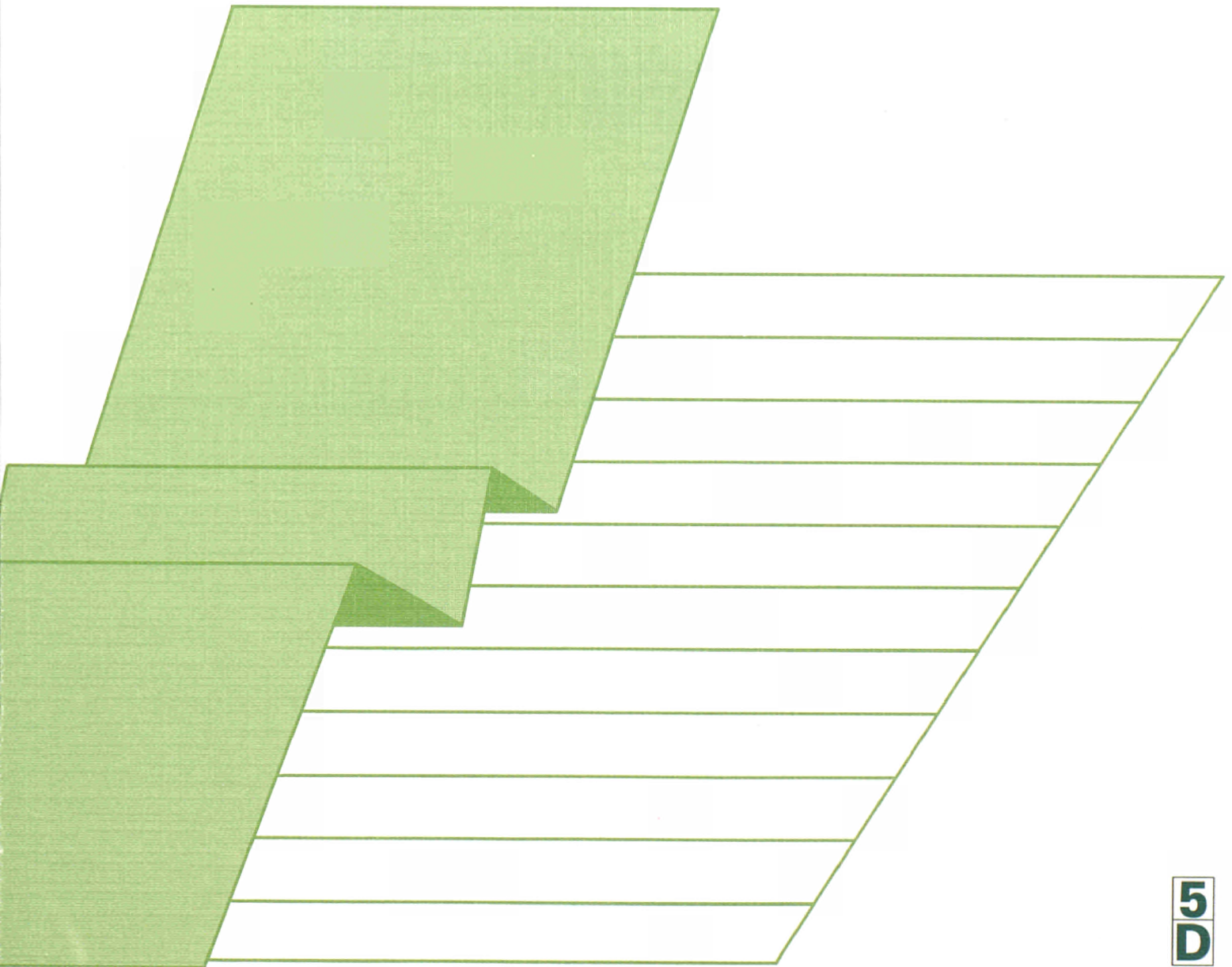


AGRICULTURAL INCOME 1991



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Y. Franchet
Generaldirektor

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To ensure that the vast quantity of accessible data is made widely available, and to help each user make proper use of this information, Eurostat has set up two main categories of document: statistical documents and publications.

The statistical document is aimed at specialists and provides the most complete sets of data: reference data where the methodology is well established, standardized, uniform and scientific. These data are presented in great detail. The statistical document is intended for experts who are capable of using their own means to seek out what they require. The information is provided on paper and/or on diskette, magnetic tape, CD-ROM. The white cover sheet bears a stylized motif which distinguishes the statistical document from other publications.

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Y. Franchet
Director-General

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Y. Franchet
Directeur général

AGRICULTURAL INCOME 1991

Theme
Agriculture, forestry and fisheries
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1 INTRODUCTION

In 1992 - as in previous years - Eurostat has undertaken to publish the results of estimates of recent changes in agricultural income in the Member States and in the Community as a whole. The calculations are based on data provided by the appropriate national authorities. Users of this publication will therefore find in it information on and analyses of the income situation in agriculture and how this is changing. As the findings are highly important for a better understanding of the Community's agriculture, Eurostat endeavours to improve and extend the analysis procedure each year.

This publication focuses on changes in agricultural income in the Member States and in the Community as a whole for 1991 compared with 1990. Whilst the December 1991 "Rapid Report No.1991-18" on agricultural income in 1991 outlined the most important changes over the past year, this publication provides revised and more detailed data as well as analyses and comments. These analyses chart the effect of the different factors on changes in incomes in 1991 (Chapters 2 to 4), place recent results in the context of changes in agriculture within the Community and Member States over the past decade (Chapters 5 and 6), and allow comparisons of absolute levels of agricultural income between Member States (Chapter 7).

The figures are based on the last available estimates (**January - February 1992**) produced by the national departments regarding probable changes in prices, quantities and values for products and charges which determine income in the agriculture sector. The methodology applied is that of the Economic Accounts for Agriculture (EAA)⁽¹⁾.

Three indicators have been derived from the EAA to show unit income trends in agriculture.

The net value added at factor cost in agriculture is computed from the value of final agricultural production, deducting intermediate consumption, depreciation and taxes linked to production, and adding subsidies⁽²⁾. This figure deflated by the implicit price index of gross domestic product at market prices⁽³⁾, and divided by the total labour input in agriculture⁽⁴⁾ provides **indicator 1**.

Net income from agricultural activity of total labour input is computed by subtracting rents and interest payments from net value added at factor cost. This figure, deflated by the same price index referred to above and divided by total labour input in agriculture, gives **indicator 2**.

Net income from agricultural activity of family labour input is computed by deducting compensation of employees from the net income from agricultural activity of total labour input. This figure is deflated like the two previous ones and then divided by family labour input only (holder and members of his family working on the holding) to give **indicator 3**.

(1) cf. Eurostat "Manual on Economic Accounts for Agriculture and Forestry", Theme 5, Series E, Luxembourg 1989 (New edition to be published in 1992).

(2) cf. "Methodological Note A.1.1" on the calculation of agricultural aggregates.

(3) cf. "Methodological Note A.1.4" on the calculation of the deflated series, especially for the Community as a whole.

(4) cf. "Methodological Note A.1.2" on the definition and measurement of the agricultural labour input.

To calculate indicators 2 and 3, more information is needed than for calculating indicator 1: data on rents and interest for indicator 2, and on compensation of employees and the breakdown into family and non-family (paid) labour input for indicator 3. Full harmonization has yet to be achieved in the Member States on these variables. For this reason, the analysis centres on indicator 1, which is more reliable and has better comparability than the other two.

Changes in agricultural income in 1991 in the Community as a whole are presented and analysed in chapter 2 of this report and then broken down by Member State in chapter 3. The data for Germany (and hence for EUR 12) relate to the area as constituted prior to unification on 3 October 1990. Insofar as figures are available, the agricultural income situation in the former GDR is discussed in an appendix to the chapter dealing with Germany in chapter 3.

In order to present information on the liquidity position of the agricultural production sector, a **cash flow indicator** has been defined and is analysed in chapter 4. It differs from agricultural income indicator 3 in that it does not include changes in stock, own account gross fixed capital formation or depreciation. Work on providing corresponding figures in the Member States has advanced still more, since this indicator is now available for eight countries (B,D,F,IRL,L,NL,P,UK).

Changes in agricultural income over a longer term are the subject of a more detailed analysis in this report than in previous editions, the Community as a whole being dealt with in chapter 5 and the individual Member States in chapter 6. The period under consideration runs from 1980 to 1991, which enables Portugal (for which the relevant data series are available only from 1980 onwards) to be included in the analysis. As for the chapters dealing with short-term changes, there is a detailed analysis of the factors determining changes in the three income indicators. The period chosen is divided into three sub-periods of equal length, limited by the "years" calculated as averages of three years in order to lessen the impact of sharp short-term fluctuations.

The analyses and comments on the changes of agricultural income presented in chapters 2-4 (short term changes) and 5-6 (long term changes) of this Report are mainly related to changes in real terms (deflated), contrary to previous editions. While studying nominal changes can have certain interest in a national context, it is much less relevant when calculating Community aggregates or when establishing comparisons between countries with very different inflation rates.

Although annual changes in income remain the central element for analysis, **absolute agricultural income levels** by annual work unit in each Member State are compared in chapter 7 in spite of considerable methodological and statistical reservations. With a view to maximum comparability, the income figures are converted on the basis of both the ECU and purchasing power standards (PPS)⁽⁵⁾. A comparison is also made of trends in the absolute level of income in agriculture per annual work unit between the Member States.

It should be noted that the agricultural income concerned in the chapters mentioned so far is based on **macro-economic and national data**. The figures therefore reflect the average changes in agricultural

(5) For a definition see Eurostat: "Purchasing power priorities and gross domestic product in real terms, results 1985", Theme 2, series C, Luxembourg 1988.

income without any possibility of differentiating between regions and types of holdings. The actual level of income in some cases may deviate substantially from the averages given in this report.

Furthermore, indicators relate to the agricultural **branch**. When interpreting results, it should be remembered that to obtain the disposable income of agricultural holders, income from non-agricultural sources (other activities, remuneration, welfare benefits, property income) should be added and personal taxes and welfare payments deducted.

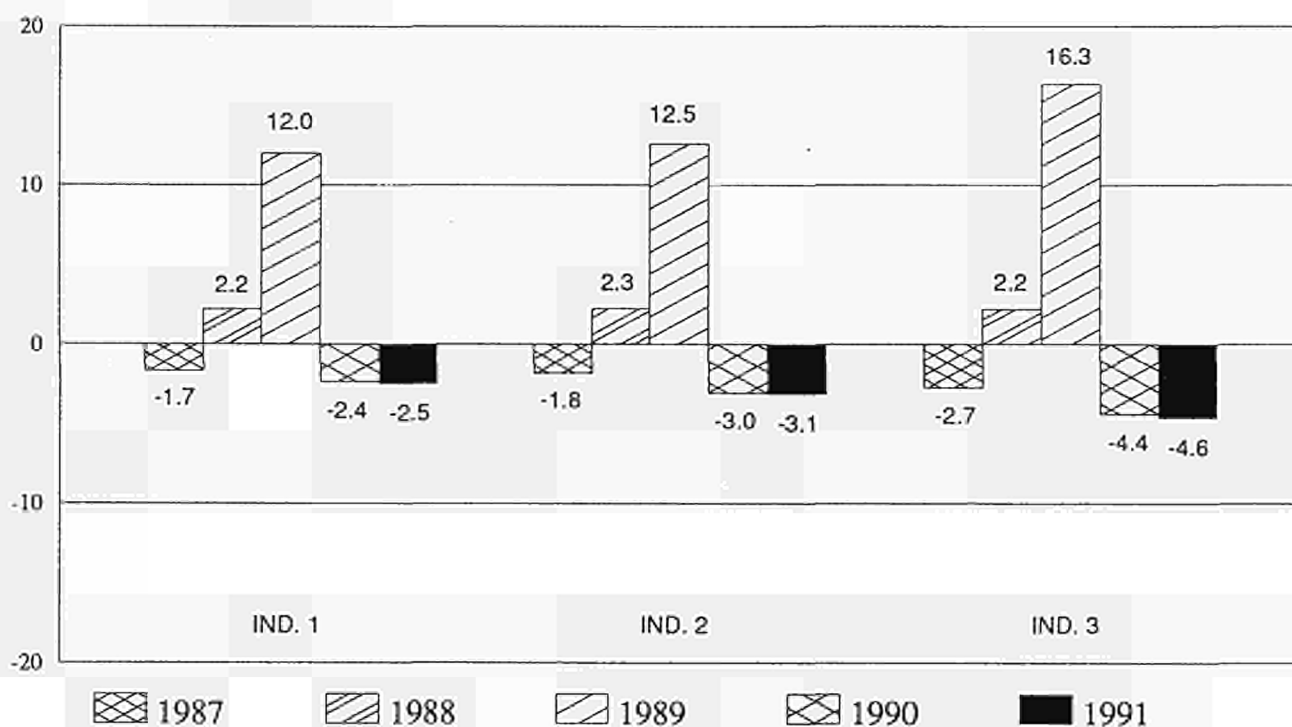
Although it is currently not possible to present harmonized data on the **total income of agricultural households** for the Member States, Eurostat is publishing, in Spring 1992, the first study of its type, presenting and commenting on the results available for eleven Member States (except Belgium), but without any comparison between them or aggregation to Community level. Chapter 8 of this report, as in previous editions, indicates the amount of progress made in this field over the past year and presents a summary of this study.

2 CHANGES IN AGRICULTURAL INCOME IN THE COMMUNITY IN 1991 OVER 1990

2.1 Main results: an overview

Member States' estimates available in January/February 1992 show a fall (-2.5%) in agricultural income measured by real net value added at factor cost per annual work unit (**Indicator 1**) in the Community in 1991. The decline in income already observed in 1990 (-2.4%) therefore continued in 1991, further moderating the positive effect of the exceptional year 1989 (+12.0%) for Community agriculture. The fall in real net income from agricultural activity of total labour input per AWU (**Indicator 2**) is expected to be -3.1% in 1991 (after -3.0% in 1990 and +12.5% in 1989). Real net income from agricultural activity of family labour input per AWU (**Indicator 3**) was down (-4.6%) in 1991 (after -4.4% in 1990 and +16.3% in 1989)⁽¹⁾ (cf. Figure 2.1).

Figure 2.1 Trend in the three agricultural income indicators in the Community from 1987 to 1991 (in %)



For EUR 12 the main reasons for this new decline in agricultural income are fairly similar to those seen in 1990. In nominal terms, the value of **total final agricultural production** rose slightly in 1991 (+1.0%, made up of +1.2% for nominal prices and -0.1% in production volume). **Crop production** increased by +3.6% in nominal value as a result of the rise in nominal prices (+4.4% with increases for the main products except cereals, oilseeds and wine) and in spite of fairly mediocre harvests on average (-0.8% in volume, with sharp declines for wine, fresh fruit, sugar beet and oilseeds, but sharp increases for cereals and olive oil). The opposite is true of **animal production**, where the slight increase in production volume (+0.5%,

(1) C.f. "Note on Methodology A.1.3." on the method of calculating short-term changes for EUR 12.

with a decrease for milk, but increases for pigs, sheep and poultry) was insufficient to offset a new drop in nominal prices (-2.1%, especially for cattle, sheep and milk), which resulted in a -1.6% decrease of nominal value. This fall in prices within the livestock sector may be regarded as the main factor for the decline of agricultural income in the Community during 1991, as was the case in 1990.

If the effects of inflation⁽²⁾ are taken into account, the value of final production declined in real terms by -4.4% as a result of the effect of **declines in real prices** (-4.3%). The fall in real value was relatively moderate for crop production (-2.5%, with a decline in real prices of only -1.7%), but very marked for animal production (-6.4%) because of the fall in prices of -6.9% on average in real terms.

Although the use of **intermediate consumption** remained stable in volume (+0.5%), its value increased by +3.1% in nominal terms because of price rises (+2.6%). The latter led to a decline in the Community agriculture "price scissors"⁽³⁾ (-1.4%), whilst the apparent productivity of intermediate consumption⁽⁴⁾ also fell (-0.6%). Since the increase in the prices of intermediate consumption, however, was lower than inflation, the value of intermediate consumption in real terms fell in fact by -2.0%.

By adding **subsidies**⁽⁵⁾, which went up by +6.6% for EUR 12 in nominal terms (or +0.1% in real terms), and deducting **taxes linked to production**, which fell by -5.3% in nominal terms (or -9.0% in real terms) and **depreciation** (+1.9% in nominal terms and -3.4% in real terms), we obtain **net value added at factor cost**. The last of these (NVA fc) remained stable in nominal terms with -0.1% for EUR 12 (after +0.2% in 1990), and therefore declined in real terms: -6.1%, after -5.5% in 1990.

The -3.7% decline in **total agricultural labour input** expressed in annual work units (after -3.2% in 1990) lessened the impact of this fall in value added on **Indicator 1**, which still decreased by -2.5%.

