

# GREEN EUROPE

NEWSLETTER ON THE COMMON AGRICULTURAL POLICY



## **Income Disparities in Agriculture in the Community**



**Income Disparities  
in Agriculture  
in the Community**

A separate chapter of the Commission's Report on "The agricultural situation in the Community" (1) in 1984 is devoted to income disparities in agriculture in the Community. In view of their economic importance we are reprinting the complete text in question in this issue of "Green Europe".

---

(1) Office for Official Publications of the European Communities  
ISBN 92-825-4687-X  
Catalogue number: CB-41-84-765-EN-C

Luxembourg: Office for Official Publications  
of the European Communities, 1985

ISSN 0250-5886

Catalogue number: CB-AV-85-208-EN-C

© ECSC — EEC — EAEC, Brussels • Luxembourg, 1985

*Printed in Belgium*

# Income disparities in agriculture in the Community

## Introduction

It is no secret that incomes vary widely in agriculture, but the disparities are still difficult to measure with sufficient accuracy and it is even more difficult to pinpoint causes. The Community agricultural production system forms a mosaic the various parts of which react directly or indirectly to their natural and socio-economic environments, which are of course by no means uniform.

Among the possibilities available, the statistical source chosen is the data provided by the Community's farm accountancy data network (FADN). (1) The use of individual accounts provided details beyond the usual groupings of farms by State or by region and enables income disparities between groups of holdings belonging to differing types of farming or size classes to be analysed.

---

(1) The FADN musters data from a sample of Community holdings. In 1981/82, the latest marketing year for which full figures are available for the whole of the Community, the FADN figures, weighted on the basis of the 1975 survey of farm structures (1977 for Greece), covered actual conditions for more than 3 million holdings on about 74 million hectares, employing the equivalent of 5.5 million full-time workers (AWU).

Prior to an analysis of the results given below, it should be borne in mind that agricultural income, <sup>(1)</sup> the only income observed, is not the same thing as farmers' incomes, which may include accruals from other origins, such as other work or income transfers.

## **Disparities in agricultural income**

One approach to differences in incomes between farmers consists in measuring differences between 'average' farmers from group to group; it is these differences between averages which are described as 'disparities'.

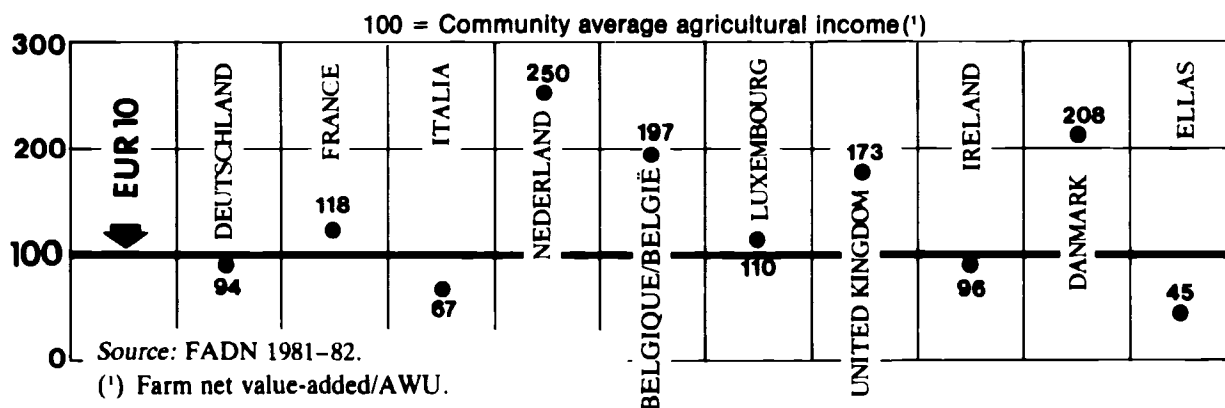
### **Disparities between Member States**

An obvious yardstick is that of disparities between the Member States. The chart below shows the average agricultural incomes in each Member State, measured against the Community average.

---

<sup>(1)</sup> The concept of individual agricultural income used is farm net value-added per annual work unit (AWU). The farm net value-added is obtained by deducting, from gross production plus premiums and subsidies, farmers' intermediate consumption of goods and services, taxes and charges linked to production and to production inputs and depreciation of equipment and buildings. This income remunerates all labour, capital and management. It is an indicator of the economic performance of all the assets contributing to the formation of agricultural production. This micro-economic indicator is quite close to the macro-economic concept of net value-added at factor cost. To permit aggregation at Community level and to facilitate comparisons between Member States and with other publications, the results are calculated in ECU at current exchange rates.

## INCOME DISPARITIES BETWEEN 'AVERAGE' FARMERS IN MEMBER STATES



The Netherlands, Denmark, Belgium and the United Kingdom are the countries in which farm incomes are highest. French and Luxembourg farmers have incomes rather above the Community average, while Germany and Ireland are just a little below average. The lowest agricultural incomes are in Italy and Greece.

