.8
R262	F	Midi-Pyrénées	29.8	38.3	46.2	42.8	1.0	1.9	15.0	22.0
R272	F	Auvergne	8.8	24.8	18.9	9.8	1.0	0.1	7.8	7.1
R352	I	Umbria	-	3.1	1.5	3.1	-	-	-	-
R252	F	Bretagne	21.6	12.1	17.5	15.9	1.6	-	19.0	3.0
R515	B	Limburg	1.8	4.3	11.2	6.5	-	-	1.6	0.8
R74	UK	East Anglia	-	-	-	-	-	-	-	-
R518	B	Oost-Vlaanderen	-	-	1.1	0.9	-	-	-	-
R451	NL	Noord-Brabant	-	-	-	-	-	-	-	-
R241	F	Lorraine	54.1	33.0	48.1	51.7	3.1	0.2	31.4	20.3
R524	B	Liège	4.2	0.8	1.3	9.0	-	-	4.2	0.8
R251	F	Pays de Loire	24.9	7.8	2.5	19.8	1.9	0.2	21.5	2.0
R353	I	Marche	9.6	8.1	11.0	2.6	3.1	5.8	6.5	0.5
R243	F	Franche-Comté	0.4	2.0	-	6.2	0.4	-	-	1.5
R172	D	Trier	-	3.8	3.0	0.9	-	3.8	-	-
R222	F	Picardie	3.3	1.3	-	8.1	0.1	0.1	2.1	-
R413	NL	Drenthe	-	-	4.0	1.5	-	-	-	-
R519	B	West-Vlaanderen	0.4	1.5	0.6	-	-	-	0.4	0.1
R226	F	Bourgogne	2.2	2.7	0.9	3.6	-	-	-	-
R471	NL	Utrecht	-	-	-	-	-	-	-	-
R474	NL	Zeeland	-	-	-	-	-	-	-	-
R16B	D	Gießen	2.0	0.6	-	-	2.0	0.6	-	-
R282	F	Provence-Alpes-Côte d'Azur	14.8	5.1	4.6	9.2	-	-	14.8	3.4
R13D	D	Weser-Ems	9.2	13.9	1.5	7.1	1.6	8.1	7.6	5.8
R261	F	Aquitaine	17.0	18.3	34.4	28.0	1.1	0.1	15.9	6.1
R193	D	Oberpfalz	0.8	1.1	1.1	3.9	0.5	0.9	0.4	0.2
R192	D	Niederbayern	7.4	9.4	3.8	1.8	5.0	1.3	2.4	8.1
R224	F	Centre	0.1	0.3	0.1	0.0	0.1	-	-	-
R221	F	Champagne-Ardenne	8.0	3.7	4.1	5.3	0.3	0.1	6.0	1.8
R153	D	Münster	4.6	2.4	3.8	1.4	4.6	2.3	-	0.1
R171	D	Koblenz	-	1.9	0.3	0.4	-	1.9	-	-
R351	I	Toscana	-	15.2	13.4	9.7	-	0.4	-	10.0
R333	I	Friuli-Venezia Giulia	-	-	1.3	4.4	-	-	-	-
R473	NL	Zuid-Holland	-	-	-	2.8	-	-	-	-
R11	D	Schleswig-Holstein	8.2	5.3	17.6	2.0	5.7	3.5	2.6	1.0
R332	I	Veneto	-	5.0	-	-	-	-	-	-
R196	D	Unterfranken	0.5	0.7	0.4	0.4	0.2	0.2	0.3	0.5

Table A.2, continued

Code	Region Nuts 2 [2]		Total				Industry		Infrastructure	
			1986	1987	1989	1990	1986	1987	1986	1987
R331	I	Trentino-Alto Adige	-	-	-	-	-	-	-	-
R36	I	Lazio	22.0	33.2	10.2	8.1	14.4	19.2	7.6	14.0
R311	I	Piemonte	-	6.3	3.6	12.0	-	-	-	-
R313	I	Liguria	-	0.9	7.6	6.6	-	-	-	-
R194	D	Oberfranken	4.5	4.8	0.7	2.5	4.2	4.0	0.3	0.9
R502	B	Brabant	2.1	-	0.3	1.3	-	-	2.1	-
R271	F	Rhône-Alpes	3.9	12.8	6.6	15.5	0.9	-	1.2	11.4
R16C	D	Kassel	6.0	4.8	5.7	0.6	5.7	4.5	0.3	0.3
R75	UK	South East	-	-	-	-	-	-	-	-
R242	F	Alsace	4.1	0.2	1.6	-	1.6	-	1.6	-
R902	DK	Ost For Storebaelt, Ex.Hovedst	1.8	1.0	1.6	2.6	0.2	0.2	1.6	0.3
R6	L	Luxembourg	3.4	3.3	1.2	0.6	-	-	-	2.3
R34	I	Emilia-Romagna	-	-	4.0	-	-	-	-	-
R154	D	Detmold	-	-	0.4	0.1	-	-	-	-
R472	NL	Noord-Holland	-	-	-	0.6	-	-	-	-
R155	D	Arnsberg	0.4	1.6	1.2	0.3	0.4	1.6	-	-
R223	F	Haute-Normandie	1.2	2.1	0.2	7.2	1.2	-	-	2.1
R1A	D	Saarland	5.9	8.7	7.4	13.6	5.9	1.2	-	-
R183	D	Freiburg	-	-	-	-	-	-	-	-
R184	D	Tübingen	-	-	-	-	-	-	-	-
R197	D	Schwaben	-	-	-	-	-	-	-	-
R312	I	Valle d'Aosta	-	-	-	0.8	-	-	-	-
R511	B	Antwerpen	1.2	0.5	2.5	4.2	0.9	-	0.3	0.5
R13A	D	Braunschweig	6.0	9.3	2.9	3.3	5.5	4.2	0.4	5.1
R173	D	Rheinhessen-Pfalz	-	11.4	1.9	0.9	-	11.4	-	-
R152	D	Köln	8.2	-	0.1	-	8.2	-	-	-
R13B	D	Hannover	1.8	2.9	0.2	1.2	0.7	2.6	1.1	0.4
R32	I	Lombardia	-	7.0	1.5	1.1	-	-	-	-
R903	DK	Vest For Storebaelt	9.3	11.5	9.2	11.9	1.0	5.0	5.9	3.9
R182	D	Karlsruhe	1.2	0.5	0.0	0.1	1.2	0.2	-	0.2
R151	D	Düsseldorf	0.6	9.2	4.2	1.0	0.6	4.7	-	4.5
R195	D	Mittelfranken	0.4	1.5	1.5	0.1	-	1.5	0.4	-
R1B	D	Berlin (West)	0.1	22.1	18.3	5.0	-	-	-	22.1
R181	D	Stuttgart	-	-	-	0.0	-	-	-	-
R191	D	Oberbayern	3.6	0.5	0.0	-	-	0.5	3.6	-
R901	DK	Hovedstadsregionen	-	-	-	-	-	-	-	-
R14	D	Bremen	6.6	3.9	3.4	13.8	0.4	0.3	6.1	1.3
R16A	D	Darmstadt	0.6	0.4	1.1	0.4	0.5	0.4	0.1	-
R21	F	Ile de France	-	-	-	-	-	-	-	-
R411	NL	Groningen	0.7	5.3	2.1	9.4	-	-	0.7	-
R12	D	Hamburg	-	-	-	-	-	-	-	-
EC(10)			1939.3	2284.2	1963.5	1888.9	368.7	260.1	1466.3	1581.9
EC(12)			2887.3	3226.5	3056.7	3161.3	379.9	260.1	2403.2	2519.9

[1] Grants chargeable directly on Nuts 2-regions.
[2] For United Kingdom Nuts 1; without Departements d'Outre-Mer, Açores and Madeira. The regions were put in order according to their regional GDP per head.

Sources: Eurostat, database Regio; DIW calculations.

Table A.3

European Regional Development Fund
Investment grants by regions
Modified data [1]

(Mio ECU)

Code	Region Nuts 2 [2]		Total				Industry		Infrastructure	
			1986	1987	1989	1990	1986	1987	1986	1987
RC11	P	Norte	88.6	153.6	71.5	72.4	0.0	0.0	88.5	142.1
RC14	P	Alentejo	80.9	43.5	23.2	29.0	0.0	0.0	80.9	40.2
RC15	P	Algarve	13.4	33.0	17.5	20.7	0.0	0.0	13.4	30.5
RA41	GR	Voreio Aigaio	0.4	0.4	13.6	15.5	0.2	0.2	0.1	0.1
RC12	P	Centro	111.5	55.4	96.6	31.5	0.0	0.0	111.5	51.2
RA21	GR	Ipeiros	88.7	88.0	34.2	18.1	0.0	0.0	73.7	50.0
RA13	GR	Dytiki Makedonia	14.5	14.4	22.1	17.9	0.0	0.0	15.6	10.6
RA43	GR	Kriti	72.3	71.7	59.8	101.3	0.0	0.0	52.3	35.5
RA23	GR	Dytiki Ellada	-	-	3.3	-	-	-	-	-
RA22	GR	Ionia Nisia	-	-	1.0	0.5	-	-	-	-
RA14	GR	Thessalia	59.4	58.9	21.1	41.8	0.1	0.1	63.5	43.1
RA12	GR	Kentriki Makedonia	35.9	35.6	116.8	158.3	0.0	0.0	38.4	26.1
RA42	GR	Notio Aigaio	1.0	1.0	1.8	-	0.6	0.5	0.4	0.3
RA11	GR	Anatoliki Makedonia, Thraki	37.2	36.9	98.9	167.0	0.6	0.5	39.2	26.6
RA25	GR	Peleponnisos	0.6	0.6	197.0	43.0	0.1	0.1	0.3	0.2
RC13	P	Lisboa e Vale do Tejo	27.9	44.1	143.8	132.6	0.0	0.0	27.8	40.8
RA3	GR	Attiki	-	-	-	-	-	-	-	-
RB43	E	Extremadura	71.8	25.6	49.4	61.6	0.6	0.0	71.2	24.7
RB63	E	Ceuta y Melilla	-	-	-	5.9	-	-	-	-
RA24	GR	Sterea Ellada	-	-	-	-	-	-	-	-
RB61	E	Andalucia	247.3	278.8	371.4	407.1	4.7	0.0	242.5	269.0
RB42	E	Castilla-La Mancha	62.9	111.6	178.9	192.7	1.4	0.0	61.5	107.7
RB11	E	Galicia	42.3	40.9	65.8	70.5	3.4	0.0	38.9	39.5
RB62	E	Murcia	23.0	40.1	31.9	52.4	0.0	0.0	23.0	38.7
R393	I	Calabria	67.5	36.7	20.3	48.8	15.6	0.0	51.2	35.1
RB41	E	Castilla-Leon	139.7	87.9	133.9	174.0	1.1	0.0	138.6	84.8
RB7	E	Canarias	10.5	15.1	21.2	80.6	0.0	0.0	10.5	14.6
RB13	E	Cantabria	-	-	1.6	38.3	-	-	-	-
R392	I	Basilicata	105.1	97.9	19.9	31.1	20.3	51.2	82.7	42.3
RB52	E	Comunidad Valenciana	-	-	60.2	64.4	-	-	-	-
R8	IRL	Ireland	126.9	163.5	209.1	291.3	22.0	24.8	102.6	69.5
RB12	E	Asturias	37.7	54.9	109.2	77.0	0.0	0.0	37.7	48.7
R37	I	Campania	426.1	527.7	429.2	406.2	71.0	32.9	344.2	471.5
RB24	E	Aragon	0.0	5.7	6.0	20.9	0.0	0.0	0.0	5.5
R3A	I	Sicilia	58.9	166.7	125.6	238.2	12.8	0.0	42.3	157.2
RB51	E	Cataluna	-	-	14.2	114.5	-	-	-	-
RB3	E	Madrid	-	-	24.6	0.4	-	-	-	-
R425	NL	Flevoland	-	-	-	-	-	-	-	-
R391	I	Puglia	35.0	18.5	32.9	124.4	17.0	1.0	17.6	10.5
R3B	I	Sardegna	39.8	22.5	45.1	65.7	10.9	0.0	28.4	21.5
RB22	E	Navarra	-	-	0.9	2.0	-	-	-	-
RB21	E	Pais Vasco	-	-	15.6	38.9	-	-	-	-
RB23	E	Rioja	-	-	-	1.9	-	-	-	-
R7B	UK	Northern Ireland	67.3	57.3	72.2	94.2	25.0	5.8	35.3	50.6
R382	I	Molise	26.7	6.2	33.3	2.5	4.0	0.0	22.7	4.1
R523	B	Hainaut	-	-	1.0	6.1	-	-	-	-
R527	B	Namur	0.7	-	0.6	0.0	-	-	0.7	-
R79	UK	Wales	75.2	80.5	37.4	0.5	14.3	7.2	41.9	72.0
R283	F	Corse	6.8	12.6	11.4	6.3	0.0	0.0	5.8	1.0

Table A.3, continued

Code		Region Nuts 2 [2]	Total				Industry		Infrastructure	
			1986	1987	1989	1990	1986	1987	1986	1987
R526	B	Luxembourg	4.6	1.8	12.7	6.9	0.2	0.1	3.1	1.0
R381	I	Abruzzi	41.8	33.6	58.1	34.2	17.0	10.0	24.0	22.2
R71	UK	North	67.1	90.9	12.2	13.2	4.4	1.3	56.2	68.4
R412	NL	Friesland	5.9	6.7	11.0	-	0.0	0.0	2.6	6.8
R424	NL	Gelderland	-	-	-	-	-	-	-	-
R77	UK	West Midlands	69.3	95.8	11.0	17.0	1.1	5.5	61.4	67.2
RB53	E	Baleares	-	-	-	-	-	-	-	-
R72	UK	Yorkshire and Humberside	63.9	44.5	4.0	58.5	6.9	8.0	53.9	35.7
R263	F	Limousin	10.6	25.9	14.5	8.3	0.4	0.0	8.2	8.3
R281	F	Languedoc-Roussillon	10.4	33.9	37.9	32.7	0.8	0.0	7.1	13.4
R78	UK	North West	75.5	53.8	9.7	0.1	4.6	3.5	36.6	49.3
R13C	D	Lüneburg	3.9	3.8	-	-	1.0	1.2	2.9	0.8
R423	NL	Overijssel	-	-	0.8	-	-	-	-	-
R7A	UK	Scotland	97.7	167.4	22.0	45.0	24.6	7.9	49.6	69.2
R73	UK	East Midlands	4.4	3.7	-	4.5	3.1	1.1	1.0	2.5
R452	NL	Limburg	18.5	8.4	7.9	-	0.0	0.0	17.9	8.4
R225	F	Basse-Normandie	4.9	1.0	0.4	4.8	1.3	0.0	3.5	0.1
R23	F	Nord-Pas de Calais	41.8	38.7	15.7	60.4	1.5	0.2	25.0	8.4
R76	UK	South West	37.6	40.7	11.8	-	0.1	3.5	34.6	36.5
R253	F	Poitou-Charentes	14.1	13.3	9.7	7.1	0.5	0.6	11.9	7.8
R262	F	Midi-Pyrénées	36.1	44.6	49.0	45.0	1.0	1.9	18.0	25.2
R272	F	Auvergne	12.9	28.9	20.1	10.3	1.0	0.1	9.7	9.1
R352	I	Umbria	0.1	3.2	1.7	5.7	0.0	0.0	0.0	0.0
R252	F	Bretagne	23.6	14.1	18.6	16.7	1.6	0.0	19.9	4.0
R515	B	Limburg	12.3	13.1	11.2	6.6	1.2	0.8	1.7	3.3
R74	UK	East Anglia	-	-	-	-	-	-	-	-
R518	B	Oost-Vlaanderen	-	-	1.1	0.9	-	-	-	-
R451	NL	Noord-Brabant	-	-	-	-	-	-	-	-
R241	F	Lorraine	59.7	38.4	51.1	54.4	3.1	0.2	33.9	23.0
R524	B	Liège	6.2	2.4	1.3	9.1	0.2	0.1	4.2	1.3
R251	F	Pays de Loire	26.2	9.1	2.6	20.8	1.9	0.2	22.1	2.7
R353	I	Marche	9.8	8.5	12.6	4.8	3.1	5.8	6.5	0.5
R243	F	Franche-Comté	0.7	2.3	-	6.5	0.4	0.0	0.2	1.7
R172	D	Trier	0.0	4.3	-	0.0	0.0	4.3	0.0	0.0
R222	F	Picardie	3.5	1.5	-	8.5	0.1	0.1	2.2	0.1
R413	NL	Drenthe	-	-	4.1	-	-	-	-	-
R519	B	West-Vlaanderen	4.1	4.6	0.6	-	0.4	0.3	0.4	1.0
R226	F	Bourgogne	2.7	3.1	0.9	3.8	0.0	0.0	0.2	0.2
R471	NL	Utrecht	-	-	-	-	-	-	-	-
R474	NL	Zeeland	-	-	-	-	-	-	-	-
R16B	D	Gießen	2.0	0.6	-	-	2.0	0.6	0.0	0.0
R282	F	Provence-Alpes-Côte d'Azur	15.6	5.9	4.8	9.7	0.0	0.0	15.2	3.8
R13D	D	Weser-Ems	9.3	13.9	-	-	1.6	8.1	7.7	5.8
R261	F	Aquitaine	20.0	21.3	36.5	29.5	1.1	0.1	17.3	7.6
R193	D	Oberpfalz	0.8	1.2	-	-	0.5	0.9	0.4	0.2
R192	D	Niederbayern	7.4	10.2	-	-	4.9	1.3	2.4	8.1
R224	F	Centre	0.2	0.3	0.1	-	0.1	0.0	0.0	0.0
R221	F	Champagne-Ardenne	8.7	4.3	4.4	5.6	0.3	0.1	6.3	2.1
R153	D	Münster	4.6	3.5	-	-	4.6	2.3	0.0	0.1
R171	D	Koblenz	0.0	2.1	-	-	0.0	2.1	0.0	0.0
R351	I	Toscana	0.3	15.9	15.3	17.7	0.0	0.5	0.0	10.1
R333	I	Friuli-Venezia Giulia	-	-	1.5	8.0	-	-	-	-
R473	NL	Zuid-Holland	-	-	-	-	-	-	-	-
R11	D	Schleswig-Holstein	8.2	5.3	-	-	5.7	3.5	2.6	1.0
R332	I	Veneto	0.1	5.2	-	-	0.0	0.0	0.0	0.0

Table A.3, continued

Code	Region Nuts 2 [2]		Total				Industry		Infrastructure	
			1986	1987	1989	1990	1986	1987	1986	1987
R196	D	Unterfranken	0.5	0.8	-	-	0.2	0.2	0.3	0.5
R331	I	Trentino-Alto Adige	-	-	-	-	-	-	-	-
R36	I	Lazio	22.7	34.7	11.6	14.8	14.4	19.2	7.6	14.0
R311	I	Piemonte	0.1	6.6	4.1	22.0	0.0	0.0	0.0	0.0
R313	I	Liguria	0.0	0.9	8.7	12.1	0.0	0.0	0.0	0.0
R194	D	Oberfranken	4.5	5.2	-	-	4.2	4.0	0.3	0.9
R502	B	Brabant	2.1	-	0.3	1.4	-	-	2.1	-
R271	F	Rhône-Alpes	6.0	14.9	7.0	16.3	0.9	0.0	2.2	12.5
R16C	D	Kassel	6.0	4.8	-	-	5.6	4.5	0.4	0.3
R75	UK	South East	0.0	0.0	-	-	0.0	0.0	0.0	0.0
R242	F	Alsace	4.1	0.2	1.7	0.0	1.6	0.0	1.6	0.0
R902	DK	Ost For Storebaelt, Ex.Hovedst	1.8	1.4	2.2	3.6	0.2	0.2	1.6	0.3
R6	L	Luxembourg	3.4	3.3	1.2	0.6	0.0	0.0	0.0	2.3
R34	I	Emilia-Romagna	-	-	4.6	-	-	-	-	-
R154	D	Detmold	-	-	-	-	-	-	-	-
R472	NL	Noord-Holland	-	-	-	-	-	-	-	-
R155	D	Arnsberg	0.4	2.3	-	-	0.4	1.6	0.0	0.0
R223	F	Haute-Normandie	1.6	2.4	0.2	7.6	1.2	0.0	0.1	2.3
R1A	D	Saarland	5.9	8.7	-	-	5.9	1.2	0.0	0.0
R183	D	Freiburg	-	-	-	-	-	-	-	-
R184	D	Tübingen	-	-	-	-	-	-	-	-
R197	D	Schwaben	-	-	-	-	-	-	-	-
R312	I	Valle d'Aosta	-	-	-	1.4	-	-	-	-
R511	B	Antwerpen	2.4	1.5	2.5	4.3	1.0	0.1	0.3	0.8
R13A	D	Braunschweig	6.1	9.3	-	-	5.5	4.2	0.5	5.1
R173	D	Rheinhessen-Pfalz	0.0	12.8	-	-	0.0	12.8	0.0	0.0
R152	D	Köln	8.2	-	-	-	8.2	-	-	-
R13B	D	Hannover	1.8	2.9	-	-	0.7	2.6	1.1	0.4
R32	I	Lombardia	0.2	7.3	1.7	2.0	0.0	0.0	0.0	0.0
R903	DK	Vest For Storebaelt	9.3	15.7	12.7	16.8	1.0	5.0	5.8	3.9
R182	D	Karlsruhe	1.2	0.5	-	-	1.2	0.2	0.0	0.2
R151	D	Düsseldorf	0.5	13.3	-	-	0.5	4.7	0.0	4.5
R195	D	Mittelfranken	0.4	1.6	-	-	0.0	1.5	0.4	0.0
R1B	D	Berlin (West)	0.1	22.1	-	-	0.0	0.0	0.0	22.1
R181	D	Stuttgart	-	-	-	-	-	-	-	-
R191	D	Oberbayern	3.6	0.5	-	-	0.0	0.5	3.6	0.0
R901	DK	Hovedstadsregionen	-	-	-	-	-	-	-	-
R14	D	Bremen	6.6	3.9	-	-	0.4	0.3	6.1	1.3
R16A	D	Darmstadt	0.6	0.4	-	-	0.5	0.4	0.1	0.0
R21	F	Ile de France	-	-	-	-	-	-	-	-
R411	NL	Groningen	3.3	5.3	2.2	-	0.0	0.0	0.7	0.0
R12	D	Hamburg	-	-	-	-	-	-	-	-
EC(10)			2296.3	2612.7	2145.2	2537.7	370.5	263.5	1664.4	1716.1
EC(12)			3253.9	3602.9	3582.2	4227.0	381.6	263.5	2610.4	2654.3

[1] Grants chargeable on Nuts 2-regions directly as well as indirectly by estimates.
[2] For United Kingdom Nuts 1; without Departements d'Outre-Mer, Açores and Madeira. The regions were put in order according to their regional GDP per head.

Sources: Eurostat, database Regio; DIW calculations.

Table A.4

European Social Fund, obligations

(Mio ECU)

Code	Region Nuts 2 [1]		Original data [2]				Modified data [3]			
			1986	1987	1988	1989	1986	1987	1988	1989
RC11	P	Norte	-	-	-	20.4	47.2	75.0	70.3	76.7
RC14	P	Alentejo	-	-	-	4.2	18.7	29.7	27.9	26.5
RC15	P	Algarve	-	-	-	4.3	4.9	7.8	7.3	10.1
RA41	GR	Voreio Aigaio	0.0	0.1	0.2	0.1	1.6	1.8	2.5	0.1
RC12	P	Centro	-	-	-	8.5	29.3	46.6	43.7	43.5
RA21	GR	Ipeiros	0.1	0.2	1.0	1.1	2.4	2.8	4.5	1.2
RA13	GR	Dytiki Makedonia	0.2	0.4	0.7	1.1	2.8	3.3	4.6	1.7
RA43	GR	Kriti	0.7	0.6	1.5	1.4	3.3	3.5	5.4	1.5
RA23	GR	Dytiki Ellada	4.8	6.9	6.1	5.0	11.6	14.5	16.3	5.2
RA22	GR	Ionia Nisia	-	0.1	0.0	-	0.9	1.1	1.4	0.0
RA14	GR	Thessalia	0.4	0.6	1.1	1.5	7.2	8.4	11.5	3.1
RA12	GR	Kentriki Makedonia	2.9	4.8	5.5	13.5	19.0	23.0	29.9	17.1
RA42	GR	Notio Aigaio	0.5	0.8	0.1	1.3	2.2	2.8	2.8	1.3
RA11	GR	Anatoliki Makedonia, Thraki	1.3	2.0	1.1	0.4	8.7	10.4	12.3	2.1
RA25	GR	Peleponnisos	0.4	0.5	0.1	3.9	5.1	5.9	7.3	4.1
RC13	P	Lisboa e Vale do Tejo	-	-	-	44.5	115.5	183.6	172.1	182.1
RA3	GR	Attiki	20.3	31.0	41.9	44.4	70.8	87.9	118.2	46.1
RB43	E	Extremadura	8.5	15.9	17.9	26.9	11.6	16.2	18.0	26.9
RB63	E	Ceuta y Melilla	0.7	1.6	1.6	1.9	1.7	1.7	1.6	1.9
RA24	GR	Sterea Ellada	0.1	0.3	0.7	2.1	5.7	6.6	9.2	2.3
RB61	E	Andalucia	46.7	101.7	115.5	153.7	72.2	104.0	116.1	153.9
RB42	E	Castilla-La Mancha	11.3	19.3	22.5	27.2	14.4	19.6	22.6	27.3
RB11	E	Galicia	17.8	30.3	32.1	31.4	24.1	30.9	32.2	31.4
RB62	E	Murcia	7.7	13.2	14.7	16.7	9.9	13.4	14.8	16.7
R393	I	Calabria	14.8	16.9	24.2	39.2	28.0	29.3	33.0	47.4
RB41	E	Castilla-Leon	17.5	28.1	38.8	53.8	24.7	28.8	39.0	53.9
RB7	E	Canarias	8.3	24.7	24.6	33.8	13.4	25.1	24.7	33.8
RB13	E	Cantabria	2.4	4.2	5.6	7.0	4.3	4.4	5.7	7.0
R392	I	Basilicata	15.7	15.5	18.8	19.3	19.3	18.9	21.2	21.5
RB52	E	Comunidad Valenciana	16.9	33.1	33.0	36.4	27.4	34.1	33.3	36.5
R8	IRL	Ireland	242.0	209.1	213.5	234.7	242.0	209.1	213.5	234.7
RB12	E	Asturias	3.7	9.4	12.3	13.1	8.2	9.8	12.4	13.1
R37	I	Campania	11.8	26.2	12.2	16.9	62.4	73.3	44.0	47.8
RB24	E	Aragon	4.6	11.2	12.9	15.8	7.2	11.4	13.0	15.8
R3A	I	Sicilia	25.9	37.7	48.7	47.0	52.4	62.4	65.3	63.2
RB51	E	Cataluna	32.5	67.6	76.6	87.3	55.7	69.8	77.3	87.5
RB3	E	Madrid	17.6	44.5	41.8	53.5	32.5	45.9	42.2	53.6
R425	NL	Flevoland	0.0	0.6	1.3	0.8	0.5	1.0	1.7	1.3
R391	I	Puglia	28.0	33.5	26.6	30.0	44.9	49.2	37.8	40.5
R3B	I	Sardegna	13.0	33.3	29.9	27.8	22.6	42.2	35.9	33.6
RB22	E	Navarra	3.3	5.1	5.3	5.3	4.3	5.2	5.3	5.3
RB21	E	Pais Vasco	28.7	24.9	28.9	33.3	37.6	25.7	29.1	33.4
RB23	E	Rioja	1.0	2.0	2.6	3.1	1.6	2.0	2.6	3.1
R7B	UK	Northern Ireland	69.8	79.8	76.8	76.3	85.4	101.7	97.4	94.1
R382	I	Molise	1.0	3.7	6.0	5.4	2.5	5.1	6.9	6.3
R523	B	Hainaut	5.2	5.9	3.1	4.8	7.9	12.7	8.8	10.1
R527	B	Namur	2.2	0.6	0.2	1.9	2.9	2.3	1.7	3.2
R79	UK	Wales	7.8	8.5	10.0	29.0	20.9	26.9	27.3	43.9
R283	F	Corse	0.6	0.9	0.5	1.8	1.4	1.8	1.4	2.6
R526	B	Luxembourg	0.9	0.9	0.5	0.9	1.1	1.6	1.1	1.3
R381	I	Abruzzi	17.3	15.4	28.8	28.3	21.0	18.8	31.1	30.6

Table A.4, continued

Code	Region Nuts 2 [1]		Original data [2]				Modified data [3]			
			1986	1987	1988	1989	1986	1987	1988	1989
R71	UK	North	10.8	20.2	29.3	33.8	31.1	48.7	56.1	56.9
R412	NL	Friesland	0.3	0.9	0.7	1.3	2.1	2.7	2.5	3.7
R424	NL	Gelderland	2.2	3.1	3.6	5.1	6.6	7.8	8.3	10.4
R77	UK	West Midlands	13.2	21.0	28.5	33.0	42.5	62.2	67.2	66.3
RB53	E	Baleares	2.5	5.0	6.1	5.0	3.6	5.1	6.2	5.0
R72	UK	Yorkshire and Humberside	13.8	13.2	24.2	31.9	40.2	50.3	59.0	61.8
R263	F	Limousin	1.4	3.9	4.2	15.1	3.5	6.1	6.5	17.4
R281	F	Languedoc-Roussillon	6.8	5.3	3.3	11.2	15.2	14.1	12.6	20.4
R78	UK	North West	21.3	32.2	31.9	51.2	59.1	85.3	81.7	94.1
R13C	D	Lüneburg	0.0	-	-	-	1.5	2.5	2.7	3.1
R423	NL	Overijssel	4.7	4.9	6.8	11.2	7.3	7.6	9.5	14.2
R7A	UK	Scotland	22.5	27.2	30.3	48.0	53.7	71.0	71.4	83.4
R73	UK	East Midlands	1.8	2.1	4.2	10.1	17.9	24.6	25.4	28.4
R452	NL	Limburg	3.0	5.4	2.3	1.2	6.0	8.6	5.5	4.9
R225	F	Basse-Normandie	6.0	1.7	1.6	1.2	11.1	7.0	7.2	6.8
R23	F	Nord-Pas de Calais	18.8	19.8	13.0	20.7	36.8	38.6	32.8	40.3
R76	UK	South West	3.1	4.3	11.2	3.9	15.4	21.5	27.3	17.8
R253	F	Poitou-Charentes	5.8	5.2	2.7	2.5	12.3	12.0	9.9	9.5
R262	F	Midi-Pyrénées	5.6	3.8	2.8	8.1	12.9	11.4	10.8	16.1
R272	F	Auvergne	5.7	3.2	4.6	5.7	10.6	8.4	10.0	11.0
R352	I	Umbria	4.3	3.8	2.6	6.4	7.0	6.3	4.3	8.1
R252	F	Bretagne	6.4	4.3	4.7	6.7	16.9	15.3	16.2	18.2
R515	B	Limburg	1.0	1.9	4.8	5.2	2.3	5.2	7.6	7.7
R74	UK	East Anglia	0.1	0.1	0.6	0.6	5.2	7.1	7.2	6.3
R518	B	Oost-Vlaanderen	1.4	0.3	0.1	0.2	2.8	3.8	3.1	2.9
R451	NL	Noord-Brabant	4.5	2.9	3.5	6.6	9.6	8.3	8.8	12.7
R241	F	Lorraine	10.2	8.2	5.5	3.3	17.7	16.0	13.8	11.5
R524	B	Liège	3.7	3.6	2.7	4.3	5.5	8.2	6.5	7.8
R251	F	Pays de Loire	6.7	7.5	2.7	6.3	19.5	20.9	16.8	20.3
R353	I	Marche	5.2	12.6	9.2	10.6	8.2	15.4	11.2	12.5
R243	F	Franche-Comté	2.7	1.6	1.2	1.3	6.3	5.4	5.2	5.2
R172	D	Trier	-	-	0.1	0.3	0.3	0.7	0.8	1.1
R222	F	Picardie	1.4	1.7	1.5	32.2	8.2	8.8	8.9	39.6
R413	NL	Drenthe	1.2	0.3	3.4	0.4	2.1	1.2	4.3	1.6
R519	B	West-Vlaanderen	0.2	0.2	0.2	0.4	1.0	2.3	2.0	1.9
R226	F	Bourgogne	1.8	2.0	0.3	-	7.4	7.9	6.5	6.1
R471	NL	Utrecht	1.5	1.2	0.4	1.0	3.6	3.5	2.6	3.6
R474	NL	Zeeland	0.1	0.6	-	-	0.6	1.1	0.5	0.6
R16B	D	Gießen	-	0.0	1.0	0.1	0.5	1.5	2.5	1.5
R282	F	Provence-Alpes-Côte d'Azur	12.9	16.9	7.8	11.5	26.9	31.6	23.3	26.8
R13D	D	Weser-Ems	0.2	0.7	0.4	2.8	3.1	5.7	5.7	9.0
R261	F	Aquitaine	9.7	5.4	2.9	7.5	20.0	16.1	14.1	18.6
R193	D	Oberpfalz	0.2	0.0	0.0	0.1	0.9	1.5	1.7	2.0
R192	D	Niederbayern	-	-	-	-	0.4	0.9	1.0	1.1
R224	F	Centre	0.7	0.9	0.7	4.3	8.1	8.6	8.9	12.4
R221	F	Champagne-Ardenne	1.6	1.3	1.2	1.4	6.9	6.9	7.1	7.2
R153	D	Münster	0.5	1.1	0.1	1.0	3.3	7.2	7.9	9.6
R171	D	Koblenz	0.2	0.1	0.1	0.0	1.0	1.9	1.9	2.2
R351	I	Toscana	5.3	11.7	10.4	9.3	13.6	19.4	15.6	14.4
R333	I	Friuli-Venezia Giulia	17.0	21.0	12.4	12.5	19.6	23.4	14.0	14.1
R473	NL	Zuid-Holland	5.6	2.6	2.8	4.5	14.2	11.6	11.8	14.7
R11	D	Schleswig-Holstein	0.7	0.5	1.5	0.9	2.9	5.2	6.5	6.8
R332	I	Veneto	9.5	20.0	22.2	13.8	16.3	26.4	26.5	18.0
R196	D	Unterfranken	-	-	0.1	0.1	0.6	1.3	1.5	1.7
R331	I	Trentino-Alto Adige	7.3	9.0	3.5	4.3	8.1	9.8	4.0	4.8

Table A.4, continued

Code	Region Nuts 2 [1]		Original data [2]				Modified data [3]			
			1986	1987	1988	1989	1986	1987	1988	1989
R36	I	Lazio	39.5	43.7	33.2	43.6	57.0	60.1	44.2	54.3
R311	I	Piemonte	17.5	20.0	29.6	31.9	29.0	30.8	36.9	39.0
R313	I	Liguria	13.0	11.8	12.9	13.9	17.7	16.2	15.9	16.8
R194	D	Oberfranken	-	0.0	0.1	0.1	0.6	1.3	1.4	1.6
R502	B	Brabant	1.0	3.6	5.2	3.9	3.4	9.8	10.3	8.7
R271	F	Rhône-Alpes	14.9	7.8	6.1	8.5	28.5	22.0	21.1	23.4
R16C	D	Kassel	0.1	0.4	0.0	-	1.0	2.7	2.3	2.2
R75	UK	South East	13.5	20.5	22.8	28.3	65.5	93.5	91.3	87.3
R242	F	Alsace	1.0	1.8	0.6	2.8	4.5	5.5	4.5	6.7
R902	DK	Ost For Storebaelt, Ex.Hovedst	6.1	0.7	2.1	0.8	8.9	4.0	5.0	4.1
R6	L	Luxembourg	2.4	1.8	1.0	2.5	2.4	1.8	1.0	2.5
R34	I	Emilia-Romagna	48.7	65.8	59.0	48.7	53.8	70.6	62.2	51.8
R154	D	Detmold	1.2	1.4	3.4	0.7	2.8	4.9	7.9	5.6
R472	NL	Noord-Holland	3.2	3.1	1.7	3.0	10.5	10.8	9.3	11.7
R155	D	Arnsberg	2.2	3.1	2.5	2.6	7.1	13.5	15.9	17.3
R223	F	Haute-Normandie	4.7	5.7	3.4	1.8	13.0	14.4	12.5	10.8
R1A	D	Saarland	3.6	7.4	7.8	6.5	4.9	10.1	10.7	9.8
R183	D	Freiburg	0.1	0.1	-	0.4	1.2	2.4	2.4	3.0
R184	D	Tübingen	-	0.0	-	-	0.7	1.5	1.5	1.7
R197	D	Schwaben	-	0.1	0.1	0.0	0.6	1.4	1.6	1.7
R312	I	Valle d'Aosta	0.5	2.2	1.7	3.9	0.6	2.3	1.7	3.9
R511	B	Antwerpen	1.4	0.1	0.4	0.1	3.4	4.9	4.5	3.9
R13A	D	Braunschweig	0.3	0.1	0.1	0.3	2.5	3.9	4.1	5.1
R173	D	Rheinhessen-Pfalz	0.1	0.4	0.1	0.0	1.2	3.1	2.8	3.4
R152	D	Köln	1.2	3.5	1.0	0.6	5.4	12.4	12.5	13.2
R13B	D	Hannover	0.1	0.1	2.4	1.0	2.9	5.0	7.6	7.1
R32	I	Lombardia	52.2	53.5	41.1	39.6	65.2	65.6	49.3	47.6
R903	DK	Vest For Storebaelt	14.4	6.0	5.7	6.7	26.5	19.9	18.2	20.9
R182	D	Karlsruhe	-	0.9	0.2	0.3	1.5	4.2	3.5	4.0
R151	D	Düsseldorf	0.6	4.4	2.0	3.4	7.4	18.9	20.7	23.8
R195	D	Mittelfranken	-	-	-	-	0.9	2.0	2.2	2.4
R1B	D	Berlin (West)	16.7	10.8	8.6	9.4	18.7	14.9	13.0	14.5
R181	D	Stuttgart	-	0.8	0.3	1.0	1.4	3.8	3.4	4.5
R191	D	Oberbayern	-	2.0	-	-	1.7	5.5	3.9	4.3
R901	DK	Hovedstadsregionen	6.3	4.7	1.3	1.2	12.4	11.7	7.6	8.4
R14	D	Bremen	9.1	7.2	9.4	7.3	10.2	9.5	11.8	10.1
R16A	D	Darmstadt	1.6	1.5	2.2	1.0	3.4	6.3	7.0	5.6
R21	F	Ile de France	11.2	10.6	5.9	13.3	45.0	46.0	43.2	50.2
R411	NL	Groningen	3.2	2.4	2.4	6.1	5.4	4.7	4.8	9.2
R12	D	Hamburg	1.7	0.3	1.2	1.6	4.5	6.0	7.3	8.7
EC(10)			1051.5	1168.7	1155.2	1392.2	1946.5	2263.2	2227.7	2278.0
EC(12)			1283.1	1610.5	1647.9	2079.2	2516.4	3059.2	3045.1	3223.0

[1] For United Kingdom Nuts 1; without Departements d'Outre-Mer, Açores and Madeira. The regions were put in order according to their regional GDP per head.
[2] Obligations chargeable directly on Nuts 2-regions.
[3] Obligations chargeable on Nuts 2-regions directly as well as indirectly by estimates.