The increase, even if only moderate, in expenditure on **rents** and especially **interest** (+0.2% and +2.9% respectively in nominal terms; in real terms the declines were -5.1% and -2.6%, in other words lower than the reduction in NVA fc) partly explains the downward trend in **Indicator 2** (-3.1%), which is slightly steeper than that of Indicator 1: the **total net income**, the basis for Indicator 2, actually declined by -0.6% in nominal terms (as against -0.1% for the NVA fc) and -6.7% in real terms (-6.1% for the NVA fc).

The increase in **compensation of employees** (+4.0% in nominal terms, or -1.9% in real terms) explains why the **net family income** should have fallen slightly more sharply, by -2.2% in nominal terms and -8.4% in

(2) Cf. "Note on Methodology A.1.4.", on the method of calculating data in real (deflated) terms for EUR 12. The 1991 inflation rates used for Member States are shown in Table 2.2.

(3) The "price scissors" of agriculture is measured by the ratio of the index of the prices of total final production to the index of the prices of intermediate consumption.

(4) The productivity of intermediate consumption is measured by the ratio between the index of the volume of total final production to the index of the volume of intermediate consumption.

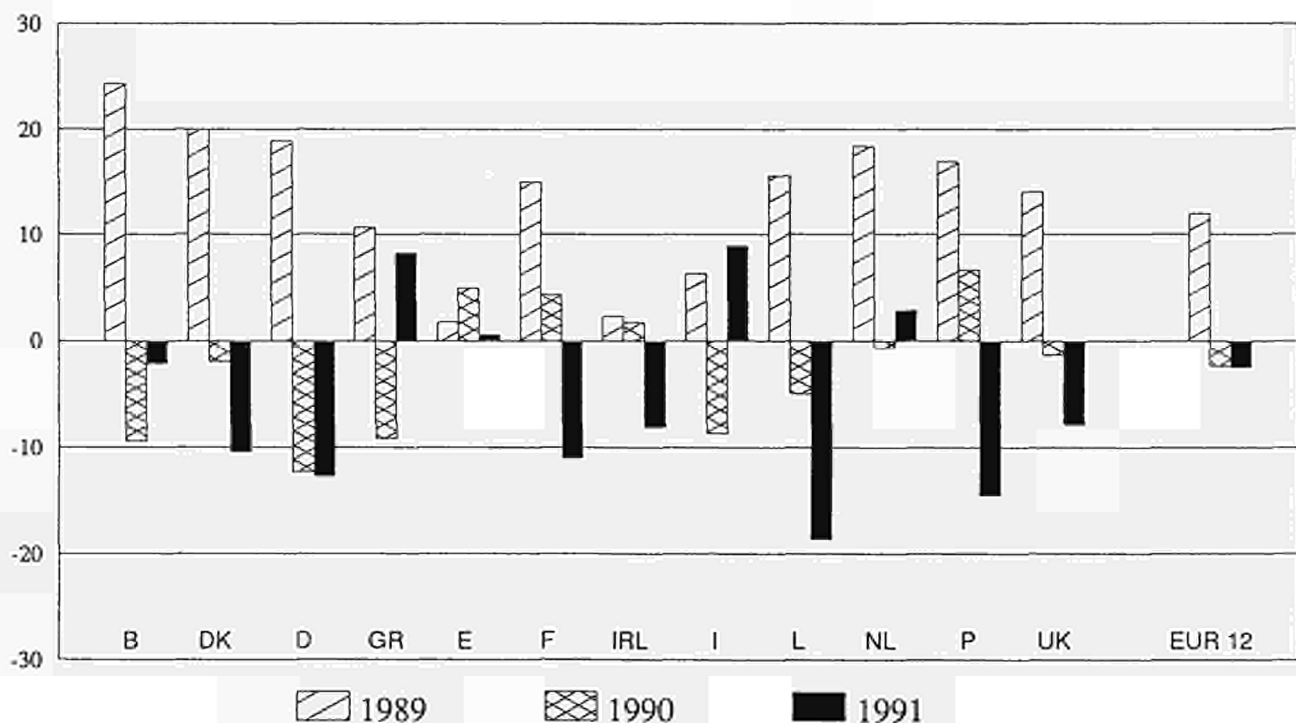
(5) In the sense of the Economic Accounts for Agriculture, subsidies only include direct current transfers to agriculture, except for price support (the effect of which appears in producer prices themselves), investment aid and aid given to the agri-foodstuffs industries (even if used for supporting agricultural production). The trend in subsidies is therefore not representative of the trend in overall support for Community agriculture: an increase may result from the introduction or reinforcement of measures to compensate for reductions in price and market support.

real terms, which affects **Indicator 3** (-4.6%) since the decline in **family labour input** is fairly close to that of total labour input (-4.0% after -3.5% in 1990)⁽⁶⁾.

Table 2.1 Changes in the three agricultural income indicators in the Community and Member States, 1990/1989 and 1991/1990 (in %)

Member State	Indicator 1			Indicator 2			Indicator 3		
	1989	1990	1991	1989	1990	1991	1989	1990	1991
B	24.3	-9.4	-2.1	29.8	-13.1	-5.0	32.7	-14.1	-5.8
DK	20.0	-1.9	-10.4	52.3	-7.9	-25.9	119.8	-9.4	-42.4
D	18.9	-12.3	-12.8	24.0	-15.6	-18.0	30.1	-18.7	-22.4
GR	10.6	-9.1	8.2	11.8	-9.8	6.9	12.4	-10.4	5.7
E	1.8	4.9	0.6	-3.9	6.7	-0.5	-7.0	7.8	-0.1
F	15.0	4.3	-11.0	17.4	5.1	-12.5	21.1	4.9	-16.8
IRL	2.3	1.7	-8.1	0.2	-1.2	-9.2	0.8	-2.0	-10.4
I	6.3	-8.7	8.9	6.9	-9.1	10.5	10.2	-15.2	22.0
L	15.6	-4.9	-18.7	17.6	-8.6	-23.7	20.7	-10.3	-24.5
NL	18.3	-0.7	2.9	19.6	-2.0	2.9	25.7	-2.7	3.8
P	16.9	6.7	-14.5	18.9	3.7	-18.4	23.5	5.0	-24.4
UK	14.1	-1.3	-7.9	12.0	-2.5	-5.5	21.8	-5.7	-9.9
EUR 12	12.0	-2.4	-2.5	12.5	-3.0	-3.1	16.3	-4.4	-4.6

Figure 2.2 Changes in agricultural income indicator 1 in the Community and Member States, from 1989 to 1991 (in %)

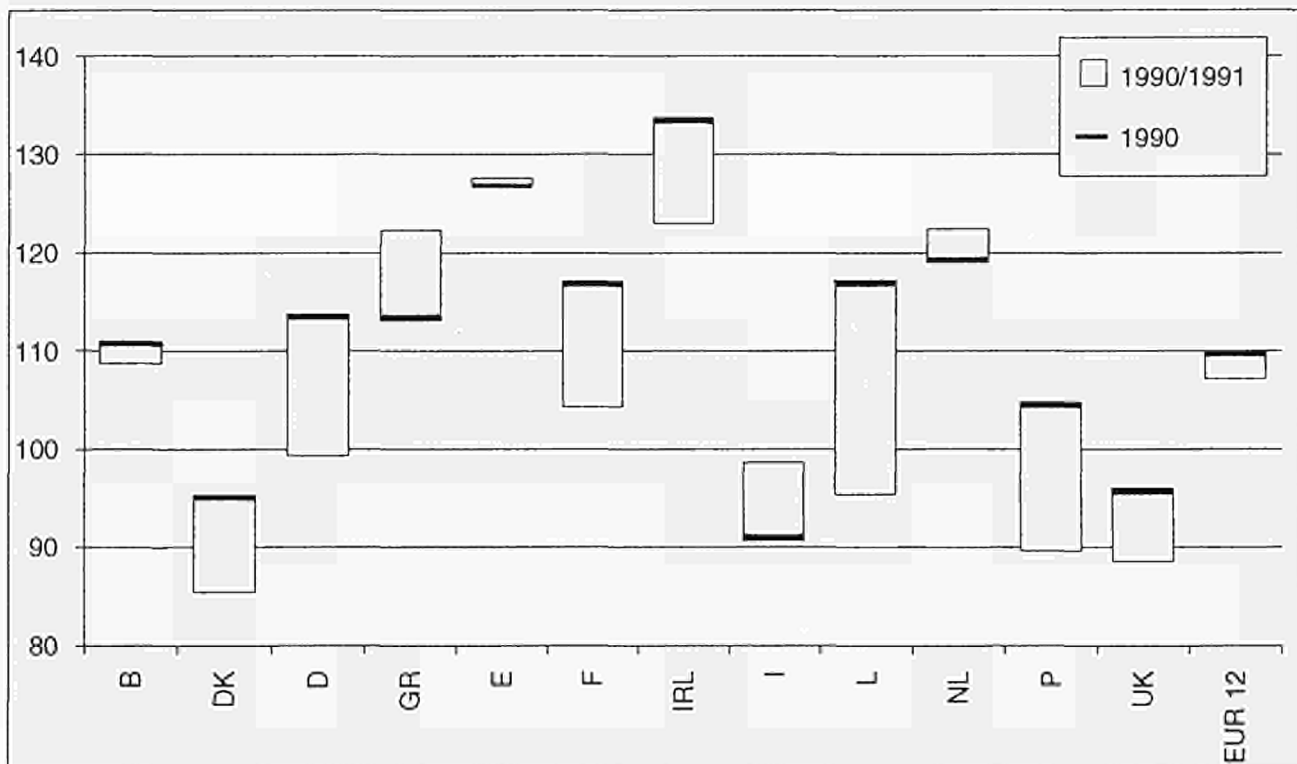


(6) It can also be mentioned that fluctuations in Indicator 3 are normally more marked (in both directions) than for Indicator 2, themselves more marked than for indicator 1, because the same absolute changes (especially in production value) apply to a smaller residual aggregate: for example, in 1990 the net family income (the basis for Indicator 3) for EUR 12 only represented 51% of gross value added at market prices, as against 69% for total net income (the basis for Indicator 2), and 84% for net value added at factor cost (the basis for Indicator 1).

Agricultural income followed different trends in the Member States in 1991, on the one hand because of differences in the situation at the beginning of the year by virtue of the trends of previous years, and on the other hand because of the diversity of structures and short-term agro-economic trends in the Community. Income as measured by Indicator 1, for example, fell by over 10% in 1991 in Luxembourg (the sharpest decline in 1991), Portugal, Germany (the sharpest decline over two years), France and Denmark. Quite clear declines were also recorded for Ireland and the United Kingdom, together with a slight decline for Belgium. In 1991, therefore, agricultural income increased in only four Member States: Spain and the Netherlands (with slight increases in 1991, but a cumulative positive trend over two years for these countries), and Greece and Italy (the sharpest increases in 1991, but slight cumulative reductions over two years).

Figure 2.3 places the agricultural income changes for 1991 in a **medium-term** perspective for both the individual Member States and the Community as a whole. The index for real net value added at factor cost per annual work unit (Indicator 1) is calculated from a 100 base for the average of the three years 1984 to 1986 ("1985"); Figure 2.3 takes this index's 1990 value as its basis, shows its trend in 1991 and indicates the index's new level for 1991 in the different Member States and Community as a whole.

Figure 2.3 Indicator 1 in the Community and Member States, indices for 1990 (base 1984-1986 = 100) and changes in 1991



When interpreting the values of the index shown in Figure 2.3 it should be remembered that they do not allow a comparison of the income levels of the Member States but only a comparison of their trends since the middle of the decade.

In 1990, the highest indices (compared with "1985") were those of Ireland and Spain, with the Netherlands, Luxembourg and France also well above the Community average (which was then 110.0). The United Kingdom, Denmark and especially Italy, by contrast, had seen their agricultural income diminish over this period, whereas the other four Member States (D, GR, B and P) had kept relatively close to the average.

By adding the changes in 1991, we find that Indicator 1 for the Community is now only 107.1 and it is now Spain that has the highest increase in agricultural income since "1985" (+27.6%), other very positive trends (of about +20%) being recorded for Ireland, the Netherlands and Greece. For Belgium and France there are more moderate increases and for Germany, Italy and Luxembourg slight declines in agricultural income since the middle of the decade. Finally, there is a very clear fall in the indicator since "1985" (-10% to -15%) for Portugal, the United Kingdom and Denmark.

2.2 Final agricultural production

The stabilization of final agricultural production in volume terms in 1991 (-0.1%, which is the second lowest result in ten years) conceals considerable differences between products (which will be discussed further later on) and between Member States (see table 2.2). The three strongest growth rates, from +3.0% to +6.4%, are due to crop production (GR and I) and to pork production in one single case (B). The lower rates (from +0.8 to +1.3%) in three Member States (IRL, NL and UK) correspond to results which are only just positive for the averages of crop and animal production. The slight falls (between -1.0% and -2.9%) observed in five Member States (DK, D, E, F and P) are on the whole due to mediocre harvests, whereas the fall of -10.1% recorded in one case (L) is common to all the main products.

In nominal terms, the prices and values of final production have gone up slightly on average (+1.2% and +1.0% respectively) but the differences in inflation make inter-country comparisons somewhat inappropriate. In real terms, agricultural prices have fallen on average by -4.3% for the Community, causing a fall in real production value of -4.4% (the ten-year trend is -1.7% per annum). Although this fall in real prices is mainly due to animal production, it should also be noted that in 1991 they fell in the crop sector too. The average prices for final production have fallen in real terms in all the Member States (except for Greece, +0.6%, where animal production is of less importance) and fairly evenly around the Community average (though more strongly in Luxembourg and Portugal).

Table 2.2 Variations in volumes, prices and values of final agricultural production in the Community and Member States in 1991 by comparison with 1990 (in %)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
Volume	3.0	-1.0	-2.8	6.4	-1.1	-2.9	0.8	3.5	-10.1	1.0	-2.4	1.3	-0.1
Nominal price	-0.4	-2.7	0.5	20.7	-0.2	-1.8	-4.4	4.8	-8.5	2.5	-1.5	-2.2	1.2
Nominal value	2.6	-3.7	-2.3	28.3	-1.3	-4.6	-3.6	8.5	-17.8	3.5	-3.8	-0.9	1.0
Real price	-3.4	-4.5	-3.6	0.6	-6.4	-4.7	-6.4	-2.2	-11.4	-1.1	-14.1	-8.2	-4.3
Real value	-0.5	-5.4	-6.4	6.9	-7.4	-7.5	-5.6	1.2	-20.4	-0.1	-16.1	-6.9	-4.4
Price index GDPmp	3.1	1.9	4.3	20.0	6.6	3.1	2.1	7.2	3.3	3.6	14.6	6.5	:

The real value of production went up significantly in Greece, remained more or less stable in Italy, the Netherlands and Belgium, fell at rates close to the Community average in most Member States (DK, D, E, F, IRL and UK) and plummeted by almost -20% in Portugal and Luxembourg. One should note that these developments largely determine net value added in real terms (normally somewhat less favourable) and hence Indicator 1 of agricultural income (except in Spain where the severe decline in the agricultural labour force offsets the fall in income aggregates).

The inflation rates (measured by the implicit price index of Gross Domestic Product at market prices) used to calculate real changes of prices and values in 1991 (cf. Table 2.2) had varied developments in Member States, though the general trend was a slight acceleration of inflation. Only four Member States (DK, E, I and UK) had (marginally) lower rates than in 1990, while four others had steeply increasing rates (D, IRL, L and NL), and the remaining four (B, GR, F and P) had slightly increasing rates. The highest rates (between 6.5% and 20.0%) were reached in the four Southern Member States and the United Kingdom, while Ireland and Denmark had the lowest ones (near 2%), other Member States having rates between 3.1% and 4.3%.

The following short commentaries cover the fifteen main products or groups of products in Community agriculture whose share in final production (measured in current ECUs for "1990") vary between 1.7% (olive oil) and 16.5% (milk). Together, they make up 92.9% of this total, no other product exceeding 1%. Overall (i.e. including the products not commented on here), crop production accounts for 50.1% and animal production for 49.5% (7).

2.2.1 Crop production: mediocre harvests and minor increases in nominal prices overall, with very different developments depending on product and Member State

Taken as a whole, the 1991 crop production in the Community rose in nominal value by +3.6%, or a little less than the medium-term rate. This increase was entirely due to the rise in nominal prices (+4.4%) which is in line with the trend of the last few years. Crop production, on the other hand, fell slightly in volume terms by -0.8% and is thus little higher than the 1988 level (after having increased in 1989 and declined in 1990). In real terms, however, producer prices fell by -1.7% and the value of crop production by -2.5%, which represents a fairly poor result (the ten-year trend being 0.7% per annum).