One of the factors accounting for the wide differences between the Member States is depreciation. Depreciation is very heavy in Germany and Luxembourg, and this encroaches on farmers' incomes there as compared with those operating at the same technical and economic levels in other countries.

However this may be, we may note that the strongest 'average' farmer (The Netherlands) is more than five times as well off as the weakest (Greece). Dutch farmers enjoy incomes running at two and a half times the Community average.

Another important observation is that of the income disparities within each Member State between farmers who are 'well off' and farmers whose incomes are low. For this purpose, the table below shows the average income of the 25% of the farmers at the top of the income scale (highest quartile) and that of the 25% at the bottom of the scale (lowest quartile).

**Average agricultural income in highest quartile <sup>(1)</sup> and lowest quartile <sup>(2)</sup> in the Community**  
 100 = average Community farm income

	D	F	I	NL	B	L	UK	IRL	DK	GR	EUR 10
Average income in highest quartile	210	249	163	453	362	219	327	197	380	90	236
Average income in lowest quartile	- 11	30	9	92	79	- 30	41	24	76	15	12

*Source:* FADN 1981/82.

Agricultural income: farm net value-added/AWU.

<sup>(1)</sup> Quarter of those working in agriculture (AWU) at the top of the income scale.

<sup>(2)</sup> Quarter of those working in agriculture (AWU) at the bottom of the income scale.

The 'range' between the average income of the 25% 'richest' farmers and that of the 25% 'poorest' farmers, for the Community, is from 1 to 20.

The countries in which the ranges are relatively narrowest are Denmark, Belgium, the Netherlands, and Greece, in that order ('range' close to or below 1 to 5). The 'ranges' for France, the United Kingdom and Ireland are about 1 to 10, Italy has a 'range' near to the Community 'range', but Germany and Luxembourg — because of the number of negative incomes in 1981/82 — have much wider ranges.

The income disparities, measured between averages from one Member State to another, are wide, but they are the composite effect of a large number of factors, some strengthening, some offsetting, each other: size, structure and specialization of holdings, natural conditions, economic environment of the farms, skills of the farmers, etc.; further factors are differences in economic, financial, fiscal and social policy from one Member State to another, which directly influence costs and profits.

The figures given above are broad aggregations for the whole Member State. The nature and scale of disparities in agricultural incomes cannot be properly pinpointed without an examination of smaller groups of farmers.

## **Disparities between holdings according to type of farming**

Some types of farming pay much better than others. Figure 9 shows the average incomes for nine groups of farms according to type of farming, for each Member State of the Community. As before, the results are given in relation to the average agricultural income of all Community holdings.

Field crops, fruit, flowers and vegetables (horticulture) and off-land livestock farming yield above-average incomes, not only for the Community as a whole but also for the individual countries, with a few exceptions. Beef/veal and sheep farming and non-specialized farming (mixed crops, mixed livestock) generally show lower incomes.

The lowest incomes are those earned by Luxembourg and German cattle farmers, Italian wine-growers and Greek crop and livestock farmers. Easily the highest earners are the Belgian, Dutch, French, British and Danish crop farmers, Belgian and Dutch horticulturists, Belgian, Dutch and British fruit growers, Dutch and Danish dairy farmers and, generally, pig farmers.