Sources: Eurostat, database Regio; DIW calculations.

Table A.5

European Investment Bank, loans by regions, original data [1]

(Mio ECU)

Code	Region Nuts 2 [2]		1986			1987		
			Total	Industry	Infra-structure	Total	Industry	Infra-structure
RC11	P	Norte	16.0	1.0	15.0	31.4	14.8	16.6
RC14	P	Alentejo	-	-	-	180.2	180.2	-
RC15	P	Algarve	-	-	-	18.4	15.3	3.1
RA41	GR	Voreio Aigaio	-	-	-	-	-	-
RC12	P	Centro	21.5	0.5	21.0	14.6	14.6	-
RA21	GR	Ipeiros	1.7	2.8	-	1.1	1.1	-
RA13	GR	Dytiki Makedonia	29.4	1.5	15.0	18.6	0.6	18.0
RA43	GR	Kriti	21.5	3.3	10.3	13.6	1.3	12.3
RA23	GR	Dytiki Ellada	31.4	4.3	15.2	19.9	1.7	18.2
RA22	GR	Ionia Nisia	1.6	2.5	-	1.0	1.0	-
RA14	GR	Thessalia	3.5	5.5	-	2.2	2.2	-
RA12	GR	Kentriki Makedonia	14.4	6.0	5.6	9.1	2.4	6.7
RA42	GR	Notio Aigaio	0.2	0.3	-	0.1	0.1	-
RA11	GR	Anatoliki Makedonia, Thraki	6.2	9.8	-	3.9	3.9	-
RA25	GR	Peleponnisos	4.3	6.8	-	2.7	2.7	-
RC13	P	Lisboa e Vale do Tejo	-	-	-	1.8	1.8	-
RA3	GR	Attiki	101.5	121.7	13.4	64.3	48.3	16.0
RB43	E	Extremadura	4.4	-	4.4	0.2	0.2	-
RB63	E	Ceuta y Melilla	-	-	-	-	-	-
RA24	GR	Sterea Ellada	9.5	6.6	2.8	6.0	2.6	3.4
RB61	E	Andalucia	18.2	7.4	10.8	56.9	6.1	50.8
RB42	E	Castilla-La Mancha	6.6	1.6	5.0	2.2	2.2	-
RB11	E	Galicia	23.7	18.7	4.9	1.5	1.5	-
RB62	E	Murcia	1.8	-	1.8	1.9	1.9	-
R393	I	Calabria	16.3	15.8	0.5	70.1	42.6	27.5
RB41	E	Castilla-Leon	4.6	2.4	2.2	1.9	1.3	0.6
RB7	E	Canarias	0.5	0.5	-	30.3	30.3	-
RB13	E	Cantabria	-	-	-	-	-	-
R392	I	Basilicata	25.3	13.6	11.7	14.0	6.3	7.7
RB52	E	Comunidad Valenciana	40.0	20.0	20.0	52.2	1.4	50.8
R8	IRL	Ireland	214.3	19.1	195.1	178.6	6.5	172.1
RB12	E	Asturias	-	-	-	4.2	4.2	-
R37	I	Campania	223.2	160.0	63.1	194.3	149.5	44.8
RB24	E	Aragon	0.4	0.4	-	1.9	1.8	0.1
R3A	I	Sicilia	168.7	83.5	85.1	164.1	47.7	116.4
RB51	E	Cataluna	-	-	-	2.2	2.2	-
RB3	E	Madrid	18.2	18.2	-	1.7	1.7	-
R425	NL	Flevoland	-	-	-	-	-	-
R391	I	Puglia	87.2	75.2	12.0	275.6	46.4	229.2
R3B	I	Sardegna	111.0	88.8	22.3	140.1	116.1	23.9
RB22	E	Navarra	-	-	-	-	-	-
RB21	E	Pais Vasco	7.3	-	7.3	44.4	0.9	43.5
RB23	E	Rioja	-	-	-	0.1	0.1	-
R7B	UK	Northern Ireland	63.6	49.6	14.0	90.8	-	90.8
R382	I	Molise	22.1	5.8	16.4	12.9	2.2	10.7
R523	B	Hainaut	-	-	-	-	-	-
R527	B	Namur	-	-	-	-	-	-
R79	UK	Wales	44.4	3.5	40.9	45.0	-	45.0
R283	F	Corse	4.4	2.4	2.1	-	-	-
R526	B	Luxembourg	-	-	-	-	-	-

Table A.5, continued

Code	Region Nuts 2 [2]		1986			1987		
			Total	Industry	Infra-structure	Total	Industry	Infra-structure
R381	I	Abruzzi	62.9	51.5	11.4	84.8	-	21.2
R71	UK	North	336.0	-	336.0	190.6	-	190.6
R412	NL	Friesland	-	-	-	-	-	-
R424	NL	Gelderland	-	-	-	-	-	-
R77	UK	West Midlands	50.9	1.5	49.4	37.9	-	37.9
RB53	E	Baleares	-	-	-	-	-	-
R72	UK	Yorkshire and Humberside	130.1	0.6	129.6	70.7	-	70.7
R263	F	Limousin	3.8	1.3	2.5	0.8	0.8	-
R281	F	Languedoc-Roussillon	17.9	14.3	3.6	43.8	7.5	36.3
R78	UK	North West	87.3	24.9	62.4	107.0	3.4	103.6
R13C	D	Lüneburg	-	-	-	-	-	-
R423	NL	Overijssel	-	-	-	-	-	-
R7A	UK	Scotland	471.5	33.2	438.3	168.7	-	168.7
R73	UK	East Midlands	1.8	1.8	-	-	-	-
R452	NL	Limburg	18.1	14.8	3.3	18.0	14.9	3.1
R225	F	Basse-Normandie	2.2	2.1	0.2	38.0	4.5	33.5
R23	F	Nord-Pas de Calais	23.3	8.4	15.0	120.2	11.4	108.8
R76	UK	South West	19.2	0.7	18.5	50.1	-	50.1
R253	F	Poitou-Charentes	3.9	3.8	0.2	6.5	6.0	0.4
R262	F	Midi-Pyrénées	9.6	1.6	8.0	58.1	0.2	57.8
R272	F	Auvergne	13.1	1.6	11.6	2.1	1.3	0.9
R352	I	Umbria	9.2	9.2	-	36.1	19.6	16.5
R252	F	Bretagne	48.0	30.1	17.9	85.1	51.7	33.4
R515	B	Limburg	46.1	46.1	-	23.1	23.1	-
R74	UK	East Anglia	55.1	-	55.1	3.6	-	3.6
R518	B	Oost-Vlaanderen	-	-	-	-	-	-
R451	NL	Noord-Brabant	80.1	80.1	-	-	-	-
R241	F	Lorraine	6.1	1.7	4.4	63.6	20.3	43.3
R524	B	Liège	-	-	-	-	-	-
R251	F	Pays de Loire	43.2	12.5	30.6	40.3	6.2	34.1
R353	I	Marche	55.9	46.6	9.3	89.2	33.1	56.2
R243	F	Franche-Comté	44.7	44.7	-	44.5	44.5	-
R172	D	Trier	-	-	-	-	-	-
R222	F	Picardie	0.6	0.6	-	13.0	13.0	-
R413	NL	Drenthe	-	-	-	-	-	-
R519	B	West-Vlaanderen	-	-	-	-	-	-
R226	F	Bourgogne	0.1	0.1	-	5.9	5.9	-
R471	NL	Utrecht	-	-	-	-	-	-
R474	NL	Zeeland	-	-	-	-	-	-
R16B	D	Gießen	-	-	-	-	-	-
R282	F	Provence-Alpes-Côte d'Azur	27.8	11.7	16.1	90.0	2.3	87.7
R13D	D	Weser-Ems	22.9	-	22.9	-	-	-
R261	F	Aquitaine	28.7	4.4	24.4	42.3	2.7	39.7
R193	D	Oberpfalz	-	-	-	-	-	-
R192	D	Niederbayern	-	-	-	-	-	-
R224	F	Centre	1.0	1.0	-	0.4	0.4	-
R221	F	Champagne-Ardenne	0.2	0.2	-	6.5	6.5	-
R153	D	Münster	-	-	-	3.1	-	3.1
R171	D	Koblenz	-	-	-	-	-	-
R351	I	Toscana	195.9	51.3	144.6	78.9	28.2	50.6
R333	I	Friuli-Venezia Giulia	19.4	12.0	7.5	30.2	15.6	14.7
R473	NL	Zuid-Holland	-	-	-	-	-	-
R11	D	Schleswig-Holstein	-	-	-	14.0	14.0	-
R332	I	Veneto	39.4	23.0	16.4	118.8	90.9	27.8

Table A.5, continued

Code	Region Nuts 2 [2]		1986			1987		
			Total	Industry	Infra-structure	Total	Industry	Infra-structure
R196	D	Unterfranken	-	-	-	-	-	-
R331	I	Trentino-Alto Adige	78.8	73.6	5.2	72.5	62.2	10.3
R36	I	Lazio	143.4	46.4	97.0	173.7	84.9	88.9
R311	I	Piemonte	336.1	147.5	188.7	194.3	45.3	149.0
R313	I	Liguria	8.8	6.8	2.0	49.4	33.3	16.1
R194	D	Oberfranken	-	-	-	-	-	-
R502	B	Brabant	-	-	-	-	-	-
R271	F	Rhône-Alpes	78.3	3.7	74.6	49.6	1.5	48.1
R16C	D	Kassel	-	-	-	-	-	-
R75	UK	South East	100.3	-	100.3	225.9	-	225.9
R242	F	Alsace	0.8	0.8	-	29.1	29.1	-
R902	DK	Ost For Storebaelt, Ex.Hovedst	9.3	0.3	9.1	-	-	-
R6	L	Luxembourg	18.2	-	18.2	1.6	-	1.6
R34	I	Emilia-Romagna	30.6	16.7	13.9	90.6	25.2	65.4
R154	D	Detmold	-	-	-	0.6	-	0.6
R472	NL	Noord-Holland	-	-	-	-	-	-
R155	D	Arnsberg	-	-	-	15.4	-	15.4
R223	F	Haute-Normandie	1.4	1.4	-	3.3	3.1	0.2
R1A	D	Saarland	25.7	-	25.7	42.4	-	42.4
R183	D	Freiburg	-	-	-	-	-	-
R184	D	Tübingen	-	-	-	-	-	-
R197	D	Schwaben	-	-	-	-	-	-
R312	I	Valle d'Aosta	24.4	-	24.4	9.1	-	9.1
R511	B	Antwerpen	-	-	-	14.0	14.0	-
R13A	D	Braunschweig	-	-	-	-	-	-
R173	D	Rheinhessen-Pfalz	-	-	-	-	-	-
R152	D	Köln	90.2	-	90.2	30.2	-	30.2
R13B	D	Hannover	47.8	-	47.8	96.4	-	96.4
R32	I	Lombardia	229.9	137.1	92.8	288.8	195.6	93.3
R903	DK	Vest For Storebaelt	110.0	4.3	105.8	87.5	5.2	82.3
R182	D	Karlsruhe	-	-	-	-	-	-
R151	D	Düsseldorf	89.9	-	89.9	42.8	-	42.8
R195	D	Mittelfranken	-	-	-	-	-	-
R1B	D	Berlin (West)	-	-	-	-	-	-
R181	D	Stuttgart	59.8	-	59.8	-	-	-
R191	D	Oberbayern	-	-	-	-	-	-
R901	DK	Hovedstadsregionen	78.5	-	78.5	196.8	-	196.8
R14	D	Bremen	-	-	-	-	-	-
R16A	D	Darmstadt	-	-	-	-	-	-
R21	F	Ile de France	0.2	0.2	-	2.0	2.0	-
R411	NL	Groningen	-	-	-	-	-	-
R12	D	Hamburg	-	-	-	-	-	-
EC (10)			4743.9	1664.6	3088.6	4829.9	1414.6	3351.8
EC (12)			4907.1	1735.3	3181.0	5277.9	1697.1	3517.3

[1] Credits chargeable directly on Nuts 2-regions.
[2] For United Kingdom Nuts 1; without Departements d'Outre-Mer, Açores and Madeira. The regions were put in order according to their regional GDP per head.

Sources: Eurostat, database Regio; DIW calculations.

Table A.6

European Investment Bank, loans by regions, modified data [1]

(Mio ECU)

Code	Region Nuts 2 [2]		1986			1987		
			Total	Industry	Infra-structure	Total	Industry	Infra-structure
RC11	P	Norte	49.0	12.7	36.3	69.9	30.3	39.5
RC14	P	Alentejo	5.1	1.8	3.3	186.2	182.6	3.5
RC15	P	Algarve	3.1	1.1	2.0	22.0	16.8	5.3
RA41	GR	Voreio Aigaio	0.6	0.2	0.3	0.4	0.1	0.4
RC12	P	Centro	37.8	6.3	31.6	33.7	22.3	11.3
RA21	GR	Ipeiros	2.7	3.0	0.5	1.8	1.2	0.6
RA13	GR	Dytiki Makedonia	30.3	1.7	15.5	19.2	0.7	18.5
RA43	GR	Kriti	23.1	3.8	11.0	14.7	1.5	13.2
RA23	GR	Dytiki Ellada	33.4	4.7	16.2	21.3	1.9	19.4
RA22	GR	Ionia Nisia	2.1	2.6	0.3	1.4	1.1	0.3
RA14	GR	Thessalia	5.6	6.0	1.0	3.7	2.4	1.3
RA12	GR	Kentriki Makedonia	19.4	7.2	8.0	12.6	2.9	9.7
RA42	GR	Notio Aigaio	0.9	0.5	0.3	0.6	0.2	0.4
RA11	GR	Anatoliki Makedonia, Thraki	7.9	10.2	0.8	5.1	4.1	1.0
RA25	GR	Peleponnisos	6.0	7.2	0.8	3.9	2.9	1.0
RC13	P	Lisboa e Vale do Tejo	31.7	11.3	20.5	38.8	16.7	22.0
RA3	GR	Attiki	112.2	124.2	18.5	71.7	49.3	22.4
RB43	E	Extremadura	10.7	0.6	10.1	11.7	7.8	3.9
RB63	E	Ceuta y Melilla	0.7	0.1	0.7	1.3	0.9	0.4
RA24	GR	Sterea Ellada	11.2	7.0	3.7	7.2	2.8	4.4
RB61	E	Andalucia	57.4	11.4	46.0	128.0	53.3	74.7
RB42	E	Castilla-La Mancha	16.3	2.6	13.8	19.9	13.9	5.9
RB11	E	Galicia	40.1	20.4	19.6	31.3	21.2	10.0
RB62	E	Murcia	7.6	0.6	7.0	12.5	8.9	3.6
R393	I	Calabria	55.1	15.8	43.5	98.1	39.9	58.1
RB41	E	Castilla-Leon	19.7	4.0	15.8	29.3	19.5	9.8
RB7	E	Canarias	8.9	1.4	7.5	45.4	40.3	5.1
RB13	E	Cantabria	3.0	0.3	2.7	5.5	3.7	1.9
R392	I	Basilicata	36.5	13.6	24.2	22.1	5.5	16.6
RB52	E	Comunidad Valenciana	61.7	22.2	39.5	91.5	27.5	64.0
R8	IRL	Ireland	215.1	19.1	195.9	179.8	6.5	173.3
RB12	E	Asturias	6.5	0.7	5.9	16.1	12.1	4.0
R37	I	Campania	326.8	160.0	177.9	268.9	142.4	126.6
RB24	E	Aragon	7.3	1.1	6.3	14.6	10.2	4.4
R3A	I	Sicilia	261.6	83.5	188.1	231.1	41.3	189.8
RB51	E	Cataluna	35.1	3.6	31.5	65.8	44.4	21.4
RB3	E	Madrid	46.5	21.1	25.4	53.0	35.7	17.3
R425	NL	Flevoland	0.0	0.0	0.0	0.1	0.0	0.1
R391	I	Puglia	160.3	75.3	93.0	328.3	41.4	286.9
R3B	I	Sardegna	140.8	88.8	55.4	161.6	114.0	47.5
RB22	E	Navarra	3.0	0.3	2.7	5.4	3.6	1.8
RB21	E	Pais Vasco	19.9	1.3	18.7	67.4	16.2	51.3
RB23	E	Rioja	1.5	0.2	1.3	2.8	1.9	0.9
R7B	UK	Northern Ireland	63.8	49.6	14.4	94.9	0.8	94.1
R382	I	Molise	28.1	5.8	23.1	17.3	1.8	15.5
R523	B	Hainaut	0.3	0.0	0.3	0.4	0.0	0.4
R527	B	Namur	0.1	0.0	0.1	0.1	0.0	0.1
R79	UK	Wales	44.8	3.5	41.6	52.4	1.4	51.0
R283	F	Corse	5.2	2.4	3.0	0.7	0.6	0.2
R526	B	Luxembourg	0.1	0.0	0.1	0.1	0.0	0.1

Table A.6, continued

Code	Region Nuts 2 [2]		1986			1987		
			Total	Industry	Infra-structure	Total	Industry	Infra-structure
R381	I	Abruzzi	85.6	51.4	36.6	101.3	62.0	39.1
R71	UK	North	336.4	0.0	336.7	198.6	1.6	197.1
R412	NL	Friesland	0.1	0.0	0.1	0.2	0.0	0.2
R424	NL	Gelderland	0.4	0.0	0.4	0.6	0.0	0.6
R77	UK	West Midlands	51.7	1.5	50.6	51.5	2.6	48.8
RB53	E	Baleares	3.9	0.4	3.5	7.0	4.7	2.4
R72	UK	Yorkshire and Humberside	130.8	0.6	130.7	83.5	2.5	81.0
R263	F	Limousin	6.1	1.3	5.1	3.0	2.5	0.5
R281	F	Languedoc-Roussillon	24.4	14.3	11.1	50.0	12.3	37.7
R78	UK	North West	88.2	24.9	63.9	123.6	6.6	116.9
R13C	D	Lüneburg	2.8	0.0	2.8	1.2	0.0	1.2
R423	NL	Overijssel	0.2	0.0	0.2	0.3	0.0	0.3
R7A	UK	Scotland	472.2	33.2	439.5	182.0	2.6	179.4
R73	UK	East Midlands	2.4	1.8	0.9	10.4	2.0	8.3
R452	NL	Limburg	18.4	14.8	3.6	18.4	14.9	3.5
R225	F	Basse-Normandie	6.6	2.1	5.2	43.1	8.7	34.5
R23	F	Nord-Pas de Calais	35.6	8.4	29.2	132.0	20.4	111.5
R76	UK	South West	19.9	0.7	19.6	62.2	2.3	59.8
R253	F	Poitou-Charentes	18.4	3.8	15.4	17.5	9.7	7.8
R262	F	Midi-Pyrénées	17.0	1.6	16.6	65.2	5.7	59.5
R272	F	Auvergne	17.3	1.6	16.4	6.1	4.3	1.8
R352	I	Umbria	24.0	9.2	16.4	46.8	18.6	28.2
R252	F	Bretagne	73.1	30.1	44.3	104.2	58.1	46.2
R515	B	Limburg	46.3	46.1	0.2	23.3	23.1	0.2
R74	UK	East Anglia	55.4	0.0	55.6	8.9	1.0	7.9
R518	B	Oost-Vlaanderen	0.3	0.0	0.3	0.4	0.0	0.4
R451	NL	Noord-Brabant	80.6	80.2	0.5	0.7	0.0	0.7
R241	F	Lorraine	13.4	1.7	12.8	70.5	25.6	44.9
R524	B	Liège	0.2	0.0	0.2	0.3	0.0	0.3
R251	F	Pays de Loire	70.8	12.5	59.7	61.4	13.2	48.2
R353	I	Marche	81.7	46.6	37.9	107.8	31.3	76.6
R243	F	Franche-Comté	48.1	44.7	3.9	47.7	47.0	0.8
R172	D	Trier	0.9	0.0	0.9	0.4	0.0	0.4
R222	F	Picardie	6.2	0.6	6.4	19.6	18.4	1.2
R413	NL	Drenthe	0.1	0.0	0.1	0.1	0.0	0.1
R519	B	West-Vlaanderen	0.3	0.0	0.3	0.4	0.0	0.4
R226	F	Bourgogne	5.2	0.1	5.8	11.9	10.8	1.1
R471	NL	Utrecht	0.2	0.0	0.2	0.3	0.0	0.3
R474	NL	Zeeland	0.1	0.0	0.1	0.1	0.0	0.1
R16B	D	Gießen	1.9	0.0	1.9	0.8	0.0	0.8
R282	F	Provence-Alpes-Côte d'Azur	40.8	11.7	31.0	102.5	11.9	90.5
R13D	D	Weser-Ems	27.1	0.0	27.1	1.8	0.0	1.8
R261	F	Aquitaine	37.3	4.4	34.3	50.5	9.0	41.6
R193	D	Oberpfalz	1.9	0.0	1.9	0.8	0.0	0.8
R192	D	Niederbayern	2.0	0.0	2.0	0.9	0.0	0.9
R224	F	Centre	8.4	1.0	8.5	9.1	7.5	1.6
R221	F	Champagne-Ardenne	4.5	0.2	4.9	11.5	10.6	1.0
R153	D	Münster	4.7	0.0	4.7	5.1	0.0	5.1
R171	D	Koblenz	2.6	0.0	2.6	1.2	0.0	1.2
R351	I	Toscana	260.4	51.3	216.1	125.4	23.8	101.5
R333	I	Friuli-Venezia Giulia	41.3	12.0	31.7	46.0	14.1	32.0
R473	NL	Zuid-Holland	0.7	0.0	0.7	1.1	0.0	1.1
R11	D	Schleswig-Holstein	5.0	0.0	5.0	16.2	14.0	2.2
R332	I	Veneto	118.5	22.9	104.1	175.8	85.5	90.2

Table A.6, continued

Code	Region Nuts 2 [2]		1986			1987		
			Total	Industry	Infra-structure	Total	Industry	Infra-structure
R196	D	Unterfranken	2.4	0.0	2.4	1.0	0.0	1.0
R331	I	Trentino-Alto Adige	94.7	73.6	22.9	84.0	61.1	22.9
R36	I	Lazio	236.2	46.4	199.9	240.6	78.5	162.2
R311	I	Piemonte	415.2	147.4	276.4	251.3	39.9	211.5
R313	I	Liguria	40.4	6.8	37.1	72.2	31.1	41.1
R194	D	Oberfranken	2.0	0.0	2.0	0.9	0.0	0.9
R502	B	Brabant	0.5	0.0	0.5	0.7	0.0	0.7
R271	F	Rhône-Alpes	94.6	3.7	93.3	65.2	13.4	51.7
R16C	D	Kassel	2.3	0.0	2.3	1.0	0.0	1.0
R75	UK	South East	102.8	0.1	104.3	271.1	8.8	262.3
R242	F	Alsace	5.9	0.8	5.8	33.9	32.8	1.1
R902	DK	Ost For Storebaelt, Ex.Hovedst	9.5	0.3	9.2	0.1	0.1	0.2
R6	L	Luxembourg	18.3	0.0	18.3	1.7	0.0	1.7
R34	I	Emilia-Romagna	101.5	16.7	92.5	141.7	20.3	121.4
R154	D	Detmold	3.5	0.0	3.5	2.1	0.0	2.1
R472	NL	Noord-Holland	0.5	0.0	0.5	0.8	0.0	0.8
R155	D	Arnsberg	7.1	0.0	7.1	18.5	0.0	18.5
R223	F	Haute-Normandie	6.8	1.4	6.2	9.6	8.2	1.4
R1A	D	Saarland	27.8	0.0	27.8	43.3	0.0	43.3
R183	D	Freiburg	3.7	0.0	3.7	1.6	0.0	1.6
R184	D	Tübingen	3.0	0.0	3.0	1.3	0.0	1.3
R197	D	Schwaben	3.0	0.0	3.0	1.3	0.0	1.3
R312	I	Valle d'Aosta	26.5	0.0	26.7	10.6	0.1	10.7
R511	B	Antwerpen	0.4	0.0	0.4	14.5	14.0	0.5
R13A	D	Braunschweig	3.1	0.0	3.1	1.4	0.0	1.4
R173	D	Rheinhessen-Pfalz	3.5	0.0	3.5	1.5	0.0	1.5
R152	D	Köln	97.8	0.0	97.8	33.5	0.0	33.5
R13B	D	Hannover	51.7	0.0	51.7	98.1	0.0	98.1
R32	I	Lombardia	390.5	137.0	270.9	404.5	184.5	220.1
R903	DK	Vest For Storebaelt	110.9	4.5	106.4	88.0	4.8	83.2
R182	D	Karlsruhe	4.7	0.0	4.7	2.1	0.0	2.1
R151	D	Düsseldorf	99.8	0.0	99.8	47.1	0.0	47.1
R195	D	Mittelfranken	3.0	0.0	3.0	1.3	0.0	1.3
R1B	D	Berlin (West)	4.0	0.0	4.0	1.7	0.0	1.7
R181	D	Stuttgart	66.7	0.0	66.7	3.0	0.0	3.0
R191	D	Oberbayern	7.1	0.0	7.1	3.1	0.0	3.1
R901	DK	Hovedstadsregionen	79.1	0.1	78.9	197.1	0.2	197.4
R14	D	Bremen	1.3	0.0	1.3	0.6	0.0	0.6
R16A	D	Darmstadt	6.7	0.0	6.7	2.9	0.0	2.9
R21	F	Ile de France	32.5	0.2	37.3	33.0	25.8	7.2
R411	NL	Groningen	0.1	0.0	0.1	0.2	0.0	0.2
R12	D	Hamburg	3.1	0.0	3.1	1.4	0.0	1.4
EC (10)			6166.5	1672.8	4639.0	6013.4	1574.4	4440.1
EC (12)			6643.3	1798.3	4990.6	6972.5	2168.9	4804.5

[1] Credits chargeable on Nuts 2-regions directly as well as indirectly by estimates.
[2] For United Kingdom Nuts 1; without Departements d'Outre-Mer, Açores and Madeira. The regions were put in order according to their regional GDP per head.

Sources: Eurostat, database Regio; DIW calculations.

Table A.7

Financial interventions of the EC for restructuring the coal and steel sector and the agricultural sector

(Mio ECU)

Code	Region, Nuts 2 [1]		European Coal and Steel Community Loans				Europ. Agricult. Guidance and Guarantee Fund	
			Original data [2]		Modified data [3]		Investment Grants	
			1986	1987	1986	1987	1986	1987
RC11	P	Norte	—	—	—	—	4.0	9.5
RC14	P	Alentejo	—	—	—	—	2.3	4.3
RC15	P	Algarve	—	—	—	—	1.8	2.7
RA41	GR	Voreio Aigaio	—	—	—	—	0.1	0.1
RC12	P	Centro	—	—	—	—	9.1	11.7
RA21	GR	Ipeiros	—	—	—	—	4.5	3.1
RA13	GR	Dytiki Makedoni	—	—	—	—	0.7	0.5
RA43	GR	Kriti	—	—	—	—	12.6	8.7
RA23	GR	Dytiki Ellada	—	—	—	—	4.9	3.4
RA22	GR	Ioni Nisia	—	—	—	—	—	—
RA14	GR	Thessalia	—	—	—	—	6.8	4.7
RA12	GR	Kentriki Makedonia	0.2	—	0.2	—	9.5	6.6
RA42	GR	Notio Aigaio	—	—	—	—	—	—
RA11	GR	Anatoliki Makedonia, Thraki	—	—	—	—	15.3	10.6
RA25	GR	Peleponnisos	—	—	—	—	10.8	7.5
RC13	P	Lisboa e Vale do Tejo	—	—	—	—	13.5	6.5
RA3	GR	Attiki	—	—	—	—	2.6	1.8
RB43	E	Extremadura	—	—	—	—	—	5.2
RB63	E	Ceuta y Melilla	—	—	—	—	—	—
RA24	GR	Sterea Ellada	—	—	—	—	5.8	4.0
RB61	E	Andalucia	—	—	—	—	28.6	10.0
RB42	E	Castilla-La Mancha	—	—	—	—	1.2	9.4
RB11	E	Galicia	—	1.0	—	1.0	10.6	5.3
RB62	E	Murcia	—	—	—	—	3.7	3.2
R393	I	Calabria	—	—	—	—	5.9	2.6
RB41	E	Castilla-Leon	—	—	—	—	2.6	5.8
RB7	E	Canarias	—	—	—	—	1.4	0.3
RB13	E	Cantabria	—	1.0	—	1.0	0.9	0.3
R392	I	Basilicata	—	—	—	—	6.7	2.4
RB52	E	Comunidad Valencia	—	—	—	—	10.0	5.3
R8	IRL	Ireland	0.9	—	0.9	—	29.5	26.3
RB12	E	Asturias	—	1.0	—	1.0	0.7	1.7
R37	I	Campania	22.7	—	27.2	4.3	4.8	1.2
RB24	E	Aragon	—	1.0	—	1.0	2.7	4.8
R3A	I	Sicilia	—	—	—	—	6.5	6.1
RB51	E	Cataluna	—	—	—	—	13.0	5.6
RB3	E	Madrid	—	—	—	—	4.8	0.7
R425	NL	Flevoland	—	—	—	—	—	—
R391	I	Puglia	138.6	—	166.1	26.5	10.7	2.5
R3B	I	Sardegna	—	—	—	—	1.6	2.9
RB22	E	Navarra	—	1.0	—	1.0	1.9	1.7
RB21	E	Pais Vasco	—	1.0	—	1.0	2.1	1.4
RB23	E	Rioja	—	—	—	—	1.1	1.6
R7B	UK	Northern Ireland	—	—	—	—	6.7	5.8
R382	I	Molise	—	—	—	—	0.3	3.2
R523	B	Mainaut	—	0.1	0.0	0.2	0.2	0.7
R527	B	Namur	—	—	—	—	—	0.4

Table A.7, continued

Code	Region, Nuts 2 [1]		European Coal and Steel Community Loans				Europ. Agricult. Guidance and Guarantee Fund	
			Original data [2]		Modified data [3]		Investment Grants	
			1986	1987	1986	1987	1986	1987
R79	UK	Wales	7.2	19.7	22.5	48.5	1.5	0.2
R283	F	Corse	—	—	—	—	0.5	2.8
R526	B	Luxembourg	—	—	—	—	—	0.5
R381	I	Abruzzi	—	—	—	—	2.2	4.9
R71	UK	North	0.5	6.6	1.1	14.1	1.2	0.5
R412	NL	Friesland	—	—	—	—	0.2	—
R424	NL	Gelderland	—	—	—	—	—	0.7
R77	UK	West Midlands	0.3	0.2	0.1	0.6	1.6	0.3
RB53	E	Baleares	—	—	—	—	1.2	0.3
R72	UK	Yorkshire and Humberside	3.4	284.7	26.2	304.7	3.7	0.7
R263	F	Limousin	—	—	—	—	0.2	0.3
R281	F	Languedoc-Roussillon	0.1	—	0.1	0.0	21.6	11.6
R78	UK	North West	0.1	0.1	0.0	0.2	0.9	0.9
R13C	D	Lüneburg	—	—	—	—	2.8	2.4
R423	NL	Overijssel	—	—	—	—	—	0.7
R7A	UK	Scotland	0.1	0.2	0.0	0.3	13.6	4.4
R73	UK	East Midlands	1.0	0.6	0.4	2.0	2.3	3.1
R452	NL	Limburg	—	—	—	—	1.6	—
R225	F	Basse-Normandie	0.1	—	0.1	0.0	2.8	1.0
R23	F	Nord-Pas de Calais	66.2	0.2	66.0	10.7	2.5	0.9
R76	UK	South West	—	—	—	—	2.3	0.4
R253	F	Poitou-Charentes	—	—	—	—	2.9	—
R262	F	Midi-Pyrénées	0.1	—	0.1	0.1	2.6	6.6
R272	F	Auvergne	0.1	0.1	0.1	0.1	—	—
R352	I	Umbria	0.3	—	0.4	0.1	4.2	0.6
R252	I	Bretagne	—	—	—	—	10.3	5.8
R515	B	Limburg	0.2	1.0	0.2	1.9	0.9	0.9
R74	UK	East Anglia	—	—	—	—	3.1	3.3
R518	B	Oost-Vlaanderen	0.1	0.5	0.1	0.9	1.4	1.5
R451	NL	Noord-Brabant	—	—	—	—	1.2	0.9
R241	F	Lorraine	3.4	1.4	3.4	2.2	—	—
R524	B	Liège	0.1	0.4	0.1	0.8	1.2	1.4
R251	F	Pays de Loire	—	—	—	—	6.3	3.3
R353	I	Marche	—	—	—	—	8.1	4.0
R243	F	Franche-Comté	—	—	—	—	—	0.7
R172	D	Trier	—	—	—	—	2.2	0.3
R222	F	Picardie	0.1	—	0.1	0.0	—	1.3
R413	NL	Drenthe	—	—	—	—	—	—
R519	B	West-Vlaanderen	—	—	—	—	1.9	4.0
R226	F	Bourgogne	0.3	0.2	0.3	0.3	0.4	1.9
R471	NL	Utrecht	—	—	—	—	0.3	—
R474	NL	Zeeland	—	—	—	—	1.0	1.6
R168	D	Gießen	—	—	—	—	—	0.1
R282	F	Provence-Alpes-Côte d'Azur	6.3	0.2	6.3	1.2	9.0	8.2
R13D	D	Weser-Ems	86.4	17.2	121.9	48.6	0.7	1.0
R261	F	Aquitaine	—	—	—	—	9.8	2.9
R193	D	Oberpfalz	—	—	—	—	—	—
R192	D	Niederbayern	—	—	—	—	0.3	0.9
R224	F	Centre	—	—	—	—	0.8	0.4
R221	F	Champagne-Ardenne	10.2	—	10.2	1.7	2.5	1.5
R153	D	Münser	1.1	25.4	26.6	36.2	0.1	—
R171	D	Koblenz	—	—	—	—	0.9	—
R351	I	Toscana	100.9	55.5	132.0	85.4	3.1	1.1
R333	I	Friuli-Venezia Giulia	—	—	—	—	1.4	4.7

Table A.7, continued

Code	Region, Nuts 2 [1]		European Coal and Steel Community Loans				Europ. Agricult. Guidance and Guarantee Fund	
			Original data [2]		Modified data [3]		Investment Grants	
			1986	1987	1986	1987	1986	1987
R473	NL	Zuid-Holland	—	—	—	—	3.8	0.6
R11	D	Schleswig-Holstein	—	—	—	—	3.1	1.0
R332	I	Veneto	0.1	—	0.1	0.0	6.2	5.5
R196	D	Unterfranken	—	—	—	—	1.8	1.4
R331	I	Trentino-Alto Adige	—	—	—	—	3.3	2.8
R36	I	Lazio	—	—	—	—	19.9	2.7
R311	I	Piemonte	0.1	48.4	9.6	57.7	2.0	1.6
R313	I	Liguria	0.2	—	0.2	0.0	2.7	—
R194	S	Oberfranken	1.9	—	2.6	0.6	0.7	0.2
R502	B	Brabant	—	—	—	—	0.3	0.9
R271	F	Rhône-Alpes	17.6	0.1	17.5	2.8	4.9	6.2
R16C	D	Kassel	—	—	—	—	0.5	0.5
R75	UK	South-East	0.1	6.5	0.6	7.0	3.0	2.2
R242	F	Alsace	—	—	—	—	0.8	0.7
R902	DK	Ost For Storebaelt, Ex.Hovedst	—	—	—	—	1.5	1.1
R6	L	Luxembourg	2.1	0.1	2.1	0.1	—	0.3
R34	I	Emilia-Romagna	—	—	—	—	10.7	5.4
R154	D	Detmold	—	—	—	—	—	0.4
R472	NL	Noord-Holland	83.2	2.9	86.4	4.1	1.4	0.4
R155	D	Arnsberg	1.6	12.4	15.1	18.1	0.3	0.2
R223	F	Haute-Normandie	—	—	—	—	1.5	0.1
R1A	D	Saarland	5.1	37.5	19.7	50.4	0.1	—
R183	D	Freiburg	—	—	—	—	1.1	0.1
R184	D	Tübingen	—	—	—	—	1.3	1.8
R197	D	Schwaben	—	—	—	—	0.2	0.7
R312	I	Valle d'Aosta	0.1	—	0.1	0.0	—	—
R511	B	Antwerpen	—	0.1	0.0	0.2	0.3	1.0
R13A	D	Braunschweig	0.1	77.7	26.7	101.3	1.7	—
R173	D	Rheinhessen-Pfalz	—	—	—	—	2.7	3.4
R152	D	Köln	0.5	0.3	1.3	0.6	1.2	0.9
R138	D	Hannover	—	—	—	—	—	—
R32	I	Lombardia	2.5	—	3.0	0.5	5.1	7.2
R903	DK	Vest for Storebaelt	—	—	—	—	13.3	3.5
R182	D	Karlsruhe	—	—	—	—	0.7	0.3
R151	D	Düsseldorf	104.0	21.8	225.1	73.3	1.0	0.9
R195	D	Mittelfranken	—	—	—	—	—	—
R1B	D	Berlin (West)	29.4	—	39.5	8.9	—	—
R181	D	Stuttgart	—	—	—	—	4.8	1.5
R191	D	Oberbayern	—	—	—	—	—	3.0
R901	DK	Hovedstadsregionen	—	3.9	3.7	3.7	0.9	0.1
R14	D	Bremen	—	—	—	—	3.4	—
R16A	D	Darmstadt	—	—	—	—	—	1.9
R21	F	Ile de France	—	5.7	0.0	6.6	0.8	0.3
R411	NL	Groningen	—	—	—	—	0.2	—
R12	D	Hamburg	—	—	—	—	1.0	—
EC (10)			699.6	631.7	1066.0	927.4	392.8	261.1
EC (12)			699.6	637.7	1066.0	933.4	510.0	358.4

[1] For United Kingdom Nuts 1; without Departments d'Outre-Mer, Açores and Madeira. The regions were put in order according to their regional GDP per head. — [2] Credits chargeable directly on Nuts 2-regions. — [3] Credits chargeable on Nuts 2-regions directly as well as indirectly by estimates.