Table 2.3 Variations in volumes, prices and values of final crop production in the Community and in the Member States in 1991 by comparison with 1990 (in %)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
Volume	-3.2	-5.3	-7.6	9.1	-2.9	-4.4	1.7	5.6	-27.1	1.1	-8.5	1.9	-0.8
Nominal price	4.3	-1.5	6.7	23.6	1.5	-0.6	3.5	8.0	3.4	5.3	0.9	-0.2	4.4
Nominal value	0.9	-6.7	-1.4	34.8	-1.5	-4.9	5.3	14.1	-24.6	6.5	-7.6	1.7	3.6
Real price	1.1	-3.3	2.3	3.0	-4.8	-3.6	1.4	0.7	0.1	1.6	-11.9	-6.3	-1.7
Real value	-2.1	-8.4	-5.5	12.4	-7.6	-7.8	3.1	6.4	-27.0	2.8	-19.4	-4.5	-2.5

The developments in the crop sector are of course very different, depending on the product, particularly because of the varying sensitivity of crops to climatic fluctuations and the diversity of the markets; in addition, the variations observed in 1991 depend on the production and price levels of 1990. This diversity of change leads to considerable differences in comparisons between Member States because the breakdown by type of crops is also very different; not only this, the situation may vary from one country to another for the same product.

(7) The difference (0.4% of final production) corresponds to "contract work at the agricultural production stage" (basically net new plantings of fruit trees and vines, a figure which can thus be negative for certain Member states) and a very low adjustment item for Spain and Italy.

Crop production real value rose in 1991 for only four Member States (GR, I, IRL, NL); these States had an upward movement of both volumes and real prices. It went down slightly in three Member States (B, D and UK, the fall in volume terms offsetting the increase in real prices in the first two countries, the reverse being true in the UK) and more strongly in the five others (E, F, DK, I and particularly P), where the fall in real prices accentuated the effects of lesser volumes (see table 2.3).

Examining the variations for the main groups of products (see Table 2.4) shows that harvests were down in comparison with 1990 for fresh fruit, wine must and wine, sugar beet and oilseeds. The variations in the real prices only partly compensate for these harvests in the case of fresh fruit and they greatly accentuate the effect for wine and oilseeds. The very good harvest of cereals helped to lower real prices but this did not apply to olive oil which combined a strong volume growth with a significant rise in real prices. For the other products (fresh vegetables, potatoes and flowers), the volumes cultivated as well as the real prices remained more or less stable on average, despite varying national developments in many cases.

Table 2.4 Variations in volumes, prices and the values of the main crop productions in the Community in 1991 compared to 1990 (in %)

	Volume	Nominal price	Nominal value	Real price	Real value
Cereals	9.1	-0.3	8.7	-5.5	3.1
Potatoes	0.1	8.4	8.5	2.1	2.1
Sugarbeet	-7.3	4.1	-3.5	-0.7	-7.9
Oil seeds	-3.6	-11.3	-14.4	-15.3	-18.4
Fresh vegetables	-1.4	5.1	3.6	-1.3	-2.7
Fresh fruit (*)	-13.3	15.5	0.1	7.8	-6.5
Grape must and wine	-15.8	-1.0	-16.7	-6.0	-20.9
Olive oil	68.9	20.0	102.6	9.2	84.4
Flowers and ornamentals	-0.3	5.0	4.8	-0.7	-1.0
Crop output	-0.8	4.4	3.6	-1.7	-2.5

(*) Including citrus fruit and grapes.

The harvests of **fresh fruit**⁽⁸⁾ in 1991 (6.5% of final agricultural production by EUR 12 in "1990") were the lowest for ten years (-13.3% in volume compared with 1990 for EUR 12) after suffering severely in most countries from the spring frosts and/or heavy rain. These shortfalls were particularly marked in Germany (-55.6%) and France (-26.9%); only the most westerly regions in Europe (Iberian peninsula and British Isles) were not affected. The variations in real prices (+7.8% for EUR 12) often over-compensated those of volumes so that the real value of production went up in France, for example (but fell by -6.5% for EUR 12).

The production of **wine must and wine** (5.7% of final agricultural production in EUR 12 in "1990") was the lowest in quantity, in 1991, since 1981 (-15.8% for EUR 12 compared with 1990) for basically the same reasons (spring frosts), with the falls being as much as -23.8%, -29.2% and -43.3% in Spain, France and Luxembourg respectively (but with increases from +7% to +15% in Italy, Germany and Greece). Nevertheless, because of the level of stocks after the good harvests of 1989 and 1990, as well as the fall in direct human consumption and exports, real prices fell in most producer countries (-6.0% for EUR 12) which should be seen in the light of the relatively high price of 1990. Wine was thus the product whose real value fell the most (-20.9%) in the Community in 1991.

(8) Fresh fruit in this report comprises citrus fruit and table grapes.

For **sugar beet** (2.3% of final agricultural production in EUR 12 in "1990"), the decline in volume in 1991 (-7.3% for EUR 12), common to all the producer countries, resulted from reduced yields (climatic conditions) and smaller areas under cultivation (adaptation to a surplus market after the prolific harvests of 1989 and 1990). The fall in real prices (-0.7%) was thus halted by comparison with previous years (in nominal terms, the price increase of +4.1% was the highest for six years), and the real value of production decreased by -7.9% for EUR 12.

In the case of **oilseeds** (2.3% of final agricultural production in EUR 12 in "1990"), the reduction in volume of -3.6% in 1991 for EUR 12 occurred against a background of very strong growth since the beginning of the decade. However, the situation varies greatly depending on the country (a decline in Italy and particularly in Spain where durum wheat is being substituted for oilseeds, increases in the United Kingdom, France and particularly in Germany) and on the product (an increase for rape, but smaller areas under sunflowers and soya). Real prices (-15.3%) continued to fall, particularly for sunflowers and rape, caused as much by the market situation as by the reduced institutional prices (production over and above the maximum quantities guaranteed). The result was a fall in real production value of -18.4% for EUR 12.

The volume production of **cereals** (11.1% of final agricultural production in EUR 12 in "1990") rose strongly in 1991 (+9.1% for EUR 12, the only falls being in Denmark, Portugal and the Benelux countries), which meant that the 1989 and 1990 falls were more than made up and intervention stocks reached a very high level. This volume rise was the result of both very good yields, in most cases, and a notable extension of the areas under cultivation - particularly for durum wheat and maize in the Mediterranean regions. The higher production, more or less stagnating consumption, large stocks and the freeze on nominal institutional prices explains the reduction in producer prices in real terms (-5.5%), which did not prevent the real production value increasing by +3.1% for EUR 12.

The greater production of **olive oil** (1.7% of final agricultural production in EUR 12 in "1990"), although very marked in 1991 (+68.9% in volume for EUR 12) does no more than make up for the fall in 1990 (particularly in Italy). These severe annual fluctuations are connected with climatic and agronomic factors. The rise in real prices (+9.2%) is explained by both continued demand and the poor harvest of the previous year. These factors led to an increase in real production value of 84.4%.

For **fresh vegetables, potatoes and flowers and ornamental plants** (9.4%, 2.3% and 4.0% respectively of final agricultural production in EUR 12 in "1990"), the minor variations in volume terms at Community level in 1991 (-1.4%, +0.1% and -0.3% respectively) result from contrasting national developments. The harvests of fresh vegetables, for example, went down in Italy, Spain and Portugal but up in France and the Netherlands; potato harvests went up markedly in Belgium, Greece and France and only moderately in the Netherlands, but went down elsewhere (overall, the areas under cultivation were increased but yields declined owing to the dry summer); for flowers, the variations were slight (below + or -3% for each producer country).

For these three products, the price developments in real terms also cancel each other out at Community level (-1.3%, +2.1% and -0.7% respectively) despite significant national differences. The real price of fresh fruit plummeted in Greece, Spain and the United Kingdom but went up elsewhere, including the Netherlands (high volume of exports) and France despite increased production. The real price of potatoes varied in the opposite direction to the volumes on the whole, except in the United Kingdom where they went down. Finally, the development of real prices for flowers was only positive in Greece and the

Netherlands; the fall was particularly pronounced in Spain. As a last comment, the development in real values for 1991 as compared with the medium-term trends can be considered as being favourable for potatoes (+2.1%), mediocre for fresh vegetables (-1.8%) and poor for flowers (-1.0%).

2.2.2 Animal production: overall, a similar picture of stable quantity and clear falls in prices

The most significant development in the animal production sector in 1991 was the fall in prices, which reached -6.9% in real terms (even in nominal terms, the average was -2.1%). As in 1990, this fall clearly exceeded the medium-term trend (around -3% per annum) and is reflected in the real value of animal production (-6.4%) since the quantities stabilized on average (+0.5%), corresponding to past trends.

The variations in the animal sector are much closer between countries than in the crop sector, both in terms of volumes and real prices (the difference in nominal prices is mainly caused by inflation) (see table 2.5). Climatic fluctuations do not have any direct influence and the markets are normally more unified; the impact of the common organization of the market is quite strict for the main product (milk), and product structures are fairly similar from one country to another: the first three types of animal production (milk, cattle, pigs) are the same in 11 of the Member States.

Table 2.5 Variations in volumes, prices and values of final animal production in the Community and in the Member States in 1991 by comparison with 1990 (in %)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
Volume	6.7	1.4	0.1	-0.2	1.5	-1.0	0.7	0.2	-6.4	0.9	3.4	0.9	0.5
Nominal price	-2.9	-3.4	-3.0	12.6	-2.7	-3.1	-5.6	-0.2	-10.5	0.5	-4.4	-3.5	-2.1
Nominal value	3.6	-2.0	-2.9	12.4	-1.3	-4.1	-5.0	0.0	-16.3	1.3	-1.1	-2.6	-1.6
Real price	-5.8	-5.2	-7.0	-6.2	-8.7	-6.0	-7.5	-6.9	-13.4	-3.0	-16.5	-9.4	-6.9
Real value	0.5	-3.8	-6.9	-6.4	-7.4	-7.0	-6.9	-6.7	-18.9	-2.2	-13.7	-8.5	-6.4

The real value of animal production has only gone up in one Member State (B, thanks to the rapid picking up of pork production after the swine fever of 1990) and then only slightly; it fell markedly in two Member States (L and P) owing to particularly pronounced declines in prices. In the nine other Member States, the variations in the real value of animal production are close to the Community average: between -8.5% and -2.2% (and even between -7.4% and -6.4% for six of them). These variations normally follow those of the prices since the volumes produced have hardly changed from 1990 in these nine countries (between -1.0% and +1.5%).

Studying the variations by product (see table 2.6) shows that production volumes rose for pigs, sheep and goats, and poultry, stayed the same for cattle and eggs, and went down for milk. Real prices fell for all products but particularly for cattle and sheep. At Community level, these two developments more or less cancel each other out for pigs and poultry, thus stabilizing real values. However, real values are on a clear decline for cattle, sheep and goats, and milk, and slightly so for eggs.

The production of **cattle** (including calves) (12.0% of final agricultural production in EUR 12 in "1990") increased in volume terms within the Member States of continental northern Europe (except Luxembourg), mainly because of the imports of young calves (particularly from Poland) and assistance for suckler cows. The growth for EUR 12 was still only +0.6% in 1991 which is lower than in 1990, mainly because of the decline in French production (in spite of a high level of slaughtering). The surplus situation on the beef

market (high level of slaughterings, stagnation in consumption, large intervention purchases and accumulated stocks from the past, together with the high production of 1990) explains the clear fall in prices (-10.8% in real terms) common to all Member States and which is well outside the medium-term trend. Real production values declined everywhere (-10.3%) except in the Netherlands.

Table 2.6 Variations in volumes, prices and values of the main animal productions in the Community in 1991 in comparison with 1990 (in %)

	Volume	Nominal price	Nominal value	Real price	Real value
Cattle (including calves)	0.6	-6.5	-6.0	-10.8	-10.3
Pigs	2.0	1.1	3.1	-3.6	-1.7
Sheep and goats	4.0	-4.2	-0.3	-11.1	-7.6
Poultry	5.5	0.9	6.4	-4.5	0.8
Milk	-2.0	-1.9	-3.8	-6.5	-8.3
Eggs	0.3	-0.1	0.2	-5.8	-5.5
Animal output	0.5	-2.1	-1.6	-6.9	-6.4

Pig production (10.5% of final agricultural production in EUR 12 in "1990") volume rose, in 1991, more clearly than cattle production and in a more even fashion (+2.0% as an average, with exceptional growth restricted to Belgium and a reduction in the Netherlands, perhaps connected with environmental protection measures and also a disease) which corresponds to the medium-term trend. With demand keeping relatively buoyant, the fall in real prices (-3.6%) was much less pronounced than in 1990 (except for the United Kingdom where it exceeded -15%) and was common to all the Member States with the exception of Belgium and the Netherlands. Thus the real value of production only declined by -1.7%.

The production of **sheep and goats** (1.9% of final agricultural production in EUR 12 in "1990") rose, in 1991, a little more than for pigs (+4.0% in volume for EUR 12, an amount clearly higher than the medium-term trend) but the increase was concentrated in the two main producer countries (E and UK; there was a decline in GR and particularly in F). This led to a severe fall of real prices (-11.1%) which was of course most pronounced in Spain and the United Kingdom, and resulted in a fall of real production value of -7.6% for EUR 12.

The production of **poultry** (4.4% of final agricultural production in EUR 12 in "1990") continued to accelerate at Community level (+5.5% in volume) and in all Member States. As for the other animals already mentioned, the real price of poultry fell (except in Portugal) but only moderately overall (-4.5% as an average) thanks to higher consumption. Thus, this is the only type of animal production whose value has gone up in real terms (though only slightly: +0.8% for EUR 12).

The 1991 Community average for **egg production** (2.5% of final agricultural production in EUR 12 in "1990") remained stable (+0.3% in volume), though it fell markedly in the main producer country, Spain. Real prices continued to fall (-5.8%), with major national differences, as did the real value of production (-5.5% for EUR 12).

Finally, the collection of **milk**, the prime agricultural product at Community level (16.5% of final agricultural production in EUR 12 in "1990"), fell by an average of -2.0% in 1991. The variations were very similar (from -3.5 to -0.5% for ten Member States, with a more severe fall in Luxembourg and one single instance of growth in Portugal; this clearly results from the application of the milk quotas (reduced in 1991) and from the concomitant run-down of herds, itself partly offset by better yields. The reduced production

(but not the fat content which was excessive in comparison with the trend in demand) did not prevent a clear fall in producer prices, even in nominal terms, for the second year running (-1.9% in nominal terms and -6.5% in real terms). This resulted in a steep decrease in real production value: -8.3% for EUR 12.

2.3 Intermediate consumption and gross value added at market prices

The nominal value of intermediate consumption by the Community's agricultural branch is believed to have risen by +3.1% in 1991, which comprises a +0.5% increase in volume and a +2.6% price rise. As this increase in nominal prices was, on average, lower than overall inflation, the real value of intermediate consumption is thought to have declined by -2.0% as a result of an average fall in real prices of -2.5% for EUR 12. Variations in volume, real values and real prices are remarkably close to the medium-term trends at Community level.

Table 2.7 Changes in volumes, prices, values and productivity of intermediate consumption and in the "price scissors" in the Community and in the Member States in 1991 over 1990 (in %)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
Volume	1.4	1.5	-0.3	5.9	1.6	0.0	0.1	1.0	1.0	0.5	-3.7	0.0	0.5
Nominal price	-0.1	-1.9	2.4	25.2	2.5	1.9	0.0	3.1	1.2	-0.2	5.9	3.6	2.6
Nominal value	1.3	-0.4	2.1	32.6	4.1	1.9	0.1	4.1	2.2	0.3	2.0	3.6	3.1
Real price	-3.1	-3.7	-1.8	4.3	-3.9	-1.2	-2.1	-3.8	-2.0	-3.7	-7.6	-2.7	-2.5
Real value	-1.8	-2.2	-2.1	10.5	-2.3	-1.1	-1.9	-2.9	-1.1	-3.2	-11.0	-2.7	-2.0
"Productivity"	1.6	-2.5	-2.5	0.4	-2.7	-2.9	0.7	2.5	-11.0	0.5	1.3	1.3	-0.6
"Price scissors"	-0.3	-0.9	-1.9	-3.6	-2.6	-3.5	-4.4	1.7	-9.6	2.7	-7.0	-5.6	-1.4

Changes in the **volume** of intermediate consumption are remarkably similar for all Member States (see table 2.7); indeed, in ten cases the figures were in a band from -0.3% to +1.6%. The exceptions were Greece (+5.9%), where all items of intermediate consumption except seeds and animal feedingstuffs grew in volume terms, and Portugal (-3.7%), where falls were recorded for all items.