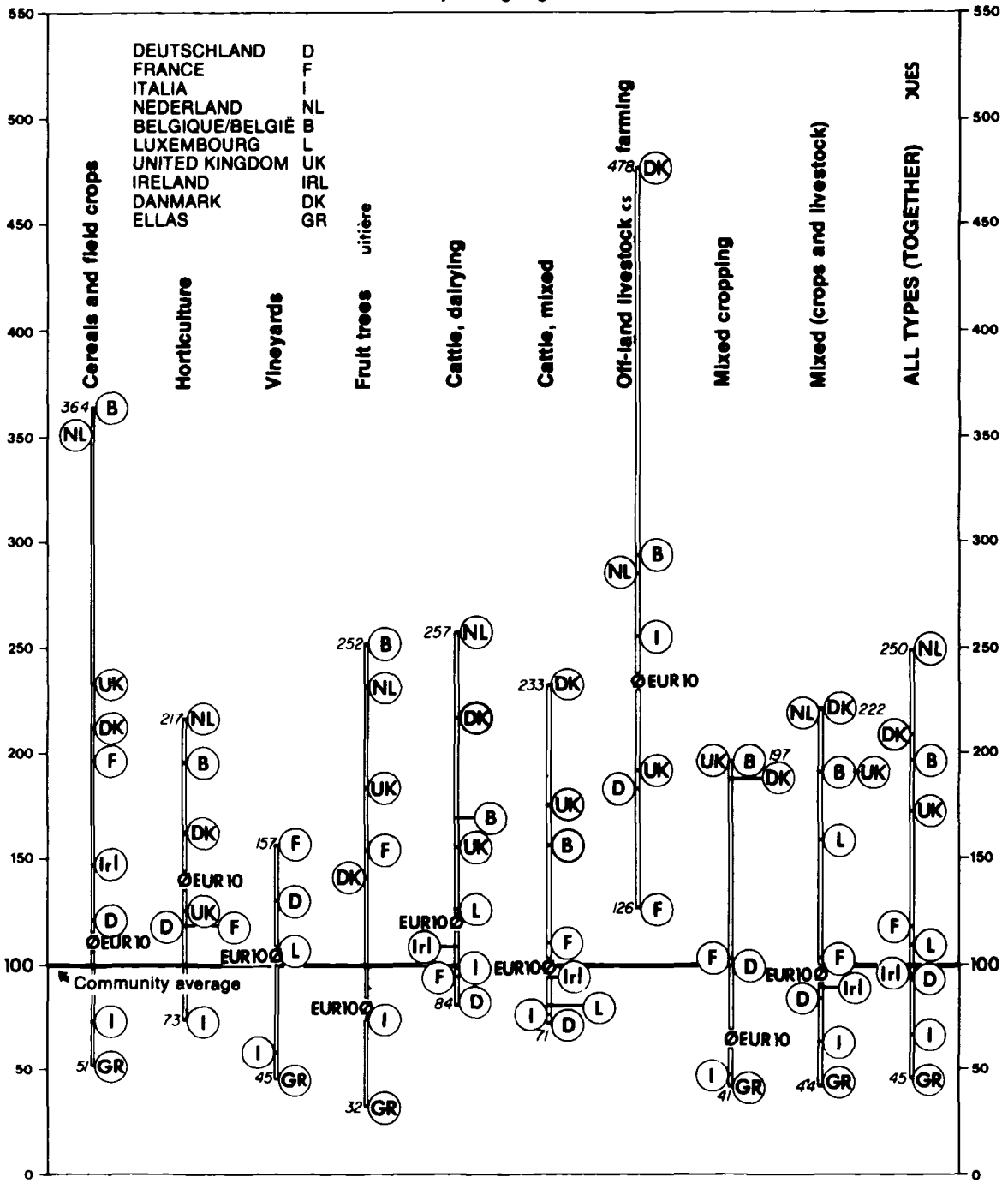
Among the less-specialized farmers, those in the Benelux, Denmark and the United Kingdom have relatively satisfactory incomes, but German, Italian, Irish, Greek and even French mixed farmers have lower incomes.

At Community level, the income disparity between holdings according to type of farming ranges from 1 (mixed farming) to 3.6 (off-land livestock farming); within each Member State, the widest gaps between 'average farmers' grouped according to type of farming are equal to or smaller than this range, except in Italy, where the range is wider. The range between the lowest point and the highest point in the chart — combination of the 'Member State' and 'type of farming' effects — is 1 to 15.



## INCOME DISPARITIES ACCORDING TO THE MOST IMPORTANT TYPES OF FARMING

100 = Community average agricultural income<sup>(1)</sup>



Source: FADN 1981-82.

<sup>(1)</sup> Farm net value-added/AWU.

## Disparities according to size of farm <sup>(1)</sup>

As the table below shows, the gap between economic size groups, at Community level, can be as much as 1 to 7.8.

The gap between extremes obtained by combination of the 'country' and the 'economic size' effects becomes 1 to 20. The table thus shows the influence on income of structural differences in the commercial farming sector in the Community.

### Levels of agricultural income <sup>(1)</sup> related to economic size of holdings

100 = average Community agricultural income

Size	D	F	I	NL	B	L	UK	IRL	DK	GR	EUR 10	
Small	1— 2 ESU	( <sup>2</sup> )	( <sup>2</sup> )	30	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	49	( <sup>2</sup> )	33	33	
	2— 4 ESU	( <sup>2</sup> )	21	45	( <sup>2</sup> )	( <sup>2</sup> )	28 ( <sup>3</sup> )	74	( <sup>2</sup> )	46	46	
Medium												
	4— 8 ESU	35	66	70	( <sup>2</sup> )	104	( <sup>2</sup> )	90	103	108	63	68
	8—16 ESU	79	107	113	163	155	79	125	137	164	93	109
Large												
	16—40 ESU	138	165	172	263	245	133	175	186	253	127	179
	40 and over ESU	189	238	240	371	417	210	248	305	354	( <sup>2</sup> )	259

Source: FADN 1981/82.

ESU = European size unit.

(<sup>1</sup>) Farm net value-added/AWU.

(<sup>2</sup>) Not represented in the FADN sample.

(<sup>3</sup>) Northern Ireland only.