Sources: Eurostat, database Regio; DIW calculations.

Table A.8

European Coal and Steel Community, subsidies

(Mio ECU)

Code	Region Nuts 2 [1]		Original data [2]				Modified data [3]			
			1986	1987	1988	1989	1986	1987	1988	1989
RC11	P	Norte	-	0.26	-	-	-	0.26	0.03	-
RC14	P	Alentejo	-	-	-	-	-	-	-	-
RC15	P	Algarve	-	-	-	-	-	-	-	-
RA41	GR	Voreio Aigaio	-	-	-	-	-	-	-	-
RC12	P	Centro	-	-	-	-	-	-	-	-
RA21	GR	Ipeiros	-	-	-	-	-	-	-	-
RA13	GR	Dytiki Makedonia	-	-	-	-	-	-	-	-
RA43	GR	Kriti	-	-	-	-	-	-	-	-
RA23	GR	Dytiki Ellada	-	-	-	-	-	-	-	-
RA22	GR	Ionia Nisia	-	-	-	-	-	-	-	-
RA14	GR	Thessalia	-	-	-	-	-	-	-	-
RA12	GR	Kentriki Makedonia	-	0.29	0.05	-	-	0.29	0.05	-
RA42	GR	Notio Aigaio	-	-	-	-	-	-	-	-
RA11	GR	Anatoliki Makedonia, Thraki	-	-	-	-	-	-	-	-
RA25	GR	Peleponnisos	-	-	-	-	-	-	-	-
RC13	P	Lisboa e Vale do Tejo	-	0.01	2.26	-	-	0.01	2.49	-
RA3	GR	Attiki	-	-	0.06	-	-	-	0.06	-
RB43	E	Extremadura	-	-	-	-	-	-	-	-
RB63	E	Ceuta y Melilla	-	-	-	-	-	-	-	-
RA24	GR	Sterea Ellada	-	-	-	-	-	-	-	-
RB61	E	Andalucia	0.13	-	-	-	0.13	-	0.79	-
RB42	E	Castilla-La Mancha	-	-	-	-	-	-	-	-
RB11	E	Galicia	-	-	-	-	-	-	-	-
RB62	E	Murcia	-	-	-	-	-	-	-	-
R393	I	Calabria	-	-	-	-	-	-	-	-
RB41	E	Castilla-Leon	0.76	0.28	0.03	-	0.76	0.28	6.75	-
RB7	E	Canarias	-	-	-	-	-	-	-	-
RB13	E	Cantabria	-	0.18	-	-	-	0.18	1.12	-
R392	I	Basilicata	-	-	-	-	-	-	-	-
RB52	E	Comunidad Valenciana	-	0.60	1.68	0.65	-	0.60	19.91	0.65
R8	IRL	Ireland	0.12	-	-	-	0.12	-	-	-
RB12	E	Asturias	0.99	0.76	0.05	0.34	0.99	0.76	13.40	0.34
R37	I	Campania	0.62	-	0.64	-	0.78	-	1.42	0.02
RB24	E	Aragon	0.24	0.20	0.30	-	0.24	0.20	4.95	-
R3A	I	Sicilia	-	-	-	-	-	-	-	-
RB51	E	Cataluna	-	-	-	-	-	-	-	-
RB3	E	Madrid	0.50	1.08	0.52	-	0.50	1.08	13.68	-
R425	NL	Flevoland	-	-	-	-	-	-	-	-
R391	I	Puglia	0.25	0.66	3.39	-	0.91	0.66	6.52	0.09
R3B	I	Sardegna	0.07	0.23	-	-	0.11	0.23	0.19	0.01
RB22	E	Navarra	-	-	-	-	-	-	-	-
RB21	E	Pais Vasco	0.16	0.31	0.98	0.24	0.16	0.31	11.56	0.24
RB23	E	Rioja	-	-	-	-	-	-	-	-
R7B	UK	Northern Ireland	-	-	-	-	-	-	-	-
R382	I	Molise	-	-	-	-	-	-	-	-
R523	B	Hainaut	0.33	2.31	0.43	0.26	0.33	2.31	0.43	0.26
R527	B	Namur	-	-	0.32	-	-	-	0.32	-
R79	UK	Wales	-	-	-	-	-	-	-	-
R283	F	Corse	-	-	-	-	-	-	-	-
R526	B	Luxembourg	-	-	-	-	-	-	-	-
R381	I	Abruzzi	-	-	-	-	-	-	-	-

Table A.8, continued

Code	Region Nuts 2 [1]		Original data [2]				Modified data [3]			
			1986	1987	1988	1989	1986	1987	1988	1989
R71	UK	North	-	-	0.22	-	0.10	0.05	0.29	-
R412	NL	Friesland	-	-	-	-	-	0.49	-	-
R424	NL	Gelderland	-	-	0.27	-	-	-	0.27	-
R77	UK	West Midlands	-	-	-	-	-	-	-	-
RB53	E	Baleares	-	-	-	-	-	-	-	-
R72	UK	Yorkshire and Humberside	-	-	-	-	-	-	-	-
R263	F	Limousin	-	-	-	-	-	-	-	-
R281	F	Languedoc-Roussillon	0.65	-	-	-	0.99	0.01	0.86	0.03
R78	UK	North West	-	-	-	-	-	-	-	-
R13C	D	Lüneburg	0.07	0.05	0.04	0.03	0.07	0.05	0.04	0.03
R423	NL	Overijssel	-	-	-	-	-	-	-	-
R7A	UK	Scotland	-	-	-	0.02	0.01	-	0.01	0.02
R73	UK	East Midlands	-	-	-	-	-	-	-	-
R452	NL	Limburg	-	-	-	-	-	-	-	-
R225	F	Basse-Normandie	-	-	-	-	-	-	-	-
R23	F	Nord-Pas de Calais	-	10.15	1.12	1.21	5.82	10.25	16.08	1.67
R76	UK	South West	-	-	-	-	-	-	-	-
R253	F	Poitou-Charentes	-	-	-	-	-	-	-	-
R262	F	Midi-Pyrénées	-	-	0.03	-	0.05	-	0.14	-
R272	F	Auvergne	-	-	-	-	-	-	-	-
R352	I	Umbria	-	-	-	-	-	-	-	-
R252	F	Bretagne	-	-	-	-	-	-	-	-
R515	B	Limburg	0.30	1.56	36.25	5.27	0.30	1.56	36.25	5.27
R74	UK	East Anglia	0.07	-	0.17	-	0.29	0.11	0.31	-
R518	B	Oost-Vlaanderen	0.03	-	-	-	0.03	-	-	-
R451	NL	Noord-Brabant	-	-	-	-	-	-	-	-
R241	F	Lorraine	3.70	6.36	3.67	2.35	11.78	6.51	24.45	2.98
R524	B	Liège	2.69	3.23	3.28	-	2.69	3.23	3.28	-
R251	F	Pays de Loire	-	0.01	-	-	0.01	0.01	0.01	-
R353	I	Marche	-	-	-	-	-	-	-	-
R243	F	Franche-Comté	-	0.05	-	-	0.02	0.05	0.05	-
R172	D	Trier	-	-	-	-	-	-	-	-
R222	F	Picardie	-	-	-	-	-	-	-	-
R413	NL	Drenthe	-	-	-	-	-	0.64	-	-
R519	B	West-Vlaanderen	-	-	-	-	-	-	-	-
R226	F	Bourgogne	-	0.73	0.75	0.16	0.77	0.75	2.72	0.22
R471	NL	Utrecht	0.23	-	-	-	0.23	-	-	-
R474	NL	Zeeland	-	-	-	-	-	-	-	-
R16B	D	Gießen	0.25	-	-	-	0.25	-	-	-
R282	F	Provence-Alpes-Côte d'Azur	-	-	1.67	-	0.78	0.01	3.68	0.06
R13D	D	Weser-Ems	1.36	1.09	1.96	3.30	1.36	1.09	1.96	3.30
R261	F	Aquitaine	-	-	-	-	-	-	-	-
R193	D	Oberpfalz	0.61	0.64	0.60	2.86	1.53	0.64	0.60	2.86
R192	D	Niederbayern	-	-	-	-	-	-	-	-
R224	F	Centre	-	0.02	-	-	0.01	0.02	0.02	-
R221	F	Champagne-Ardenne	-	0.15	-	-	0.06	0.15	0.16	-
R153	D	Münster	11.48	8.80	2.29	2.51	11.93	9.95	2.29	3.59
R171	D	Koblenz	0.01	0.04	0.84	-	0.01	0.04	0.84	-
R351	I	Toscana	0.05	0.28	1.19	-	0.30	0.28	2.39	0.04
R333	I	Friuli-Venezia Giulia	0.54	-	0.78	0.61	0.79	-	1.99	0.64
R473	NL	Zuid-Holland	0.07	0.09	0.12	-	0.07	0.09	0.13	-
R11	D	Schleswig-Holstein	0.45	-	-	-	0.45	-	-	-
R332	I	Veneto	-	-	0.36	-	0.05	-	0.58	0.01
R196	D	Unterfranken	-	-	-	-	0.10	-	-	-
R331	I	Trentino-Alto Adige	-	-	0.04	-	0.01	-	0.07	-

Table A.8, continued

Code	Region Nuts 2 [1]		Original data [2]				Modified data [3]			
			1986	1987	1988	1989	1986	1987	1988	1989
R36	I	Lazio	4.06	5.77	4.73	-	6.53	5.77	16.47	0.35
R311	I	Piemonte	2.22	1.32	1.03	0.66	2.98	1.32	4.66	0.77
R313	I	Liguria	8.20	1.86	3.79	0.76	10.32	1.86	13.88	1.06
R194	D	Oberfranken	-	-	-	-	-	-	-	-
R502	B	Brabant	0.28	1.11	0.10	-	0.28	1.11	0.10	-
R271	F	Rhône-Alpes	0.17	0.41	2.71	1.43	2.11	0.44	7.68	1.58
R16C	D	Kassel	-	-	-	-	-	-	-	-
R75	UK	South East	-	-	-	-	-	-	-	-
R242	F	Alsace	-	-	-	-	-	-	-	-
R902	DK	Ost For Storebaelt, Ex.Hovedst	-	-	-	-	-	-	-	-
R6	L	Luxembourg	2.05	3.73	4.60	0.24	2.05	3.73	4.60	0.24
R34	I	Emilia-Romagna	-	-	-	-	-	-	-	-
R154	D	Detmold	0.23	-	0.48	0.07	0.24	0.03	0.48	0.10
R472	NL	Noord-Holland	2.58	0.69	6.24	0.11	2.58	0.72	6.33	0.11
R155	D	Arnsberg	29.47	12.49	34.24	13.86	31.03	16.54	34.24	17.69
R223	F	Haute-Normandie	-	-	-	-	-	-	-	-
R1A	D	Saarland	10.25	6.22	1.76	2.33	10.25	6.22	1.76	2.33
R183	D	Freiburg	-	0.58	-	-	-	0.58	-	-
R184	D	Tübingen	-	-	-	-	-	-	-	-
R197	D	Schwaben	0.44	-	-	-	0.51	-	-	-
R312	I	Valle d'Aosta	0.15	0.04	-	-	0.18	0.04	0.12	-
R511	B	Antwerpen	-	-	-	-	-	-	-	-
R13A	D	Braunschweig	0.93	2.81	1.05	0.59	0.93	2.81	1.05	0.59
R173	D	Rheinhessen-Pfalz	0.15	-	-	-	0.15	-	-	-
R152	D	Köln	3.80	2.85	1.90	2.84	4.01	3.38	1.90	3.34
R13B	D	Hannover	0.15	0.17	0.15	0.15	0.15	0.17	0.15	0.15
R32	I	Lombardia	2.20	1.74	4.05	1.35	3.99	1.74	12.54	1.60
R903	DK	Vest For Storebaelt	-	-	-	-	-	-	-	-
R182	D	Karlsruhe	-	-	-	-	-	-	-	-
R151	D	Düsseldorf	26.37	21.89	37.77	4.40	28.06	26.27	37.77	8.53
R195	D	Mittelfranken	-	-	-	-	-	-	-	-
R1B	D	Berlin (West)	-	-	-	-	-	-	-	-
R181	D	Stuttgart	0.14	-	-	-	0.14	-	-	-
R191	D	Oberbayern	-	-	-	-	-	-	-	-
R901	DK	Hovedstadsregionen	-	0.12	0.04	-	-	0.12	0.04	-
R14	D	Bremen	1.02	0.73	0.87	1.21	1.02	0.73	0.87	1.21
R16A	D	Darmstadt	0.30	0.43	-	-	0.30	0.43	-	-
R21	F	Ile de France	4.22	4.10	3.47	-	10.82	4.22	20.43	0.51
R411	NL	Groningen	-	-	-	-	-	0.49	-	-
R12	D	Hamburg	0.06	-	-	-	0.06	-	-	-
EC (10)			123.39	105.80	169.52	48.58	161.80	118.19	273.53	61.26
EC (12)			126.17	109.48	175.34	49.81	164.58	121.87	348.21	62.49

[1] For United Kingdom Nuts 1; without Departements d'Outre-Mer, Açores and Madeira. The regions were put in order according to their regional GDP per head.
[2] Subsidies chargeable directly on Nuts 2-regions.
[3] Subsidies chargeable on Nuts 2-regions directly as well as indirectly by estimates.

Sources: Eurostat, database Regio; DIW calculations.

Table A.9

EAGGF guarantee payments for selected products by regions [1] 1986—89

(Mio ECU)

Code	Region, Nuts 2 [2]		Cereals and Rice	Sugar	Olive-oil	Oleag-inous	Fruits and Vegeta-bles [3]	Wine	Tobacco	Milk	Cattle (Meat)	Sheep and Goats (Meat)
RC11	P	Norte	-0.1	-	5.0	-	1.6	-	0.5	2.0	-1.1	22.9
RC14	P	Alentejo	-0.1	-	11.7	228.7	0.8	-	5.6	0.6	-0.5	34.2
RC15	P	Algarve	-0.0	-	0.4	-	0.7	-	-	0.1	-0.1	1.6
RA41	GR	Voreio Aigaio	4.4	-	111.0	0.0	5.3	1.3	-	14.6	2.7	17.8
RC12	P	Centro	-0.1	-	6.2	-	34.6	-	13.4	0.9	-0.6	19.0
RA21	GR	Ipeiros	21.6	-	36.3	0.6	16.6	0.3	21.6	41.0	3.6	61.6
RA13	GR	Dytiki Makedonia	50.8	6.0	0.0	0.1	4.2	1.0	84.0	29.5	8.9	28.5
RA43	GR	Kriti	2.6	-	267.8	0.0	35.2	14.5	-	35.0	2.1	56.3
RA23	GR	Dytiki Ellada	48.4	-	92.6	2.4	40.3	8.6	322.9	46.5	5.1	82.5
RA22	GR	Ionia Nisia	0.9	-	78.5	0.0	7.0	2.6	-	7.4	2.6	10.4
RA14	GR	Thessalia	159.5	23.0	55.1	30.3	28.0	2.6	200.2	67.2	13.0	68.4
RA12	GR	Kentriki Makedonia	192.9	47.9	36.3	18.1	75.7	2.2	660.5	81.8	45.4	59.1
RA42	GR	Notio Aigaio	3.5	-	26.7	0.0	7.3	2.7	-	12.9	6.6	19.0
RA11	GR	Anatoliki Makedonia, Thraki	143.5	40.4	19.9	12.8	13.2	1.8	150.8	30.3	17.5	39.7
RA25	GR	Peleponnisos	16.3	-	297.1	0.0	64.0	10.6	65.5	41.7	4.3	75.9
RC13	P	Lisboa e Vale do Tejo	-0.0	-	6.0	17.2	17.5	-	4.4	0.6	-0.6	15.7
RA3	GR	Attiki	4.3	-	42.9	-	9.4	4.8	-	17.3	3.0	13.9
RB43	E	Extremadura	38.1	7.8	48.1	27.4	4.5	29.6	121.5	5.0	5.2	87.1
RB63	E	Ceuta y Melilla	-	-	-	-	-	-	-	-	-	-
RA24	GR	Sterea Ellada	82.9	3.2	157.9	8.4	30.5	3.5	112.5	38.5	3.2	69.9
RB61	E	Andalucia	109.9	106.7	236.8	171.8	27.4	95.1	28.8	18.4	8.2	66.2
RB42	E	Castilla-La Mancha	93.6	18.3	52.9	80.9	2.5	236.2	3.7	11.5	4.8	167.5
RB11	E	Galicia	16.0	-	-	-	2.2	41.2	0.2	43.5	17.3	9.4
RB62	E	Murcia	4.8	-	2.3	0.0	19.6	15.9	-	1.5	0.9	27.9
R393	I	Calabria	66.5	23.1	381.2	0.3	108.1	16.1	-	59.5	46.0	18.6
RB41	E	Castilla-Leon	179.9	184.5	2.2	43.3	1.7	21.8	6.3	34.5	23.3	186.1
RB7	E	Canarias	0.2	-	-	-	11.5	19.3	0.8	2.8	1.1	2.8
RB13	E	Cantabria	0.2	-	-	-	0.1	0.2	-	10.5	5.3	1.8
R392	I	Basilicata	127.6	25.3	76.6	0.4	31.0	6.2	3.2	21.3	15.7	14.4
RB52	E	Comunidad Valenciana	13.3	0.0	17.8	4.2	22.2	36.5	1.0	2.5	0.8	19.8
R8	IRL	Ireland	204.7	129.1	-	0.0	11.8	-	-	916.5	718.8	198.6
RB12	E	Asturias	0.4	-	-	-	0.4	0.3	0.1	17.1	6.3	3.5
R37	I	Campania	103.4	4.6	189.0	1.1	215.9	36.7	608.4	117.2	73.8	11.9
RB24	E	Aragon	69.6	1.9	10.0	10.4	4.2	15.9	-	2.8	4.1	107.9
R3A	I	Sicilia	202.5	-	359.0	0.5	442.4	165.7	0.6	84.9	66.9	38.7
RB51	E	Cataluna	43.9	-	22.2	5.6	12.8	38.6	0.5	16.1	12.4	55.2
RB3	E	Madrid	7.2	0.2	4.3	0.7	0.5	5.8	-	2.5	0.3	10.1
R425	NL	Flevoland	14.8	95.0	-	189.4	7.7	-	-	35.7	7.4	1.0
R391	I	Puglia	298.1	94.3	788.8	37.1	148.8	162.6	153.8	77.4	40.0	17.3
R3B	I	Sardegna	55.2	26.9	78.5	1.1	45.4	30.9	-	142.7	62.5	84.9
RB22	E	Navarra	23.2	0.1	0.6	1.4	1.5	9.6	1.7	3.7	1.9	19.6
RB21	E	Pais Vasco	4.8	5.8	0.0	0.1	1.0	18.0	0.2	8.3	2.2	6.4
RB23	E	Rioja	7.1	10.1	0.5	0.0	1.5	35.0	0.0	0.5	0.7	10.0
R7B	UK	Northern Ireland	22.9	-	-	2.6	3.4	-	-	216.3	169.0	54.1
R382	I	Molise	79.2	8.4	28.7	29.2	5.6	7.2	3.7	19.5	10.8	4.4
R523	B	Hainaut	47.0	120.8	-	108.7	3.8	-	1.1	83.9	62.5	1.6
R527	B	Namur	31.1	51.7	-	587.5	1.6	-	0.1	42.0	46.4	1.2
R79	UK	Wales	30.8	-	-	3.2	2.2	-	-	283.3	134.6	231.2
R283	F	Corse	1.3	-	1.8	0.6	7.7	18.2	-	5.5	3.9	3.5
R526	B	Luxembourg	6.4	0.7	-	19.5	0.6	-	0.1	41.6	69.5	1.1

Table A.9, continued

Code	Region, Nuts 2 [2]		Cereals and Rice	Sugar	Olive-oil	Oleag-inous	Fruits and Vegeta-bles [3]	Wine	Tobacco	Milk	Cattle (Meat)	Sheep and Goats (Meat)
R381	I	Abruzzi	61.1	32.3	103.2	6.5	27.1	62.3	48.1	42.0	29.0	17.4
R71	UK	North	85.0	-	-	41.2	2.6	-	-	180.6	85.1	112.5
R412	NL	Friesland	3.0	21.7	-	14.9	2.0	-	-	404.1	70.6	16.8
R424	NL	Gelderland	3.8	21.9	-	0.6	13.1	-	-	437.2	199.2	9.1
R77	UK	West Midlands	160.2	55.6	-	59.0	16.5	-	-	266.0	116.5	78.7
RB53	E	Baleares	1.4	-	2.5	0.2	2.0	1.3	-	2.5	1.2	6.8
R72	UK	Yorkshire and Humberside	254.3	78.7	-	134.2	14.8	-	-	139.7	80.2	68.9
R263	F	Limousin	31.4	-	-	2.4	5.9	1.3	13.5	38.4	145.0	70.4
R281	F	Languedoc-Roussillon	36.5	-	4.4	38.8	63.0	590.4	0.8	23.7	18.2	30.3
R78	UK	North West	29.9	2.9	-	9.5	16.3	-	-	235.8	56.3	27.0
R13C	D	Lüneburg	123.1	133.8	-	112.0	18.5	-	1.1	379.3	156.6	2.9
R423	NL	Overijssel	0.8	9.7	-	0.4	0.6	-	-	411.2	94.1	3.6
R7A	UK	Scotland	263.7	-	-	101.4	6.9	-	-	224.4	206.9	226.3
R73	UK	East Midlands	332.3	140.1	-	218.0	26.7	-	-	145.1	102.1	49.4
R452	NL	Limburg	7.3	61.1	-	0.3	32.6	-	-	106.5	37.6	2.1
R225	F	Basse-Normandie	133.5	37.3	-	19.1	13.6	-	0.5	578.7	227.4	14.1
R23	F	Nord-Pas de Calais	272.2	296.6	-	10.4	16.1	-	3.4	267.7	91.9	5.9
R76	UK	South West	227.8	2.9	-	36.8	14.7	-	-	656.1	176.7	108.1
R253	F	Poitou-Charentes	316.4	-	-	312.2	7.2	153.5	28.9	195.3	153.9	110.8
R262	F	Midi-Pyrénées	379.7	-	-	289.0	36.7	87.7	64.9	229.0	195.5	144.5
R272	F	Auvergne	105.2	14.2	-	39.2	5.3	5.8	6.6	203.2	178.7	48.5
R352	I	Umbria	68.7	11.3	55.1	71.9	6.1	19.0	231.8	19.2	24.4	7.4
R252	F	Bretagne	261.8	-	-	44.6	28.9	-	0.5	1023.3	393.9	11.8
R515	B	Limburg	10.5	28.6	-	2.3	16.9	-	-	42.3	29.4	0.8
R74	UK	East Anglia	302.3	341.6	-	112.8	35.8	-	-	42.4	48.4	11.6
R518	B	Oost-Vlaanderen	15.6	26.4	-	0.6	14.5	-	0.5	100.9	73.7	1.8
R451	NL	Noord-Brabant	9.7	69.5	-	13.7	43.3	-	-	424.2	147.5	5.8
R241	F	Lorraine	176.6	1.2	-	119.3	6.0	1.1	1.1	263.5	106.7	12.8
R524	B	Liège	25.9	59.4	-	36.3	4.2	-	-	102.4	53.8	1.2
R251	F	Pays de Loire	299.9	2.2	-	128.2	42.1	85.6	27.3	760.5	478.0	31.2
R353	I	Marche	191.2	151.3	16.4	56.9	19.4	36.4	3.8	24.1	40.3	4.8
R243	F	Franche-Comté	58.3	4.1	-	27.6	3.4	5.8	0.3	213.7	67.4	5.9
R172	D	Trier	25.9	0.6	-	20.1	1.8	26.7	1.1	87.5	32.2	1.3
R222	F	Picardie	485.1	806.8	-	60.4	13.3	10.7	4.8	189.3	79.0	10.1
R413	NL	Drenthe	5.2	69.1	-	3.6	2.9	-	-	162.6	38.2	2.9
R519	B	West-Vlaanderen	26.8	61.4	-	4.6	37.0	-	14.1	111.6	87.9	3.0
R226	F	Bourgogne	312.8	37.1	-	193.9	10.7	99.3	0.4	93.1	211.9	34.1
R471	NL	Utrecht	0.1	0.6	-	-	6.8	-	-	142.3	29.6	4.6
R474	NL	Zeeland	24.6	83.7	-	268.0	9.6	-	-	21.1	10.2	3.6
R16B	D	Gießen	46.0	7.7	-	57.3	1.3	-	-	68.9	34.1	2.1
R282	F	Provence-Alpes-Côte d'Azur	52.6	-	15.6	24.8	127.6	205.5	-	9.8	5.4	44.5
R13D	D	Weser-Ems	133.9	8.4	-	49.6	6.5	-	0.9	603.2	233.3	2.7
R261	F	Aquitaine	357.6	-	-	94.4	58.5	284.1	146.9	138.0	147.8	45.1
R193	D	Oberpfalz	79.0	36.1	-	81.8	1.9	-	-	202.9	74.7	0.9
R192	D	Niederbayern	142.9	138.2	-	82.8	4.9	-	-	221.5	120.2	1.7
R224	F	Centre	783.8	134.5	-	418.7	32.1	57.3	10.7	101.7	89.4	37.6
R221	F	Champagne-Ardenne	437.9	424.0	-	214.0	5.0	143.4	7.3	134.4	66.1	12.9
R153	D	Münster	118.4	6.7	-	15.3	7.7	-	-	156.0	98.2	2.1
R171	D	Koblenz	58.9	10.1	-	85.8	3.9	21.1	-	66.9	36.6	2.9
R351	I	Toscana	160.3	34.9	158.5	115.2	26.5	68.4	64.3	57.8	40.0	21.9
R333	I	Friuli-Venezia Giulia	48.8	23.1	0.1	267.4	6.9	20.6	2.7	73.0	35.7	0.3
R473	NL	Zuid-Holland	12.1	43.4	-	3.9	194.6	-	-	186.6	31.1	9.4
R11	D	Schleswig-Holstein	229.8	69.8	-	674.8	15.7	-	4.4	506.4	191.9	10.0
R332	I	Veneto	226.8	212.6	10.1	601.7	87.2	155.2	144.7	287.6	204.0	1.6

Table A.9, continued

Code		Region, Nuts 2 [2]	Cereals and Rice	Sugar	Olive-oil	Oleag-inous	Fruits and Vegeta-bles [3]	Wine	Tobacco	Milk	Cattle (Meat)	Sheep and Goats (Meat)
R196	D	Unterfranken	105.2	123.9	-	199.7	5.7	39.4	-	63.3	53.0	1.4
R331	I	Trentino-Alto Adige	0.4	-	0.7	-	59.0	28.4	0.2	97.4	33.6	2.2
R36	I	Lazio	134.1	33.9	180.0	38.4	87.0	73.8	41.6	164.8	66.1	26.5
R311	I	Piemonte	326.6	27.4	-	133.2	51.1	71.5	2.7	217.7	251.7	5.8
R313	I	Liguria	1.6	-	45.7	-	17.3	4.3	-	14.1	4.8	1.0
R194	D	Oberfranken	58.9	5.5	-	85.1	2.6	-	0.0	130.5	50.0	1.7
R502	B	Brabant	41.4	93.0	-	7.2	26.0	-	-	38.2	39.4	1.8
R271	F	Rhone-Alpes	186.6	1.1	1.6	84.2	51.2	128.5	52.3	313.3	160.3	36.3
R16C	D	Kassel	86.9	32.8	-	144.0	5.8	-	-	115.1	49.1	2.4
R75	UK	South East	428.8	17.4	-	211.8	71.0	-	-	213.6	111.6	59.1
R242	F	Alsace	105.3	18.9	-	33.8	7.3	44.8	70.1	58.1	27.4	2.9
R902	DK	Ost For Storebaelt, Ex.Hovedst	176.3	184.7	-	47.1	3.5	-	-	71.9	35.6	0.7
R6	L	Luxembourg	12.3	-	-	0.0	0.5	6.2	-	56.1	20.4	-
R34	I	Emilia-Romagna	285.1	483.0	1.9	306.0	206.5	120.5	1.0	459.2	199.9	4.3
R154	D	Detmold	110.9	34.0	-	90.3	10.1	-	-	119.2	52.8	1.7
R472	NL	Noord-Holland	7.7	41.3	-	16.4	8.3	-	-	138.5	23.2	17.2
R155	D	Arnsberg	61.4	19.0	-	70.0	6.6	-	-	95.4	44.1	4.3
R223	F	Haute-Normandie	214.6	115.2	-	47.0	6.4	-	0.1	177.4	101.3	11.5
R1A	D	Saarland	12.6	-	-	10.0	3.9	0.4	-	21.8	10.8	1.5
R183	D	Freiburg	52.6	2.3	-	54.5	16.9	79.7	15.5	98.3	56.4	3.1
R184	D	Tübingen	66.7	4.0	-	97.6	11.9	2.5	-	222.9	102.7	4.1
R197	D	Schwaben	72.8	52.1	-	39.7	2.5	-	-	401.7	161.7	3.1
R312	I	Valle d'Aosta	0.1	-	-	-	0.4	0.5	-	10.9	5.0	0.3
R511	B	Antwerpen	1.5	3.1	-	-	38.6	-	-	84.7	54.4	1.4
R13A	D	Braunschweig	136.1	271.7	-	71.4	6.5	-	0.2	77.9	33.5	2.2
R173	D	Rheinhessen-Pfalz	62.2	110.4	-	44.4	12.2	119.2	40.7	29.7	18.5	5.2
R152	D	Köln	79.7	235.9	-	6.2	17.0	-	-	137.6	48.7	9.3
R13B	D	Hannover	155.4	215.7	-	103.4	9.4	-	1.7	146.3	68.7	3.0
R32	I	Lombardia	322.1	109.1	4.3	382.8	26.7	29.8	10.3	797.3	355.5	6.2
R903	DK	Vest For Storebaelt	539.2	56.2	-	229.0	16.0	-	-	985.6	233.1	4.4
R182	D	Karlsruhe	53.8	31.1	-	62.0	14.1	19.3	25.2	41.2	29.3	3.5
R151	D	Düsseldorf	55.9	118.6	-	11.3	13.6	-	-	119.8	47.3	8.4
R195	D	Mittelfranken	76.6	29.4	-	52.9	3.0	1.8	9.6	158.8	79.6	4.0
R1B	D	Berlin (West)	0.2	-	-	-	4.0	-	-	0.3	0.2	1.0
R181	D	Stuttgart	104.0	86.7	-	128.8	25.5	80.9	1.3	154.2	96.1	8.2
R191	D	Oberbayern	122.4	49.6	-	131.8	4.2	-	-	475.1	202.0	4.2
R901	DK	Hovedstadsregionen	40.2	1.4	-	20.8	0.9	-	-	14.5	9.4	0.3
R14	D	Bremen	0.7	0.2	-	1.0	1.6	-	-	4.9	3.0	0.1
R16A	D	Darmstadt	61.9	64.6	-	42.1	9.4	11.3	0.3	61.9	36.3	7.9
R21	F	Ile de France	277.1	209.7	-	81.7	16.8	0.1	1.1	6.4	7.4	1.6
R411	NL	Groningen	26.6	73.0	-	224.4	1.9	-	-	120.6	27.3	6.6
R12	D	Hamburg	2.2	0.1	-	5.2	8.0	-	-	2.7	2.4	0.3
EC (10)			14707.0	7469.5	3723.5	9767.4	3487.0	3504.2	3498.6	21132.0	10441.9	3054.4
EC (12)			15320.2	7805.0	4153.0	10359.5	3658.0	4124.4	3687.3	21319.9	10534.9	3936.0

[1] Payments for individual products, distributed according to their regional production. With respect to subsidies paid to producers, EC payments to individual Member States were further distributed regionally, in all other cases, the EC payments were distributed directly to EC regions. The regionalization of payments to Spain and Portugal was calculated separately.

[2] For United Kingdom Nuts 1; without Departements d'Outre-Mer, Açores and Madeira. The regions were put in order according to their regional GDP per head.

[3] Without pineapples.

Sources: Eurostat, database Regio; EAGGF Financial Reports; DIW calculations.