Changes in the **prices** of intermediate consumption in real terms (comparisons based on nominal prices are of little relevance given the disparities in national inflation rates) break down by Member States along similar lines to volumes; the changes are within a narrow band (between -1.2% and -3.9%) in ten Member States. Again, the exceptions were Greece (+4.3%) and Portugal (-7.6%). This may in part be due to those countries' high inflation rates, which can disrupt market adjustments.

Changes in the **real values** of intermediate consumption in ten Member States were also close to the Community average (between -1.1% and -3.2%). The exceptions were a big increase in Greece (+10.5%) and a major decline in Portugal (-11.0%).

A comparison of the changes in intermediate consumption with those of final production is the measurement of the productivity of intermediate consumption (volume ratio) and of the "price scissors" (price ratio) in agriculture. Given that the results for production in 1991 were poor in relation to the trend (in volume and prices), and that intermediate consumption are more inert, it follows that these two Indicators should have declined in 1991.

The **productivity of intermediate consumption** fell by -0.6% at Community level, though there were increases in six countries with a higher production volume (GR, NL, IRL, UK, B, and, most notably I), and reductions in five countries which recorded a lower production volume (DK, D, E, F, and, most notably, L). Once again, the exception was Portugal, where despite a decline in production, an unaccustomed fall in the use of intermediate consumption meant that its productivity improved.

The "**price scissors**" deteriorated more sharply than productivity (-1.4% in EUR 12), with more widespread declines (in ten Member States, ranging from -0.3% in Belgium to -9.6% in Luxembourg) but with improvements in Italy and the Netherlands, where the real decline in producer prices was less pronounced.

Table 2.8 changes in volumes, prices and values of the main components of intermediate consumption in the Community in 1991 over 1990 (in %)

	Volume	Nominal price	Nominal value	Real price	Real value
Energy and lubricants	1.4	6.2	7.7	0.3	1.7
Fertilizers and soil improvers	-7.9	2.1	-6.0	-3.0	-10.7
Feedingstuffs	2.1	0.0	2.1	-5.1	-3.1
Material, tools and repairs	-0.6	4.3	3.7	-0.9	-1.5
Intermediate consumption	0.5	2.6	3.1	-2.5	-2.0

Animal feedingstuffs are the main item of intermediate consumption in all Member States (39.9% of the total for EUR 12 in "1990"). Its use grew in volume terms in 1991 (by an average of +2.1%, with only slight falls in the Netherlands and Portugal, compared with a medium-term trend for EUR 12 of +0.8% per annum). This increase was no doubt aided by the decline in average prices (-5.1% in real terms) and, in some cases, by the scarcity of fodder caused by the drought. The fall in the real value of animal feedingstuffs was -3.1% for EUR 12.

The use of **fertilizers and soil additives** (which accounted for 10.4% of intermediate consumption in EUR 12 in "1990") fell sharply in 1991 (-7.9%, Greece being the only Member State to record an increase), thereby accelerating a trend which began four years ago and which may indicate a lasting change in farmers' behaviour. Fertilizer prices declined by -3.0% in real terms, albeit with major differences between Member States. The real value of fertilizers declined by -10.7% in the Community.

The volume of **energy and lubricants** consumed by the Community's agricultural branch (9.9% of intermediate consumption in EUR 12 in "1990") rose by +1.4% in 1991 (with particularly large rises in Greece and the Netherlands, but a fall for Portugal), which was only fractionally higher than the medium-term trend. Prices were almost unchanged in real terms, and real value was up by +1.7%.

Purchases of **material and small tools and maintenance and repair costs** (11.9% of intermediate consumption in EUR 12 in "1990") slightly declined both in volume and real price terms, and their real value fell by -1.5% in the Community as a whole, with movements in individual Member States ranging from -9.8% (P) to +7.8% (GR).

The increase in the nominal value of intermediate consumption (+3.1%) in 1991 exceeded the modest increase in the value of final production (+1.0%) and average **gross value added at market prices (GV&mp)** fell slightly in the Community (-0.5%). In real terms, the value of intermediate consumption fell

(-2.0%) by less than final production (-4.4%), giving a clear fall of -6.2% in GVamp. This downward trend, which was somewhat steeper than the medium-term trend (-1.6% per annum on average over a 10-year period) was due, as in 1990, to the combination of fairly poor production results (due to real price falls) and a steady trend in real intermediate consumption value.

The change in gross value added at market prices varied considerably between Member States (see Table 2.9). This divergence is essentially dictated by variations in final production and intermediate consumption, but is also affected by their relative size. Indeed, the importance of intermediate consumption can vary widely from one Member State to another, depending on the main types of production and their intensiveness. For example, in "1990", the share of intermediate consumption in the value of final production was below 30% in Greece and Italy but above 50% in Belgium, Germany, Portugal and the United Kingdom. In the other Member States (DK, E, F, IRL, L and NL) this share was between 40% and 50% (the average for EUR 12 being 43.3%).

Table 2.9 Changes in gross value added at market prices, and in its volume and price indices, in the Community and the Member States in 1991 over 1990 (in %)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
Volume	5.0	-3.5	-5.7	6.5	-3.1	-5.4	1.3	4.6	-17.5	1.4	-1.0	2.8	-0.6
Nominal price	-0.6	-3.5	-1.7	19.1	-2.2	-5.0	-7.6	5.6	-16.4	4.4	-8.7	-8.3	0.1
Nominal GVamp	4.3	-6.9	-7.3	26.9	-5.2	-10.1	-6.4	10.4	-31.0	5.9	-9.6	-5.8	-0.5
Real price	-3.6	-5.3	-5.8	-0.7	-8.2	-7.9	-9.5	-1.5	-19.1	0.8	-20.3	-13.9	-5.7
Real GVA mp	1.1	-8.6	-11.1	5.7	-11.0	-12.8	-8.3	3.0	-33.2	2.2	-21.1	-11.5	-6.2

Real gross value added at market prices, in 1991, grew in four Member States (B, NL, I and GR, in a band from +1.1% to +5.7%), where the volume of production grew faster than internal consumption, giving a clear increase in the volume index of GVamp, and where average price movements were the least unfavourable from agriculture's point of view (although the price index of GVamp rose in real terms only in the Netherlands). Very severe falls were reported in Portugal (-21.1%) and Luxembourg (-33.2%), the two countries whose production results also plummeted the most. Falls in gross value added at market prices for the six remaining Member States (IRL, DK, D, E, UK and F) were close to the average (in a band from -8.3% to -12.8%). All of these countries show similarities, in that their gross value added at market prices fell in real terms more steeply than the value of final production (the value of intermediate consumption having also fallen there, albeit less sharply).

2.4 Distributive transactions in the Community's agricultural branch

The nominal value of **subsidies** received by the Community's agricultural branch ⁽⁹⁾ grew in 1991 for the Community as a whole by +6.6% (see Table 2.10); this was the smallest increase in five years. Measured in real terms, the increase was negligible (+0.1% in EUR 12), whereas the trend in the last ten years has been +6.5% per annum. In comparison with previous years, this stabilization had a significant effect on income

(9) See note (5) in this chapter on the definition of subsidies in the Economic Accounts for Agriculture. The data on subsidies published in this report include estimates of over-compensation of VAT in countries which operate a flat-rate compensation scheme. In order to measure annual changes in subsidies and taxes linked to production, it has to be borne in mind that the accounting year is the year of payment, which is not necessarily the period in which the corresponding debt arises. Finally, the changes in Italy in 1991 had to be estimated by Eurostat.

Indicators at Community level, since the share of subsidies in gross value value added at market prices was 10.5% in "1990".

The average trend in the Community conceals wide national disparities; in fact, not one Member State was close to the average in 1991. Subsidies increased moderately in real terms (nearly +4%) in Greece and Italy, slightly more (+11%) in the Netherlands, and more substantially (above +20%) in Spain, Portugal and the United Kingdom (mainly because of aid to less-favoured areas and mountain areas, and animal production aid) and more than doubled in Luxembourg (compensation for drought and late frosts). By contrast, subsidies declined in France (-6%, mainly because of lower compensation for natural disasters) and more steeply (between -10% and -13%) in Denmark (where the level of subsidies is very low and has been falling regularly for several years), Germany (which enjoys the highest subsidies in the Community) and Ireland; the declines in these last two countries corrected the major increases recorded in 1990, when higher subsidies were paid to the milk sector in Ireland and the cattle and sheep sector in Germany. Finally, subsidies were down by nearly 40% in Belgium as compensation for slaughterings necessitated by swine fever was discontinued.

Table 2.10 Nominal and real changes in subsidies, taxes linked to production, depreciation, rents, interest and compensation of employees in the Community in 1991 over 1990 (in %)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
Subsidies, nominal (*)	-42.0	-11.2	-6.8	25.2	30.0	-3.1	-11.4	11.1	136.2	15.3	42.3	27.9	6.6
Subsidies, real (*)	-43.7	-12.9	-10.6	4.4	22.0	-6.0	-13.2	3.6	128.7	11.3	24.2	20.1	0.1
Taxes l.p., nominal	0.0	4.2	-8.2	-34.5	6.0	-14.5	12.5	6.6	65.5	2.9	-9.6	18.6	-5.3
Taxes l.p., real	-3.0	2.3	-12.0	-45.4	-0.5	-17.1	10.2	-0.6	60.2	-0.7	-21.1	11.4	-9.0
Depreciation, nominal	5.0	1.8	5.0	18.9	-14.7	2.0	2.2	3.3	8.4	6.0	-9.6	1.3	1.9
Depreciation, real	1.8	-0.1	0.7	-1.0	-20.0	-1.1	0.1	-3.6	4.9	2.3	-21.1	-4.9	-3.4
Rents, nominal	3.0	-1.2	4.0	19.6	-1.4	-5.2	-1.7	4.7	3.6	1.5	0.3	-2.1	0.2
Rents, real	-0.1	-3.0	-0.3	-0.3	-7.5	-8.1	-3.7	-2.3	0.3	-2.0	-12.5	-8.1	-5.1
Interest, nominal	12.0	2.0	2.0	61.5	5.4	-1.0	-2.5	3.0	3.3	7.4	17.7	-14.1	2.9
Interest, real	8.6	0.1	-2.2	34.6	-1.1	-4.0	-4.5	-3.9	0.0	3.7	2.7	-19.3	-2.6
Compensation, nominal	4.0	2.5	0.0	18.4	7.2	3.8	-3.0	2.5	8.5	9.0	15.1	3.5	4.0
Compensation, real	0.9	0.6	-4.1	-1.4	0.6	0.7	-5.0	-4.4	5.0	5.2	0.4	-2.8	-1.9

(*) Including VAT over compensation. Subsidies and depreciation for Italy estimated by Eurostat.

Taxes linked to production in Community agriculture declined in 1991 both in nominal terms (-5.3%) and real terms (-9.0%). This fall, which contrasts with an average annual increase of +1.7% in real terms over the last 10 years, had only a moderate impact on agricultural income since taxes linked to production represented only 3.4% of gross value added at market prices in EUR 12 in "1990".

Once again, there were major differences between Member States, although these are not always significant, given the negligible importance of taxes linked to production in certain Member States, particularly in the four southernmost countries (GR, E, I and P) and, to a lesser extent, Belgium and Ireland. In all of these countries except Ireland, taxes linked to production further declined in 1991. The biggest increases were in Luxembourg and the United Kingdom, where they are related to Community levies on cereals and milk. In both countries, these increases were much less than the increase in subsidies. In Denmark, a smaller increase, albeit from a very high base, compounded the effects of lower subsidies. The decline in EUR 12 taxes linked to production was attributable to two Member States: Germany, where payments of the super-levy (incurred because milk quotas had been exceeded) were reduced (because inter-dairy compensation is now possible), and France, where the decline is explained by extremely high taxes paid in 1990 (caused by

the strikes of the tax administration in 1989) and by the fact that milk quotas were not quantitatively exceeded in 1991.

The balance of "net subsidies" (subsidies less taxes linked to production) was negative in Denmark (and deteriorating) and in the Netherlands (where it is decreasing). The balance was positive in 1991 in all other Member States (although it was very small in France) and was well above that of the previous year in all countries except Belgium and Ireland. The changes in subsidies and taxes linked to production caused **gross value added at factor cost (GVA_{fc})** to decline by -5.5% in real terms (compared with -6.2% for gross value added at market prices).

Although **depreciation**⁽¹⁰⁾ increased by +1.9% in nominal terms, this was less than the average rate of inflation in the Community in 1991, which meant that it fell by -3.4% in real terms. This development runs counter to the trend of recent years (average nominal increases which were close to the levels of general inflation) and is explained by major falls (nearly - 20%) in Spain and Portugal. Changes in the other Member States were fairly near the Community average in real terms (despite slight increases in B, D, IRL, L and NL). In "1990", depreciation was equal to 22.6% of gross value added at market prices, but changes in 1991 were similar to changes in production and gross value added, with the result that depreciation had only a moderate impact on agricultural income (real net value added at factor costs fell by -6.1%, compared with -5.5% for gross value added at factor cost). The impact varied from one Member State to another, however, depending on their respective rates of change and the relative importance of depreciation; changes in depreciation had a depressing effect on income in most Member States (and on EUR 12 as a whole) in 1991, particularly in Germany and Luxembourg, but were of neutral effect in the Netherlands and positive in the four southern countries.

Average Community **rents** are relatively unimportant (3.7% of GV_{amp} in "1990"). Like other factors, variations in rents in 1991 moved within a fairly narrow band and were similar to variations in production and value added (-5.1% in real terms, compared with an average annual decline of -1.5% in recent years) and had only a minor impact on agricultural income (with the possible exceptions of Germany and Luxembourg).

Interest payments are much more significant, accounting for 11.3% of GV_{amp} in EUR 12 in "1990". They increased in 1991 by an average of +2.9% in nominal terms and fell by -2.6% in real terms (compared with a -0.2% annual average fall over a 10-year period). Because this fall was lower than that of production and value added, it contributed, albeit modestly, to the fall in total real net income (-6.7%, compared with -6.1% for net value added at factor cost). Nevertheless, it should be pointed out that this negative impact may have been greater in Member States where interest rates have increased or, at least, not fallen in real terms (B, DK, GR, L, NL, P), particularly if they account for an important share of gross value added at market prices (as in B, P, and, most particularly, DK). The opposite is true of the United Kingdom, where interest payments, although very high, fell sharply in 1991 (-19% in real terms, thanks to lower interest rates).

The final cost item in the calculation of agricultural income is **compensation of employees**, whose share of GV_{amp} reached 18.3% in EUR 12 in "1990" (and much higher rates in Italy and the United Kingdom),

(10) Changes in depreciation in Italy also had to be estimated by Eurostat. The absolute level of depreciation in Italy seems particularly high compared with the other Member States.

which means that it has a considerable influence on changes in Indicator 3. The change in the compensation of employees in 1991 (-1.9% in real terms in EUR 12) was similar to that of previous years (annual average of -1.5% over a 10-year period), which is undoubtedly a result of the reduction in the agricultural waged workforce. This decline, although less marked than the declines in production and value added, led to a fall in real net family income (-8.4%) which was more pronounced than the fall in real total net income (-6.7%). Real changes in the compensation of employees were broadly similar in all the Member States (ranging between -3% and -5% in D, IRL, I and UK, approximately stable in B, DK, GR, E, F and P, and approaching +5% in L and NL). In general, these changes had a depressing effect on real net family income (of the order of 0.1% to 0.5% of real net total income). This effect was stronger in Denmark, where family income now accounts for only a very small share of the total, and was positive in the two Member States which recorded an increase in income and a fall in compensation paid (I and, to a lesser extent, GR).

2.5 The three Indicators of agricultural income in the Community in 1991

2.5.1 Real net value added in agriculture at factor cost, per annual work unit (Indicator 1)

Nominal net value added at factor cost (NVAfc) was stable in the Community as a whole in 1991 (-0.1%, compared with +0.2% in 1990 and +12.7% in 1989), which corresponds to a decline in real terms (-6.1%, compared with -5.5% in 1990 and +7.0% in 1989). As has already been explained, this change, which was much more pronounced than the 10-year trend (-1.5% per annum in real terms), was mainly the result of a fall in real producer prices (particularly those in the animal sector), which exceeded the falls in the prices of intermediate consumption, and of changes in subsidies, taxes and depreciation, which roughly cancelled each other out (see para. 2.4).

There were of course wide variations between Member States. In Greece, Italy and the Netherlands, for example, real net value added at factor cost advanced by between +6.0% and +2.6%; the Netherlands was the only Member State to have recorded a cumulative increase in the last two years (see table 2.11). The declines in Belgium (-5.1%) and Spain (-7.5%) were close to the Community average. The other Member States (UK, IRL, DK, F, P, D and L) recorded large falls of between -10.4% and -21.8%.