In Italy, the United Kingdom and Ireland, the gap between the extremes is close to the Community figure, but it is wider in France. Generally speaking — although the sample does not include all the size classes — the larger the holding, the higher the income.

(<sup>1</sup>) The analysis concerns the economic size of holdings measured by an economic criterion: the standard gross margin (SGM). Use of this criterion enables all the holdings to be classified by a single yardstick, whatever their types or production. Economic size is expressed in European size units (ESU); one holding has an economic size of 1 ESU if its SGM is 1 000 ESU.

## Disparities between regions <sup>(1)</sup>

The results obtained from the FADN data broadly confirm the findings of other studies already carried out by the Commission on regional disparities. <sup>(2)</sup>

The map shows that the highest farm incomes are in England, Scotland, Denmark, the Netherlands, Belgium and the Paris Basin. The lowest are in Italy and in Greece.

Brittany, Emilia-Romagna, Ireland, Lorraine and Rhineland-Palatinate, Franche-Comté and Rhône-Alpes are at the Community average; Luxembourg, Alsace, Burgundy, West and South-East France, Northern Germany, Lombardy and Wales are just above average; and the section below the average is accounted for by Southern Germany, Northern Ireland, South-West France, the centre of Greece and a number of a regions in the Po Valley, the centre of Italy, Sicily and Sardinia.

**Income disparities between regions**  
100 = average Community farm net value-added/AWU

	D	F	I	NL <sup>(1)</sup>	B <sup>(1)</sup>	L <sup>(1)</sup>	UK	IRL <sup>(1)</sup>	DK <sup>(1)</sup>	GR	EUR 10
Region effect	77 to 131	79 to 220	31 to 132	250	197	100231 10	84 to 208	96	208	41 to 55	31 to 250

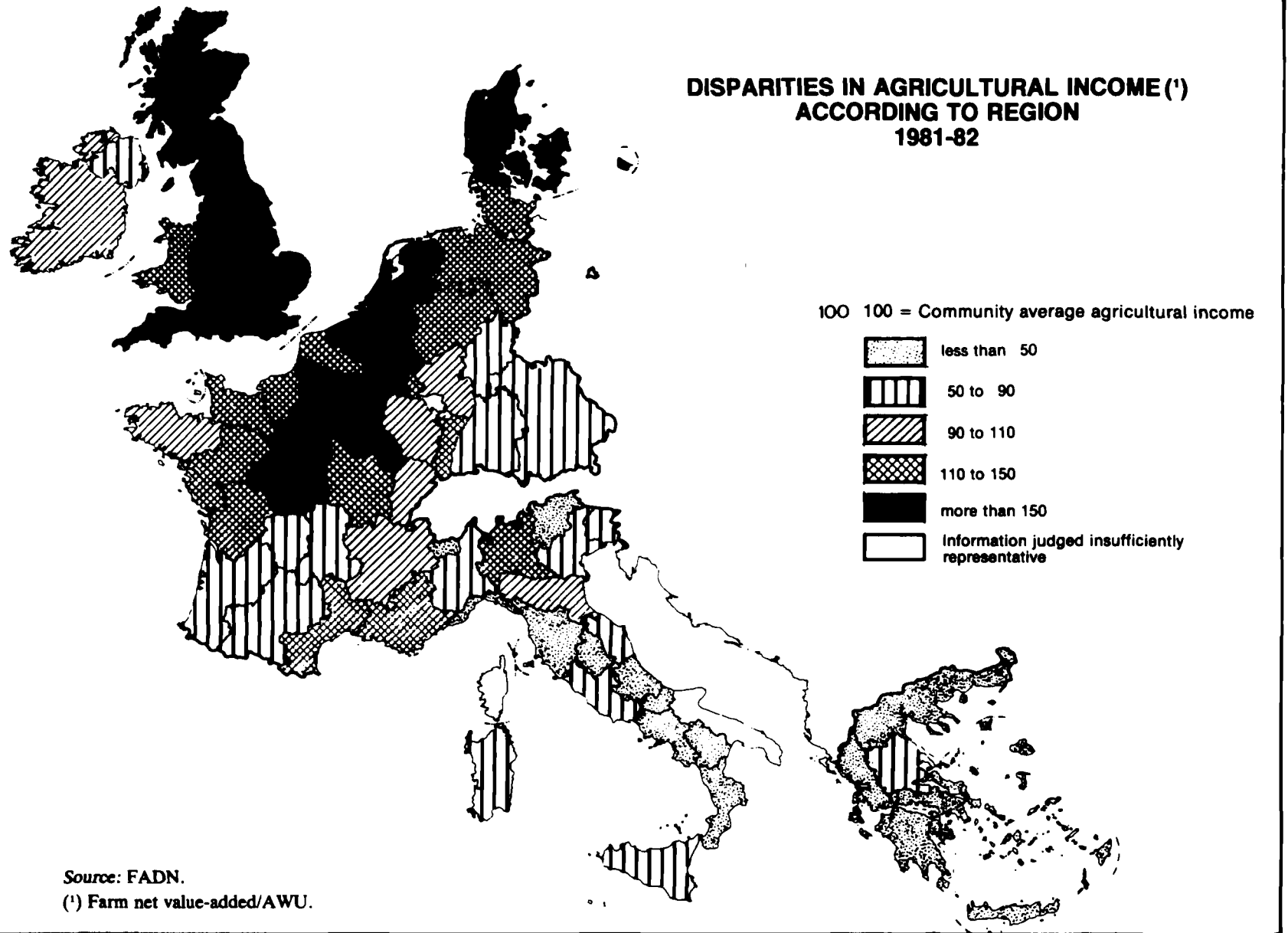
Source: FADN 1981/82.