Table A.10

EAGGF guarantee payments by regions, [1] total

(Mio ECU)

Code		Region, Nuts 2 [2]	1985	1986	1987	1988	1989	1985-87	1985-89	1986-87	1986-89
								EC (10)		EC (12)	
RC11	P	Norte	-	1.1	6.5	11.3	12.0	.	.	6.1	30.9
RC14	P	Alentejo	-	15.6	87.5	89.2	89.6	.	.	317.6	281.8
RC15	P	Algarve	-	0.1	0.6	1.0	1.1	.	.	10.7	2.8
RA41	GR	Voreio Aigaio	23.8	37.4	41.3	35.5	47.9	442.7	185.9	163.8	162.1
RC12	P	Centro	-	7.1	16.5	22.2	27.8	.	.	151.1	73.5
RA21	GR	Ipeiros	53.5	53.1	48.5	60.1	66.2	4.7	281.5	193.1	228.0
RA13	GR	Dytiki Makedonia	57.3	55.9	51.2	52.2	60.7	294.9	277.2	225.3	219.9
RA43	GR	Kriti	86.6	99.3	108.0	94.8	126.0	16.3	514.7	32.1	428.1
RA23	GR	Dytiki Ellada	184.4	172.5	157.5	182.2	209.9	789.5	906.4	48.8	722.1
RA22	GR	Ionia Nisia	26.6	26.3	29.1	24.4	33.2	493.5	139.7	310.2	113.1
RA14	GR	Thessalia	261.6	368.5	274.0	327.8	380.5	309.4	1612.3	613.7	1350.7
RA12	GR	Kentriki Makedonia	387.8	384.0	338.9	363.5	411.8	206.0	1886.0	548.1	1498.2
RA42	GR	Notio Aigaio	18.7	19.4	18.7	20.0	23.6	440.5	100.6	373.9	81.9
RA11	GR	Anatoliki Makedonia, Thraki	142.5	119.0	117.8	144.2	145.4	1640.0	668.9	137.9	526.4
RA25	GR	Peleponnisos	138.2	139.3	145.2	133.7	177.0	8.8	733.4	231.2	595.2
RC13	P	Lisboa e Vale do Tejo	-	5.1	15.4	19.1	21.4	.	.	317.6	61.0
RA3	GR	Attiki	21.9	24.6	25.6	24.7	30.6	215.8	127.4	135.3	105.5
RB43	E	Extremadura	-	17.7	44.2	167.1	158.1	.	.	1134.8	387.1
RB63	E	Ceuta y Melilla	-	-	-	-	-	.	.	533.2	-
RA24	GR	Sterea Ellada	128.2	189.9	163.7	179.1	222.4	63.5	883.4	1083.3	755.1
RB61	E	Andalucia	-	168.3	161.3	482.8	601.6	.	.	3.2	1414.1
RB42	E	Castilla-La Mancha	-	12.5	85.1	319.2	268.7	.	.	1083.6	685.5
RB11	E	Galicia	-	3.8	17.8	66.5	56.3	.	.	180.2	144.5
RB62	E	Murcia	-	13.1	16.2	40.2	47.5	.	.	348.5	117.0
R393	I	Calabria	169.0	141.0	198.2	173.0	236.6	350.9	917.9	333.3	748.8
RB41	E	Castilla-Leon	-	16.4	125.8	305.5	262.5	.	.	395.9	710.3
RB7	E	Canarias	-	0.4	6.7	17.5	15.7	.	.	46.5	40.3
RB13	E	Cantabria	-	0.7	2.4	8.3	8.6	.	.	402.0	19.9
R392	I	Basilicata	63.8	68.8	85.4	85.2	95.2	993.4	398.4	756.9	334.6
RB52	E	Comunidad Valenciana	-	19.6	20.8	58.2	64.7	.	.	201.7	163.2
R8	IRL	Ireland	537.1	571.5	501.5	622.4	568.0	336.3	2800.6	421.2	2263.4
RB12	E	Asturias	-	1.1	3.7	13.2	13.4	.	.	278.5	31.4
R37	I	Campania	307.3	284.4	353.2	359.9	423.6	309.6	1728.4	543.0	1421.1
RB24	E	Aragon	-	5.5	26.3	111.3	96.3	.	.	212.3	239.4
R3A	I	Sicilia	356.0	300.4	389.0	315.6	411.8	553.9	1772.8	239.5	1416.8
RB51	E	Cataluna	-	7.3	28.3	102.1	97.9	.	.	146.3	235.6
RB3	E	Madrid	-	0.9	3.7	15.6	13.5	.	.	279.8	33.8
R425	NL	Flevoland	72.8	91.8	109.7	100.3	89.8	428.9	464.4	157.2	391.6
R391	I	Puglia	438.0	347.8	485.1	470.7	575.8	847.9	2317.4	642.2	1879.4
R3B	I	Sardegna	118.7	123.5	125.2	147.9	156.5	1220.6	671.9	995.6	553.2
RB22	E	Navarra	-	1.6	7.1	32.6	25.3	.	.	109.7	66.5
RB21	E	Pais Vasco	-	0.9	7.9	22.3	17.9	.	.	9.4	49.0
RB23	E	Rioja	-	0.9	11.2	31.5	23.5	.	.	335.0	67.2
R7B	UK	Northern Ireland	133.3	130.9	108.3	132.6	123.1	471.7	628.2	117.4	494.9
R382	I	Molise	43.7	44.0	52.9	54.2	54.9	354.7	249.6	620.6	205.9
R523	B	Hainaut	100.4	116.6	109.7	122.0	109.5	203.3	558.2	96.4	457.8
R527	B	Namur	111.4	185.0	199.7	225.1	201.3	281.5	922.4	584.1	811.0
R79	UK	Wales	162.6	169.8	140.4	202.8	198.8	14.8	874.4	980.9	711.8
R283	F	Corse	9.7	9.1	9.0	14.0	13.0	207.2	54.9	282.2	45.1
R526	B	Luxembourg	36.2	37.0	28.1	41.7	38.1	875.8	181.2	220.9	145.0
R381	I	Abruzzi	100.5	91.7	115.4	117.2	126.6	154.7	551.3	534.9	450.8

Table A.10, continued

Code	Region, Nuts 2 [2]	1985	1986	1987	1988	1989	1985-87	1985-89	1986-87	1986-89
							EC (10)		EC (12)	
R71	UK North	133.9	139.7	124.3	137.8	130.2	324.6	665.9	888.0	532.0
R412	NL Friesland	152.7	149.8	132.3	156.3	138.8	332.5	730.0	485.2	577.3
R424	NL Gelderland	209.3	216.4	169.4	199.2	181.0	332.8	975.2	338.5	765.9
R77	UK West Midlands	190.5	204.0	187.5	213.7	195.5	406.9	991.1	264.2	800.6
RB53	E Baleares	-	0.5	2.3	8.0	8.5	.	.	213.4	19.3
R72	UK Yorkshire and Humberside	167.7	197.3	204.7	226.5	205.6	203.2	1001.9	824.6	834.2
R263	F Limousin	72.7	89.4	71.5	84.1	83.2	481.1	400.9	310.2	328.3
R281	F Languedoc-Roussillon	178.2	133.0	143.2	310.6	254.8	109.2	1019.8	207.0	841.6
R78	UK North West	111.4	104.9	90.8	107.3	97.3	603.0	511.7	933.2	400.3
R13C	D Lüneburg	224.1	259.9	255.7	271.0	237.0	514.4	1247.8	23.6	1023.7
R423	NL Overijssel	149.2	144.3	130.6	156.7	138.4	551.8	719.1	404.4	570.0
R7A	UK Scotland	223.0	256.9	250.8	295.2	276.7	160.2	1302.6	291.7	1079.6
R73	UK East Midlands	225.8	265.3	277.9	282.1	254.7	231.7	1305.8	233.3	1080.0
R452	NL Limburg	72.4	68.8	70.9	76.7	72.1	818.5	360.8	178.2	288.4
R225	F Basse-Normandie	267.4	288.2	254.8	314.0	273.8	307.1	1398.3	4.6	1130.8
R23	F Nord-Pas de Calais	233.1	269.5	265.4	292.0	254.0	424.1	1314.0	832.9	1080.9
R76	UK South West	330.6	323.1	297.5	353.7	313.7	260.3	1618.6	248.4	1288.0
R253	F Poitou-Charentes	266.1	310.9	331.4	382.9	329.4	951.2	1620.6	96.9	1354.5
R262	F Midi-Pyrénées	303.7	370.7	386.3	411.1	364.3	1060.6	1836.0	384.6	1532.3
R272	F Auvergne	147.8	170.1	163.2	167.5	150.7	1474.0	799.4	65.1	651.5
R352	I Umbria	120.9	105.3	134.2	144.5	156.2	313.3	661.0	507.7	540.2
R252	F Bretagne	478.4	514.1	481.5	550.8	485.8	768.0	2510.6	239.2	2032.2
R515	B Limburg	34.6	39.0	35.5	35.3	33.6	310.2	178.1	112.0	143.5
R74	UK East Anglia	219.3	235.2	250.0	256.0	233.1	540.9	1193.5	145.8	974.3
R518	B Oost-Vlaanderen	67.1	77.0	63.1	67.0	62.8	436.9	337.0	675.0	269.9
R451	NL Noord-Brabant	215.4	213.5	190.8	219.6	202.2	634.0	1041.6	872.4	826.2
R241	F Lorraine	148.3	179.4	159.1	209.1	176.0	730.8	871.8	248.7	723.5
R524	B Liège	64.1	82.5	74.6	79.5	71.5	819.7	372.3	232.6	308.2
R251	F Pays de Loire	455.9	498.1	474.2	558.6	490.6	810.4	2477.4	12.1	2021.4
R353	I Marche	109.9	132.3	147.2	152.4	142.4	803.1	684.2	543.2	574.3
R243	F Franche-Comté	108.7	110.0	102.1	106.2	91.1	212.1	518.1	8.9	409.4
R172	D Trier	59.2	52.7	48.8	58.7	49.5	944.9	268.9	50.2	209.7
R222	F Picardie	393.8	421.8	450.6	498.8	435.5	569.7	2200.5	31.8	1806.7
R413	NL Drenthe	95.5	89.2	89.0	96.7	84.6	208.2	454.9	140.1	359.5
R519	B West-Vlaanderen	104.1	113.4	95.9	106.3	104.0	72.8	523.7	239.0	419.5
R226	F Bourgogne	248.6	273.6	280.8	272.5	232.2	739.7	1307.8	201.5	1059.1
R471	NL Utrecht	54.0	51.9	44.5	52.9	47.2	1324.0	250.6	972.3	196.6
R474	NL Zeeland	76.9	77.6	155.0	154.8	124.8	180.0	589.2	101.5	512.3
R16B	D Gießen	42.7	55.2	56.7	64.6	55.2	508.2	274.4	236.8	231.7
R282	F Provence-Alpes-Côte d'Azur	133.8	109.8	111.1	148.8	140.2	704.5	643.8	264.0	510.0
R13D	D Weser-Ems	263.8	312.9	271.1	306.2	268.7	82.1	1422.7	101.6	1158.9
R261	F Aquitaine	318.4	329.4	345.6	363.5	317.8	908.4	1674.7	226.2	1356.3
R193	D Oberpfalz	111.9	119.4	119.7	142.9	122.5	496.1	616.3	339.2	504.4
R192	D Niederbayern	174.1	199.0	180.7	207.5	183.4	326.6	944.9	29.2	770.7
R224	F Centre	332.6	409.2	478.8	505.3	416.7	454.4	2142.6	35.6	1810.0
R221	F Champagne-Ardenne	340.0	402.1	422.5	435.2	371.9	581.9	1971.7	637.6	1631.6
R153	D Münster	99.2	120.5	112.8	127.7	111.3	379.3	571.4	55.5	472.2
R171	D Koblenz	62.4	70.5	75.4	86.8	73.5	1610.1	368.5	20.5	306.1
R351	I Toscana	172.7	163.0	216.2	198.6	207.9	273.7	958.3	274.9	785.7
R333	I Friuli-Venezia Giulia	84.4	103.1	145.4	134.7	117.6	160.7	585.2	195.7	500.8
R473	NL Zuid-Holland	164.7	135.9	128.3	132.6	137.0	392.4	698.5	212.2	533.8
R11	D Schleswig-Holstein	390.8	507.2	426.0	461.9	397.8	102.5	2183.7	7.6	1792.9
R332	I Veneto	350.5	439.7	541.2	557.2	506.7	320.9	2395.3	276.2	2044.8
R196	D Unterfranken	100.7	132.0	159.7	178.0	152.8	101.3	723.3	3.1	622.6
R331	I Trentino-Alto Adige	62.6	58.9	58.5	59.8	56.6	389.4	296.4	160.9	233.8

Table A.10, continued

Code		Region, Nuts 2 [2]	1985	1986	1987	1988	1989	1985-87	1985-89	1986-87	1986-89
								EC (10)		EC (12)	
R36	I	Lazio	212.8	190.3	231.0	224.3	239.8	150.4	1098.1	139.7	885.3
R311	I	Piemonte	231.5	286.5	300.5	289.7	275.5	619.8	1383.7	385.8	1152.2
R313	I	Liguria	26.6	17.5	26.0	22.1	28.6	221.2	120.8	2.8	94.2
R194	D	Oberfranken	74.1	85.7	89.3	100.5	85.4	472.8	435.1	142.2	361.0
R502	B	Brabant	65.4	69.5	68.4	71.8	67.3	249.1	342.4	554.5	277.0
R271	F	Rhône-Alpes	271.6	268.5	279.6	287.5	254.5	360.4	1361.7	18.1	1090.2
R16C	D	Kassel	84.9	111.9	113.4	127.6	109.5	217.9	547.4	284.6	462.5
R75	UK	South East	262.1	304.8	308.9	310.3	281.5	45.7	1467.6	379.1	1205.5
R242	F	Alsace	88.4	95.9	97.2	103.1	92.4	769.0	477.0	8.7	388.6
R902	DK	Ost For Storebaelt, Ex.Hovedst	126.7	148.9	161.3	180.6	149.4	559.7	766.8	43.5	640.1
R6	L	Luxembourg	24.0	25.3	23.5	27.1	23.0	1539.2	123.0	379.7	99.0
R34	I	Emilia-Romagna	455.9	516.7	566.6	582.2	537.1	1266.2	2658.5	515.6	2202.6
R154	D	Detmold	93.4	113.1	118.1	126.8	109.2	422.8	560.6	642.4	467.2
R472	NL	Noord-Holland	67.9	67.3	67.9	77.8	70.2	1331.4	351.2	279.5	283.2
R155	D	Arnsberg	67.9	84.5	79.3	88.6	76.8	72.1	397.2	722.9	329.2
R223	F	Haute-Normandie	167.0	192.5	181.4	213.2	183.7	233.6	937.7	689.3	770.7
R1A	D	Saarland	13.6	16.7	15.4	17.8	15.6	397.9	79.1	40.3	65.5
R183	D	Freiburg	80.1	89.0	91.2	121.7	104.6	367.4	486.5	329.7	406.4
R184	D	Tübingen	128.3	143.3	135.2	147.0	128.2	372.5	682.0	97.6	553.7
R197	D	Schwaben	201.0	216.2	185.8	199.6	172.9	307.5	975.5	154.2	774.5
R312	I	Valle d'Aosta	5.4	5.3	4.1	4.5	4.0	486.8	23.3	391.4	17.9
R511	B	Antwerpen	50.5	58.6	51.1	47.2	46.7	70.1	254.0	209.2	203.5
R13A	D	Braunschweig	136.7	159.6	175.3	169.5	148.7	164.4	789.8	0.7	653.1
R173	D	Rheinhessen-Pfalz	124.0	101.4	110.8	139.0	121.6	1045.4	597.0	61.9	472.9
R152	D	Köln	129.7	140.4	139.5	150.0	135.1	56.9	694.7	330.0	565.0
R13B	D	Hannover	163.8	192.5	203.4	202.0	176.6	293.9	938.3	78.7	774.5
R32	I	Lombardia	433.6	513.7	569.9	579.3	522.7	1428.3	2619.2	402.0	2185.6
R903	DK	Vest For Storebaelt	505.3	570.8	564.0	653.8	561.8	1517.1	2855.7	175.1	2350.4
R182	D	Karlsruhe	59.8	74.9	71.4	83.7	74.9	1270.9	364.6	353.6	304.8
R151	D	Düsseldorf	93.1	103.6	98.2	105.8	95.5	1110.7	496.2	207.3	403.1
R195	D	Mittelfranken	96.0	108.1	105.3	124.8	108.8	27.8	543.0	7.1	447.0
R1B	D	Berlin (West)	1.6	2.0	1.2	1.3	1.6	434.9	7.6	1073.0	6.0
R181	D	Stuttgart	144.9	174.7	173.8	209.3	181.4	274.3	884.2	-	739.3
R191	D	Oberbayern	256.3	284.7	248.4	281.1	248.4	140.5	1319.0	21.6	1062.7
R901	DK	Hovedstadsregionen	17.0	23.9	22.6	25.4	22.2	409.6	111.1	587.0	94.1
R14	D	Bremen	2.7	3.3	2.8	3.1	2.9	904.0	14.9	107.1	12.1
R16A	D	Darmstadt	64.7	74.4	76.7	86.6	76.0	481.8	378.4	38.2	313.7
R21	F	Ile de France	125.1	147.5	170.1	189.6	160.4	595.1	792.8	4.8	667.7
R411	NL	Groningen	122.9	184.2	133.4	126.8	108.4	1164.6	675.7	74.5	552.8
R12	D	Hamburg	5.6	5.6	5.1	5.7	5.8	155.1	27.8	103.0	22.2
EC (10)			19493.6	21272.4	21532.1	23504.6	21978.5	62298.1	107781.2	.	.
EC (12)			19493.6	21572.5	22229.5	25449.2	23910.4	.	.	43802.0	93161.6

[1] Payments for individual products (without fishery products and pineapple), distributed according to their regional production. With respect to subsidies paid to producers, EC payments to individual Member States were further distributed regionaly in all other cases, the EC payments were distributed directly to EC regions. The regionalization of payments to Spain and Portugal was calculated separately.

[2] For United Kingdom Nuts 1; without Departements d'Outre-Mer, Açores and Madeira. The regions were put in order according to their regional GDP per head.

Sources: Eurostat, database Regio; EAGGF Financial Reports; DIW calculations.

Table A.11

EC payments for structural purposes and for agricultural interventions, 1986-87

(Mio ECU)

Code	Region, Nuts 2 [1]		Structural Interventions of the European Community							EAGGF Guarantee Payments	EC Payments Total
			ERDF Investment Grants	ESF Obligations	EAGGF Orient. Investment Grants	Structural Funds Total	ECSC Credits	ECSC Subsidies	EIB Credits	Total	
RC11	P	Norte	242.2	122.2	13.5	377.9	0.0	0.3	118.9	497.1	7.6	504.7
RC14	P	Alentejo	124.4	48.5	6.6	179.5	0.0	0.0	191.3	370.8	103.0	473.8
RC15	P	Algarve	46.4	12.7	4.5	63.6	0.0	0.0	25.2	88.8	0.7	89.5
RA41	GR	Voreio Aigaio	0.8	3.4	0.2	4.4	0.0	0.0	1.1	5.5	78.7	84.2
RC12	P	Centro	166.8	76.0	20.8	263.6	0.0	0.0	71.5	335.1	23.6	358.7
RA21	GR	Ipeiros	176.7	5.2	7.6	189.5	0.0	0.0	4.5	194.0	101.6	295.6
RA13	GR	Dytiki Makedonia	28.9	6.1	1.2	36.2	0.0	0.0	49.5	85.7	107.1	192.8
RA43	GR	Kriti	143.9	6.8	21.3	172	0.0	0.0	37.8	209.8	207.3	417.1
RA23	GR	Dytiki Ellada	0	26.1	8.3	34.4	0.0	0.0	54.7	89.1	330.0	419.1
RA22	GR	Ionia Nisia	0	2.0	0	2	0.0	0.0	3.5	5.5	55.5	61.0
RA14	GR	Thessalia	118.3	15.6	11.5	145.4	0.0	0.0	9.2	154.6	642.4	797.0
RA12	GR	Kentriki Makedonia	71.4	42.0	16.1	129.5	0.0	0.3	31.9	161.7	722.9	884.6
RA42	GR	Notio Aigaio	2	5.1	0	7.1	0.0	0.0	1.5	8.6	38.2	46.8
RA11	GR	Anatoliki Makedonia, Thraki	74.1	19.1	25.9	119.1	0.0	0.0	13.0	132.1	236.8	368.9
RA25	GR	Peleponnisos	1.1	11.0	18.3	30.4	0.0	0.0	9.9	40.3	284.6	324.9
RC13	P	Lisboa e Vale do Tejo	72	299.0	20	391	0.0	0.0	70.6	461.6	20.5	482.1
RA3	GR	Attiki	0	158.8	4.4	163.2	0.0	0.0	183.9	347.1	50.2	397.3
RB43	E	Extremadura	97.4	27.8	5.2	130.4	0.0	0.0	22.4	152.8	61.9	214.7
RB63	E	Ceuta y Melilla	0	3.3	0	3.3	0.0	0.0	2.0	5.3	0.0	5.3
RA24	GR	Sterea Ellada	0	12.3	9.8	22.1	0.0	0.0	18.4	40.5	353.6	394.1
RB61	E	Andalucia	526.1	176.2	38.6	740.9	0.0	0.1	185.4	926.4	329.7	1256.1
RB42	E	Castilla-La Mancha	174.6	34.0	10.6	219.2	0.0	0.0	36.2	255.4	97.6	353.0
RB11	E	Galicia	83.2	55.0	15.9	154.1	0.0	0.0	71.4	225.5	21.6	247.1
RB62	E	Murcia	63.1	23.4	6.9	93.4	0.0	0.0	20.1	113.5	29.2	142.7
R393	I	Calabria	104.3	57.3	8.5	170.1	0.0	0.0	153.2	323.3	339.2	662.5
RB41	E	Castilla-Leon	227.6	53.5	8.4	289.5	0.0	1.0	49.1	339.6	142.2	481.8
RB7	E	Canarias	25.6	38.5	1.7	65.8	0.0	0.0	54.3	120.1	7.1	127.2
RB13	E	Cantabria	0	8.7	1.2	9.9	0.0	0.2	8.6	18.6	3.1	21.7
R392	I	Basilicata	202.9	38.3	9.1	250.3	0.0	0.0	58.6	308.9	154.2	463.1
RB52	E	Comunidad Valenciana	0	61.5	15.3	76.8	0.0	0.6	153.2	230.6	40.3	270.9
R8	IRL	Ireland	290.4	451.2	55.8	797.4	0.2	0.1	394.9	1192.6	1073.0	2265.6
RB12	E	Asturias	92.6	18.1	2.4	113.1	0.0	1.8	22.6	137.5	4.8	142.3
R37	I	Campania	953.8	135.7	6	1095.5	31.5	0.8	595.7	1723.6	637.6	2361.2
RB24	E	Aragon	5.7	18.6	7.5	31.8	0.0	0.4	21.9	54.1	31.8	85.9
R3A	I	Sicilia	225.6	114.8	12.6	353	0.0	0.0	492.7	845.7	689.3	1535.0
RB51	E	Cataluna	0	125.5	18.6	144.1	0.0	0.0	100.9	245.0	35.6	280.6
RB3	E	Madrid	0	78.4	5.5	83.9	0.0	1.6	99.5	185.0	4.6	189.6
R425	NL	Flevoland	0	1.5	0	1.5	0.0	0.0	0.1	1.6	201.5	203.1
R391	I	Puglia	53.5	94.2	13.2	160.9	192.6	1.6	488.6	843.7	832.9	1676.6
R3B	I	Sardegna	62.3	64.8	4.5	131.6	0.0	0.3	302.4	434.4	248.7	683.1
RB22	E	Navarra	0	9.5	3.6	13.1	0.0	0.0	8.4	21.5	8.7	30.2
RB21	E	Pais Vasco	0	63.4	3.5	66.9	0.0	0.5	87.3	154.7	8.9	163.6
RB23	E	Rioja	0	3.6	2.7	6.3	0.0	0.0	4.3	10.6	12.1	22.7
R7B	UK	Northern Ireland	124.6	187.1	12.5	324.2	0.0	0.0	158.7	482.9	239.2	722.1
R382	I	Molise	32.9	7.6	3.5	44	0.0	0.0	45.4	89.4	96.9	186.3
R523	B	Hainaut	0	20.6	0.9	21.5	0.2	2.6	0.7	25.0	226.2	251.2
R527	B	Namur	0.7	5.2	0.4	6.3	0.0	0.0	0.2	6.5	384.6	391.1

Table A.11, continued

Code	Region, Nuts 2 [1]		Structural Interventions of the European Community								EAGGF Guarantee Payments	EC Payments Total
			ERDF Investment Grants	ESF Obligations	EAGGF Orient. Investment Grants	Structural Funds Total	ECSC Credits	ECSC Subsidies	EIB Credits	Total		
R79	UK	Wales	155.7	47.8	1.7	205.2	71.0	0.0	97.3	373.4	310.2	683.6
R283	F	Corse	19.4	3.2	3.3	25.9	0.0	0.0	5.9	31.8	18.1	49.9
R526	B	Luxembourg	6.4	2.7	0.5	9.6	0.0	0.0	0.1	9.7	65.1	74.8
R381	I	Abruzzi	75.4	39.9	7.1	122.4	0.0	0.0	186.9	309.3	207.0	516.3
R71	UK	North	158	79.8	1.7	239.5	15.2	0.2	535.1	789.9	264.0	1053.9
R412	NL	Friesland	12.7	4.8	0.2	17.7	0.0	0.5	0.3	18.5	282.2	300.7
R424	NL	Gelderland	0	14.5	0.7	15.2	0.0	0.0	1.0	16.2	385.8	402.0
R77	UK	West Midlands	165.1	104.8	1.9	271.8	0.8	0.0	103.1	375.7	391.4	767.1
RB53	E	Baleares	0	8.7	1.5	10.2	0.0	0.0	10.9	21.1	2.8	23.9
R72	UK	Yorkshire and Humberside	108.3	90.5	4.4	203.2	330.9	0.0	214.3	748.4	402.0	1150.4
R263	F	Limousin	36.4	9.6	0.5	46.5	0.0	0.0	9.1	55.6	160.9	216.5
R281	F	Languedoc-Roussillon	44.3	29.3	33.2	106.8	0.1	1.0	74.5	182.4	276.2	458.6
R78	UK	North West	129.3	144.5	1.8	275.6	0.2	0.0	211.8	487.6	195.7	683.3
R13C	D	Lüneburg	7.7	4.0	5.2	16.9	0.0	0.1	4.1	21.1	515.6	536.7
R423	NL	Overijssel	0	14.9	0.7	15.6	0.0	0.0	0.6	16.2	274.9	291.1
R7A	UK	Scotland	265	124.7	18	407.7	0.3	0.0	654.2	1062.3	507.7	1570.0
R73	UK	East Midlands	8	42.5	5.4	55.9	2.4	0.0	12.7	71.1	543.2	614.3
R452	NL	Limburg	26.9	14.6	1.6	43.1	0.0	0.0	36.7	79.8	139.7	219.5
R225	F	Basse-Normandie	5.9	18.2	3.8	27.9	0.1	0.0	49.7	77.7	543.0	620.7
R23	F	Nord-Pas de Calais	80.5	75.5	3.4	159.4	76.7	16.1	167.6	419.8	534.9	954.7
R76	UK	South West	78.3	36.9	2.7	117.9	0.0	0.0	82.1	200.0	620.6	820.6
R253	F	Poitou-Charentes	27.4	24.3	2.9	54.6	0.0	0.0	35.9	90.5	642.2	732.7
R262	F	Midi-Pyrénées	80.7	24.3	9.2	114.2	0.2	0.1	82.2	196.7	756.9	953.6
R272	F	Auvergne	41.8	18.9	0	60.7	0.2	0.0	23.3	84.3	333.3	417.6
R352	I	Umbria	3.3	13.3	4.8	21.4	0.4	0.0	70.7	92.6	239.5	332.1
R252	F	Bretagne	37.7	32.2	16.1	86	0.0	0.0	177.3	263.3	995.6	1258.9
R515	B	Limburg	25.4	7.5	1.8	34.7	2.1	1.9	69.6	108.3	74.5	182.8
R74	UK	East Anglia	0	12.3	6.4	18.7	0.0	0.4	64.3	83.4	485.2	568.6
R518	B	Oost-Vlaanderen	0	6.5	2.9	9.4	1.1	0.0	0.8	11.2	140.1	151.3
R451	NL	Noord-Brabant	0	17.9	2.1	20	0.0	0.0	81.3	101.3	404.4	505.7
R241	F	Lorraine	98.1	33.7	0	131.8	5.5	18.3	83.9	239.5	338.5	578.0
R524	B	Liège	8.6	13.7	2.6	24.9	0.9	5.9	0.6	32.3	157.2	189.5
R251	F	Pays de Loire	35.3	40.5	9.6	85.4	0.0	0.0	132.2	217.6	972.3	1189.9
R353	I	Marche	18.2	23.7	12.1	54	0.0	0.0	189.5	243.5	279.5	523.0
R243	F	Franche-Comté	3.1	11.7	0.7	15.5	0.0	0.1	95.9	111.4	212.2	323.6
R172	D	Trier	4.3	1.0	2.5	7.8	0.0	0.0	1.3	9.1	101.5	110.6
R222	F	Picardie	5.1	17.0	1.3	23.4	0.1	0.0	25.8	49.3	872.4	921.7
R413	NL	Drenthe	0	3.3	0	3.3	0.0	0.6	0.2	4.2	178.2	182.4
R519	B	West-Vlaanderen	8.6	3.3	5.9	17.8	0.0	0.0	0.6	18.4	209.2	227.6
R226	F	Bourgogne	5.8	15.3	2.3	23.4	0.6	1.5	17.1	42.6	554.5	597.1
R471	NL	Utrecht	0	7.1	0.3	7.4	0.0	0.2	0.5	8.2	96.4	104.6
R474	NL	Zeeland	0	1.7	2.6	4.3	0.0	0.0	0.2	4.5	232.6	237.1
R16B	D	Gießen	2.6	2.0	0.1	4.7	0.0	0.3	2.7	7.6	112.0	119.6
R282	F	Provence-Alpes-Côte d'Azur	21.6	58.5	17.2	97.3	7.5	0.8	143.2	248.8	220.9	469.7
R13D	D	Weser-Ems	23.2	8.8	1.7	33.7	170.4	2.5	28.9	235.4	584.1	819.5
R261	F	Aquitaine	41.3	36.1	12.7	90.1	0.0	0.0	87.7	177.8	675.0	852.8
R193	D	Oberpfalz	2	2.4	0	4.4	0.0	2.2	2.7	9.3	239.0	248.3
R192	D	Niederbayern	17.6	1.3	1.2	20.1	0.0	0.0	2.9	23.0	379.7	402.7
R224	F	Centre	0.5	16.7	1.2	18.4	0.0	0.0	17.5	35.9	888.0	923.9
R221	F	Champagne-Ardenne	13	13.8	4	30.8	11.9	0.2	16.0	58.9	824.6	883.5
R153	D	Münster	8.1	10.5	0.1	18.7	62.8	21.9	9.8	113.2	233.3	346.5
R171	D	Koblenz	2.1	2.9	0.9	5.9	0.0	0.1	3.8	9.7	145.8	155.5

Table A.11, continued

Code	Region, Nuts 2 [1]		Structural Interventions of the European Community								EAGGF Guarantee Payments	EC Payments Total
			ERDF Investment Grants	ESF Obligations	EAGGF Orient. Investment Grants	Structural Funds Total	ECSC Credits	ECSC Subsidies	EIB Credits	Total		
R351	I	Toscana	16.2	33.0	4.2	53.4	217.3	0.6	385.8	657.1	379.1	1036.2
R333	I	Friuli-Venezia Giulia	0	43.0	6.1	49.1	0.0	0.8	87.2	137.1	248.4	385.5
R473	NL	Zuid-Holland	0	25.9	4.4	30.3	0.0	0.2	1.8	32.3	264.2	296.5
R11	D	Schleswig-Holstein	13.5	8.1	4.1	25.7	0.0	0.5	21.2	47.3	933.2	980.5
R332	I	Veneto	5.3	42.6	11.7	59.6	0.1	0.1	294.2	354.0	980.9	1334.9
R196	D	Unterfranken	1.3	1.9	3.2	6.4	0.0	0.1	3.4	9.9	291.7	301.6
R331	I	Trentino-Alto Adige	0	17.9	6.1	24	0.0	0.0	178.7	202.7	117.4	320.1
R36	I	Lazio	57.5	117.1	22.6	197.2	0.0	12.3	476.9	686.4	421.2	1107.6
R311	I	Piemonte	6.7	59.8	3.6	70.1	67.3	4.3	666.5	808.2	587.0	1395.2
R313	I	Liguria	1	33.9	2.7	37.6	0.3	12.2	112.6	162.7	43.5	206.2
R194	D	Oberfranken	9.7	1.8	0.9	12.4	3.1	0.0	2.9	18.4	175.1	193.5
R502	B	Brabant	2.1	13.2	1.2	16.5	0.0	1.4	1.3	19.1	137.9	157.0
R271	F	Rhone-Alpes	20.9	50.5	11.1	82.5	20.3	2.6	159.8	265.1	548.1	813.2
R16C	D	Kassel	10.8	3.6	1	15.4	0.0	0.0	3.3	18.7	225.3	244.0
R75	UK	South East	0	159.0	5.2	164.2	7.6	0.0	373.9	545.7	613.7	1159.4
R242	F	Alsace	4.4	10.0	1.5	15.9	0.0	0.0	39.8	55.7	193.1	248.8
R902	DK	Ost For Storebaelt, Ex.Hov.	3.2	12.9	2.6	18.7	0.0	0.0	9.6	28.3	310.2	338.5
R6	L	Luxembourg	6.7	4.2	0.3	11.2	2.2	5.8	20.0	39.2	48.8	88.0
R34	I	Emilia-Romagna	0	124.4	16.1	140.5	0.0	0.0	243.2	383.7	1083.3	1467.0
R154	D	Detmold	0	7.7	0.4	8.1	0.0	0.3	5.7	14.0	231.2	245.2
R472	NL	Noord-Holland	0	21.3	1.8	23.1	90.5	3.3	1.3	118.3	135.3	253.6
R155	D	Arnsberg	2.7	20.6	0.5	23.8	33.2	47.6	25.5	130.1	163.8	293.9
R223	F	Haute-Normandie	4	27.3	1.6	32.9	0.0	0.0	16.4	49.3	373.9	423.2
R1A	D	Saarland	14.6	15.0	0.1	29.7	70.1	16.5	71.1	187.3	32.1	219.4
R183	D	Freiburg	0	3.6	1.2	4.8	0.0	0.6	5.3	10.6	180.2	190.8
R184	D	Tübingen	0	2.1	3.1	5.2	0.0	0.0	4.3	9.5	278.5	288.0
R197	D	Schwaben	0	2.0	0.9	2.9	0.0	0.5	4.3	7.8	402.0	409.8
R312	I	Valle d'Aosta	0	2.8	0	2.8	0.1	0.2	37.1	40.2	9.4	49.6
R511	B	Antwerpen	3.9	8.3	1.3	13.5	0.2	0.0	14.9	28.6	109.7	138.3
R13A	D	Braunschweig	15.4	6.4	1.7	23.5	128.0	3.7	4.4	159.7	335.0	494.7
R173	D	Rheinhessen-Pfalz	12.8	4.4	6.1	23.3	0.0	0.2	5.1	28.5	212.3	240.8
R152	D	Köln	8.2	17.8	2.1	28.1	1.9	7.4	131.3	168.7	279.8	448.5
R13B	D	Hannover	4.7	7.9	0	12.6	0.0	0.3	149.8	162.7	395.9	558.6
R32	I	Lombardia	7.5	130.9	12.3	150.7	3.5	5.7	795.0	954.9	1083.6	2038.5
R903	DK	Vest For Storebaelt	25	46.5	16.8	88.3	0.0	0.0	198.9	287.2	1134.8	1422.0
R182	D	Karlsruhe	1.7	5.6	1	8.3	0.0	0.0	6.8	15.1	146.3	161.4
R151	D	Düsseldorf	13.8	26.3	1.9	42	298.3	54.3	147.0	541.6	201.7	743.3
R195	D	Mittelfranken	2	2.9	0	4.9	0.0	0.0	4.3	9.2	213.4	222.6
R1B	D	Berlin (West)	22.2	33.6	0	55.8	48.4	0.0	5.7	109.9	3.2	113.1
R181	D	Stuttgart	0	5.2	6.3	11.5	0.0	0.1	69.6	81.3	348.5	429.8
R191	D	Oberbayern	4.1	7.2	3	14.3	0.0	0.0	10.2	24.5	533.2	557.7
R901	DK	Hovedstadsregionen	0	24.1	1	25.1	7.4	0.1	276.2	308.8	46.5	355.3
R14	D	Bremen	10.5	19.6	3.4	33.5	0.0	1.8	1.8	37.1	6.1	43.2
R16A	D	Darmstadt	1	9.6	1.9	12.5	0.0	0.7	9.6	22.8	151.1	173.9
R21	F	Ile de France	0	91.0	1.1	92.1	6.6	15.0	65.5	179.2	317.6	496.8
R411	NL	Groningen	8.5	10.1	0.2	18.8	0.0	0.5	0.3	19.6	317.6	337.2
R12	D	Hamburg	0	10.4	1	11.4	0.0	0.1	4.5	15.9	10.7	26.6
EC (10)			4908.8	4209.7	653.9	9772.4	1992.5	280.0	12179.9	24224.8	42804.5	67029.3
EC (12)			6856.5	5575.8	868.4	13300.7	1992.5	286.5	13615.8	29195.5	43801.9	72997.4

[1] For United Kingdom Nuts 1; without Departements d'Outre-Mer, Açores and Madeira. The regions were put in order according to their regional GDP per head.