In order to calculate Indicator 1 of agricultural income, it is necessary to establish the ratio between variations in real net value added at factor cost and variations in the total agricultural labour input, expressed in AWU, which has declined by -3.7% in 1991 for EUR 12 (1990: -3.2%; 10-year trend: -3.1% per annum). The biggest falls in total labour input were recorded in Spain (-8.0%), as a result of which Indicator 1 increased slightly in that country, and Germany (-5.0%). The falls in the Netherlands (-0.3%) and Portugal (-1.0%), by contrast, were very small. Falls in the other Member States (B, DK, GR, F, IRL, I, L and UK) were in a bracket between -2.0% and -3.9%.

Agricultural income in the Community, as measured by Indicator 1 (real NVAfc per AWU), showed a fall of -2.5% in 1991. This followed a -2.4% decline in 1990, although the cumulative fall only partly offset the excellent result of the agricultural sector in 1989 (+12.0%). As a result, Indicator 1 for EUR 12 fell to 107.1 in 1991 ("1985" = 100).

This average change was the result of contrasting developments in the Member States, eight of which recorded falls of between -2% and -19%, and four of which (E, NL, GR and I) showed increases of up to +9%.

Table 2.11 Changes in the net value added of agriculture at factor cost, and calculation of Indicator 1 of agricultural income, in 1991 and 1990 in the Community and the Member States (in %).

Member State	NVAfc nominal		Deflator (GDP price)		NVAfc real		Total labour input (in AWU)(*)		Indicator 1 (Real NVA/AWU)	
	90/89	91/90	90/89	91/90	90/89	91/90	90/89	91/90	90/89	91/90
B	-9.0	-2.1	3.0	3.1	-11.6	-5.1	-2.5	-3.0	-9.4	-2.1
DK	-3.0	-11.1	2.3	1.9	-5.2	-12.7	-3.4	-2.6	-1.9	-10.4
D	-11.8	-13.6	3.4	4.3	-14.7	-17.1	-2.7	-5.0	-12.3	-12.8
GR	5.9	27.3	19.3	20.0	-11.3	6.0	-2.4	-2.0	-9.1	8.2
E	7.6	-1.3	7.3	6.6	0.2	-7.5	-4.5	-8.0	4.9	0.6
F	3.5	-11.5	3.0	3.1	0.4	-14.1	-3.7	-3.5	4.3	-11.0
IRL	-1.7	-9.5	-1.3	2.1	-0.4	-11.4	-2.1	-3.6	1.7	-8.1
I	-3.8	13.3	7.5	7.2	-10.5	5.7	-2.0	-2.9	-8.7	8.9
L	-7.5	-19.2	2.1	3.3	-9.4	-21.8	-4.8	-3.9	-4.9	-18.7
NL	1.2	6.3	2.9	3.6	-1.7	2.6	-1.0	-0.3	-0.7	2.9
P	14.5	-3.0	14.3	14.6	0.2	-15.4	-6.1	-1.0	6.7	-14.5
UK	3.8	-4.6	6.8	6.5	-2.8	-10.4	-1.5	-2.7	-1.3	-7.9
EUR 12	0.2	-0.1	:	:	-5.5	-6.1	-3.2	-3.7	-2.4	-2.5

(*) Eurostat estimate for Ireland.

In the following seven Member States, falls in Indicator 1 were above the Community average:

- **Luxembourg** (-18.7%, following -4.9% in 1990). The volume of final production in all sectors, except pigs, fell more steeply than in any other Member State, and the real prices of animal production declined, although these changes were partly compensated for by the doubling of subsidies;
- **Portugal** (-14.5%, following +6.7% in 1990). Harvests were generally poor (but the volume of animal production increased) and the real producer prices of all products except fresh vegetables, potatoes and poultry showed the highest average falls in the Community. The decline in Indicator 1 was despite higher subsidies and significant falls in the real value of intermediate consumption and depreciation, but was favoured by a slight decrease in the total labour input;
- **Germany** (-12.8%, following -12.3% in 1990). Harvests of root crops and fresh fruits were poor (although this resulted in higher real prices). There were also falls in the price of cereals and oilseeds (due to bumper harvests) and animal production (particularly cattle and milk). Depreciation increased and subsidies decreased (which was only partly compensated for by a decline in taxes);
- **France** (-11.0%, following +4.3% in 1990). Harvests of fresh fruits and wine were very poor (with only the former showing higher real prices), the volume of cattle, sheep and milk production declined, and there were falls in the real prices of cereals and oilseeds (in the wake of good harvests) and of all types of animal production (particularly cattle and milk, which also declined in volume terms), although lower subsidies were more than offset by lower taxes;

- **Denmark** (-10.4%, following -1.9% in 1990). The factors contributing to the fall in Indicator 1 were lower volumes and real prices of the main crops, and lower real prices of animal production (albeit against a background of higher volumes), compounded by lower subsidies, higher taxes and depreciation.
- **Ireland**⁽¹¹⁾ (-8.1%, following +1.7% in 1990). Although production volumes were stable (cattle and milk) or actually increased, the importance of cattle and milk in Irish agriculture is such that falls in their real prices, combined with lower subsidies, higher taxes and depreciation, considerably depressed Indicator 1;
- **United Kingdom** (-7.9%, following -1.3% in 1990). Although the volume of all products except potatoes and milk either remained stable or increased, across-the-board falls in real prices (particularly for oilseeds, pigs, cattle, poultry and eggs) exceeded the Community average, although their effect was kept in check by higher subsidies.

In the five other Member States, on the other hand, the change in Indicator 1 out-performed the Community average in 1991, reaching record cumulative highs in Spain and the Netherlands:

- **Belgium** (-2.1%, following -9.4% in 1990). The volumes of most types of production (potatoes, flowers, cattle, pigs, poultry and eggs) increased notably, and real prices fell less steeply than elsewhere (with the exception of potatoes, cattle and poultry). However, subsidies fell sharply (to their 1989 level) and depreciation was up;
- **Spain** (+0.6%, following +4.9% in 1990). The real value of final production declined more steeply than the Community average, with volume reductions for root crops, oilseeds, fresh vegetables and wine, and falls in real prices for some crops (most notably wine and flowers) and all animal products. These declines were more than offset by higher subsidies, lower depreciation and, most importantly, the agricultural exodus;
- **the Netherlands** (+2.9%, following -0.7% in 1990). Overall production volumes were up (particularly fresh vegetables, flowers, cattle and poultry, although pig production was down) and real prices fell less sharply than elsewhere (the only major falls being recorded for potatoes, cattle and poultry), although a fall in the real value of intermediate consumption was offset by higher depreciation costs;
- **Greece** (+8.2%, following -9.1% in 1990). Greece recorded the Community's biggest increase in the volume of final products (affecting all crops except fresh fruits) and the only average increase in the real prices of final production (thanks to all crop products apart from cereals and fresh vegetables). These increases were slightly offset by a substantial fall in the real value of intermediate consumption;
- **Italy**⁽¹²⁾ (+8.9%, following -8.7% in 1990). Italy was one of only two Member States where the real value of final production increased, thanks to significantly higher crop production (cereals, wine and olive oil), despite falls for root crops, oilseeds and horticultural products. Also, the falls in real prices were smaller than in other Member States, and mainly affected cereals, oilseeds and animal production, whose share in total agricultural production in Italy is in any case modest.

(11) Changes in the agricultural labour input in Ireland were estimated by Eurostat.

(12) Changes in subsidies and depreciation costs in Italy were estimated by Eurostat.

2.5.2 Real net income from agricultural activity of the total labour input per annual work unit (Indicator 2)

In 1991, the net income from agricultural activity of total labour input in the Community fell by -0.6% in nominal terms (1990: -0.3%; 1989: +13.4%), which is equivalent to a fall of -6.7% in real terms (1990: -6.1%; 1989: +7.5%). This was a steeper fall than the 10-year trend (annual average of -1.7% in real terms) and was slightly more severe than the decline in net value added at factor cost which, as previously stated (see para. 2.4) was due mainly to an insufficient fall in real interest payments.

As with NVAfc, the Netherlands, Greece and Italy were the only countries to record increases in the real net income of total labour (between +2.5% and +7.3%), but no Member State had a cumulative two-year increase (see table 2.12). The falls were near to the average in Belgium, the United Kingdom and Spain (between -7.8% and -8.4%) and more severe in the other Member States (IRL, F, P, D, L and DK; between -12.5% and -27.8%).

Table 2.12 Changes in net agricultural income of total labour input, and calculation of Indicator 2 of agricultural income in 1991 and 1990, in the Community and the Member States (in %)

Member State	Nominal net total income		Deflator (GDP price)		Real net total income		Total labour input (in AWU) (*)		Indicator 2 (Real NTI/AWU)	
	90/89	91/90	90/89	91/90	90/89	91/90	90/89	91/90	90/89	91/90
B	-12.7	-5.0	3.0	3.1	-15.2	-7.8	-2.5	-3.0	-13.1	-5.0
DK	-8.9	-26.4	2.3	1.9	-11.0	-27.8	-3.4	-2.6	-7.9	-25.9
D	-15.1	-18.8	3.4	4.3	-17.9	-22.1	-2.7	-5.0	-15.6	-18.0
GR	5.1	25.7	19.3	20.0	-11.9	4.8	-2.4	-2.0	-9.8	6.9
E	9.4	-2.4	7.3	6.6	1.9	-8.4	-4.5	-8.0	6.7	-0.5
F	4.2	-13.0	3.0	3.1	1.2	-15.6	-3.7	-3.5	5.1	-12.5
IRL	-4.5	-10.6	-1.3	2.1	-3.2	-12.5	-2.1	-3.6	-1.2	-9.2
I	-4.3	15.0	7.5	7.2	-10.9	7.3	-2.0	-2.9	-9.1	10.5
L	-11.1	-24.2	2.1	3.3	-13.0	-26.7	-4.8	-3.9	-8.6	-23.7
NL	-0.2	6.2	2.9	3.6	-3.0	2.5	-1.0	-0.3	-2.0	2.9
P	11.3	-7.5	14.3	14.6	-2.6	-19.3	-6.1	-1.0	3.7	-18.4
UK	2.6	-2.1	6.8	6.5	-3.9	-8.1	-1.5	-2.7	-2.5	-5.5
EUR 12	-0.3	-0.6	:	:	-6.1	-6.7	-3.2	-3.7	-3.0	-3.1

(*) Eurostat estimate for Ireland.

Indicator 2 of agricultural income is obtained by establishing the ratio between changes in real income and changes in total labour input, measured in AWU (see para. 2.5.1). In the Community as a whole, Indicator 2 fell by -3.1% in 1991 (the same as in 1990, -3.0%, following +12.5% in 1989), i.e. by slightly more than Indicator 1. Indicator 2 for EUR 12 declined to 105.9 ("1985" = 100).

In 1991, the changes in Indicator 2 in the Member States were fairly similar to those already examined for Indicator 1, and were in the same direction but somewhat more pronounced, as in previous years (see note 6 above). There were three exceptions, however: in Spain, Indicators 1 and 2 were both fairly stable, Indicator 2 falling by -0.5%, and Indicator 1 rising by +0.6%. This was caused by the very big reduction in labour input (real total income fell by more than net value added at factor cost, as in other countries); in Greece, Indicator 2 (+6.9%) rose less than Indicator 1 (+8.2%), owing to a very major increase in real interest payments (+34.6%); and finally, in the United Kingdom, the substantial real fall in interest (-19.3%) was such that Indicator 2 (-5.5%) declined less steeply than Indicator 1 (-7.9%). Both Indicators were up by +2.9% in the Netherlands, where rents and interest rose by the same proportion. The change in Indicator 2

was much greater than that in Indicator 1 in Denmark (-25.9% and -10.4% respectively), where interest payments are large in relation to agricultural income, and to a lesser extent in Germany (-18.0% and -12.8%) and Luxembourg (-23.7% and -18.7%).

2.5.3 Real net income from agricultural activity of family labour input, per annual work unit (Indicator 3)

In the Community as a whole, the net income from agricultural activity of family labour input fell in nominal terms by -2.2% in 1991 (1990: -2.1%; 1989: +16.4%), which corresponds to a reduction of -8.4% in real terms (1990: -7.8%; 1989: +10.4%). This fall was therefore steeper than that in the two other aggregates of agricultural income, and there was a wider discrepancy between it and the medium-term trend (-1.8% per annum on average in real terms over a 10-year period). Again, this fall is explained by the negligible real fall in the compensation of employees (see para. 2.4).

As with the two other aggregates, the only upward movements in 1991 were recorded in the Netherlands, Greece and, most notably, Italy (+2.0%, +5.2% and +18.2%, respectively). The falls were near to the Community average in Belgium, Spain, the United Kingdom and Ireland (between -8.3% and -13.2%) and more severe (between -19.7% and -44.3%) in France, Portugal, Germany, Luxembourg and, most particularly, Denmark.

Whereas Indicators 1 and 2 reflect the income of all persons employed in agriculture, Indicator 3 relates solely to **family workers** (the operator and members of his family working on the holding), since the compensation of employees has been deducted. The family labour input, measured in AWU, declined by -4.0% in the Community (1990: -3.5%; 10-year trend: -3.3% per annum). The only increase was in Portugal (+0.5%). The biggest falls were in Germany (-5.0%), Luxembourg (-5.0%) and Spain (-11.0%), the smallest in Greece (-0.5%), the Netherlands (-1.7%) and the United Kingdom (-2.0%). The falls in the other Member States (B, DK, F, IRL, and I) were between -3.0% and -3.5%.

Table 2.13 Changes in the net agricultural income of family labour input, and calculation of Indicator 3 of agricultural income in the Community and the Member States in 1991 and 1990 (in %)

Member State	Nominal net family income		Deflator (GDP price)		Real net family income		Family labour input (in AWU) (*)		Indicator 3 (Real NFI/AWU)	
	90/89	91/90	90/89	91/90	90/89	91/90	90/89	91/90	90/89	91/90
B	-14.0	-5.8	3.0	3.1	-16.5	-8.6	-2.7	-3.0	-14.1	-5.8
DK	-10.7	-43.3	2.3	1.9	-12.7	-44.3	-3.7	-3.4	-9.4	-42.4
D	-17.6	-23.1	3.4	4.3	-20.3	-26.2	-1.9	-5.0	-18.7	-22.4
GR	4.3	26.2	19.3	20.0	-12.5	5.2	-2.4	-0.5	-10.4	5.7
E	10.4	-5.2	7.3	6.6	2.9	-11.1	-4.5	-11.0	7.8	-0.1
F	4.4	-17.2	3.0	3.1	1.4	-19.7	-3.3	-3.5	4.9	-16.8
IRL	-5.3	-11.4	-1.3	2.1	-4.1	-13.2	-2.1	-3.2	-2.0	-10.4
I	-11.5	26.7	7.5	7.2	-17.6	18.2	-2.9	-3.1	-15.2	22.0
L	-11.7	-25.9	2.1	3.3	-13.5	-28.3	-3.6	-5.0	-10.3	-24.5
NL	-1.9	5.7	2.9	3.6	-4.6	2.0	-2.0	-1.7	-2.7	3.8
P	10.7	-12.9	14.3	14.6	-3.1	-24.0	-7.7	0.5	5.0	-24.4
UK	-1.0	-6.0	6.8	6.5	-7.3	-11.8	-1.7	-2.0	-5.7	-9.9
EUR 12	-2.1	-2.2	:	:	-7.8	-8.4	-3.5	-4.0	-4.4	-4.6

(*) Eurostat estimate for Ireland.

In 1991, **Indicator 3 of agricultural income** fell by -4.6% in the Community as a whole (1990: -4.4%; 1989: +16.3%), i.e. by -2.1% more than Indicator 1. Indicator 3 for EUR 12 therefore fell to 105.5 ("1985" = 100).

A comparison of the Indicators in the Member States reveals that changes in Indicator 3 were greater than those in Indicator 2 and that, as a consequence, the disparities between Member States widened still further (+22.0% and -42.4%). Indeed, the disparities are wider for Indicator 3 than for Indicator 2 in 10 Member States, particularly Denmark (where the disparity is negative) and Italy (where it is positive). The stability of Indicator 3 in Spain is due exclusively to the exceptional contraction in family labour input, whereas the fairly small increase in Greece is due precisely to the near-stability of the family labour input.

3 CHANGES IN AGRICULTURAL INCOME IN THE MEMBER STATES IN 1991 OVER 1990

3.1 Belgium

Preliminary estimates indicate that in 1991, the change in agricultural income in Belgium was broadly in line with the Community average. Measured by Indicator 1, agricultural income in Belgium declined by - 2.1%. This resulted from a combination of positive and negative factors:

- a slight decline in the real value of final agricultural production (- 0.5%) due to falling cattle and milk prices and despite a significant increase in production volume (+ 3.0%, comprising large increases in the pig and cattle sectors and decreases in the fresh fruit and sugar beet sectors);
- a reduction in the real value of intermediate consumption (- 1.8%) brought about by lower prices;
- most importantly, a big reduction in subsidies (- 42.0% in nominal terms) from the very high levels paid in 1990 by way of compensation for swine fever. The impact on income was compounded because costs which feature in the calculation of income (particularly interest payments) went up in real terms.