<sup>(1)</sup> In the FADN, this Member State is a single 'region'.

<sup>(1)</sup> The study covered 69 FADN divisions.

<sup>(2)</sup> Study of the regional effects of the common agricultural policy — EC Commission — Regional policy series — Study No 21, 1981. The regions of Europe. Second periodic report on the social and economic situation and development of the regions of the Community (COM(84)40 final/2).

### DISPARITIES IN AGRICULTURAL INCOME (¹) ACCORDING TO REGION 1981-82



Source: FADN.  
(¹) Farm net value-added/AWU.

The widest gap between regions is between Basilicata and the Netherlands: Dutch farmers are eight times better off than farmers in this part of Italy. At Community level the 'region' effect is pronounced. It is obvious that the combination of the 'region' and 'type of production' of 'economic size' effects widens the 'range' because of the more extensive breakdown, giving ratios of 1 to 40, nearly double the widest ratios found at national level.

The 'region' effect varies according to type of farming. The disparities from one region to another are greatest for specialized types of farming such as field crops, trees or livestock farming, but also for mixed cropping or mixed livestock; but the disparities for pig and poultry farmers are small. The 'region' factor strengthens the disparities between types of farming but, on the whole, the differences it leads to within the same type of farming are smaller than the differences noted between the various types of farming, and also smaller than the differences due to the 'economic size' effect.

The 'region' effect is not only substantial but also complex, and cannot be accounted for solely by 'natural' effects such as soil and climate. It combines the 'type of farming' and 'economic size' effects but also interacts with other factors such as markets, technical and economic support, farming skills, the socio-economic environment of farmers and the lack of alternative employment.

## **A tentative conclusion**

The above material shows that factors such as the type of farming, the region and the economic size of the holding are important contributors to farm income disparities. Their effects, masked where disparities within Member States are considered, are clear when isolated.

Incomes can be roughly ranked by type of farming; in respect of economic size of holdings, the ranking is fairly rigid; the greater the economic potential of a holding, the higher the incomes per AWU. Of all the effects,

the 'region' factor is the most pronounced; however, while there are regions with high farm incomes, it is difficult to distinguish regions consistently in the lead — except the Netherlands — whatever the type of farming, and regions always lagging behind; in the regions well up the league table, there are low-income farmers, and vice versa.