Sources: Eurostat, database Regio; DIW calculations.

Appendix B

Regional concentration of income and EC financial flows

Income, EC 10, 1988

ERDF investment grants
- Original data
  - EC 12, total 1986
  - EC 12, total 1990
  - EC 10, total 1989 – 90
  - EC 10, total 1985 – 87
  - EC 10, infrastructure 1985 – 87
  - EC 10, industry 1985 – 87
- Modified data
  - EC 12, infrastructure 1986 – 87
  - EC 12, industry 1986 – 87

ESF obligations
- Original data, EC 10, 1985 – 89
- Modified data, EC 10, 1985 – 89

EAGGF guidance investment grants
- Original data
  - EC 12, 1987
  - EC 10, 1985 – 87

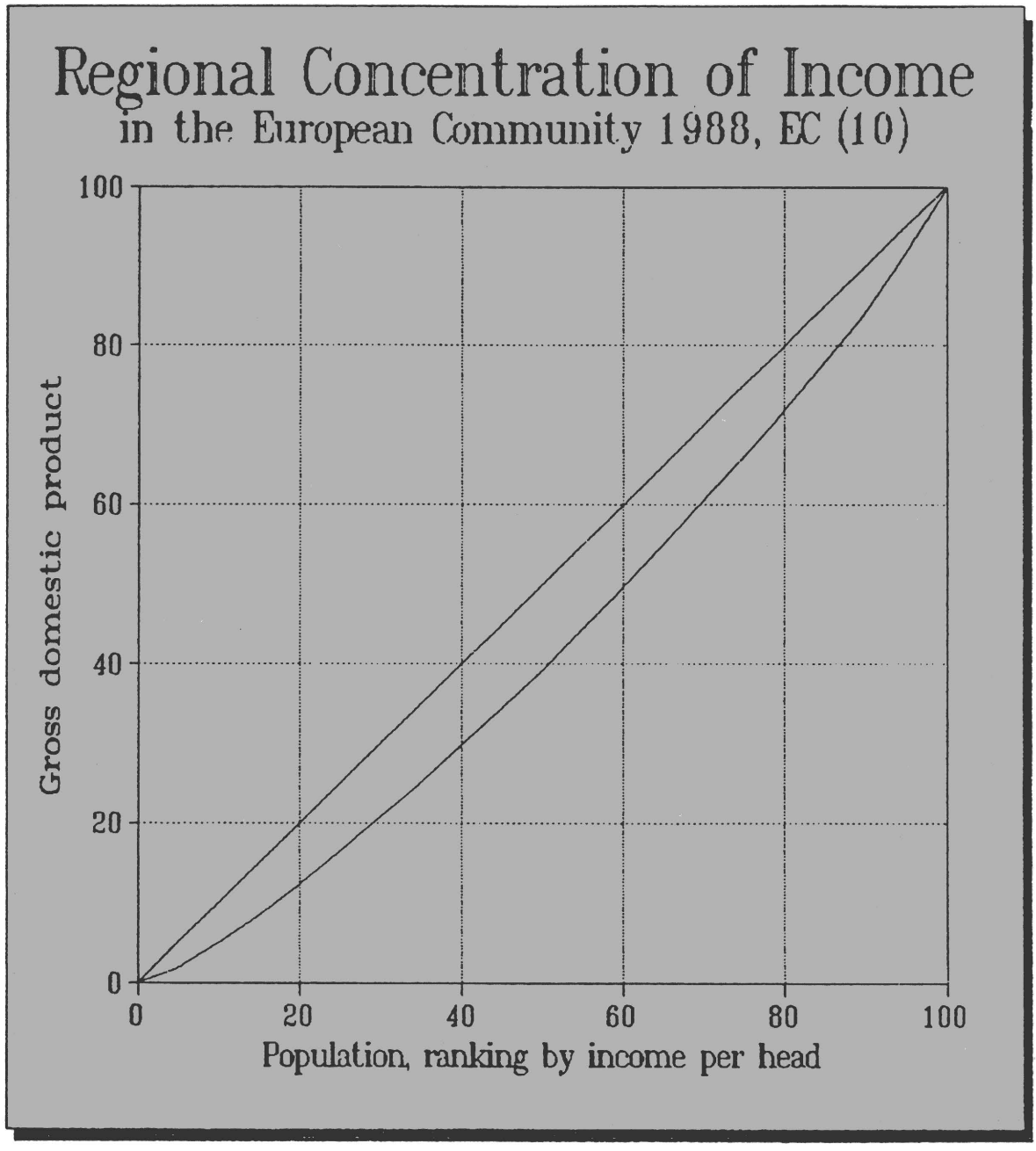
ECSC loans
- Original data
  - EC 12, 1986 – 87
- Modified data, EC 10, 1985 – 87

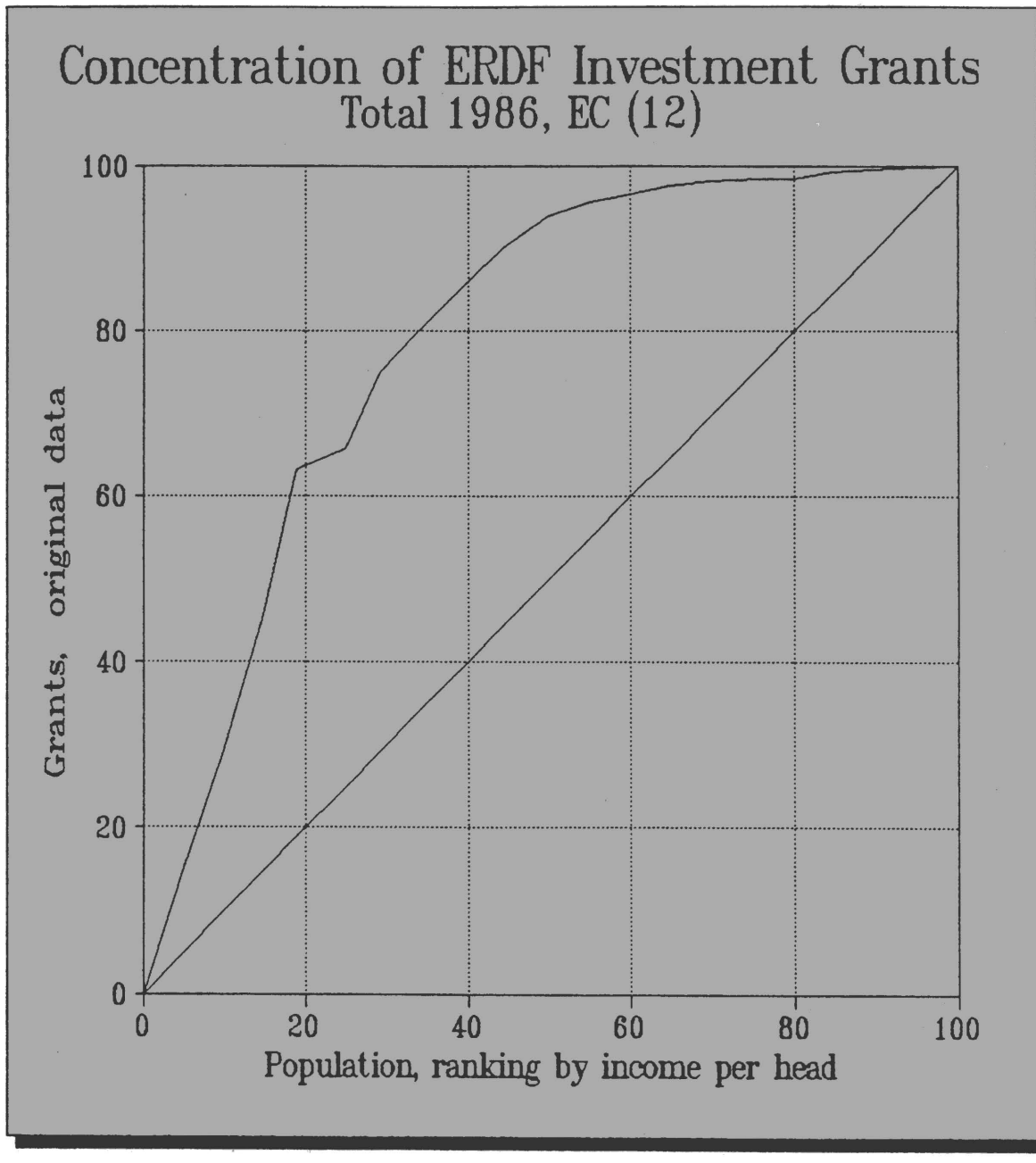
ECSC subsidies
- Original data
  - EC 12, 1986
  - EC 12, 1989
- Modified data
  - EC 12, 1986 – 89

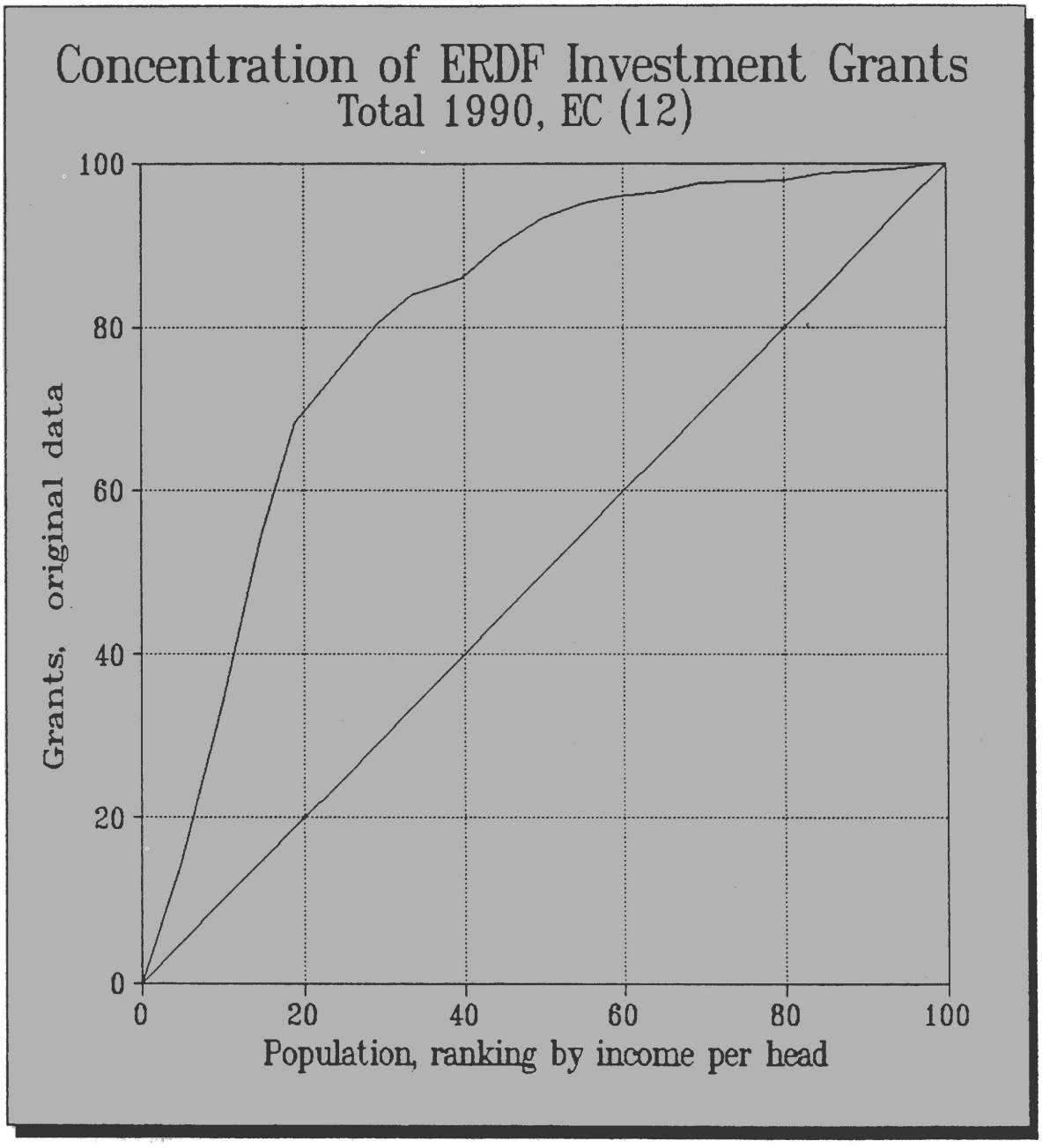
EIB loans
- Original data
  - EC 12, total 1986 – 87
  - EC 10, total 1985 – 87
  - EC 10, infrastructure 1985 – 87
  - EC 10, industry 1985 – 87

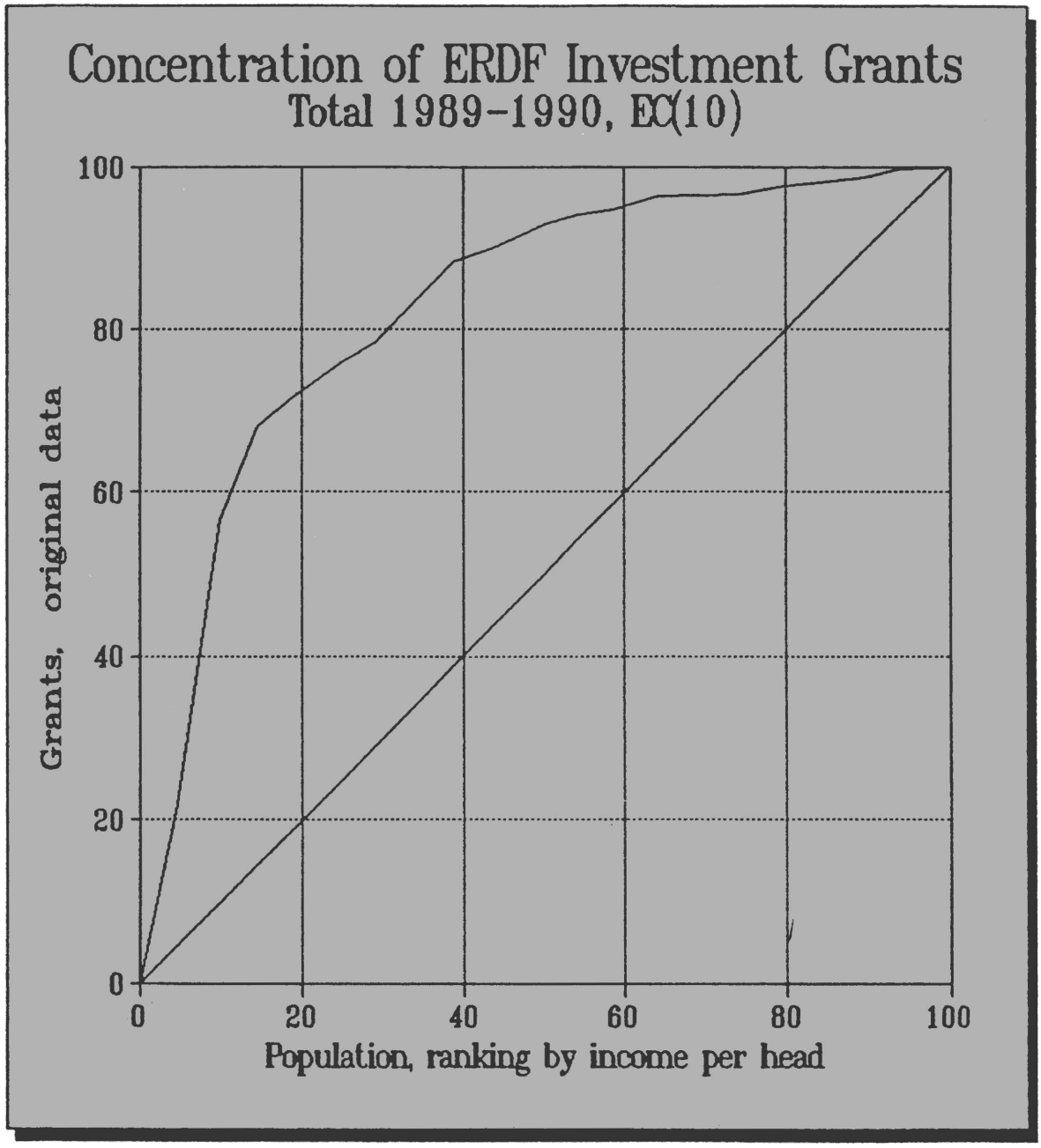
CEC contribution to R&D contracts
- EC 10, 1983 – 90

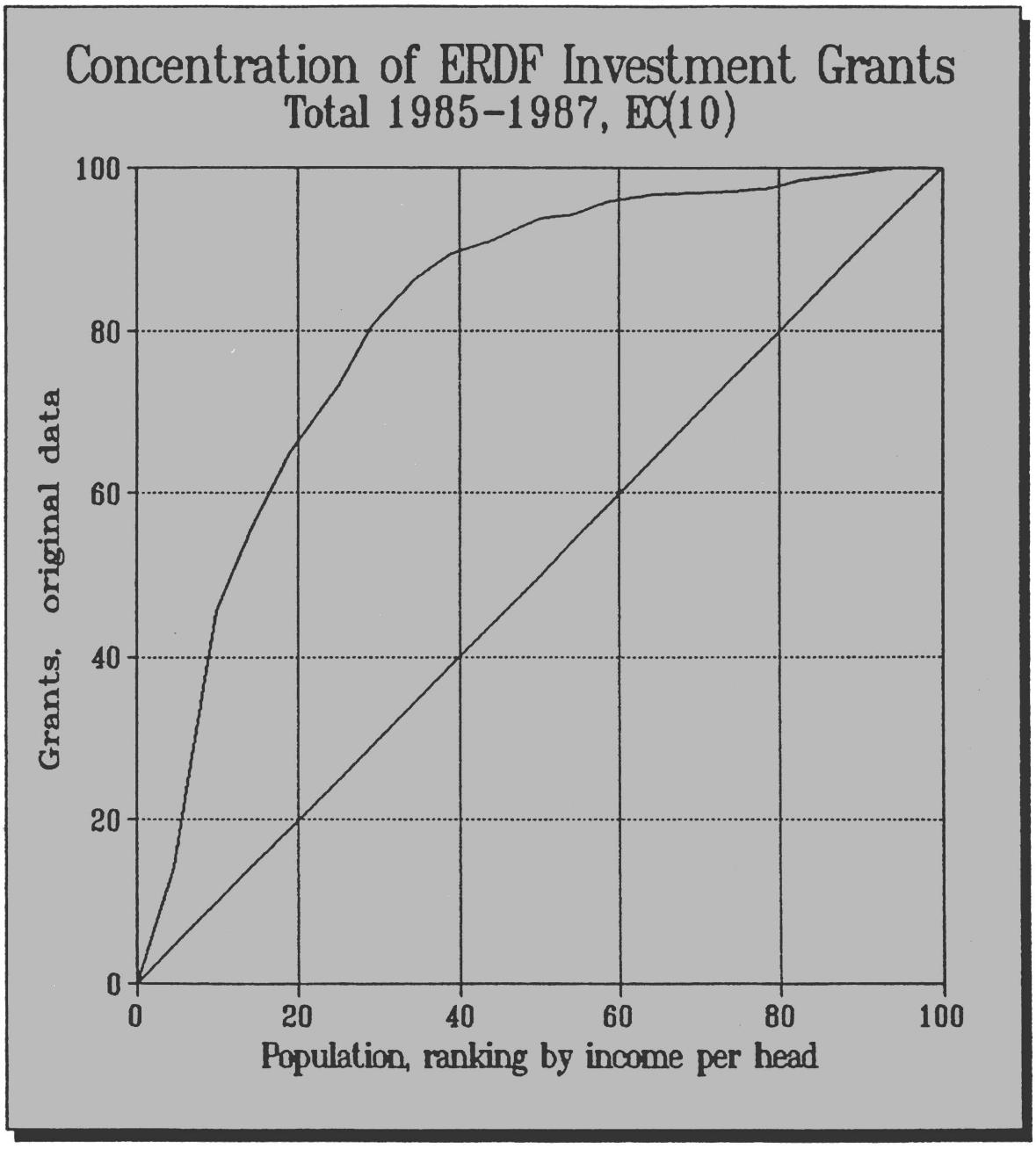
CAP guarantee payments
- EC 12, cereals and rice 1986 – 89
- EC 10, cereals and rice 1985 – 89
- EC 10, sugar 1985 – 89
- EC 12, olive-oil 1986 – 89
- EC 12, oleaginous 1986 – 89
- EC 10, fruits and vegetables 1985 – 89
- EC 12, wine 1986 – 89
- EC 12, wine 1986
- EC 12, wine 1989
- EC 12, tobacco 1986 – 89
- EC 12, milk 1986 – 89
- EC 10, milk 1985 – 89
- EC 10, cattle (meat) 1985 – 89
- EC 10, sheep and goats (meat) 1985 – 89


Regional Concentration of Income
in the European Community 1988, EC (10)
Gross domestic product
100
80
60
40
20
0
0
20
40
60
80
100
Population, ranking by income per head


Concentration of ERDF Investment Grants
Total 1986, EC (12)
Grants, original data
100
80
60
40
20
0
0
20
40
60
80
100
Population, ranking by income per head


Concentration of ERDF Investment Grants
Total 1990, EC (12)
Grants, original data
100
80
60
40
20
0
0
20
40
60
80
100
Population, ranking by income per head


Concentration of ERDF Investment Grants
Total 1989-1990, EC(10)
Grants, original data
100
80
60
40
20
0
0
20
40
60
80
100
Population, ranking by income per head


Concentration of ERDF Investment Grants
Total 1985-1987, EC(10)
Grants, original data
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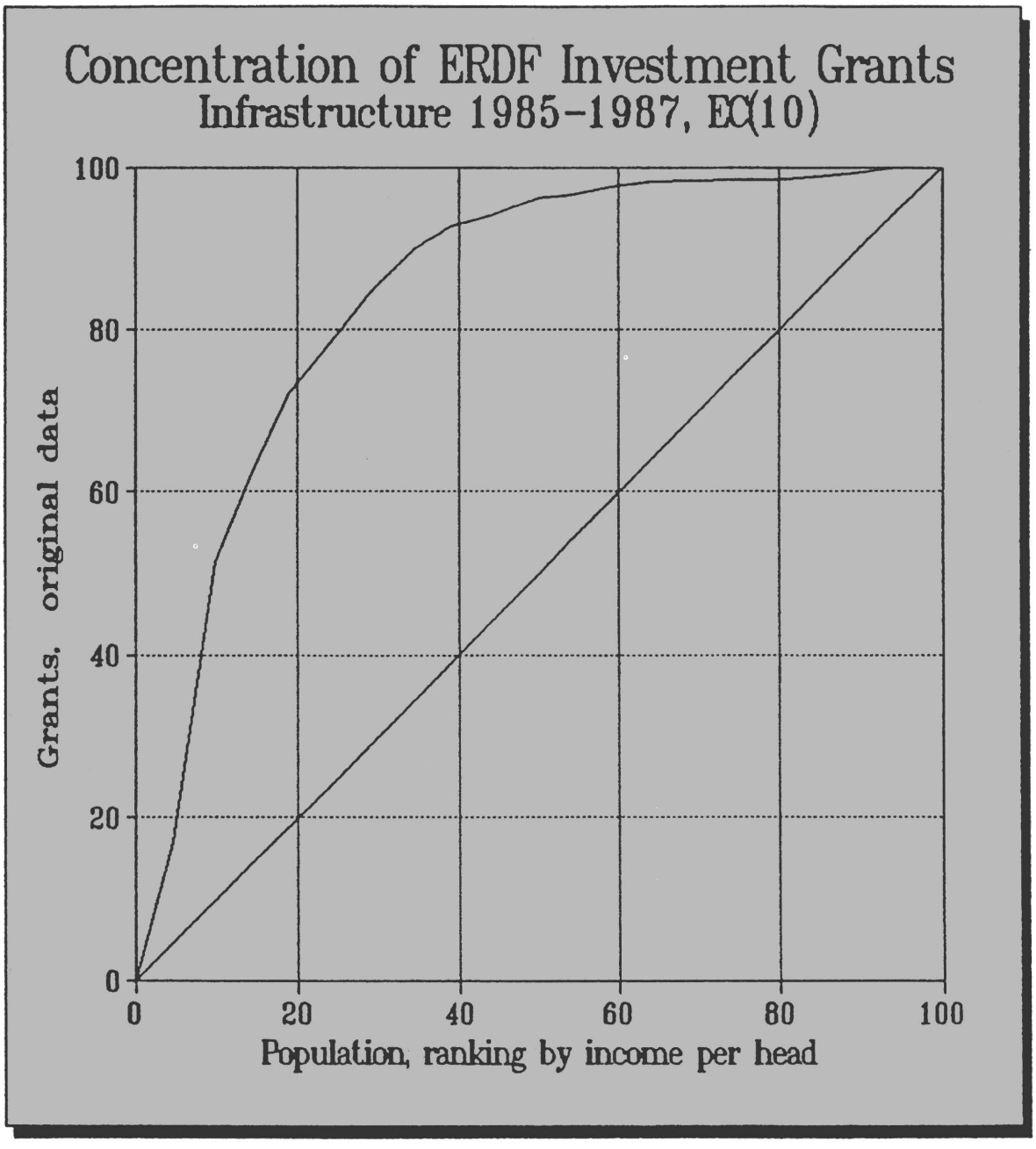
80
100
Population, ranking by income per head


Concentration of ERDF Investment Grants
Infrastructure 1985-1987, EC(10)
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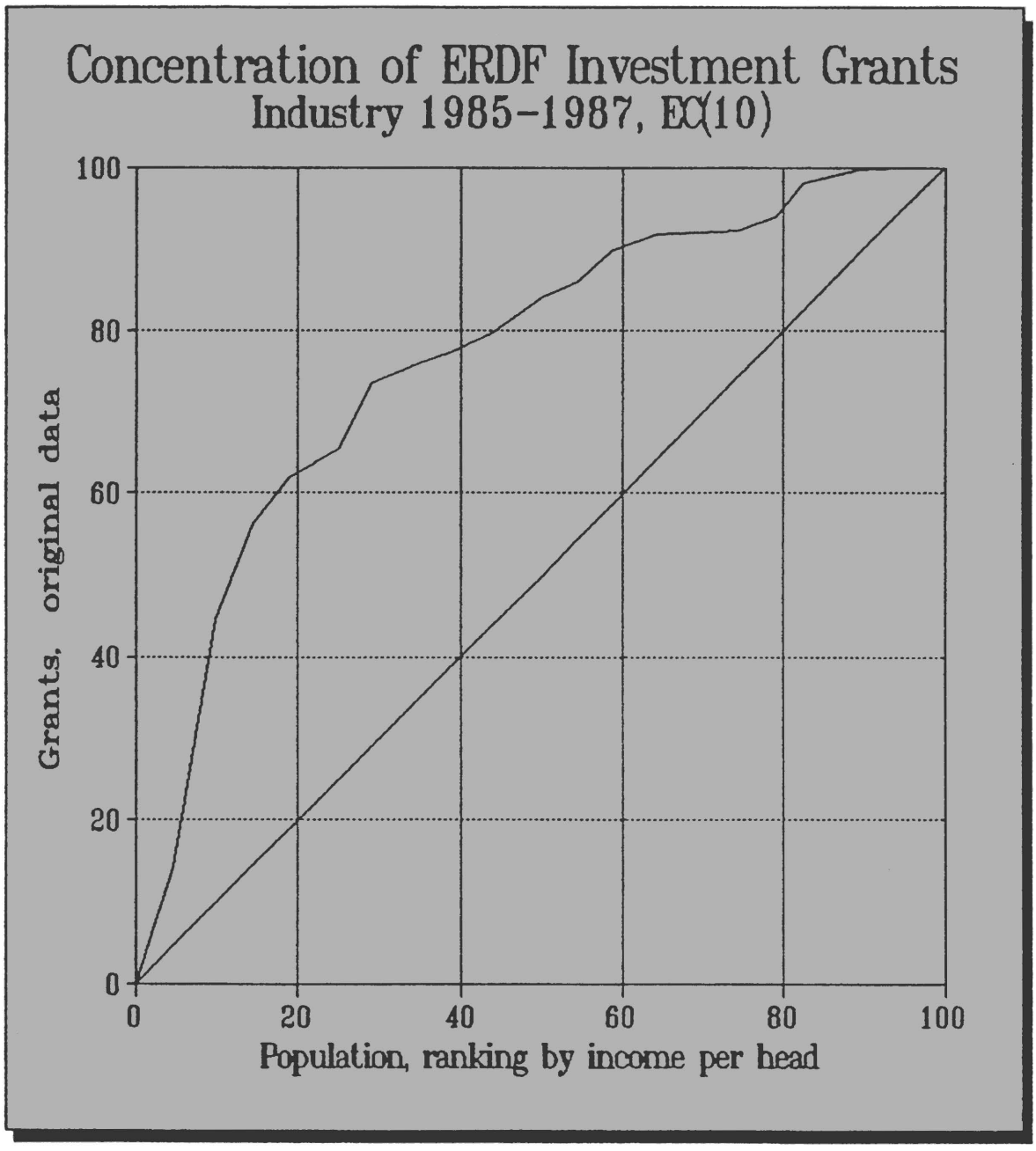
Population, ranking by income per head


Concentration of ERDF Investment Grants
Industry 1985-1987, EC(10)
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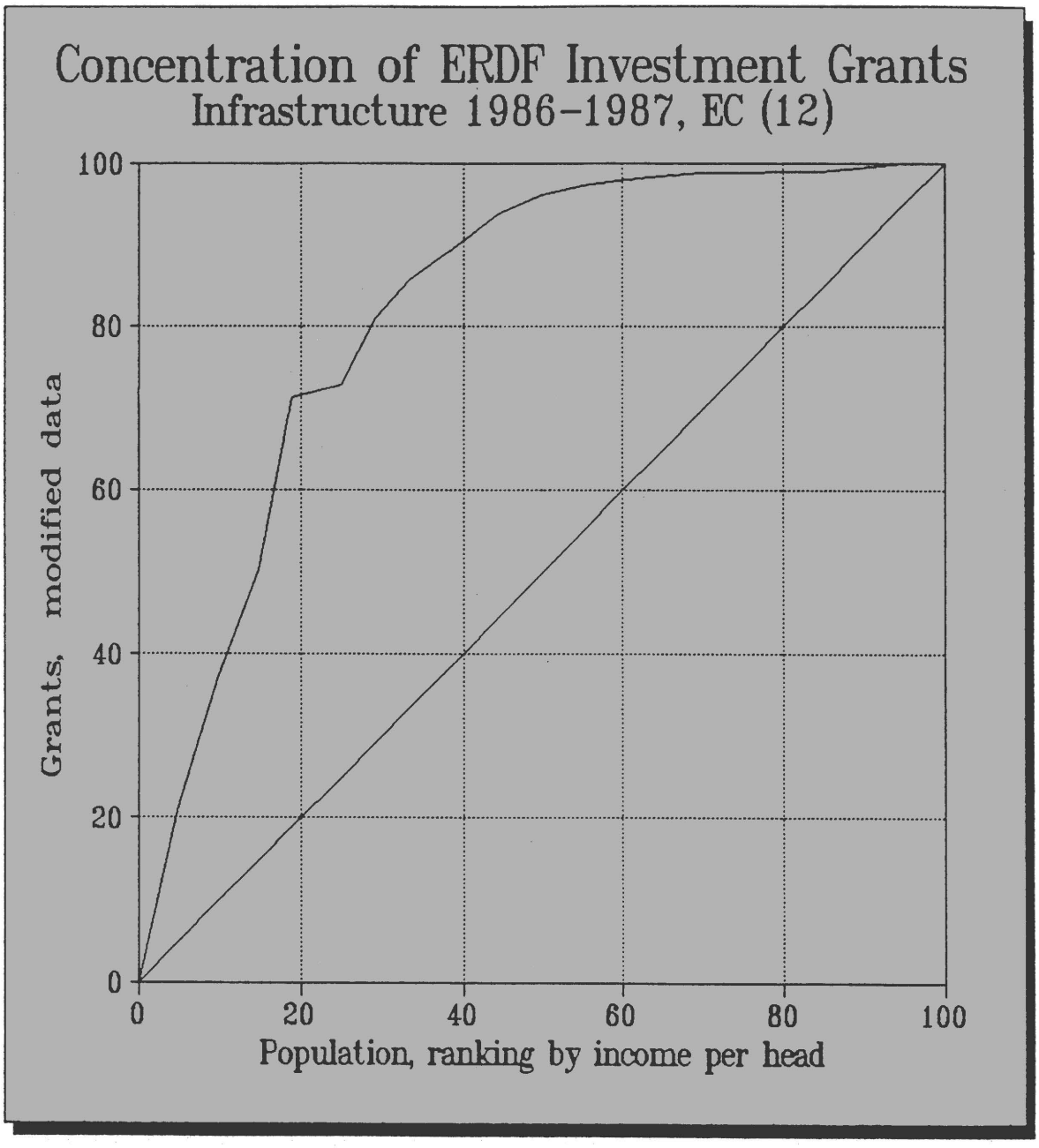
Population, ranking by income per head


Concentration of ERDF Investment Grants
Infrastructure 1986-1987, EC (12)
Grants, modified data
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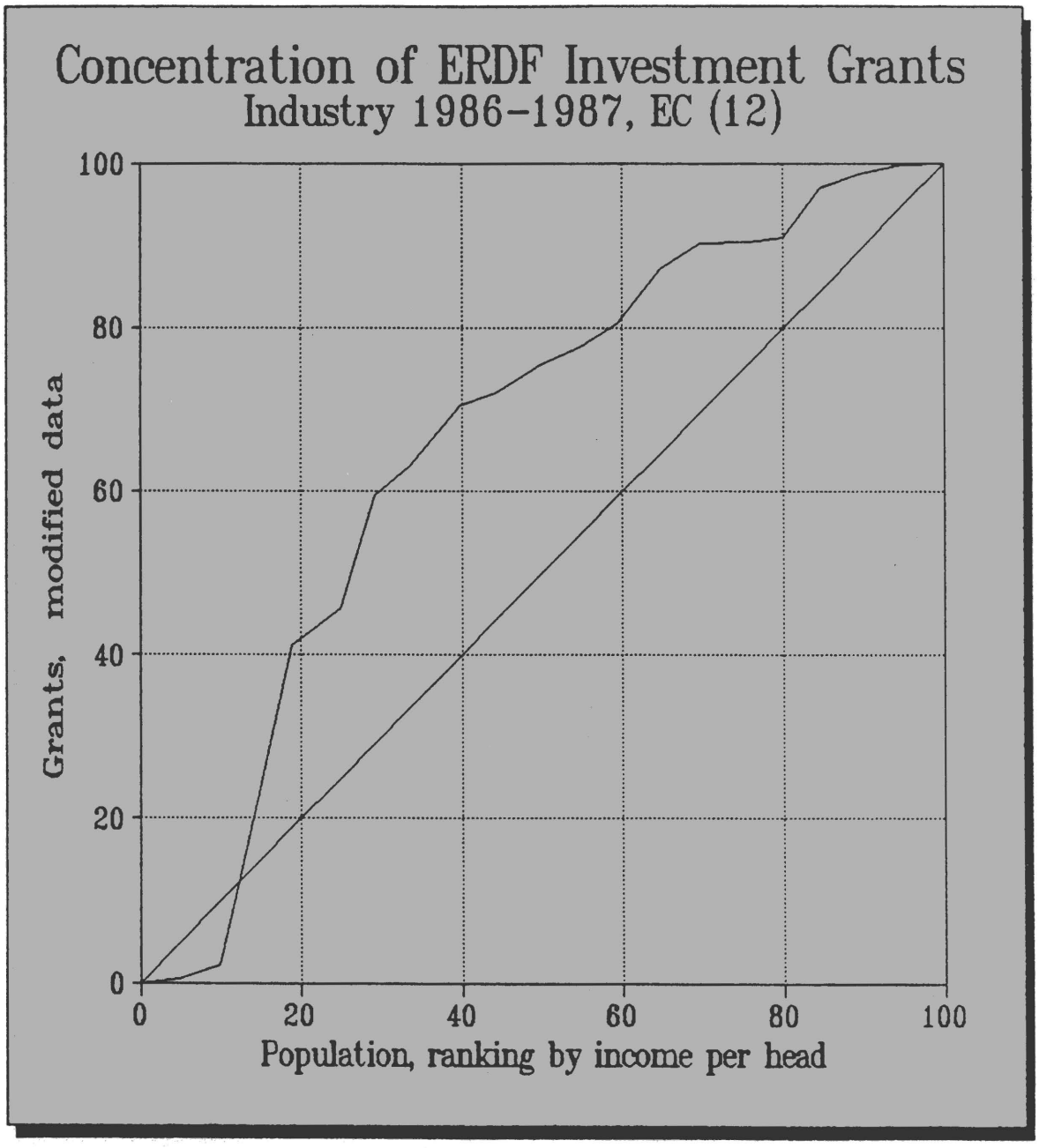
60
80
100
Population, ranking by income per head