Table 3.1 Changes in the major items of the income calculation for agriculture in **Belgium**, % change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	-3.2	4.3	1.1	0.9	-2.1
Potatoes	18.0	-12.0	-14.6	3.8	0.7
Sugarbeet	-11.3	2.0	-1.1	-9.5	-12.3
Fresh vegetables	1.0	2.4	-0.7	3.4	0.3
Fresh fruit (**)	-34.2	54.6	49.9	1.8	-1.3
Final animal output	6.7	-2.9	-5.8	3.6	0.5
Cattle	6.0	-10.0	-12.7	-4.6	-7.5
Pigs	14.0	4.5	1.4	19.1	15.5
Milk	-0.5	-4.5	-7.4	-5.0	-7.8
Final output	3.0	-0.4	-3.4	2.6	-0.5
Intermediate Consumption	1.4	-0.1	-3.1	1.8	-1.8
Gross value added at m.p.	5.0	-0.6	-3.6	4.3	1.1
Subsidies				-42.0	-43.7
Taxes linked to production				0.0	-3.0
Depreciation				5.0	1.8
Net value added at f.c.				-2.1	-5.1
Rent				3.0	-0.1
Interest				12.0	8.6
Net income of total labour				-5.0	-7.8
Compensation of employees				4.0	0.9
Net income of family labour				-5.8	-8.6

(*) The deflator is the implicit price index of GDP at market prices, + 3.1 %.

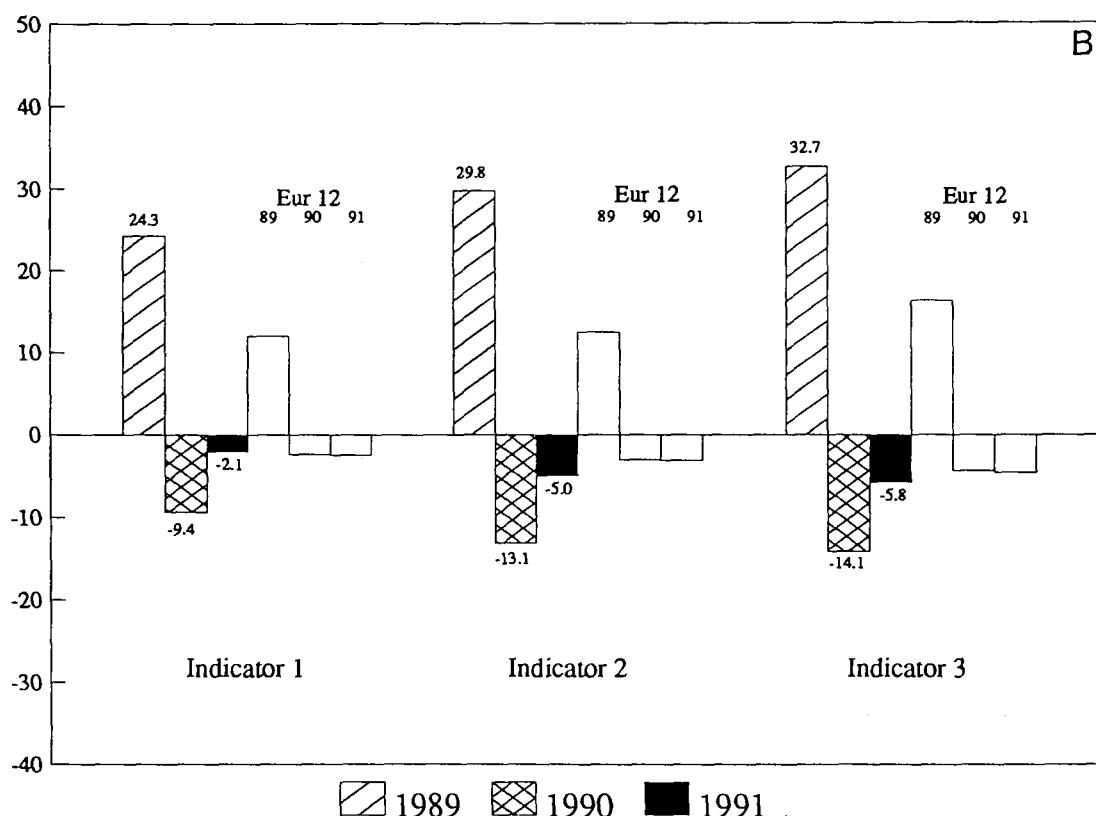
(**) Including grapes.

The real value of animal production, which represents nearly two-thirds of final production, was fairly stable in 1991, rising by just + 0.5%. However, this figure conceals wide disparities between individual products: the value of cattle production fell by - 7.5% in real terms, owing to a major fall of - 12.7% in real prices, which itself was largely due to a big dip in consumption, imports from eastern Europe and a substantial increase in volume (+ 6.0%): this change in volume contributed to renewed

imbalances between supply and demand. Milk prices fell in real terms by - 7.4% because of market saturation. Milk quotas meant that production volume was fairly stable (- 0.5%). These two factors combined to depress the real value of production by - 7.8%. Negative growth in the cattle and milk sectors was, however, more than offset by increases in pig production, whose real value rose by + 15.5%, thanks to much higher volume (+ 14.0%) and a slight increase in real prices (+ 1.4%). This recovery in pig production, which was due in part to imports of piglets, followed a steep decline caused by swine fever in 1990.

The overall stability of animal production contrasts with crop production, whose real value diminished by - 2.1% as a result of lower volumes (- 3.2%) and slightly firmer real prices (+ 1.1%). The crops with the largest variations in volume were sugar beet (- 11.3%), fresh fruit (- 34.2%) and cereals (- 2.7%). The area under sugar beet and sugar beet yields both declined, resulting in lower production volume. Fresh fruit production was adversely affected by spring frosts. Higher nominal prices for crops of + 4.3% (which, after allowing for GDP inflation of + 3.1%, represent a modest increase of + 1.1% in real terms) were principally due to a surge in the prices of fresh fruits (+ 49.9% in real terms) caused by a fall in supply. This increase more than offset lower prices for potatoes (- 14.6%) sugar beet (- 1.1%) and fresh vegetables (- 0.7%), the last of these being the most important crop.

Graph 3.1 Evolution of the three income indicators for **Belgium** in 1989, 1990 et 1991 (Changes in %)



The use of intermediate consumption was fairly stable in volume terms (+ 1.4%), reflecting its improved productivity (+ 1.6%), and real prices were down by - 3.1%. This implies a deterioration of - 0.3% in the "price scissors". Gross value added at market prices advanced + 1.1% in real terms. A - 43.7%⁽¹⁾

(1) Preliminary estimate.

reduction in subsidies and a - 3.0% reduction in real taxes linked to production, combined with only a slight rise in depreciation, led to a - 5.1% decline in real net value added at factor cost.

The substantial rise in interest payments (+ 8.6% in real terms, due largely to renewed growth in the volume of investment and higher interest rates), together with stable rents (- 0.1%) and wages (+ 0.9%) led to a - 7.8% decline in the real net income of the total labour input and a - 8.6% decline in that of family labour input.

The decline in the agricultural labour input (- 3.0%), which was a little larger than that of previous years, slightly cushioned the fall in the income Indicators:

Indicator 1: - 2.1% (- 9.4% in 1990)

Indicator 2: - 5.0% (- 13.1% in 1990)

Indicator 3: - 5.8% (- 14.1% in 1990)

3.2 Denmark

Agricultural incomes (measured per AWU in real terms) are expected to fall sharply (-10.4%) in terms of Indicator 1 during 1991, after the previous year's smaller decrease (1990: -1.9%). This fall was more severe than the Community average. The decrease of -14.6% since "1985" is the sharpest in the EC, although the levels in 1987 and 1988 were yet worse⁽²⁾. With the lowest inflation rate in the Community at 1.9%, the direction of nominal value for each product in 1991 was not altered by the deflationary effect, as has occurred in some countries.

The expected decline in incomes resulted in particular from the fall in the real price of animal production (animal production represents about two-thirds of final production) and poor crop harvests. The real value of total final production decreased -5.4% as a consequence of both real price (-4.5%) and final volume (-1.0%) being down. The full effect of these reductions was lessened by the -2.2% fall in the real value of intermediate expenditure, the value of which is about half that of final production. Unlike most other Community countries, real taxes linked to production increased and real subsidies decreased.

Although crop production represents only about 35% of total final production in Denmark, the fall in crop production real value of -8.4% was of greater consequence to final production value than the equivalent for animal production. Crop volume losses, especially from oilseeds and cereals, amounted to -5.3% (EUR 12: -0.8%) and were combined with a real price drop for final crop output of -3.3%. Large losses for oilseeds in both volume (-7.5%) and real price (-16.6%), led to the reduction in the real value by -22.8% (EUR 12: -18.4%). After the adverse climatic conditions of a cold spring followed by a heat-wave drought summer, cereal volume was down -6.9%, due to stifled crop yields and a smaller production area. The individual volumes for wheat and barley fell in line with the total for cereals. Slight rises in nominal prices could not prevent real production value declining by -8.1% and -4.5% respectively.

(2) In the case of Denmark, the three years associated with the "1985" base had no "smoothing" effect, since all three years were exceptional.

The real value fall of total animal production (-3.8%) was a result of the greater magnitude of the real price decline (-5.2%) relative to volume increase (+1.4%). The real price for pigs and milk (their combined share of final production is about 53%) decreased by similar quantities (-3.1% and -3.3%). Whereas the reduced real price for pigs was compensated for by an increase in volume (+4.8%), that for milk was compounded by a quota-based volume reduction of -2.2%. The increase in volume of cattle (+4.9%), in an oversupplied European market, was accompanied by a sharp real price decline of -17.0% (EUR 12: -10.8%), which led to a real value fall of -13.0%.

Table 3.2 Changes in the major items of the income calculation for agriculture in **Denmark**, % change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	-5.3	-1.5	-3.3	-6.7	-8.4
Cereals	-6.9	2.1	0.2	-4.9	-6.7
Oilseeds	-7.5	-15.0	-16.6	-21.4	-22.8
Flowers	0.0	-5.0	-6.8	-5.0	-6.8
Final animal output	1.4	-3.4	-5.2	-2.0	-3.8
Cattle	4.9	-15.4	-17.0	-11.3	-13.0
Pigs	4.8	-1.2	-3.1	3.5	1.6
Milk	-2.2	-1.4	-3.3	-3.6	-5.4
Final output	-1.0	-2.7	-4.5	-3.7	-5.4
Intermediate Consumption	1.5	-1.9	-3.7	-0.4	-2.2
Gross value added at m.p.	-3.5	-3.5	-5.3	-6.9	-8.6
Subsidies				-11.2	-12.9
Taxes linked to production				4.2	2.3
Depreciation				1.8	-0.1
Net value added at f.c.				-11.1	-12.7
Rent				-1.2	-3.0
Interest				2.0	0.1
Net income of total labour				-26.4	-27.8
Compensation of employees				2.5	0.6
Net income of family labour				-43.3	-44.3

(*) The deflator is the implicit price index of GDP at market prices, + 1.9 %.

The "price scissors" worsened slightly (-0.8%) in 1991, because the drop in the nominal price of final output (-2.7%) was more than that for intermediate consumption (-1.9%). The productivity of intermediate consumption decrease (-2.5%) was the first fall since 1987, and resulted from final production volume falling (-1.0%) whilst intermediate consumption volume rose (+1.5%). The nominal value of intermediate consumption remained stable (-0.4%). Much of the -2.0% loss in the nominal value of feedingstuffs, which comprises over 40% of intermediate consumption in Denmark, was redressed by increases in nominal value for plant protection products (+10.0%) and maintenance (+2.0%). The real price for feedingstuffs fell (-7.5%) by nearly as much it rose for plant protection products. The latter of the products was more of an anomaly in the European context, with a stable domestic volume compared to a EUR 12 decline of -5.1% and real price rising by the largest amount in the EC, where EUR 12 was -0.1%.

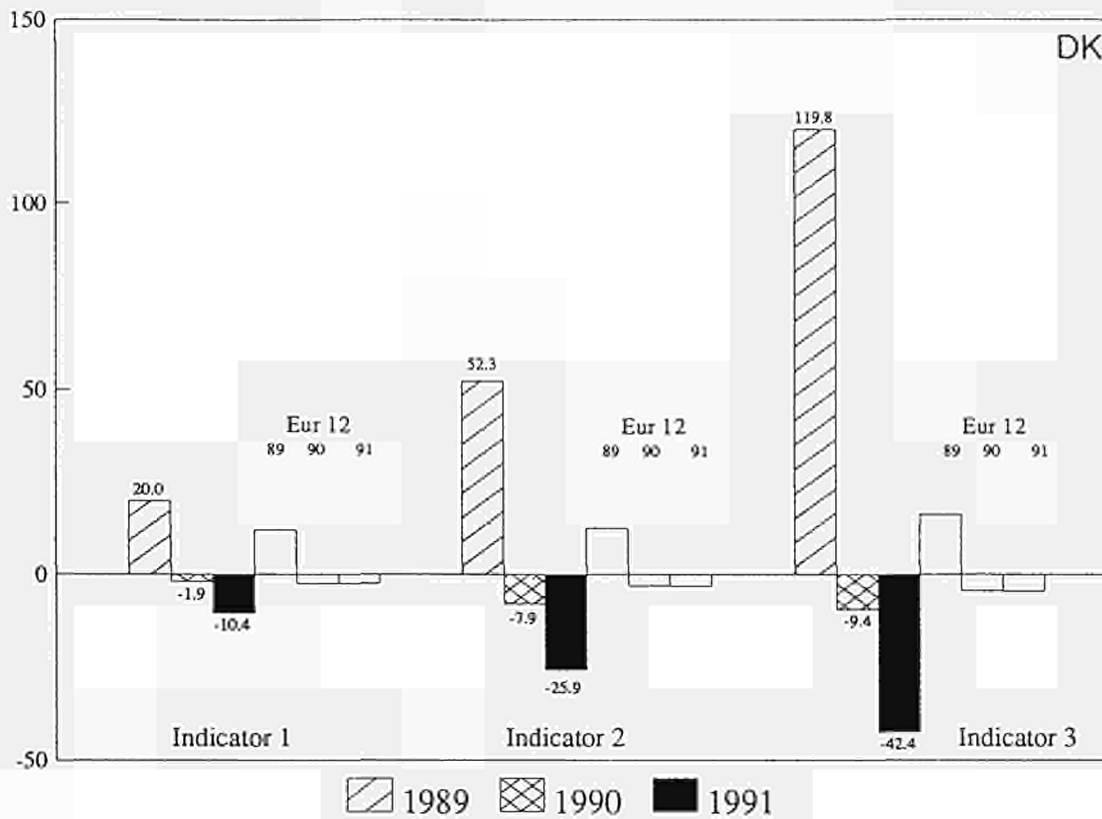
There was a double edged negative effect on relative incomes when real subsidies decreased -12.9% and real production taxes increased by +2.3%. With the level of such taxes between 3-4 times the level of subsidies, the +2.3% change had the more impact on relative incomes, and real "net taxes" increased +8.3%. Depreciation (-0.1%), interest payments (+0.1%) and compensation to employees (+0.6%) were all stable in real terms. Real rent was -3.0% lower, with total agricultural labour input down by -2.6% and that of total family labour input down -3.4%. The following changes to the Indicators were observed:

Indicator 1: -10.4% (1990; -1.9%)

Indicator 2: -25.9% (1990; -7.9%)

Indicator 3: -42.4% (1990; -9.4%)

Graph 3.2 Evolution of the three income indicators for **Denmark** in 1989, 1990 et 1991
(Changes in %)



The greater fall in Indicator 2 relative to Indicator 1, was not due to the changes in interest payments, or rent. It was predominantly a result of the removal of the inherently high absolute level of interest payments in the calculation of Indicator 2, which meant that the change in final output volume was a much higher proportion within the relatively much smaller residual figure. The same principle arises for the difference between Indicator 3 and 2, when the removal of an almost constant yet high absolute figure for compensation of employees created a much smaller residual still.

3.3 Germany

Agricultural income in the Federal Republic of Germany⁽³⁾ (as measured per AWU in real terms), which in Indicator 1 terms had declined by -12.3% in 1990, is expected to reveal a further decrease of -12.8% in 1991; a figure which is far below the EC average of -2.5%. The only countries in 1991 for which incomes are likely to have fallen even further are Portugal and Luxembourg. In comparison to "1985", Indicator 1 has been stable (-0.7%).

Total final agricultural production in real terms is expected to have fallen by -6.3% in 1991, predominantly as a result of poor harvests for fresh fruit, sugar beet and potatoes, and the considerable price reductions for oilseeds, cereals, beef and milk.