## **Distribution and dispersion of farm income**

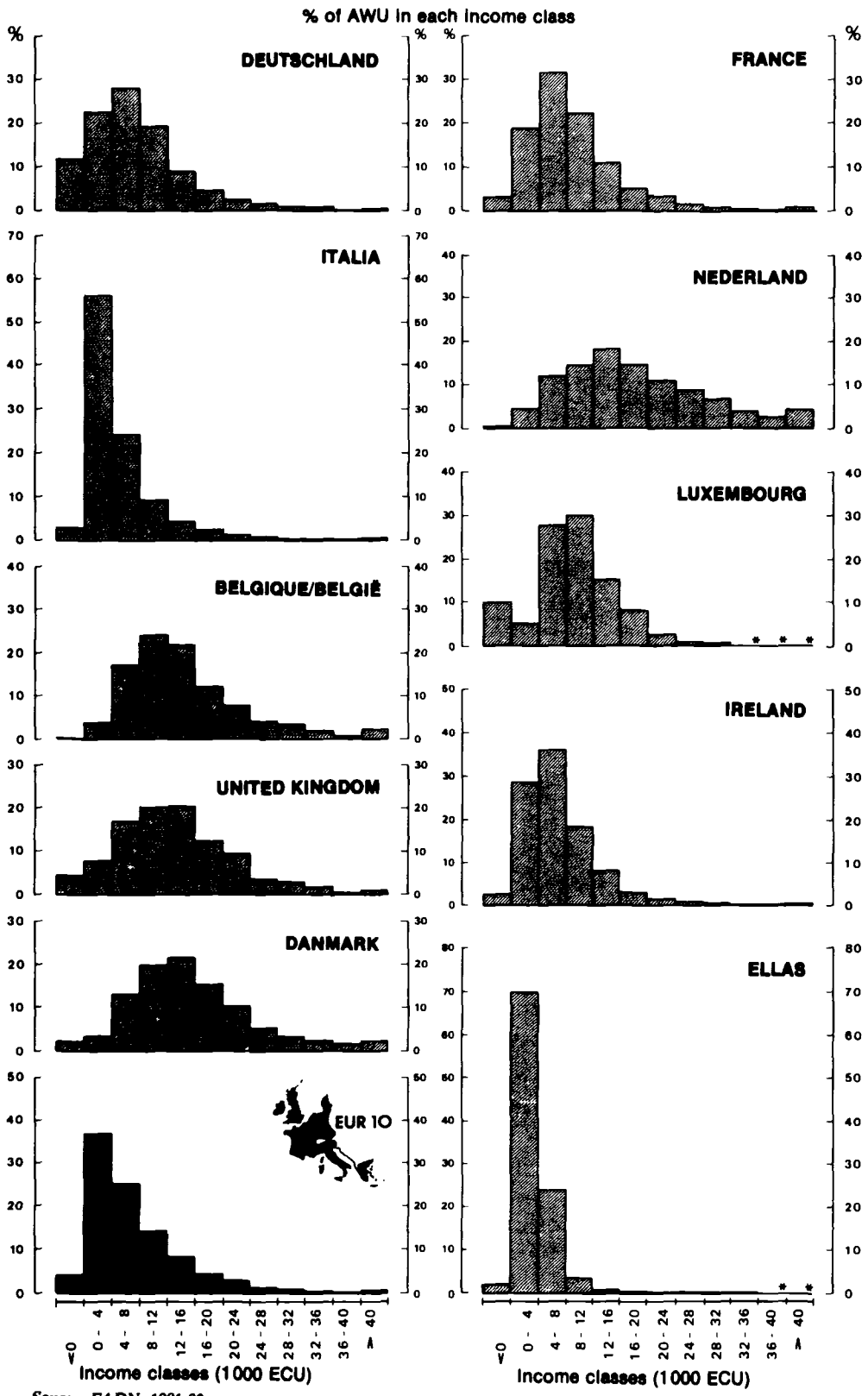
Information on average incomes alone is not sufficient, and information is needed on the 'scatter' of farming results around the average. For this purpose, two criteria have been used: income distribution (the breakdown of farmers and farmworkers according to income classes) and income dispersion (the deviations of the individual figures within a given group from the average for the group).

### **Distribution of farm income**

At Community level, 34% of farmers enjoyed, in 1981/82, incomes exceeding 8000 ECU (Figure 12). Forming a third of the total of farmers and farmworkers, these individuals none the less accounted for 56% of the land, 62% of the livestock, 57% of the operating capital and 63% of total indebtedness; they bought 63% of the industry's inputs and produced 66% of its total final production. Their work accounted for 71% of the overall volume of farm net value-added in the holdings observed.

In eight Member States (i.e. except Luxembourg and Greece), there are 'agricultural undertakings' capable of achieving individual incomes of more than 40 000 ECU. The other extreme is that of the farmers — nearly 40% — 'receiving' negative incomes in 1981. These farmers actually consumed more in the way of goods and services and borrowings than their gross production.

# DISTRIBUTION OF AGRICULTURAL INCOME (1) IN THE COMMUNITY



Source: FADN, 1981-82.  
 (1) Farm net value-added/AWU.  
 \* Classes not represented.

There is some evidence that in certain cases farmers may have gone beyond the efficiency threshold in their efforts to improve equipment and step up inputs of goods and services from outside the farm.

A more refined analysis would also be of value in this context in identifying the costs the amounts of which show the widest dispersion and in indicating at what income levels are found the holdings whose costs are highest or lowest — in other words, in identifying that combination of costs most likely to yield the best incomes.

### **Dispersion of farm incomes**

Observation of individual figures shows wide deviations from the averages. The Netherlands, Belgium, Denmark, Greece and the United Kingdom (apart from Northern Ireland) are relatively homogeneous; incomes show the widest dispersions in Germany and Italy. In France, Luxembourg and Greece, dispersion roughly matches that of the Community as a whole.

Within a single type of farming, there are wide deviations, except among off-land livestock farmers (pigs, poultry). With regard to size classes, the figures for the largest holdings tend to greater homogeneity than those for the average-sized holdings. There are also low-income farmers in 'prosperous' regions just as there are 'poor' farmers in types of farming regarded as profitable, and the reverse is just as often the case.

### **Changes in income disparities**

Within the 1976/81 period, agricultural incomes in real terms declined in 1979 and 1980, and the decline was particularly marked in certain regions. <sup>(1)</sup> During this period, income disparities seem to have generally stabilized; however, they grew wider as between holdings of differing economic sizes.