Concentration of ERDF Investment Grants
Industry 1986-1987, EC (12)
Grants, modified data
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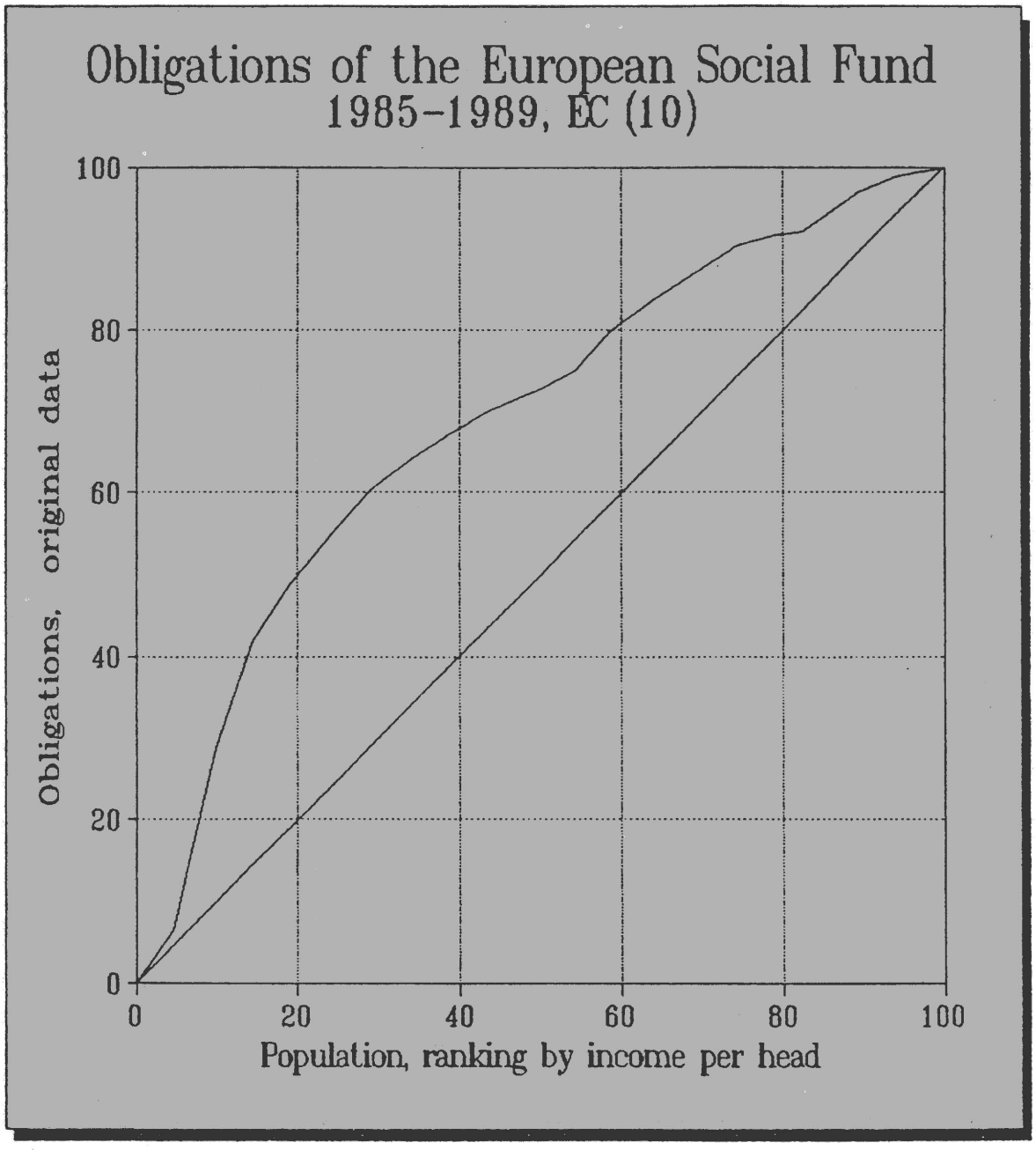
80
100
Population, ranking by income per head


Obligations of the European Social Fund
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80
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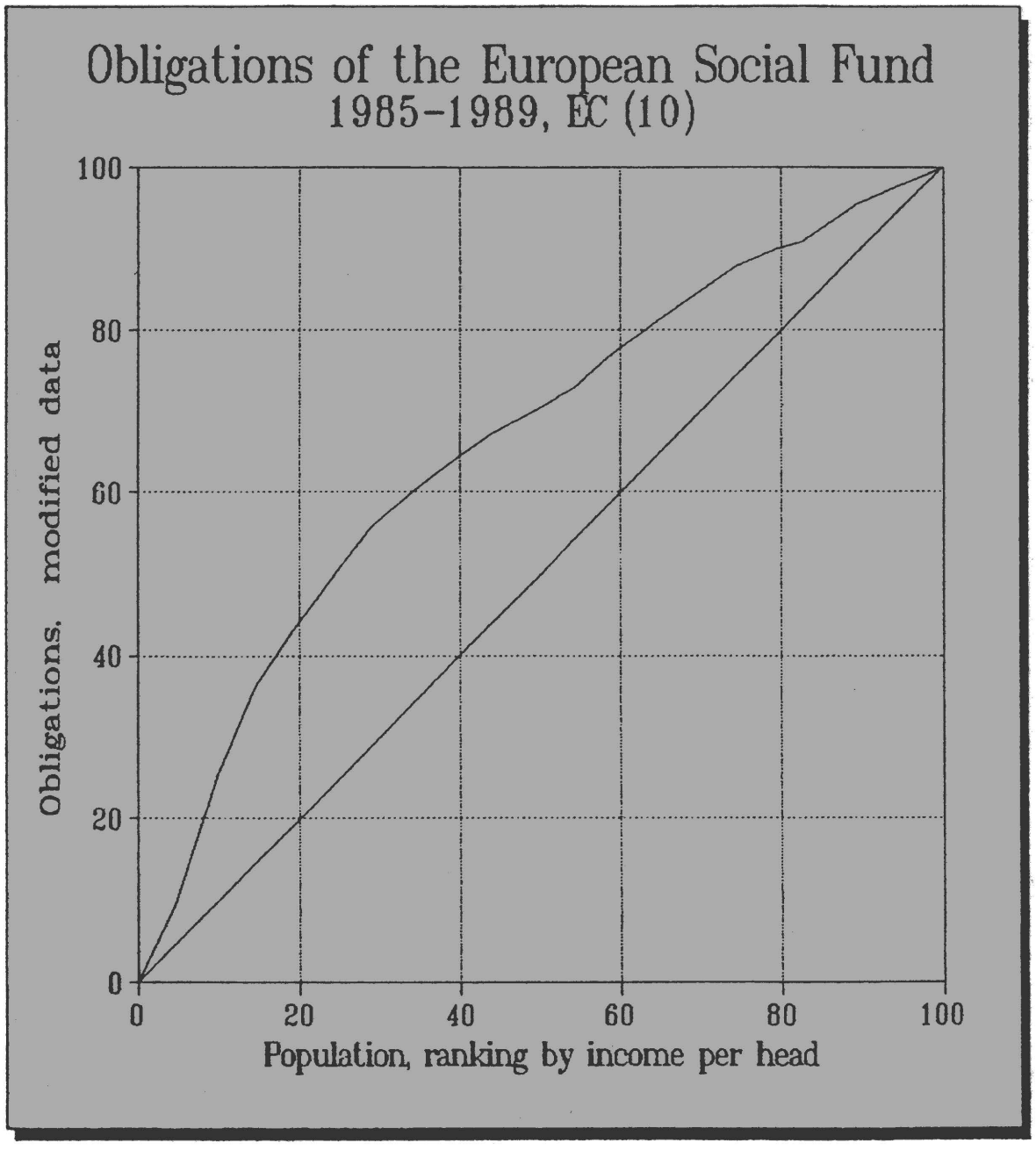
Population, ranking by income per head


Obligations of the European Social Fund
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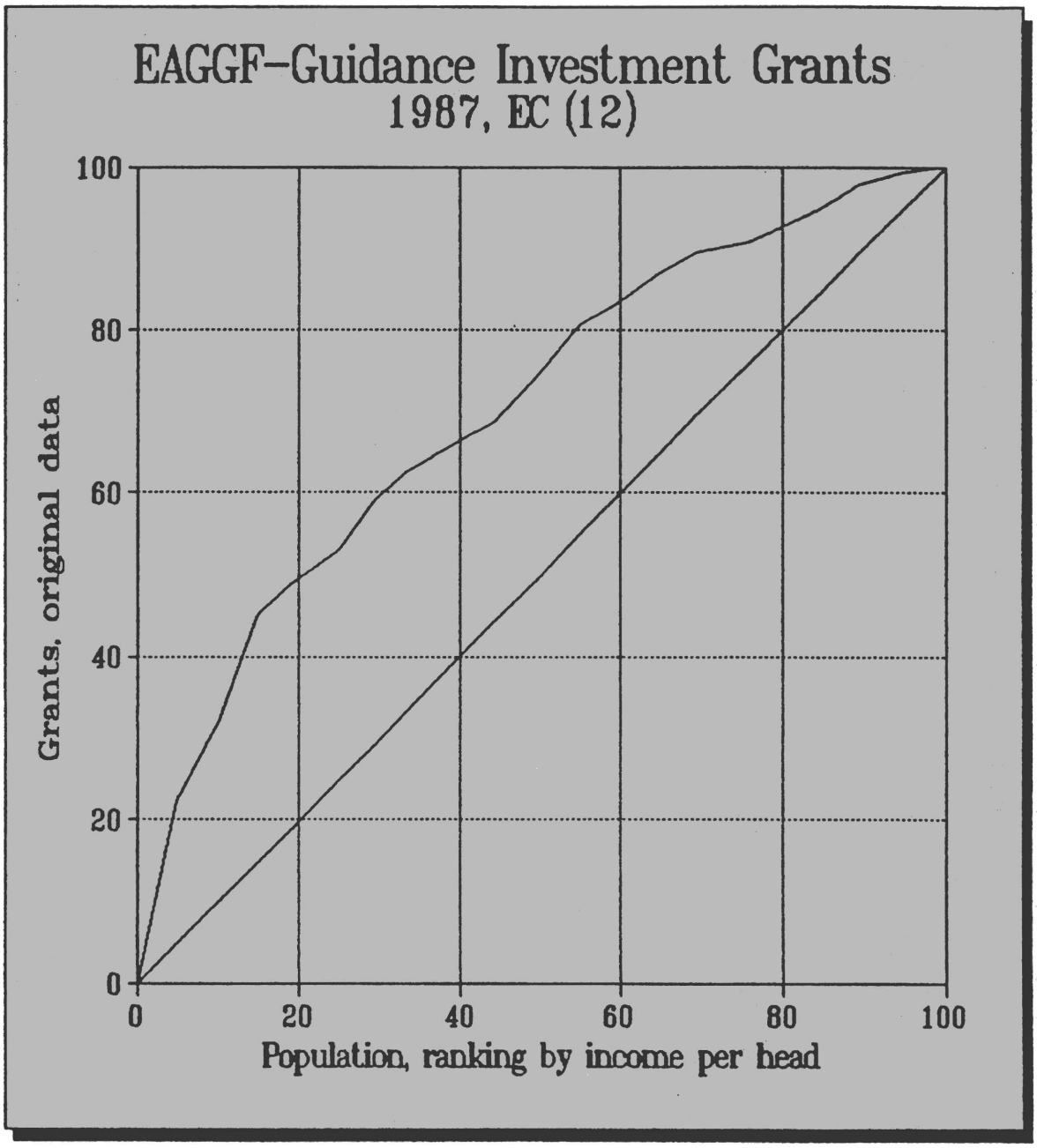
Population, ranking by income per head


EAGGF-Guidance Investment Grants
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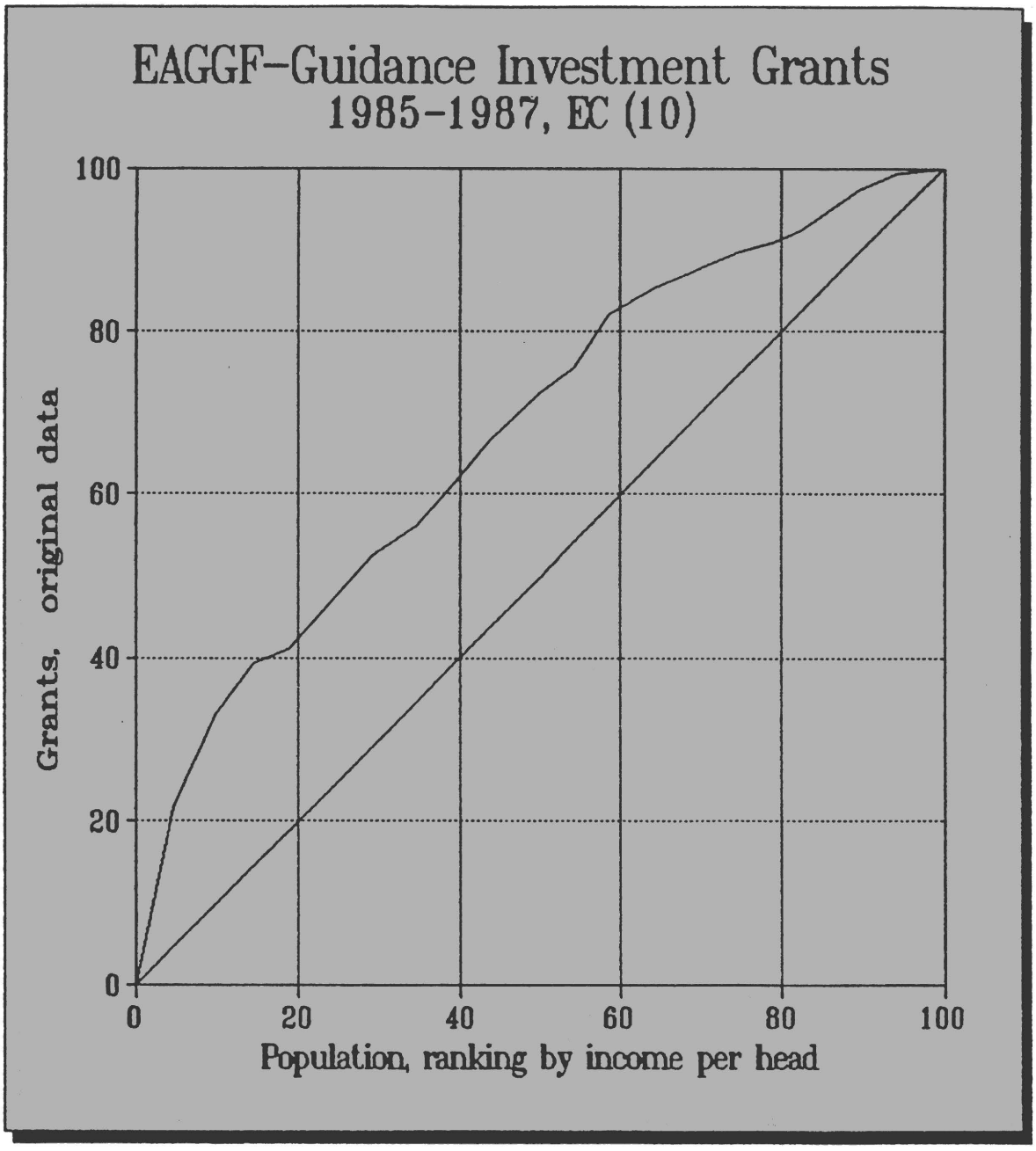
Population, ranking by income per head


EAGGF-Guidance Investment Grants
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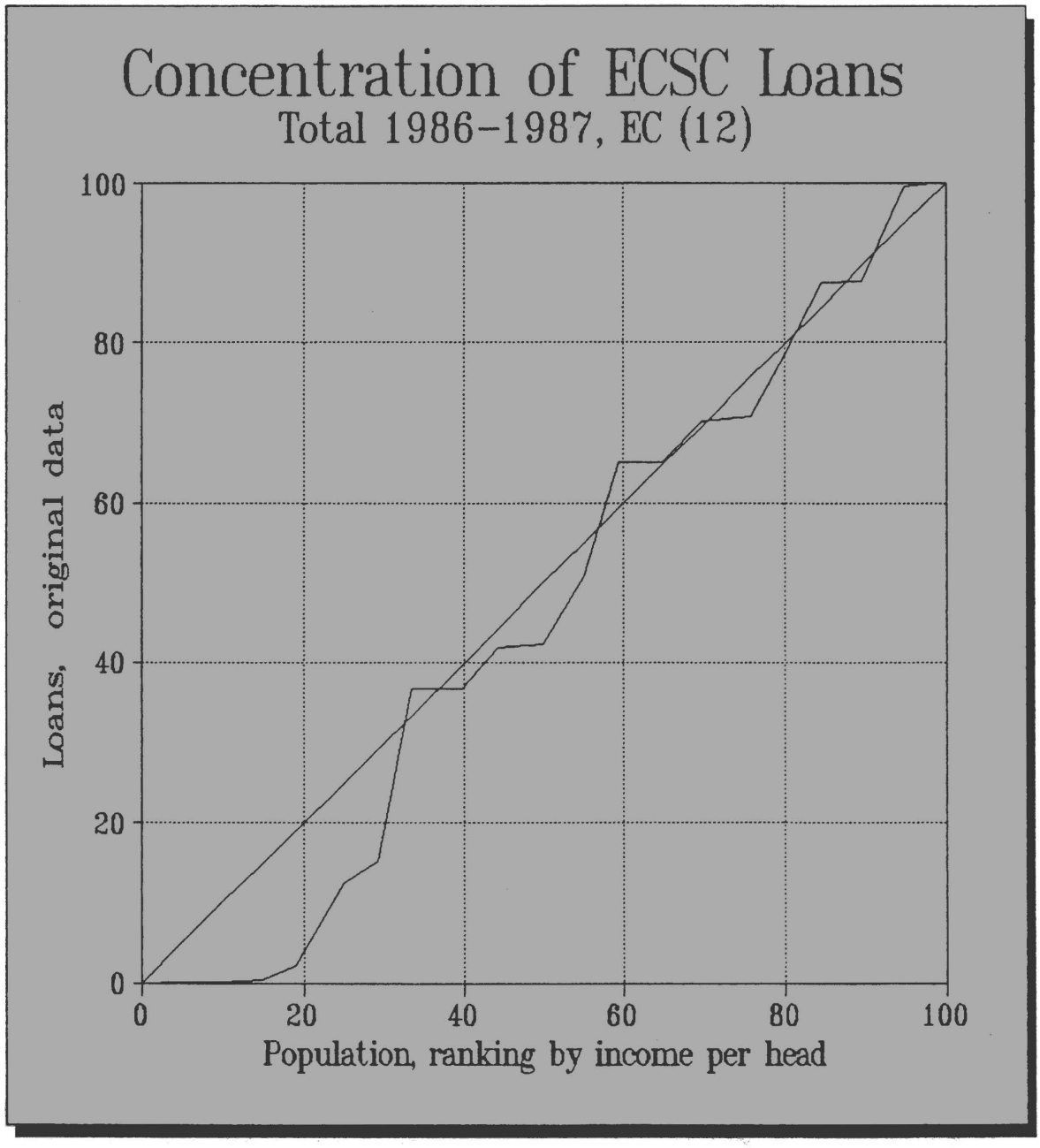
Population, ranking by income per head


Concentration of ECSC Loans
Total 1986-1987, EC (12)
Loans, original data
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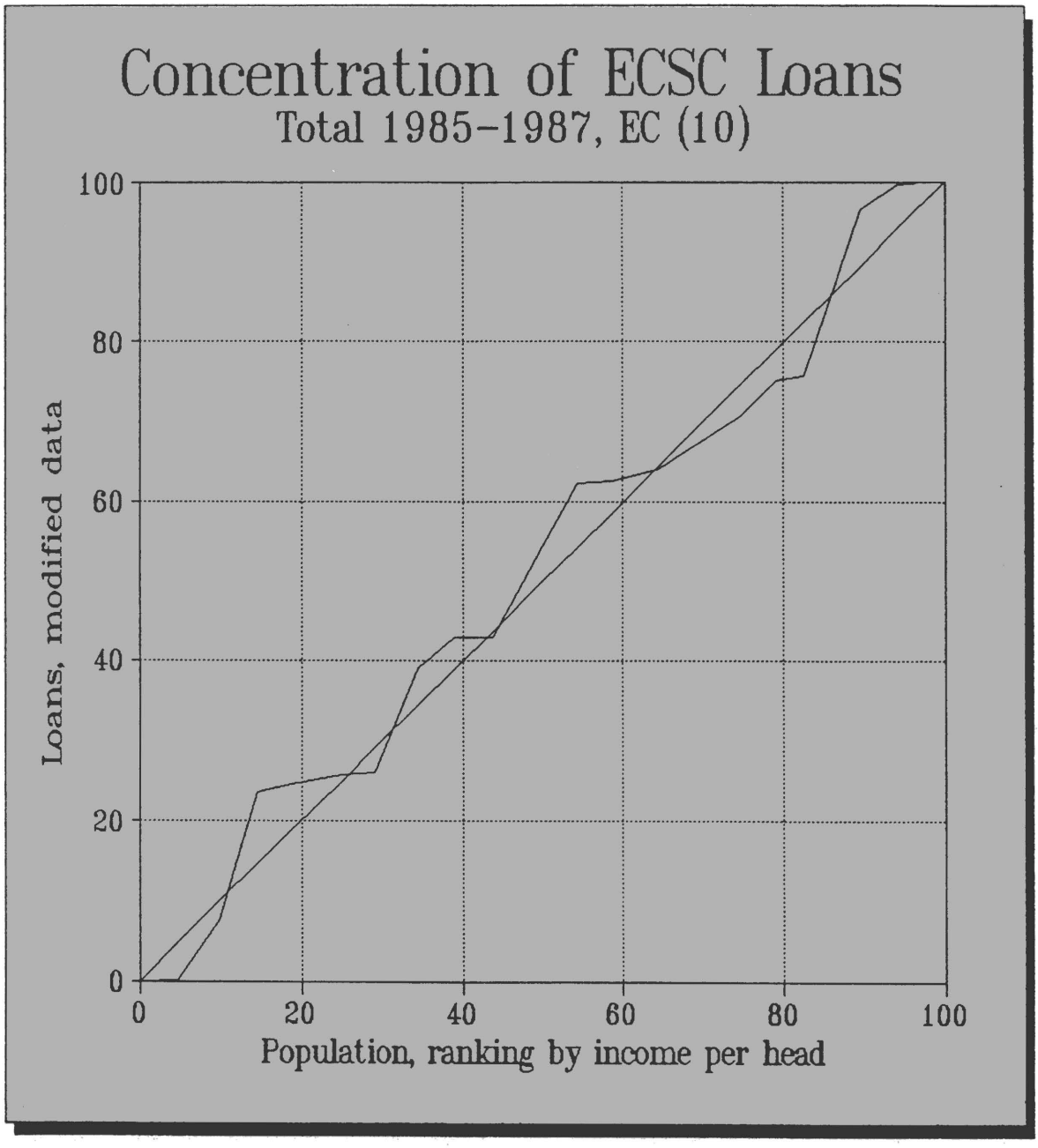
Population, ranking by income per head


Concentration of ECSC Loans
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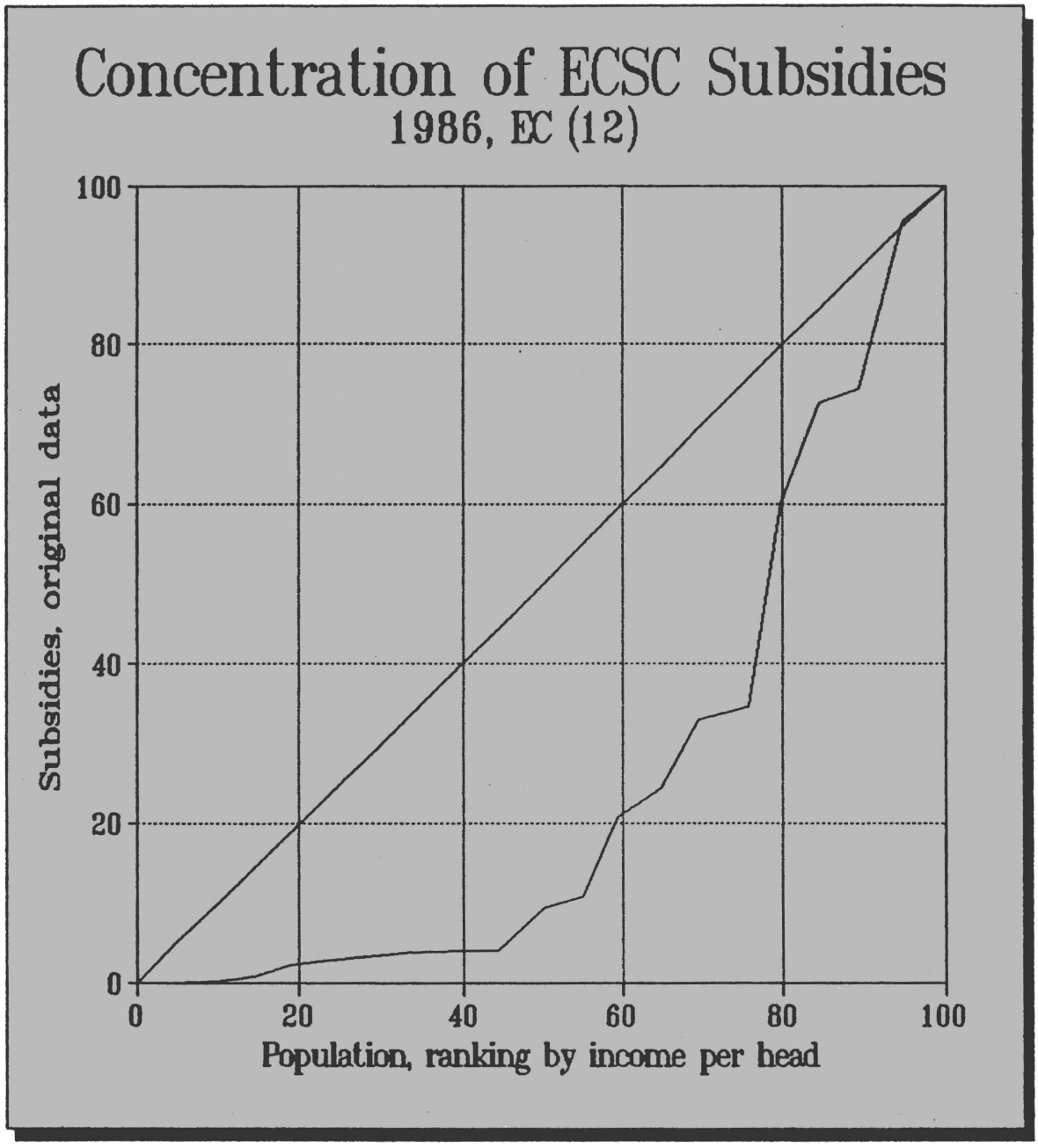
Population, ranking by income per head


Concentration of ECSC Subsidies
1986, EC (12)
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80
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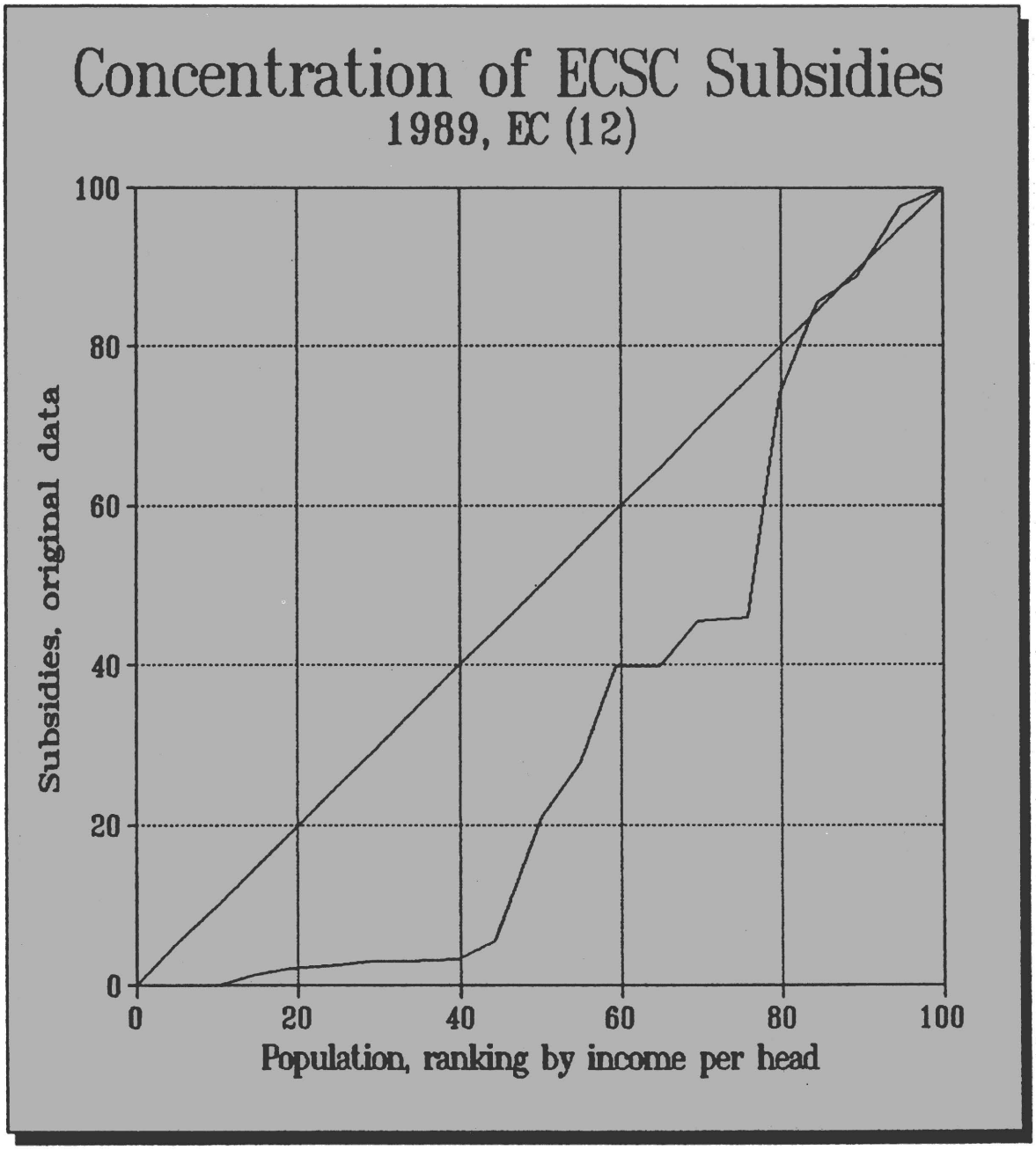
Population, ranking by income per head


Concentration of ECSC Subsidies
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Subsidies, original data
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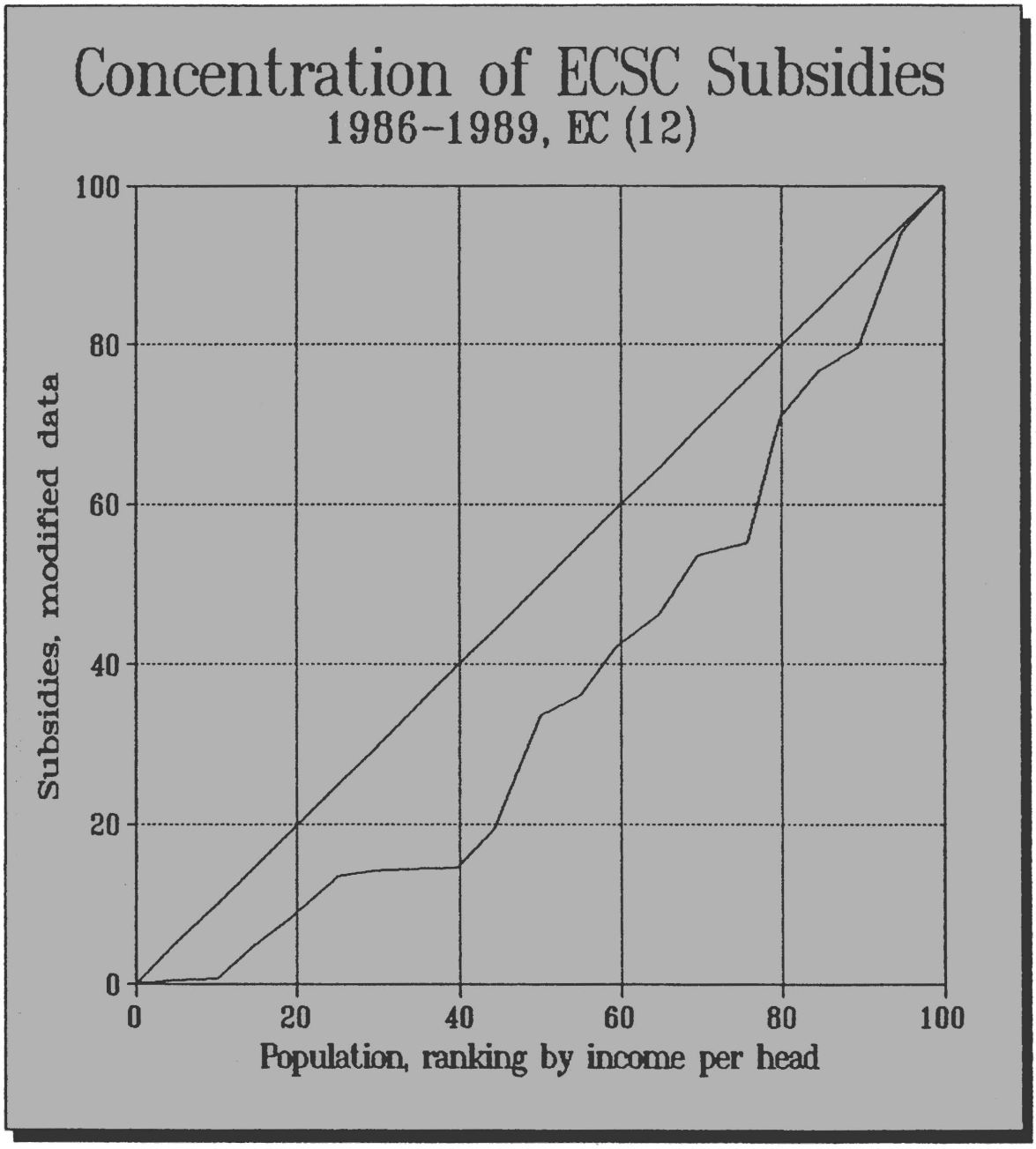
Population, ranking by income per head