(3) The figures for the FR of Germany refer to the territorial status before 3 October 1990.

Table 3.3 Changes in the major items of the income calculation for agriculture in Germany, % change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	-7.6	6.7	2.3	-1.4	-5.5
Cereals	9.2	-2.6	-6.6	6.3	1.9
Potatoes	-5.0	13.4	8.8	7.8	3.4
Sugar beet	-11.2	7.0	2.6	-5.0	-8.9
Oil seeds	13.2	-9.8	-13.5	2.1	-2.1
Fresh fruit	-55.6	39.9	34.1	-37.9	-40.5
Wine	9.5	0.0	-4.1	9.5	5.0
Final animal output	0.1	-3.0	-7.0	-2.9	-6.9
Cattle	3.0	-10.2	-13.9	-7.5	-11.3
Milk	-2.3	-3.5	-7.5	-5.7	-9.6
Final output	-2.8	0.5	-3.6	-2.3	-6.3
Intermediate consumption	-0.3	2.4	-1.8	2.1	-2.1
Gross value added at m.p.	-5.7	-1.7	-5.8	-7.3	-11.1
Subsidies				-6.8	-10.6
Taxes linked to production				-8.2	-12.0
Depreciation				5.0	0.7
Net value added at f.c.				-13.6	-17.1
Rent				4.0	-0.3
Interest				2.0	-2.2
Net income of total labour				0.0	-4.1
Compensation of employees				-18.8	-22.1
Net income of family labour				-23.1	-26.2

(*) The deflator is the implicit price index of GDP at market prices, + 4.3 %.

The value of final crop production declined by -5.5% in real terms, due in particular to the poor harvests of fresh fruit, sugar beet and potatoes, brought about by unfavourable weather conditions. Lower volumes of these products were offset by higher prices, for which this led to an increase in real production value only for potatoes (+3.4%). Despite the favourable real prices for fresh fruit (+34.1%) and sugar beet (+2.6%), the two production values are expected to decline by -40.5% and -8.9% respectively in real terms.

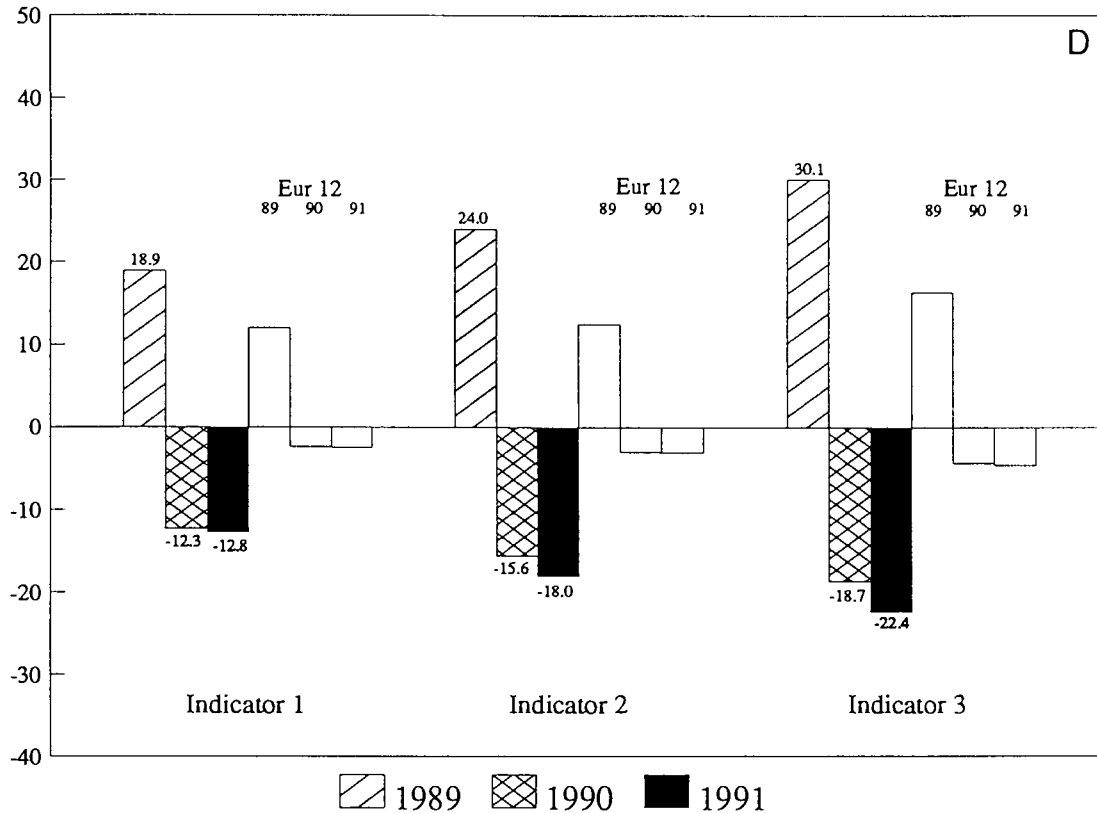
A different picture emerged for cereals, oilseeds and wine. Good harvests of cereals and wine led to higher volumes of production (+9.2% and +9.5% respectively). With a price decline of -6.6% and -4.1% respectively in real terms, the production value of cereals rose by +1.9% and that of wine by +5.0% in real terms. The greater production volume of oilseeds (+13.2%) was mainly due to a larger area under cultivation, despite which, real production value declined (-2.1%) because of the large cut in real prices (-13.5%).

The unfavourable real price development in almost all spheres of animal production caused the value of total final animal production to fall by -6.9% in real terms; the main reason was the decline in beef and milk prices which occurred in all Member States. The production value of cattle thus declined by -11.3% in real terms as the production volume rose by +3.0%. Lower real milk prices (-7.5%) were accompanied by lower production (-2.3%) which led to the real production value fall of -9.6%.

The price for pigs stabilized again, after 1990 had seen a higher Community-wide supply, declining demand in Germany and the reduction of stocks in the new Länder, all of which had had an adverse effect. The volume of production was only slightly down in 1991 at -0.5%; production value decreased by -1.2% in real terms. Higher real production values are only expected for two types of animal production which are of less significance for Germany, namely poultry (+3.4%) and "sheep and goats" (+35.5%).

The value of intermediate consumption declined by -2.1% in real terms, mainly caused through lower real prices for feedingstuffs (-5.1%), less maintenance and repair (-3.0%) and the lower expenditure on fertilizers and crop protection products (-5.5% and -7.4% respectively). Gross value added at market prices is expected to have declined by -11.1% in real terms.

Graph 3.3 Evolution of the three income indicators for Germany in 1989, 1990 et 1991 (Changes in %)



The large decline in real subsidies (-10.6%) was significant for German agriculture. The reason for this is to be found in the lower payments under the milk quota arrangements, as the special campaign to work off the reference quota surplus was largely terminated in 1990. As a consequence of this operation, the calculation of over- and under-deliveries of milk was carried out at dairy level for the first time in 1991. The penalty payments by dairy farmers for their surplus-quota production fell, which resulted in taxes linked to production declining by -12.0% in real terms. Real interest payments decreased by -2.2%, and real depreciation rose slightly (+ 0.7%).

Wages and salaries fell by -4.1% in real terms due to the decreased input of outside labour. It is estimated that the labour input of all persons employed in agriculture as well as that of the family fell by -5.0%. This rate of decrease is above the Community average and points to a continued structural change, without which agricultural incomes in Germany would have fallen even further.

A decline of -17.1% is expected for net value added at factor cost in real terms. The following changes to three income indicators, with respect to the labour input, were observed:

- Indicator 1: -12.8% (1990: -12.3%)
- Indicator 2: -18.0% (1990: -15.6%)
- Indicator 3: -22.4% (1990: -18.7%)

Comment: The agricultural situation in the new Länder

Economic, monetary and social union with the Federal Republic of Germany came into effect on the territory of the former German Democratic Republic on 1 July 1990. Shortly afterwards, on 3 October of the same year, Germany became unified. This resulted in considerable adaptation problems for the entire economy of the former GDR; in agriculture, these were triggered in particular by an abrupt decline in producer prices of between 50-70%. The far-reaching structural change led to numerous enterprises being closed, restructured or newly established.

A number of problems arise in determining value added in East German agriculture. Firstly, the statistics previously recorded by the official authorities in "marks" are hardly comparable with those applying to the period from July 1990, and secondly, the statistical system had to be completely re-organized after unification. Provisional estimates still have to be made for numerous sectors of the Economic Accounts for Agriculture. For this reason, and because the situation is still very different between the old and the new Länder, separate accounts are being created for a transitional period.

Most of the following information is based on estimates from the "Institut für Agrarpolitik, Marktforschung und Wirtschaftssoziologie" at the University of Bonn, which carries out the corresponding studies on behalf of the Federal Ministry for Food, Agriculture and Forestry. The available official statistics are supplemented by information from holdings and model calculations. As data cannot be determined for the calendar year 1990, the following situation refers to the financial years 1990/1991 and 1991/92.

Agricultural production in the new Länder was limited severely - greater in fact than was expected - by the introduction of economic, monetary and social union. In particular, there were far lower sales of crop products than in previous years. The major decline of animal stocks - the cattle population was reduced by a full 20% between October 1990 and May 1991 alone, and the figure for pigs is even above 40% - led first of all to a far higher supply of slaughtered animals. Added to this were, qualities that were often inadequate, a lack of storage capacity and cash-flow difficulties for farms; over the economic year 1990/1991 as a whole, products could therefore only be sold at far lower prices than those of the old Länder. However, the differential declined quite clearly in the first half of 1991, except for milk. The total amount of sales was around DM 13 600 million. Considering the run-down of stocks, estimated at more than DM 2 000 million and own consumption at around DM 700 million, production value was only around DM 12 300 million.

Intermediate consumption of about DM 13 200 million was far lower than expected, as fewer feedingstuffs were bought for holdings with reduced herds, and the expenditure on fertilizers and plant protection products, as well as on energy, were reduced to the absolute minimum. By contrast, there was not a reduction in expenditure on buildings, machinery and services to the same extent - the difficult cash-flow situation and the unclear prospects for the future meant that many farmers had to continue using existing equipment.

As the expenditure on intermediate consumption was higher than the production value, agriculture in the new Länder in the first year (1990/91) after economic, monetary and social union did not generate any positive gross value added. A considerable amount of state aid was paid to help the holdings with their adjustment problems and tone down the social difficulties. Subsidies totalled DM 5 200 million, the

major part in aid for adaptation and transitional arrangements. The level of taxes linked to production was low, around DM 150 million, as EC producer levies did not have to be paid in the new Länder before 3 October 1990 and most of the land and vehicle taxes were not due until 1991. Taking the estimated depreciation of around DM 2 000 million into account, agriculture in the new Länder had a net value added of DM 2 200 million in 1990/1991. This was far from sufficient to finance wages and salaries, interest and rents or new investments.

For the economic year 1991/1992, the production value is expected to be generally unchanged so that expenditure can be markedly reduced, thus clearly raising agricultural incomes. Production volume is expected to decline again in parallel with a further cut-back in animal populations. On the crop production side, the lower amounts of potatoes, fruit and vegetables will be largely offset by higher quantities of cereals and oil-seeds. The producer prices of almost all products will probably be above the level of the previous year as they will generally fall in line with those in the old Länder. In the case of milk, however, technological shortcomings in processing and marketing will still depress prices. The difference in the outpayments of the dairies between the old and new Länder has indeed been reduced, but it is still quite evident in comparison with most other products.

Considerable economic measures are expected, in respect of intermediate consumption, in the current financial year (1991/92). Expenditure on feedingstuffs in particular is likely to be lower than last year, in line with reduced animal production. Savings are also expected on energy and in the maintenance of buildings and machinery. Intermediate consumption is hardly more expensive in the new Länder than in the old as the holdings in the latter are, on average, larger and attain higher quantity discounts.

Subsidies will not attain the high level of the previous year, mainly because adaptation aids will be greatly reduced. Land and vehicle taxes, however, as well as EC producer levies must be paid in full for the first time; taxes linked to production will thus more than double in comparison with the previous year. Taking depreciation into account, net value added at factor cost is likely to be around the DM 4 000 million mark in the financial year 1991/1992; this would be a considerable improvement over the previous year's estimate of DM 2 200 million. As labour input in agriculture continues to fall drastically (- 45%), net value added per annual work unit in the new Länder could reach a nominal level of DM 13 000 to 14 000 in the current financial year. This would mean more than a three-fold increase over the previous year, though it would still only be around 50% of the income levels in the old Länder.

The great reduction in labour input will mean that expenditure on wages and salaries will not be as high as in the previous year despite wage increases and greater fringe benefits. Interest payments are not likely to change very much on account of debt clearance on the one hand and the taking-up of new credits on the other. Rent payments will continue to go up. In conclusion, one can say that net value added at factor cost will again not be sufficient in 1991/92 to finance wages, rents and interest.

3.4 Greece

Agricultural incomes (measured per AWU in real terms) are expected to have improved by +8.2% in terms of Indicator 1 during 1991, although this is not by as much as they fell in the previous year (1990:-9.1%). This was one of only four Member State increases for 1991 and so compares favourably with the European average fall of -2.5%. Greece has experienced a rise in Indicator 1 of +22.3% since "1985".

Higher 1991 nominal prices for total final production of +20.7%, were for the most part due to the devaluation of the "green drachma", which increased prices in national currency terms. These nominal price rises were offset by the highest average annual inflation rate (20%) for 1991 within the European Community.

The expected improvement in income was achieved through good crop harvests (crop production is about 75% of total final production in Greece) and nominal price increases corresponding to the general level of inflation. This was reflected in the largest rise for real value of total final production in the Community (+6.9%), a combination of the greatest increase in volume (+6.4%) and only improvement in real price (+0.6%) within the EC.

Table 3.4 Changes in the major items of the income calculation for agriculture in Greece, % change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	9.1	23.6	3.0	34.8	12.4
Cereals	45.4	11.0	-7.5	61.4	34.5
Fibre Plants	-13.2	37.0	14.2	18.9	-0.9
Tobacco	20.8	22.4	2.0	47.8	23.2
Fresh Vegetables	1.3	7.8	-10.2	9.2	-9.0
Fresh Fruit (**)	-11.0	24.6	3.8	10.8	-7.6
Olive Oil	28.6	39.5	16.2	79.4	49.5
Final animal output	-0.2	12.6	-6.2	12.4	-6.4
Sheep and Goats	-1.1	16.8	-2.7	15.4	-3.8
Milk	-0.7	5.2	-12.3	4.5	-12.9
Final output	6.4	20.7	0.6	28.3	6.9
Intermediate Consumption	5.9	25.2	4.3	32.6	10.5
Gross value added at m.p.	6.5	19.1	-0.7	26.9	5.7
Subsidies				25.2	4.4
Taxes linked to production				-34.5	-45.4
Depreciation				18.9	-1.0
Net value added at f.c.				27.3	6.0
Rent				19.6	-0.3
Interest				61.5	34.6
Net income of total labour				25.7	4.8
Compensation of employees				18.4	-1.4
Net income of family labour				26.2	5.2

(*) The deflator is the implicit price index of GDP at market prices, + 20.0 %.