---

<sup>(1)</sup> As for all the above comments, the income indicator used is farm net value-added/AWU. The change in the indicator at Community level is the weighted average of the rates of change in each Member State; the weightings used are the respective shares of farm net value-added of each Member State in the farm net value-added of the Community. The deflator used is the GDP deflator.



**Changes at Community level in disparities in average farm incomes, according to effect, 1976-81**

Year	Income disparity according to effect				Geographical level
	Country	Type of farming	Economic size	Region	
1976	1 to 3.5	1 to 2.9	1 to 7.1	1 to 7.6	EUR 9
1977	1 to 3.7	1 to 3	1 to 7	1 to 7.3	
1978	1 to 3.3	1 to 2.4	1 to 6.2	1 to 7.7	
1979	1 to 3.1	1 to 3.0	1 to 6.9	1 to 5.1	
1980	1 to 3.1	1 to 3.2	1 to 7.0	1 to 5.0	
1981	1 to 3.7	1 to 3.1	1 to 8.1	1 to 8.1	
1981	1 to 5	1 to 3.6	1 to 7.8	1 to 8.1	EUR 10

Source: FADN.

Whilst changes are observable with regard to types of farming — e.g. horticulturists and wine-growers saw their incomes ease down in relative terms while sheep and cattle farmers made gains — it is clear that although some ground lost was made good, the hierarchy in average performances between types of farming, economic size units and regions has not changed substantially, the old disparities tend to persist.

At regional level, the main feature is the promotion into the highest average incomes in the Community of the United Kingdom regions, and the decline of the German regions; in the lower classification, 3 Greek regions join the 10 Italian regions already at the bottom of the league table.

With regard to the dispersion of farmers' incomes within a single Member State or a single region, wherever this can be properly observed there is an impression of an accentuation between the extremes. Does this mean that commercial farming is tending to split into two groups, 'traditional' farmers and farm managers, in the modern sense of this word, possessing not only ample equipment but also the definite ability to optimize the combination of different assets, to anticipate market movements and adapt promptly to changes in the economic and financial environment?

With growing dispersion, there is also a greater variation in farm income from one year to the next, especially for certain types of farming (pigs, poultry, cereals, etc.). It would seem that the farmers achieving the best incomes are also those who have to contend with the widest income fluctuations. The growing short-time instability in incomes must be interpreted on the basis of changes in the factors determining income, i.e. the volume of production and farmgate prices on the one hand, and the prices and the quantities of inputs on the other, with income reflecting these changes all the more closely the larger the share of paid costs in the value of final production.

The growing short-term instability of incomes constitutes a further aggravation of the traditional uncertainties that beset the farming community.

## **Conclusion**

Farm income disparities are wide, and their causes are complex. They are a result of the combined or opposing effect of many factors peculiar to agriculture — economic potential, type of farming, skills of farmers, etc. — or external to farming, such as the general socio-economic environment. They cannot be described satisfactorily by figures aggregated at Member State level. Taken in isolation, certain factors engender income disparities wider than those observed at national level only.

Farm incomes vary a great deal in relation with the economic size of the holding. Nominal incomes are relatively better for larger holdings than for small farms, and this consolidates the disparity between farmers and is reflected at the level of the 'regions'.

Measurement of the disparities — differences between averages — does not suffice to describe income differences between farmers. Whatever the production sector, or region, there are always high-earning farmers and differences between individual and average incomes within a single group are often wide. Both within the Member States and within the regions, many differences between situations of individual farmers persist.

The common agricultural policy, which, originally, was based on market organization instruments, has not prevented the persistence of income disparities among farmers, but there is no evidence that it has aggravated these disparities in recent years. Disparities from region to region remain wide, and it is clear that the beneficial effects of the common agricultural policy on incomes have not been spread evenly over the regions; this raises special problems in so far as the regions in question are often those which already have general economic difficulties to contend with and therefore offer little in the way of alternative employment.

However, one must keep in mind that the present article is only a first analysis of income disparities in agriculture: a 'mechanical' treatment of the accounting information collected by FADN.

To present these facts and show the largeness of the disparities: these were the objectives followed. Detailed investigations will be necessary to explain the observed phenomena, to analyse the causes of the disparities and to measure their respective influence on agricultural income; it is in this way that the analysis should be followed up.