Concentration of ECSC Subsidies
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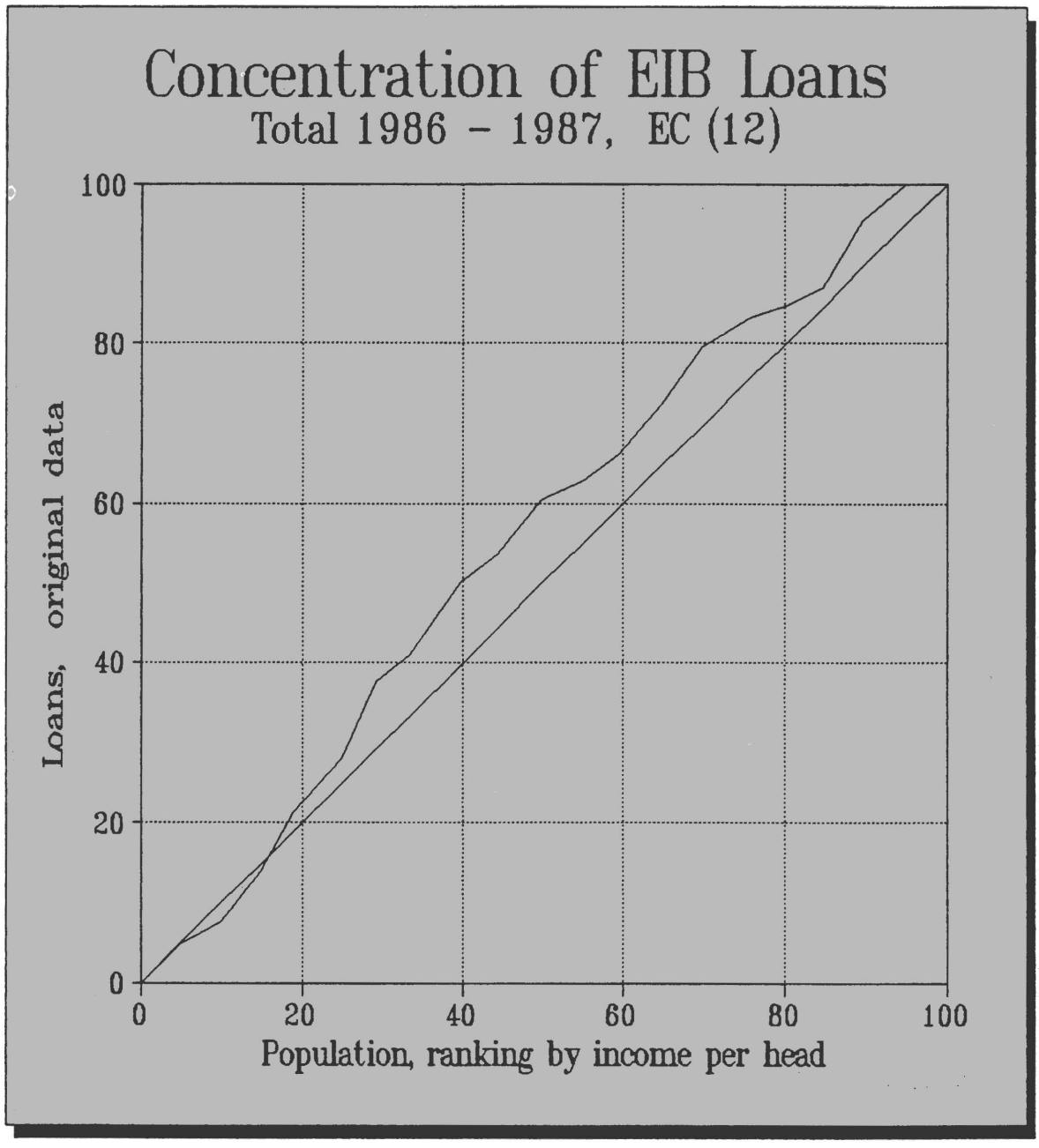
Population, ranking by income per head


Concentration of EIB Loans
Total 1986 - 1987, EC (12)
Loans, original data
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80
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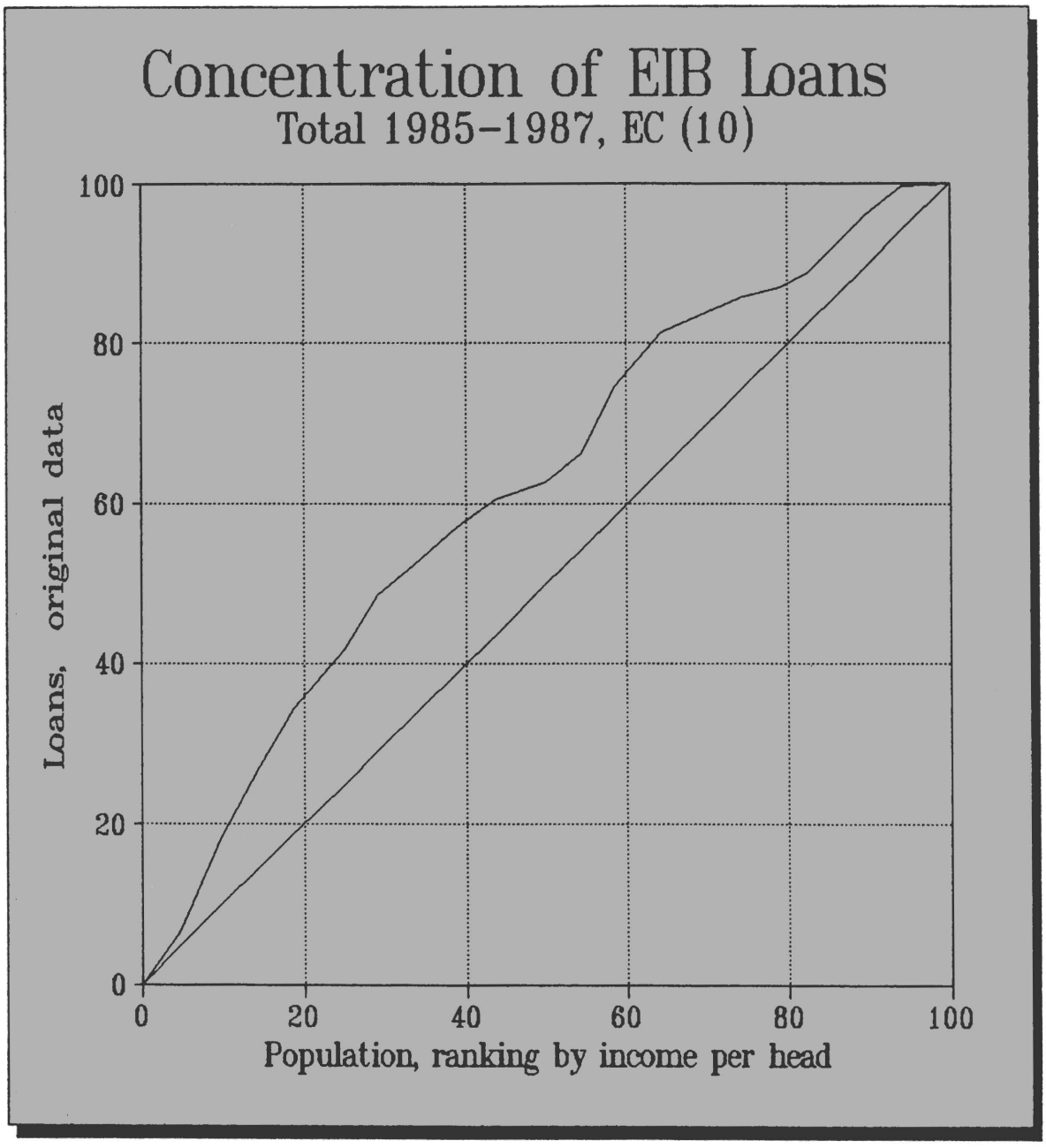
Population, ranking by income per head


Concentration of EIB Loans
Total 1985-1987, EC (10)
Loans, original data
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40
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80
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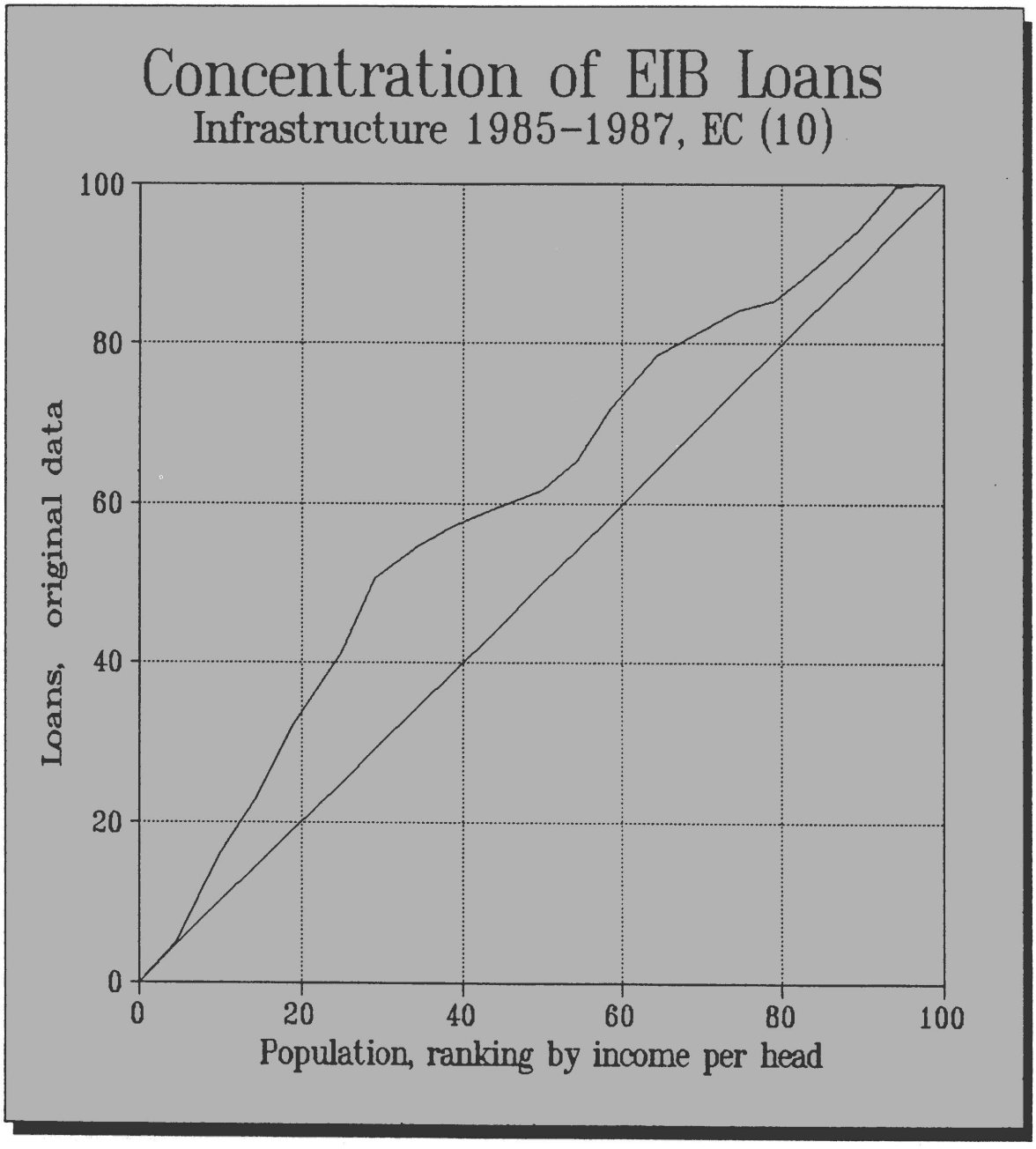
Population, ranking by income per head


Concentration of EIB Loans
Infrastructure 1985-1987, EC (10)
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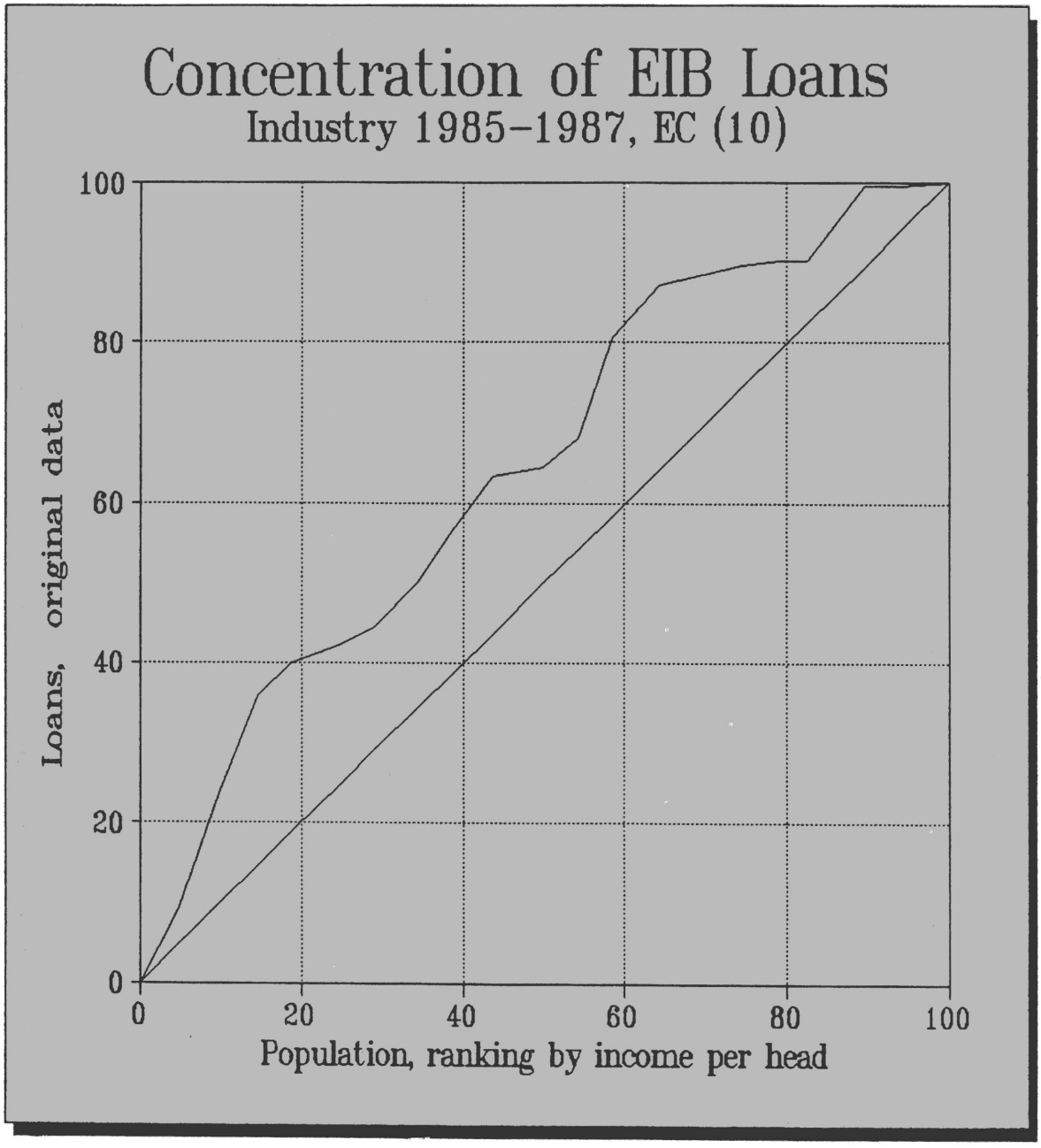
Population, ranking by income per head


Concentration of EIB Loans
Industry 1985-1987, EC (10)
Loans, original data
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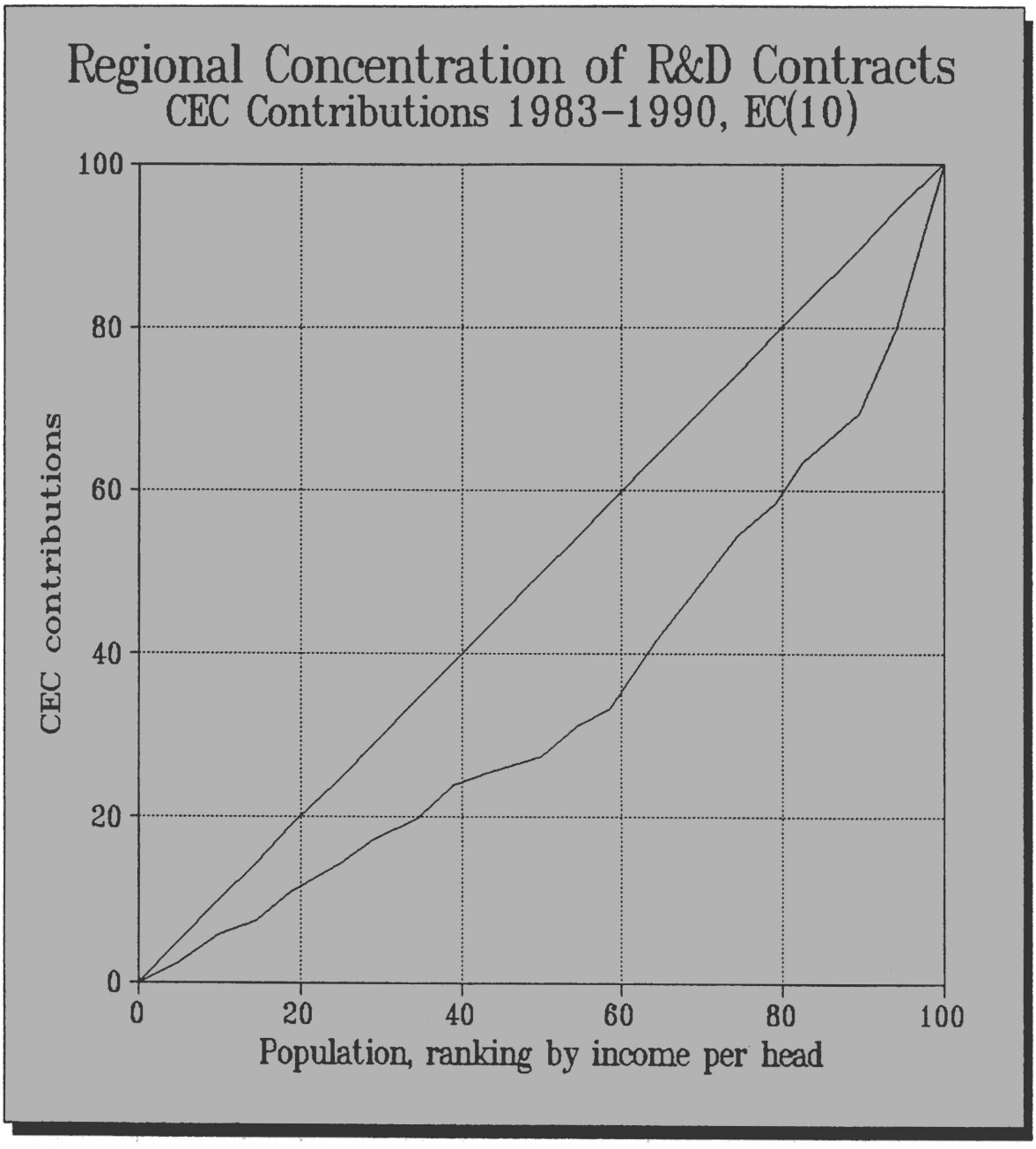
100
Population, ranking by income per head