GREEN EUROPE

Newsletter on the common agricultural policy

<u>No.</u>		<u>Language:</u>
165	15 years of Green Europe	DA, DE, EN, FR, IT, NL
166	Milk: problem child of European agriculture	DA, DE, EN, FR, IT, NL
167	EEC agriculture: the world dimension	DA, DE, EN, FR, IT, NL
168	European agriculture 1979	DA, DE, EN, FR, IT, NL
169	European agriculture into the nineteen-eighties	DA, DE, EN, FR, IT, NL
170	Agriculture and the problem of surpluses	DA, DE, EN, FR, IT, NL
171	EEC food imports: the New Zealand file	DA, DE, EN, FR, IT, NL
172	Wine in the eighties	DA, DE, EN, FR, IT, NL, GR
173	The agricultural aspects of enlargement of the European Community: Greece	DA, DE, EN, FR, IT, NL
174	The agricultural aspects of enlargement of the European Community: Spain	DA, DE, EN, FR, IT, NL
175	The common agricultural policy and world food shortages - Food aid	DA, DE, EN, FR, IT, NL
176	Aspects of the common agricultural policy of concern to consumers	DA, DE, EN, FR, IT, NL
177	Policy for animal feedingstuffs: the case of cereal "substitutes"	FR
178	The enlargement of the Community	FR
179	The Community's agricultural and food exports	FR
180	A new common organization of the markets in sugar as from 1 July 1981	DA, DE, EN, FR, IT, NL
181	A new common agricultural structure policy	DA, DE, EN, FR, IT, NL
182	Financing the market side of the common agricultural policy - EAGGF-Guarantee	DA, DE, EN, FR, IT, NL

<u>No.</u>		<u>Language</u>
183	Coordination of agricultural research in the Community	DA, DE, EN, FR, IT, NL
184	Community food aid	DA, DE, EN, FR, IT, NL
185	The contribution of the common agricultural policy to the economic development of the Community	DA, DE, EN, FR, IT, NL
186	The development of veterinary legislation	DA, DE, EN, FR, IT, NL
187	The Community's agricultural policy and policy on trade in agricultural products	DA, DE, EN, FR, IT, NL
188	Mechanisms of the common organization of agricultural markets - livestock products	DA, DE, EN, FR, IT, NL
189	Mechanisms of the common organization of agricultural markets - crop products	DA, DE, EN, FR, IT, NL
190	The agricultural aspects of enlargement of the European Community: Portugal	DA, DE, EN, FR, IT, NL
191	State aids and the common agricultural policy	DA, DE, EN, FR, IT, NL, GR
192	The common agricultural policy and agricultural trade with the developing countries	DA, DE, EN, FR, IT, NL, GR
193	Prevention of frauds against the agricultural fund	DA, DE, EN, FR, IT, NL, GR
194	Implications for the agricultural sector of the lack of a matching degree of integration in the other areas of Community policy	DA, DE, EN, FR, IT, NL, GR
195	Agriculture and energy: current problems and future outlook	DA, DE, EN, FR, IT, NL, GR
196	The common agricultural policy and the food industry	DA, DE, EN, FR, IT, NL, GR
197	For the Southern Regions of the Community - The integrated Mediterranean programmes -	DA, DE, EN, FR, IT, NL, GR
198	The miracle of the CAP	DA, DE, EN, FR, IT, NL, GR
199	The new common agricultural structures policy	DA, DE, EN, FR, IT, NL, GR

<u>No.</u>		<u>Language</u>
200	Agriculture in the United States and in the European Community: a comparison	DA, DE, EN, FR, IT, NL, GR
201	Sheepmeat	DA, DE, EN, FR, IT, NL, GR
202	Agriculture as a creator of jobs	DA, DE, EN, FR, IT, NL, GR
203	Milk - the quota system	DA, DE, EN, FR, IT, NL, GR
204	Europe's green mantle - heritage and future of our forests	DA, DE, EN, FR, IT, NL, GR
205	Fruit and vegetables - why products are withdrawn from the market	DA, DE, EN, FR, IT, NL, GR
206	Agricultural research - progress and prospects	DA, DE, EN, FR, IT, NL, GR
207	The guarantee thresholds and the CAP	DA, DE, EN, FR, IT, NL, GR

ECU 1.20      Price (excluding VAT) in Luxembourg  
BFR 50      IRL 0.85      UKL 0.70      USD 1.30

---



KONTORET FOR DE EUROPÆISKE FÆLLESSKABERS OFFICIELLE PUBLIKATIONER  
AMT FÜR AMTLICHE VERÖFFENTLICHUNGEN DER EUROPÄISCHEN GEMEINSCHAFTEN  
ΥΠΗΡΕΣΙΑ ΕΠΙΣΗΜΩΝ ΕΚΔΟΣΕΩΝ ΤΩΝ ΕΥΡΩΠΑΙΚΩΝ ΚΟΙΝΟΤΗΤΩΝ  
OFFICE FOR OFFICIAL PUBLICATIONS OF THE EUROPEAN COMMUNITIES  
OFFICE DES PUBLICATIONS OFFICIELLES DES COMMUNAUTÉS EUROPÉENNES  
UFFICIO DELLE PUBBLICAZIONI UFFICIALI DELLE COMUNITÀ EUROPEE  
BUREAU VOOR OFFICIËLE PUBLIKATIES DER EUROPESE GEMEENSCHAPPEN

ISSN 0250-5886