Regional Concentration of R&D Contracts
CEC Contributions 1983-1990, EC(10)
CEC contributions
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60
80
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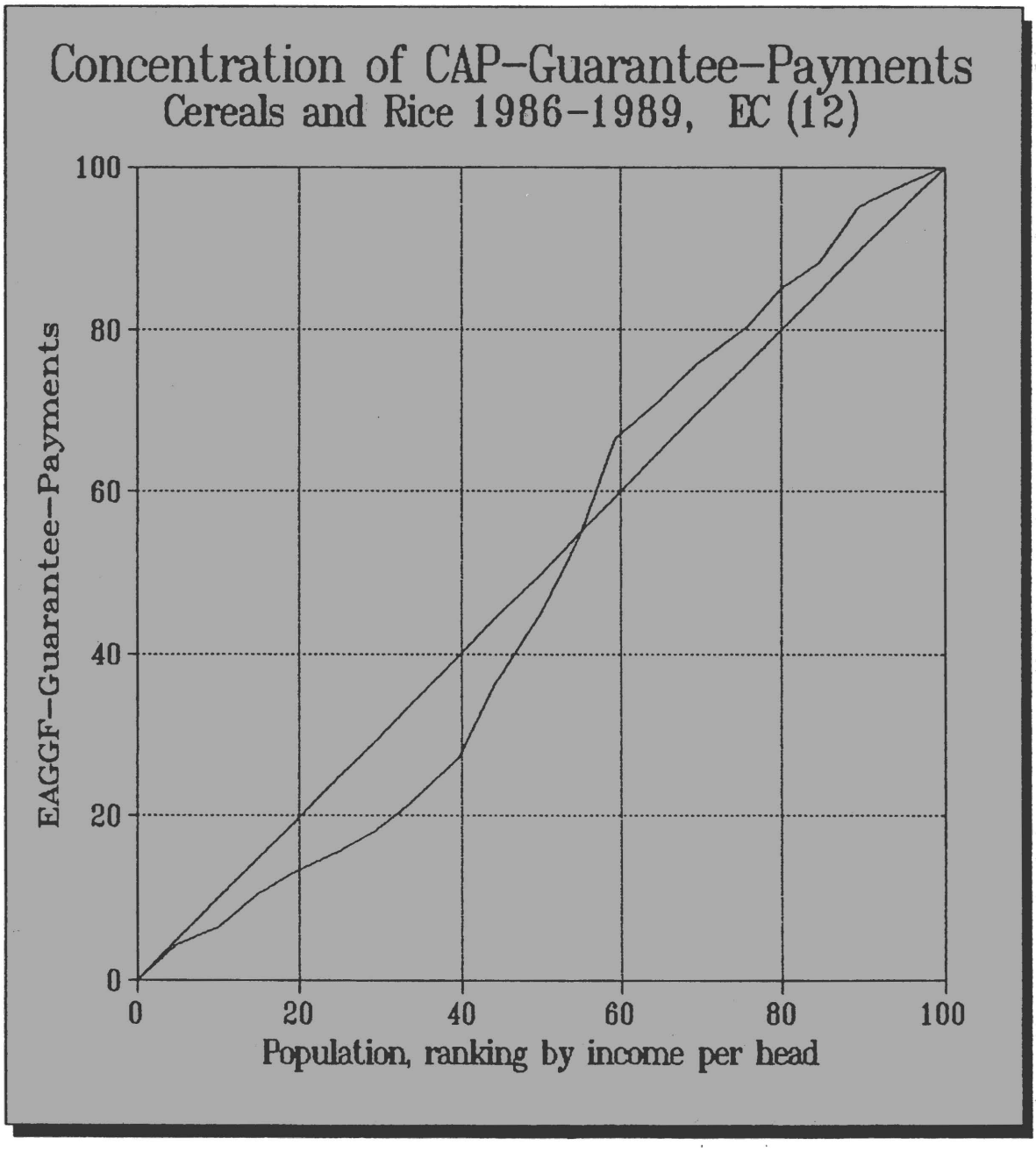
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Cereals and Rice 1986-1989, EC (12)
EAGGF-Guarantee-Payments
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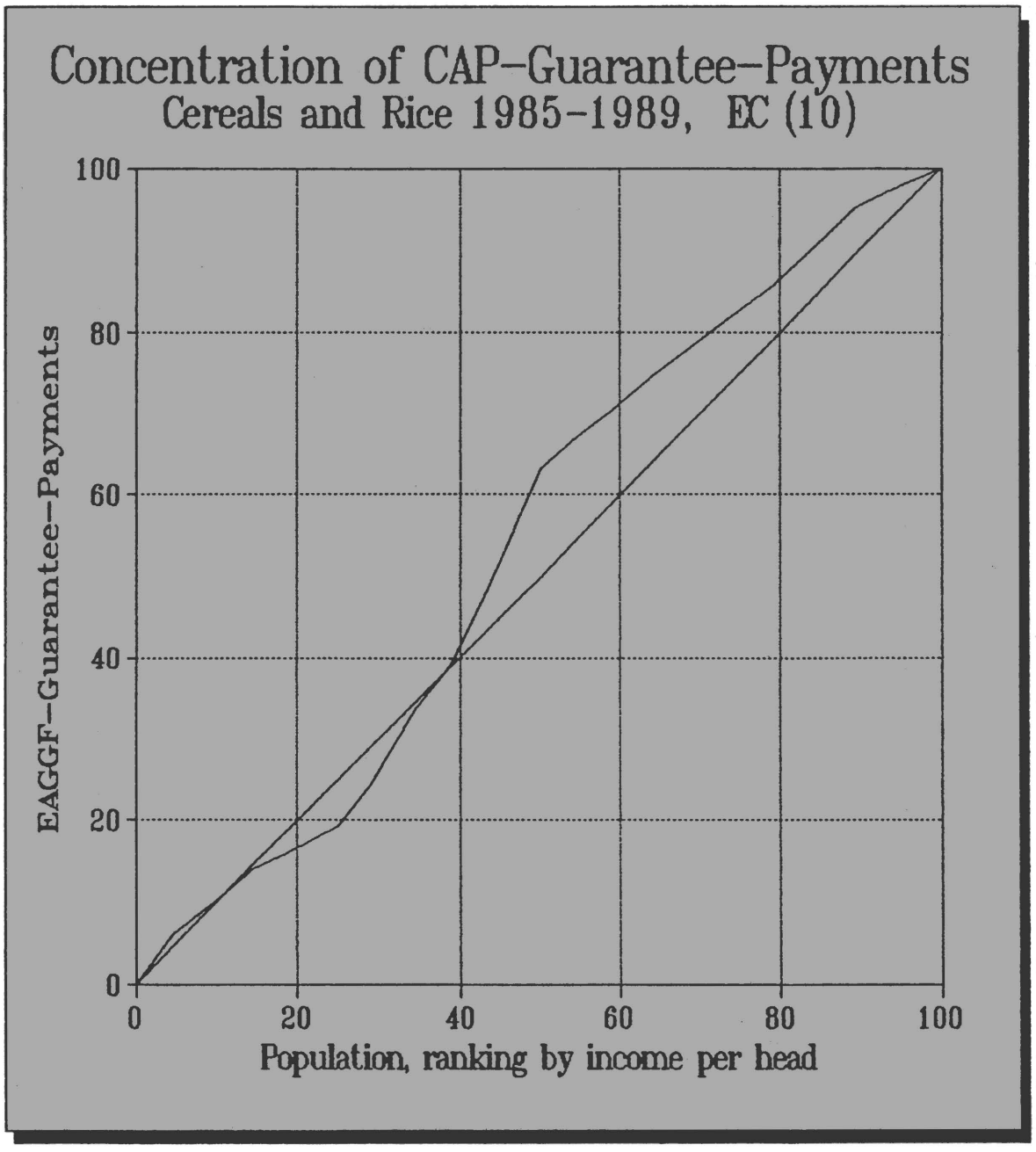
20
40
60
80
100
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Cereals and Rice 1985-1989, EC (10)
EAGGF-Guarantee-Payments
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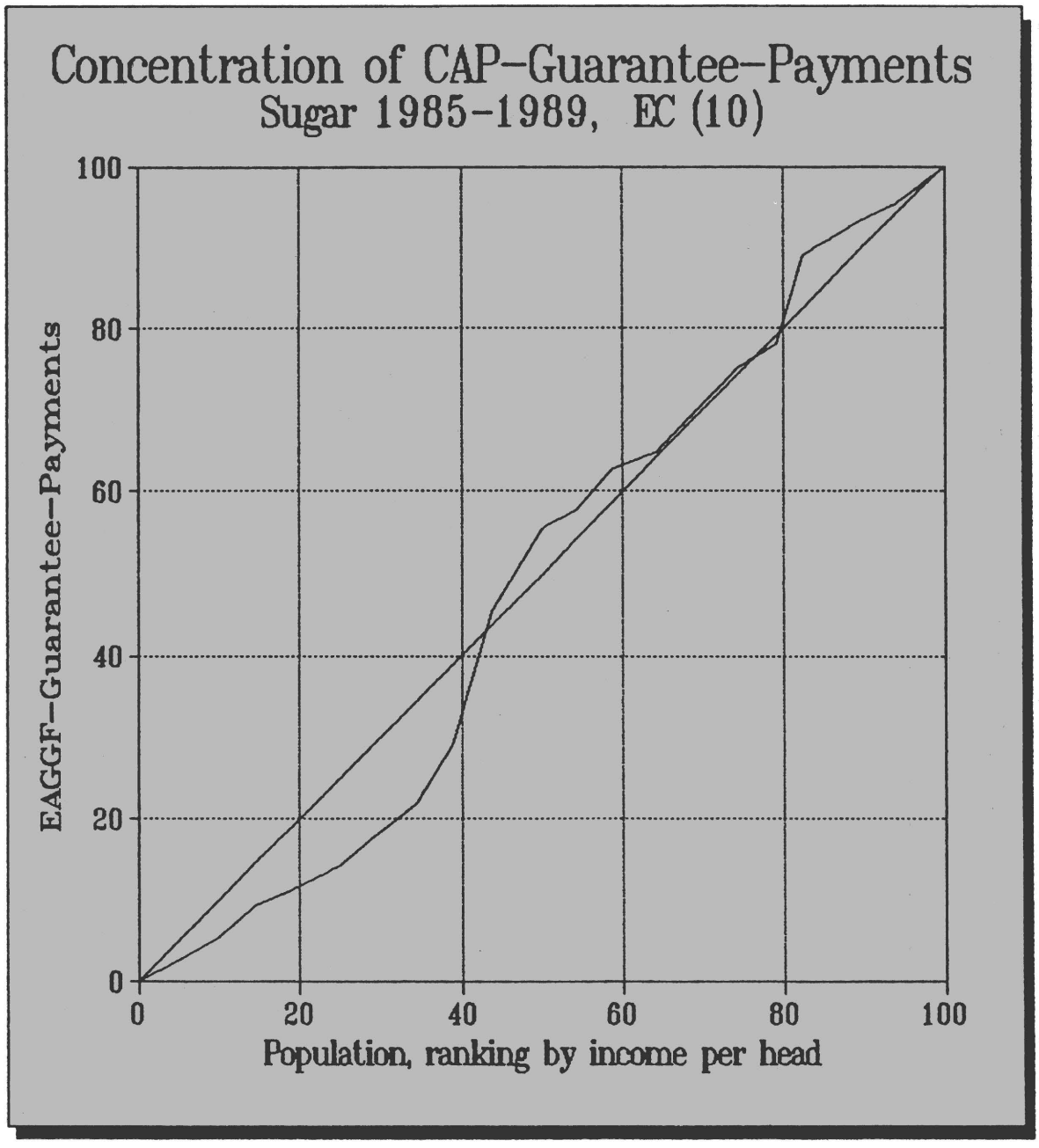
40
60
80
100
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Sugar 1985-1989, EC (10)
EAGGF-Guarantee-Payments
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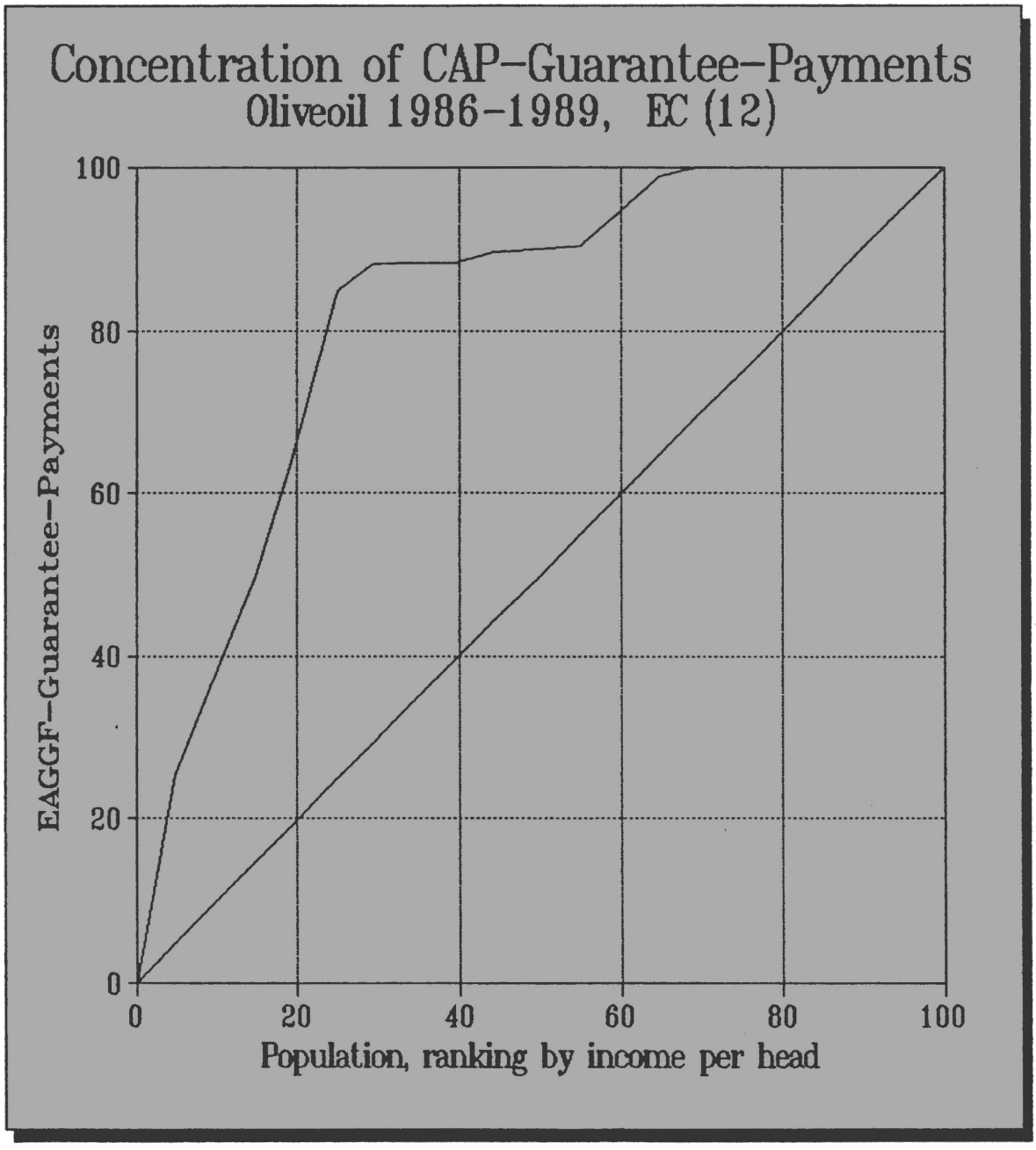
40
60
80
100
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Oliveoil 1986-1989, EC (12)
EAGGF-Guarantee-Payments
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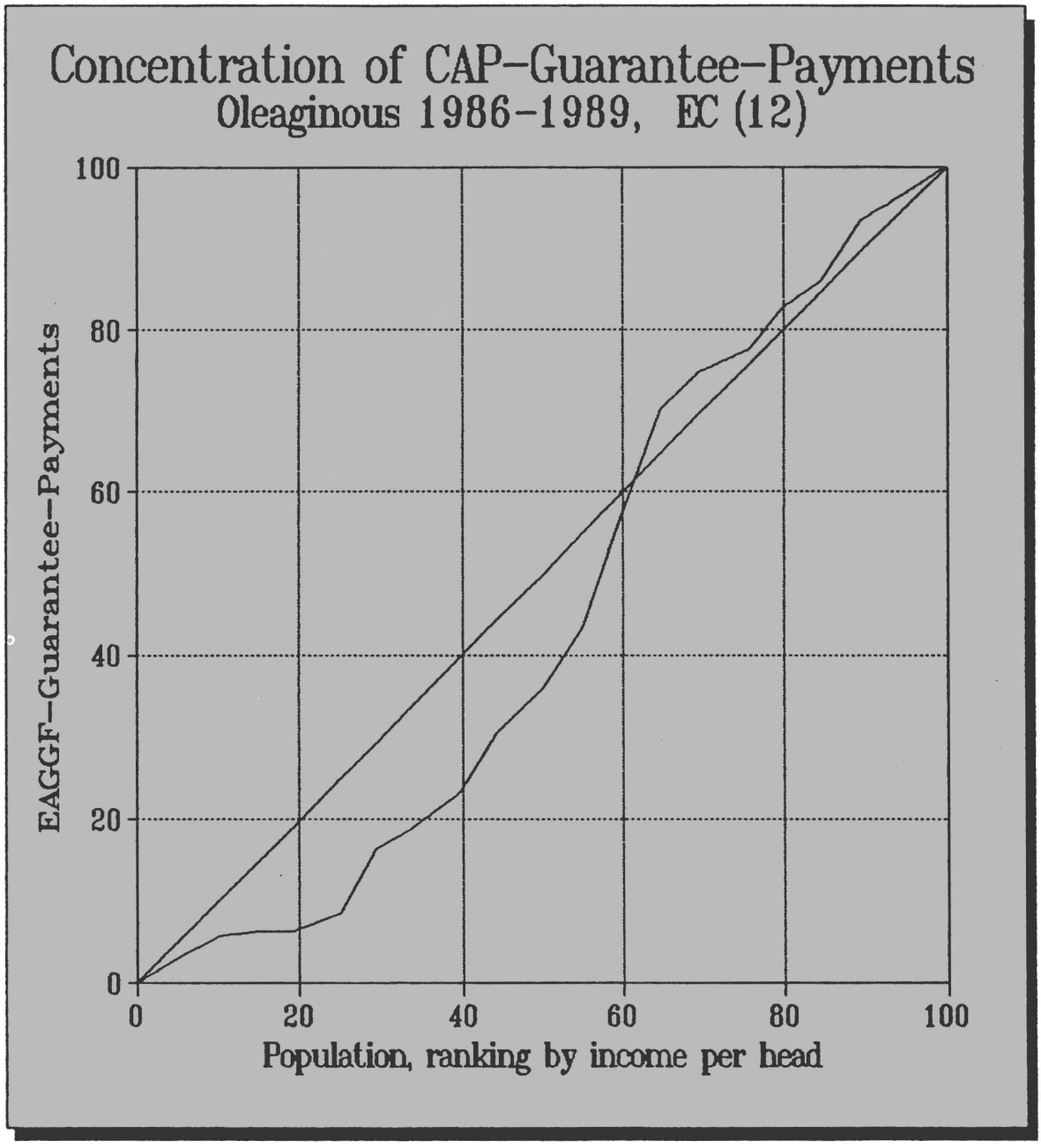
60
80
100
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Oleaginous 1986-1989, EC (12)
EAGGF-Guarantee-Payments
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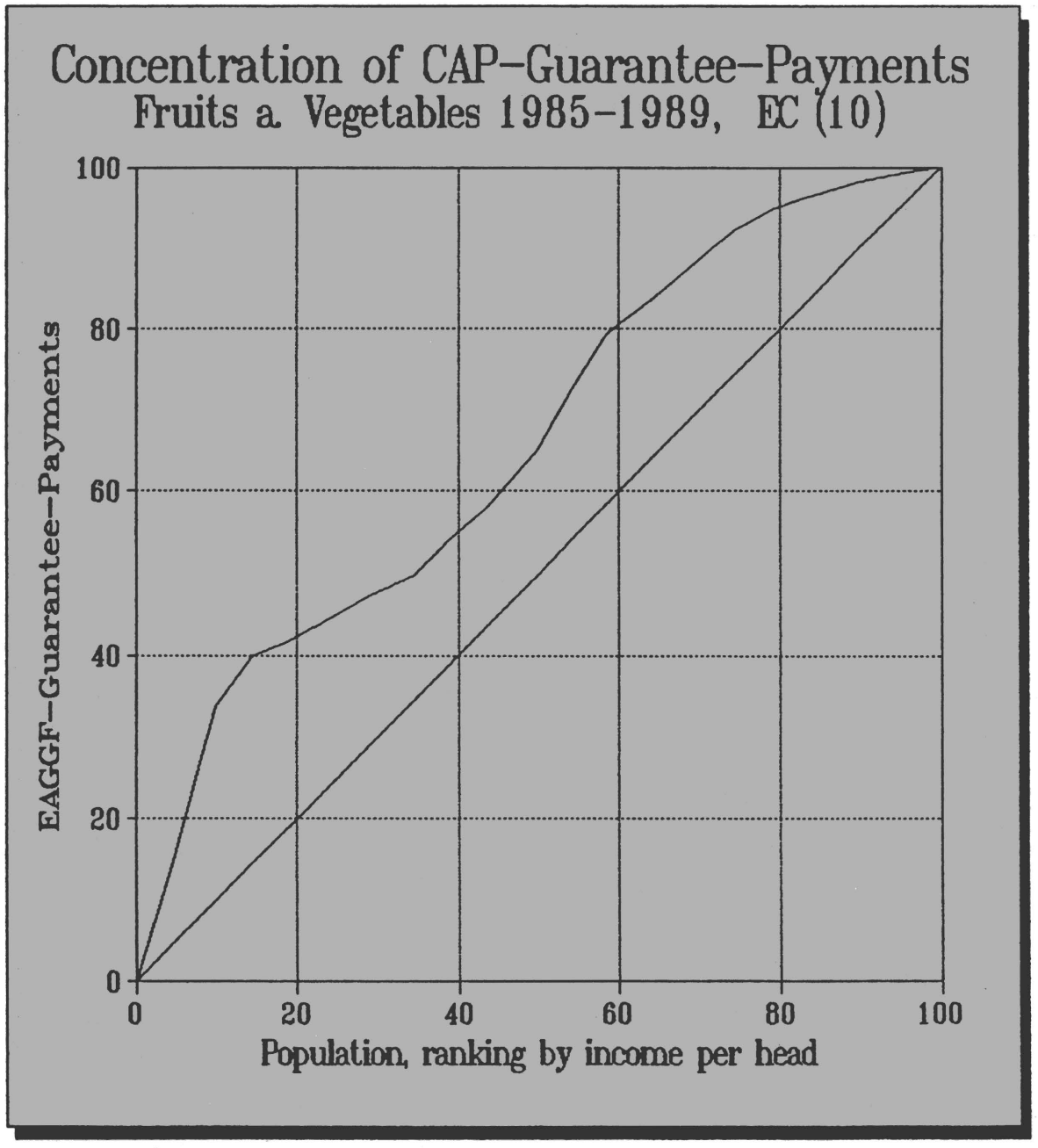
80
100
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Fruits a. Vegetables 1985-1989, EC (10)
EAGGF-Guarantee-Payments
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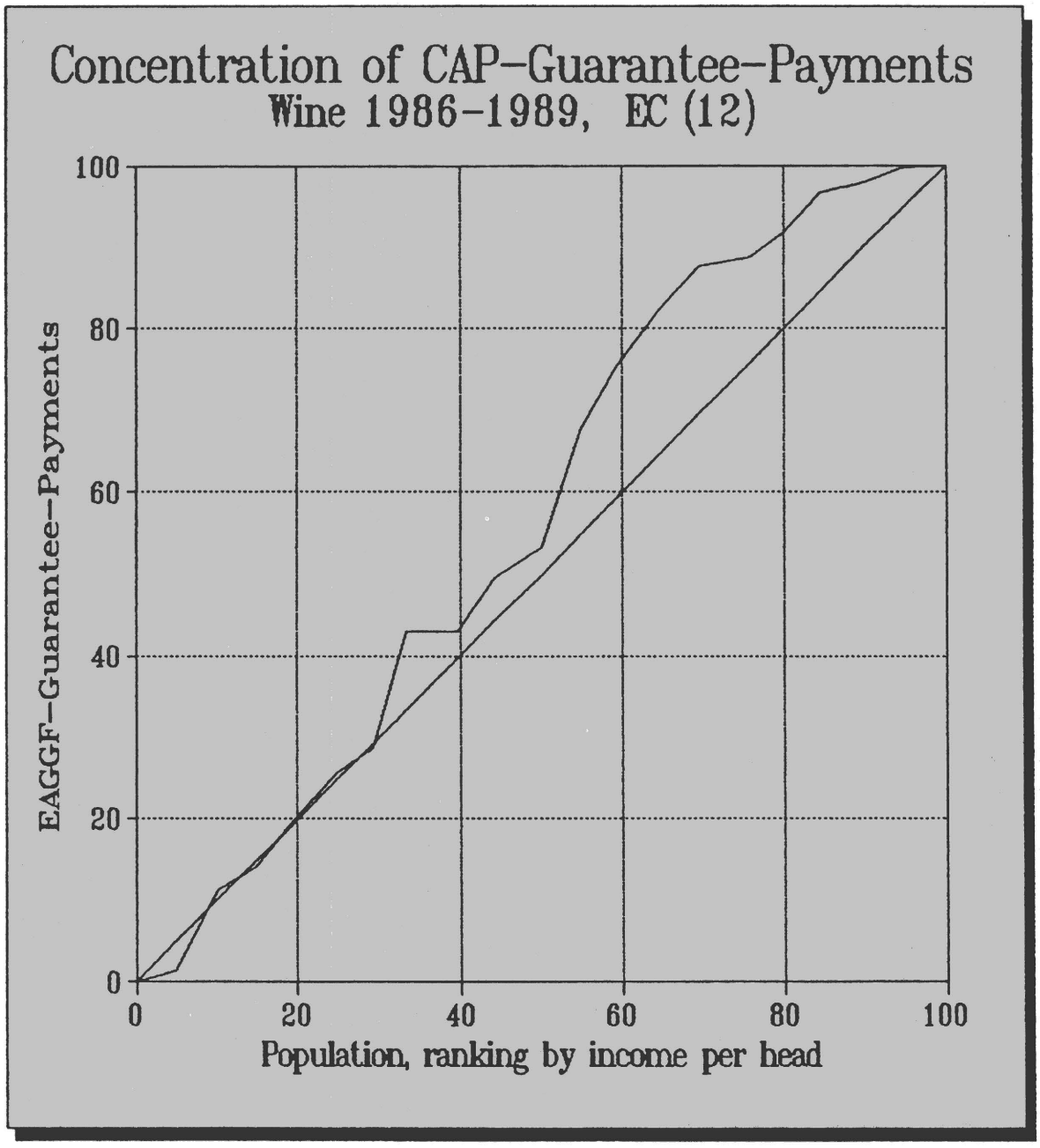
80
100
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Wine 1986-1989, EC (12)
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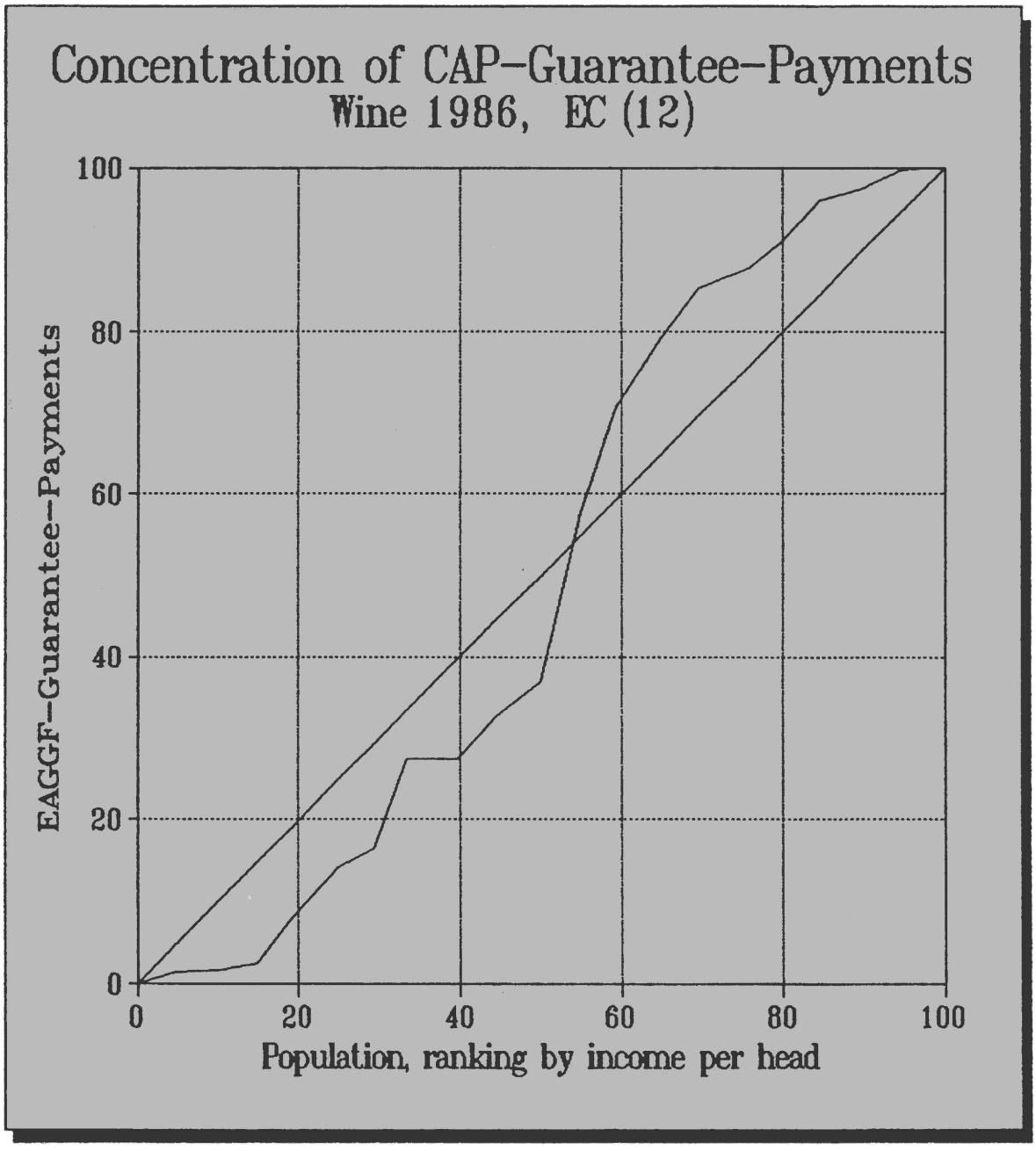
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Wine 1986, EC (12)
EAGGF-Guarantee-Payments
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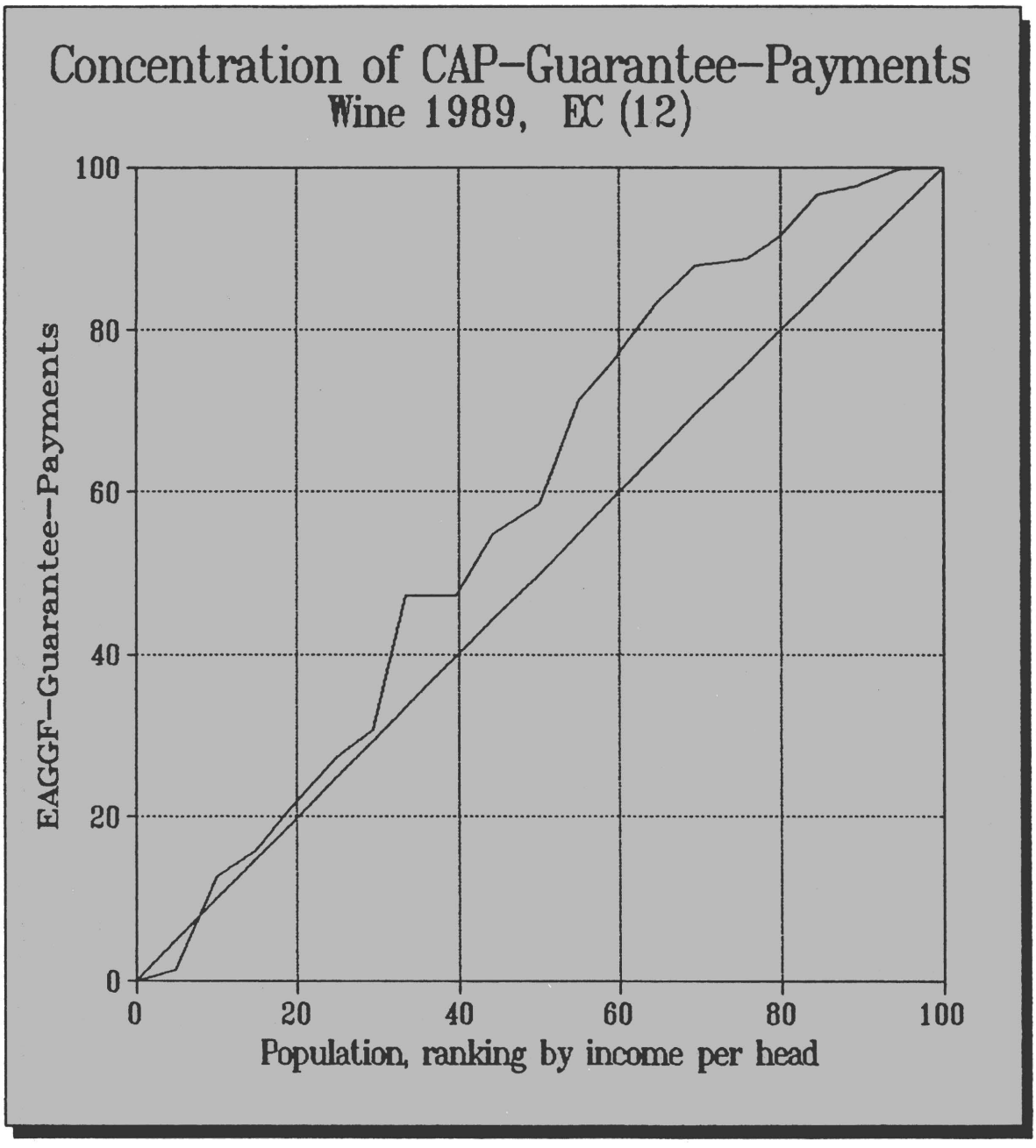
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Wine 1989, EC (12)
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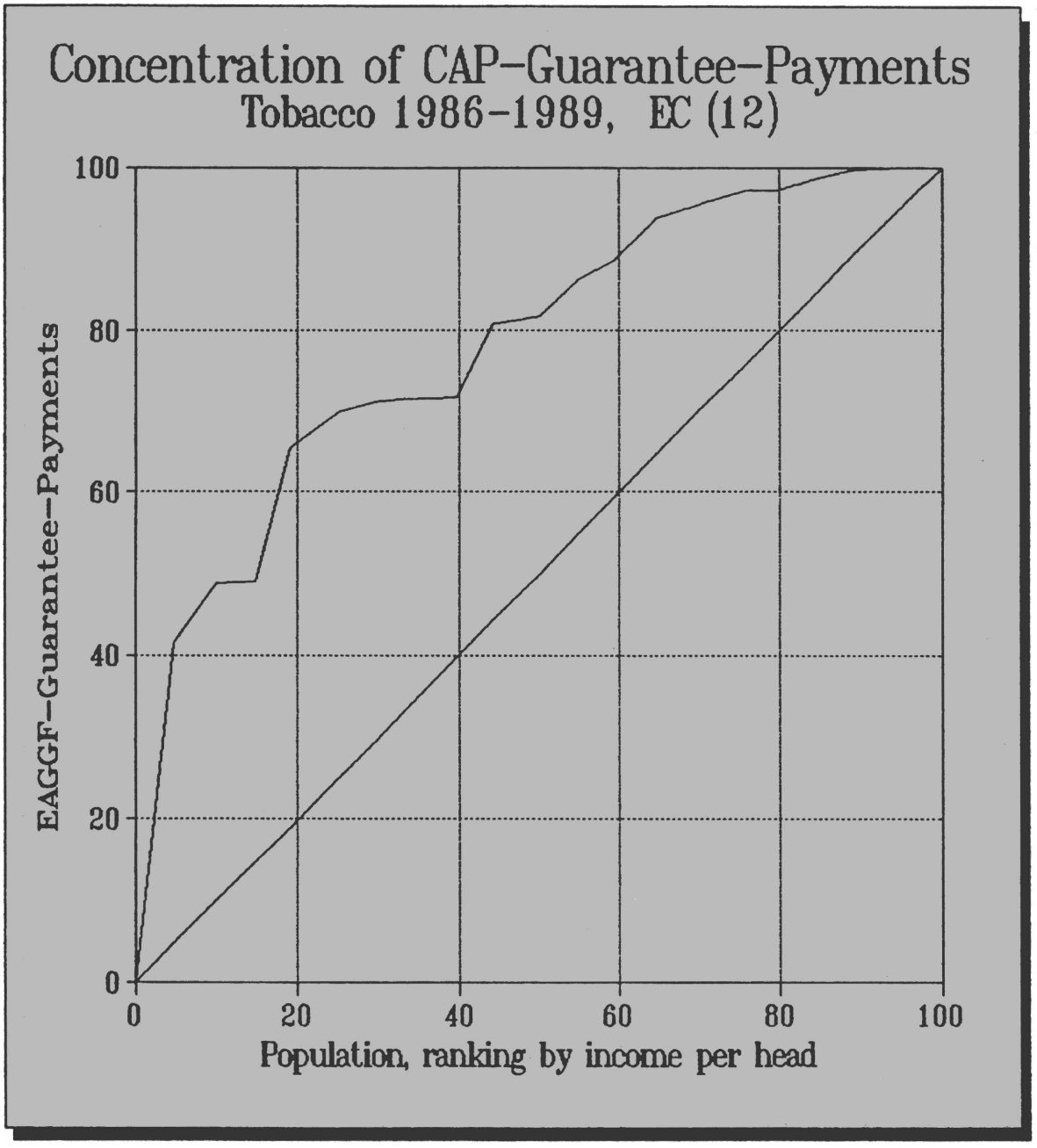
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Tobacco 1986-1989, EC (12)
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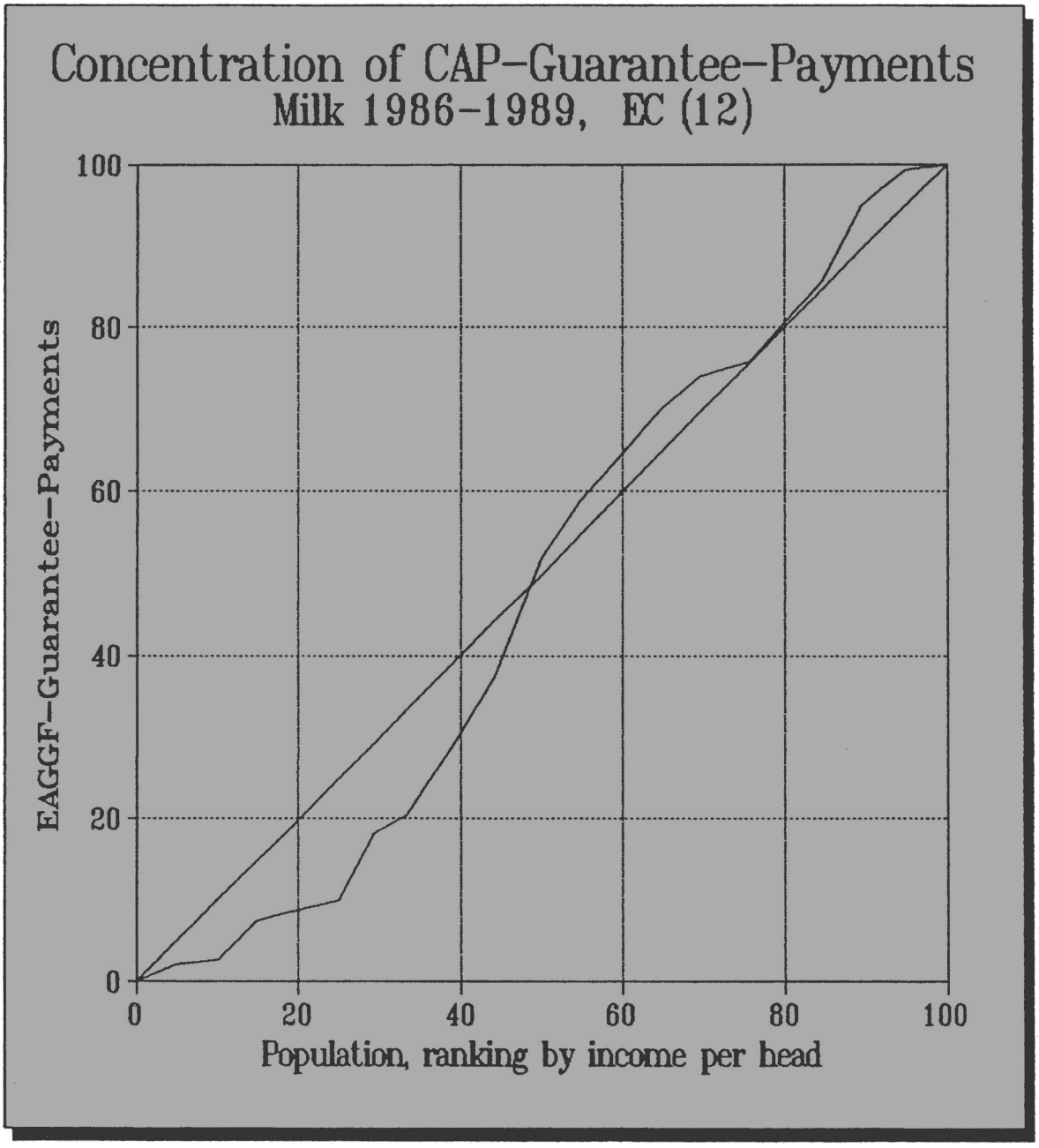
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Milk 1986-1989, EC (12)
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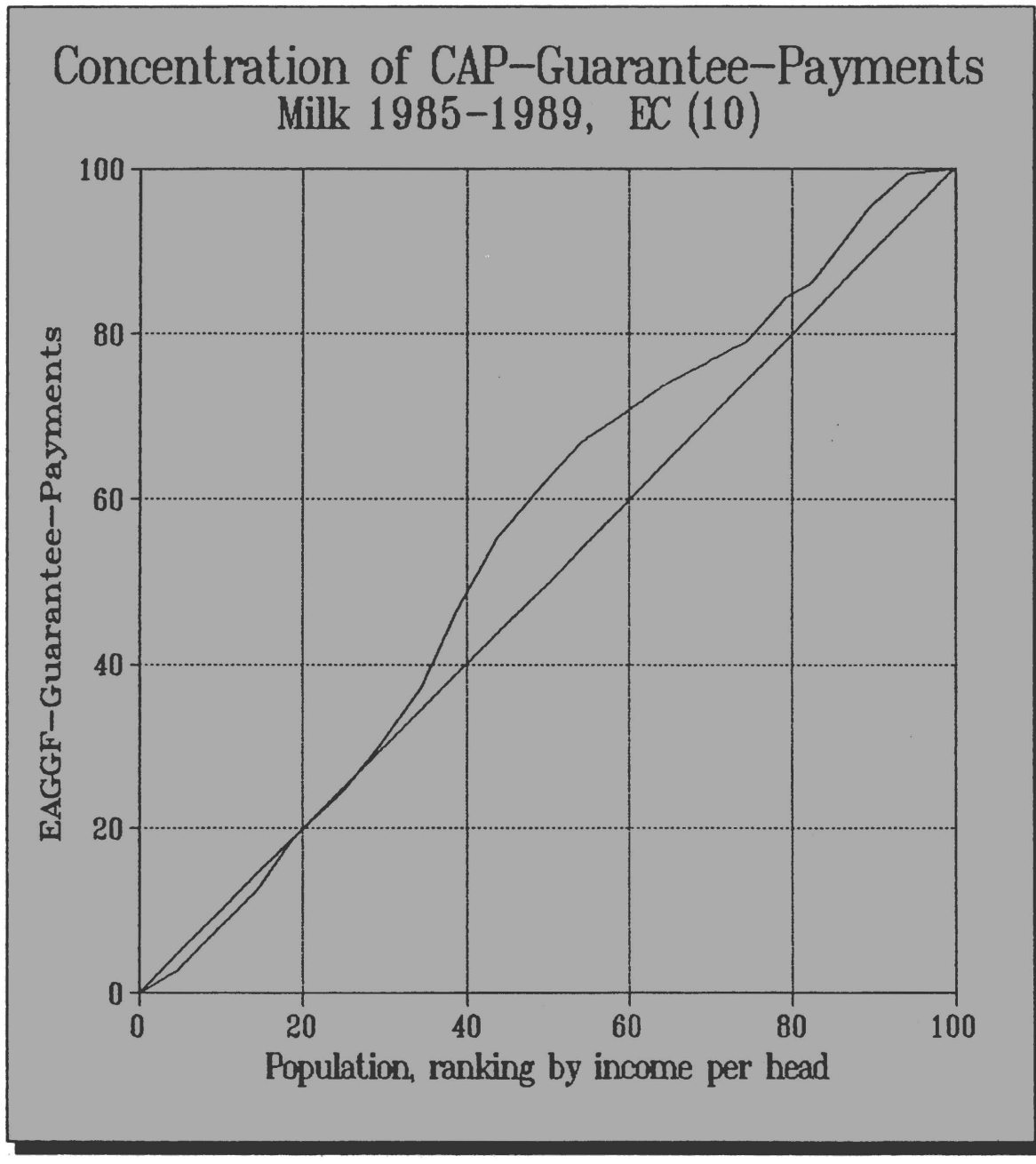
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Milk 1985-1989, EC (10)
EAGGF-Guarantee-Payments
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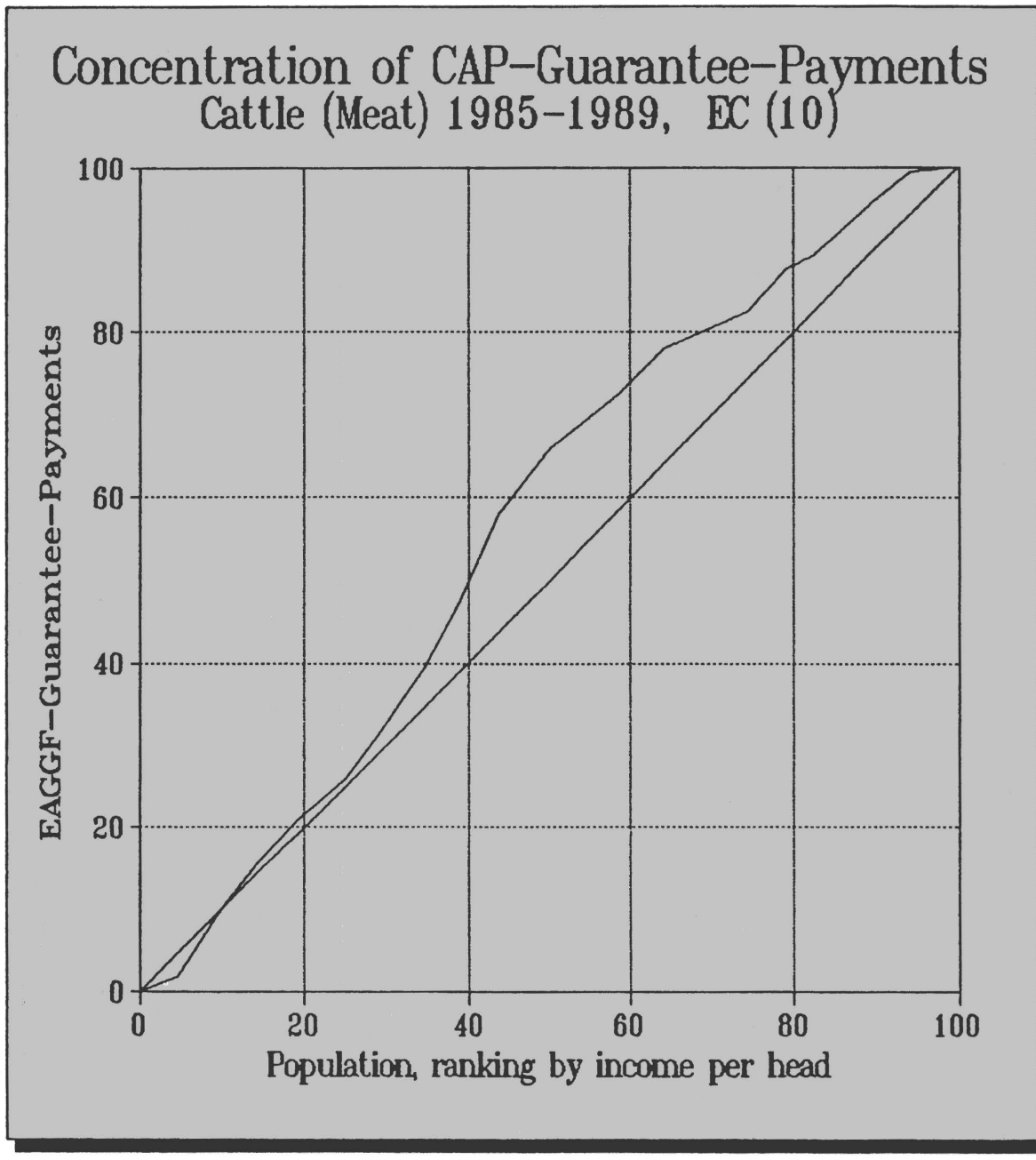
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Cattle (Meat) 1985-1989, EC (10)
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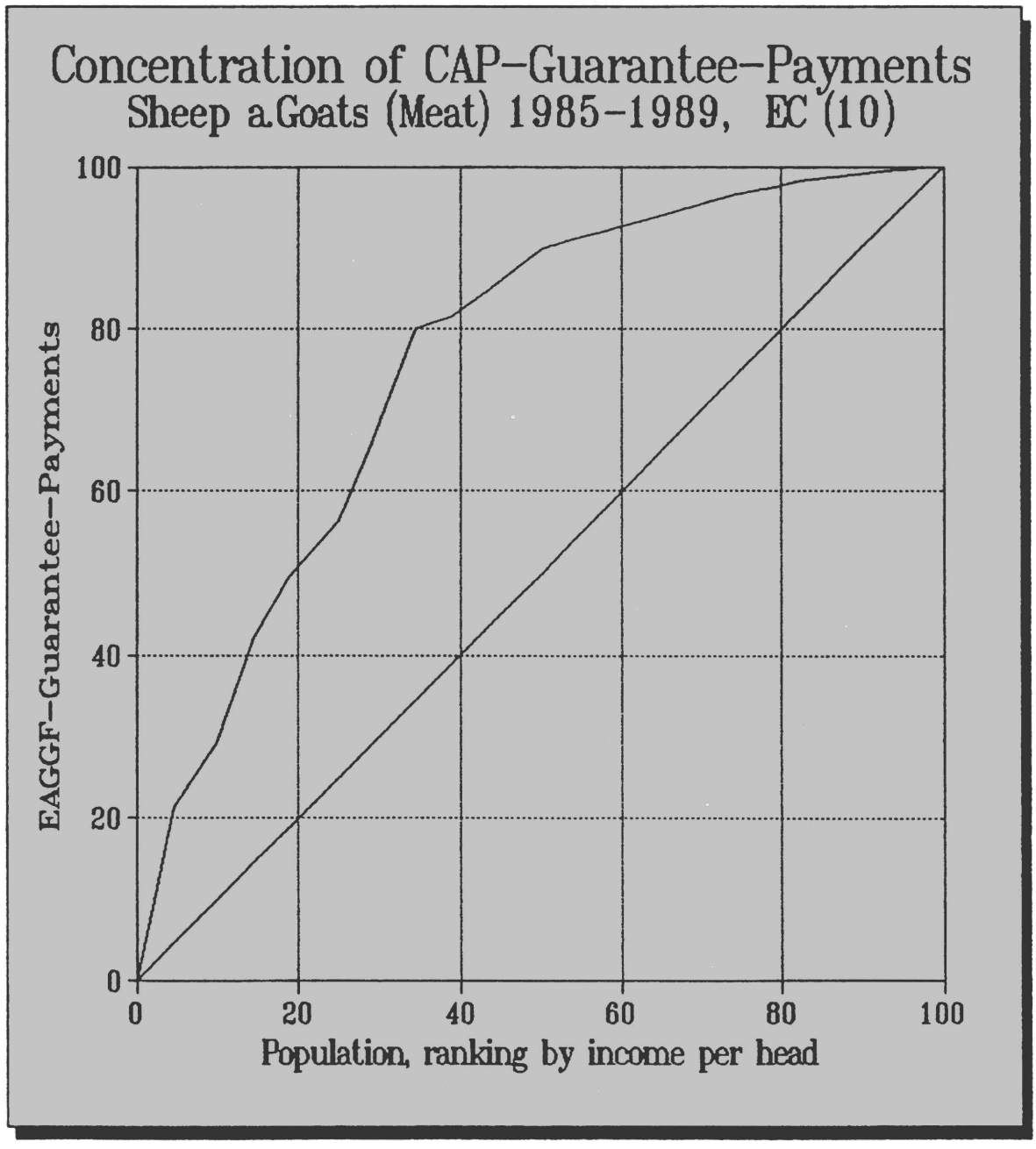
Population, ranking by income per head


Concentration of CAP-Guarantee-Payments
Sheep a.Goats (Meat) 1985-1989, EC (10)
EAGGF-Guarantee-Payments
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80
60
40
20
0
0
20
40
60
80
100
Population, ranking by income per head

Appendix C

Community and national authorities, agencies and institutions contacted in the course of work on this study:

1. Commission of the European Communities, Brussels

   DG II
   Directorate B: Economic evaluation of Community policies

   DG V
   Directorate D: European Social Fund

   DG VI
   Directorate F1: Rural development I
   Directorate G: European Agricultural Guidance and Guarantee Fund

   DG X
   Directorate A: Audiovisual

   DG XII
   Directorate A: Scientific and technological policy
   Directorate B: Means of action

   DG XVI
   Directorate B: Operations in regions whose development is lagging behind (Objective 1): Greece, Ireland, Northern Ireland and Portugal
   Directorate E: Financial management and communication

   DG XXII
   Directorate: Coordination, monitoring and assessment of structural policies

2. European Court of Auditors, Luxembourg

   Directorate: Budgets; Agricultural policy
   Directorate: Structures

3. Statistical Office of the European Communities, Luxembourg

   Directorate A: Dissemination and computer processing
   Directorate F: Agricultural, fisheries and environmental statistics

4. Federal Ministry for Food, Agriculture and Forestry, Bonn

   Subdivision 21: Coordination and principles of planning
   Department 212: Plant production, statistics, planning
   Department 215: Market observation, animal products
   Department 414: Food industry, market intervention (general), stocks
   Department 714: EC budget, EC agricultural funding

5. Federal Office for Agricultural Market Organization (BALM), Frankfurt/Main Plant production division, stocks department

6. Federal Office for Food and Forestry (BEF), Frankfurt/Main

   Department 1: Budgets
   Department 2: Planning

7. Federal Audit Office, Frankfurt/Main

   Agricultural department

European Communities — European Parliament

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