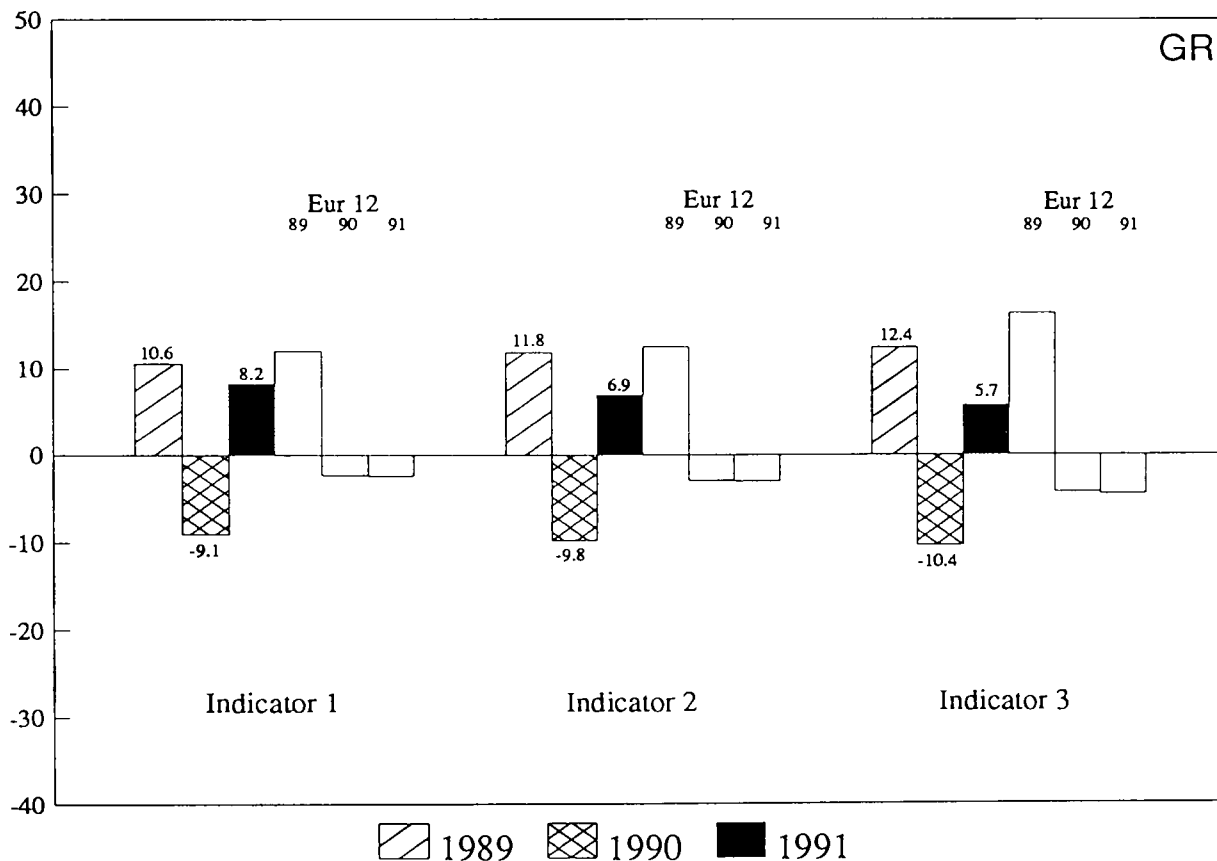
(**) Including citrus fruit and grapes.

The increase in crop production volume (+9.1%) was the largest in the Community, although much of the rise was simply a reflection of the drought conditions of the previous year. Higher precipitation levels through the winter enabled better yields to be achieved for many crops, yet in many cases volumes were still lower than the exceptional 1989 harvest. Fresh vegetables (the product with the greatest share of Greek agricultural production) recaptured +1.3% of the previous year's -4.4% decrease in volume. The real price declined by -10.2% (the second largest fall in EUR 12) which resulted in the real value decrease of -9.0%. The volume increase of olive oil (+28.6%) was a reflection of the sharp fall during the drought-hit 1990-1991 harvest. Despite the greater volume, real olive oil prices rose (+16.2%) due to the nature of the olive oil market, where prices tend to reflect the volumes harvested in the first months of the year, rather than those gathered at the start of the new harvest in the last months of the year. Lower tobacco volumes in 1990 influenced the +2.0% rise in real price for 1991 when production volume rose by +20.8%. The volume of fresh fruit (excluding citrus fruit and grapes) fell for the third consecutive year (-17.5%), because heavy rainfalls, during blossoming, adversely affected yields. The European volume reduction, at a similar rate to Greece, helped elevate the real price in Greece by +11.3% (just above the EUR 12 figure). Likewise, the

heavy spring rainfalls damaged cotton, and fibre plant volume was -13.2% lower, although this was compensated for by a real price rise of +14.2%. Higher precipitation levels, combined with a net increase in durum wheat hectareage, accounted for the +59.1% increase in wheat production. Whilst the volume of flowers produced remained unaltered from the previous year, the real price increased +17.4% due to stronger demand.

The real value of final animal production fell (-6.4%) at a similar rate to the EC average, due to a real price fall of -6.2% and stable volume (-0.2%). The real price for milk dropped (-12.3%) by the most in the EC (EUR 12: -6.5%), and combined with a slight decrease in volume (-0.7%), the real value for milk declined by -12.9%. The fall in the real price of milk can be partly explained by the stocks of cheese accumulated in 1990, which lowered processor demand for milk (of which the majority is from the sheep and goat sector) and only small nominal price increases were obtained by milk producers. There were real output value reductions for sheep (-3.8%), pigs (-3.3%) and cattle (-12.2%), predominantly due to real price falls (-2.7%, -7.1% and -11.8% respectively).

Graph 3.4 Evolution of the three income indicators for Greece in 1989, 1990 et 1991 (Changes in %)



The "price scissors" was worse (-3.6%) in 1991, because the nominal price for intermediate consumption (+25.2%) rose faster than the nominal price of final output (+20.7%). The greater volume of intermediate consumption (+5.9%) almost exactly matched the volume increase in total final production (+6.4%), so that there was an almost constant level of intermediate consumption productivity (+0.5%). With this larger quantity of intermediate consumption and a real price rise (+4.3%), the real value of such goods increased by +10.5% (the only increases in Europe). The most marked changes in real price and/or input volume, were for:

energy:	volume +7% (a continuance of the established upward trend) and the largest EC real price increase of +18.2%;
fertilizers:	the real price rise of +6.2% was the highest in the Community;
feedingstuffs:	the only real price increase (+2.6%) in the EC (EUR 12: -5.1%);
maintenance & repairs	volume +9.6% (the greatest in the Community).

Many of these real price rises occurred through the higher petroleum prices, caused by the Gulf War and greater taxation, and the trickle-down effect that had through the price of energy in the manufacturing process of other inputs. As well as this, the price of fertilizer increased because the government abandoned subsidising the price to farmers, in the framework of the more general market liberalisation programme and an effort to reduce the public deficit.

With the absolute value of subsidies about fifty times greater than those of taxes linked to production, the real increase in subsidies (including VAT over-compensation) of +4.4% was more beneficial than the real tax reduction of -44.5%. Both contributed to the real "net subsidies" increase of +5.2%. The largest real interest payments rise in the Community was in Greece (+34.6%) and was the result of base interest rate increases, between the agricultural banks and producers, from the 16% level to approximately 25%. As a consequence, Indicator 2 rose at a slower rate than Indicator 1. There were falls in real depreciation (-1.0%) and compensation to employees (-1.4%) with real rental payments remaining almost constant. Total agricultural labour input lowered -2%, but it was the fact that family labour input hardly changed (-0.5%), that resulted in Indicator 3 increasing at a slower rate than Indicator 2. The resulting Indicator levels were:

Indicator 1:	+8.2%	(1990: - 9.1%)
Indicator 2:	+6.9%	(1990; - 9.8%)
Indicator 3:	+5.7%	(1990; -10.4%)

3.5 Spain

Measured by Indicator 1, agricultural income in Spain rose slightly in 1991 (+ 0.6%), continuing the almost unbroken trend since 1981. This latest increase, which takes cumulative growth since "1985" to + 27.6%, is a result of several factors:

- lower crop production volumes (- 2.9%) and stable nominal prices for final production (- 0.2%). After allowing for a high rate of inflation (+ 6.6%), prices fell by - 6.4% in real terms;
- a fall in charges (particularly depreciation) and a significant increase in subsidies;
- large declines in the total labour input (- 8.0%) and in the family labour input (- 11.0%).

The fall in the volume of crop production was steepest for fresh vegetables (- 7.7%), wine (- 23.8%) and oilseeds (- 26.0%). Fresh vegetables and wine were adversely affected by spring frosts and excessive

rainfall in the autumn; the area under oilseeds declined considerably (- 10.0% in the case of sunflowers) because producers favoured durum wheat in 1991. The volume of cereal production increased by + 4.4%. This included particularly strong growth in the volume of durum wheat (+ 116.4%), due to a + 132.7% increase in its sown area. The volume of fresh fruits⁽⁴⁾ rose by + 0.6% and that of olive oil by + 16.1%. The real price of crop production fell by - 4.8% overall, although this figure conceals increases in the real prices of potatoes (+ 10.2%), oilseeds (+ 1.2%) and olive oil (+ 2.6%) and falls for fresh vegetables (- 6.9%), wine (- 18.9%), cereals (- 2.8%) and fresh fruits (- 1.9%).

Table 3.5 Changes in the major items of the income calculation for agriculture in Spain, % change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	-2.9	1.5	-4.8	-1.5	-7.6
Cereals	4.4	3.6	-2.8	8.2	1.5
Fresh vegetables	-7.7	-0.8	-6.9	-8.4	-14.1
Fresh fruit (**)	0.6	4.6	-1.9	5.2	-1.3
Final animal output	1.5	-2.7	-8.7	-1.3	-7.4
Cattle	-2.4	0.2	-6.0	-2.2	-8.3
Pigs	5.8	1.1	-5.1	7.0	0.4
Milk	-3.5	-5.8	-11.6	-9.1	-14.7
Final output	-1.1	-0.2	-6.4	-1.3	-7.4
Intermediate Consumption	1.6	2.5	-3.9	4.1	-2.3
Gross value added at m.p.	-3.1	-2.2	-8.2	-5.2	-11.0
Subsidies				30.0	22.0
Taxes linked to production				6.0	-0.5
Depreciation				-14.7	-20.0
Net value added at f.c.				-1.3	-7.5
Rent				-1.4	-7.5
Interest				5.4	-1.1
Net income of total labour				-2.4	-8.4
Compensation of employees				7.2	0.6
Net income of family labour				-5.2	-11.0

(*) The deflator is the implicit price index of GDP at market prices, + 6.6 %.

(**) Including citrus fruit and grapes.

These changes produced a decline in the real value of crop production (- 7.6%). Its impact on final production was reinforced by similar results in the livestock sector, although the latter represented only 38% of total agricultural production in 1990.

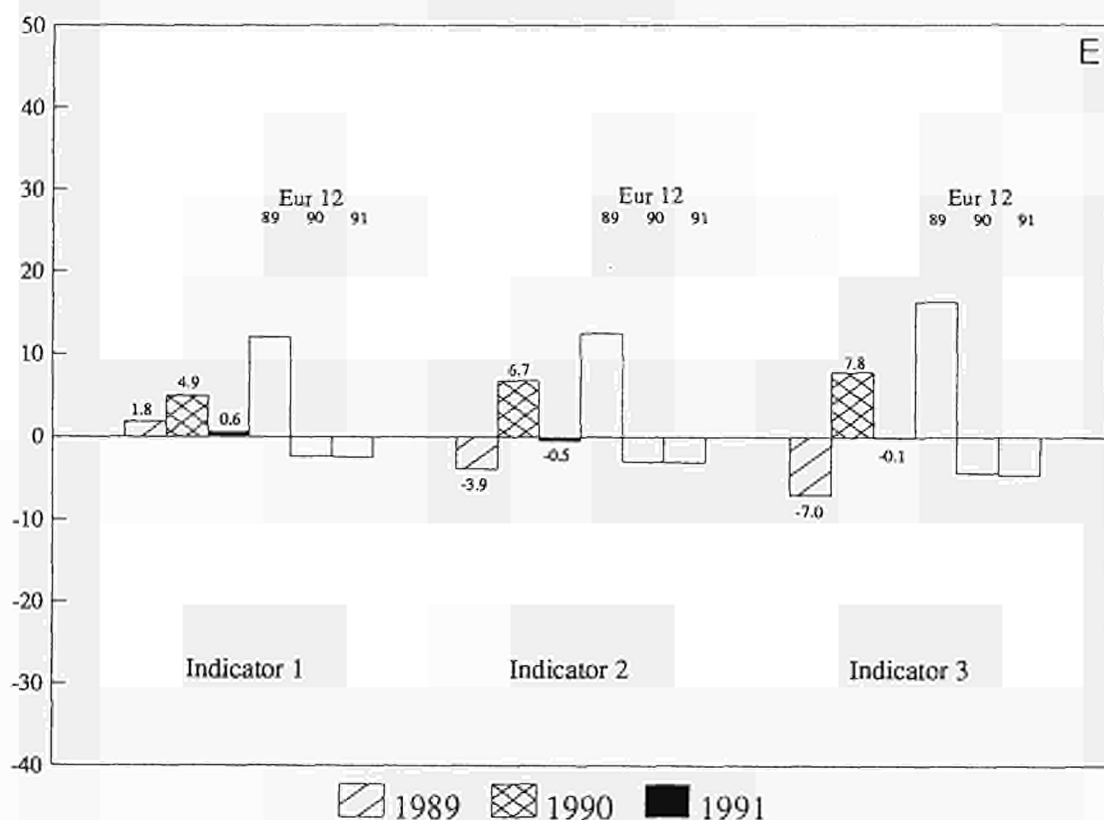
The fall in the real value of animal production was caused by changes in real prices which, as in many other Member States, fell sharply (- 8.7%). Most seriously affected were milk (- 14.7%), eggs (- 13.8%), sheep and goats (- 9.1%) and cattle (- 8.3%). The volume of milk and cattle production fell by - 3.5% and - 2.4% respectively, whereas the volume of pig production rose by + 5.8%, in line with higher domestic consumption. This increase, one of the biggest in the Community in 1991, combined with a fall in real prices (- 5.1%) to produce a modest increase in the real value of pig production (+0.4%).

Intermediate consumption rose in volume terms (+ 1.6%), but real prices fell (- 3.9%), causing a deterioration in the productivity of intermediate consumption (- 2.7%) and in the "price scissors" (- 2.6%). This goes some way to explaining the decline in real gross value added at market prices (- 11.0%). It should be pointed out that the consumption of agro-chemical production (fertilizers and plant protection products) declined in volume terms (- 0.6%), as in most Member States.

(4) Including citrus fruit and table grapes.

The considerable increase in the real value of subsidies (+ 22.0%), one of the highest in the Community), stable taxes linked to production (- 0.5%) and a major reduction in depreciation (- 20.0% in real terms), led to a fall in real net value added at factor cost (- 7.5%, i.e. less than the fall in real gross value added at market prices).

Graph 3.5 Evolution of the three income indicators for Spain in 1989, 1990 et 1991 (Changes in %)



The slow-down in the real decline of rents and interest payments (- 7.5% and - 1.1% respectively), together with a slight increase in the compensation of employees (+ 0.6% in real terms), explains the falls in the real net incomes of the total labour input and of family labour input (- 8.4% and - 11.0% respectively).

Spain's agricultural labour input continued its rapid decline, the total labour input falling by - 8.0% and the number of family input by - 11.0%. These figures represent an acceleration of the agricultural exodus, which would appear to reflect both the high level of intensification in the agricultural sector caused by other factors (intermediate consumption, showing the biggest increase in EUR 12 since "1981", and fixed capital) and increasing substitution of capital for labour. The steep decline in the agricultural labour input offset the falls in net value added and net income to give the following changes in the income Indicators:

- Indicator 1: + 0.6% (+ 4.9% in 1990)
- Indicator 2: - 0.5% (+ 6.7% in 1990)
- Indicator 3: - 0.1% (+ 7.8% in 1990)

3.6 France

Following strong increases in 1989 and 1990 (+ 15.0% and + 4.3% respectively), agricultural income, as measured by real net value added per AWU, is estimated to have declined considerably (- 11.0%) in 1991 (one of the Community's worst results for that year).

The fall in income appears to have been due to a combination of factors:

- a major decline in wine and fresh fruit harvests due to unfavourable climatic conditions. This caused the volume of crop production to fall, despite increases in the volume of cereal and fresh vegetable production;
- a reduction in the volume of cattle and milk production;
- persistent agricultural surpluses in certain markets (cattle, milk, cereals and oilseeds), which depressed prices.

The value of crop production declined by - 7.8% in real terms, owing to a major reduction in volume (- 4.4%) and a renewed fall in real prices (- 3.6%) against a background of a + 3.1% rise in the implicit inflation rate of GDP. The volume of cereal production increased strongly (+ 10.9%) thanks to high yields and a return to normal levels of maize production. The volume of maize, which declined sharply in 1989 and 1990 because of the drought, greatly increased (+ 36.5%) thanks to rises in the sown area and in yields. The volume of barley production also increased (+ 7.8%). The prices of cereals fell significantly in real terms (- 7.6%), particularly that of maize (- 18.0%).

Table 3.6 Changes in the major items of the income calculation for agriculture in France, % change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	-4.4	-0.6	-3.6	-4.9	-7.8
Cereals	10.9	-4.7	-7.6	5.6	2.4
Oil seeds	5.3	-20.4	-22.8	-16.2	-18.7
Fresh vegetables	5.4	7.5	4.3	13.3	9.9
Fresh fruit (**)	-26.9	47.3	42.9	7.7	4.5
Wine	-29.2	-0.8	-3.8	-29.8	-31.9
Final animal output	-1.0	-3.1	-6.0	-4.1	-7.0
Cattle	-3.9	-7.6	-10.4	-11.2	-13.9
Pigs	1.8	-0.1	-3.1	1.7	-1.4
Milk	-2.4	-2.4	-5.3	-4.7	-7.6
Final output	-2.9	-1.8	-4.7	-4.6	-7.5
Intermediate Consumption	0.0	1.9	-1.2	1.9	-1.1
Gross value added at m.p.	-5.4	-5.0	-7.9	-10.1	-12.8
Subsidies				-3.1	-6.0
Taxes linked to production				-14.5	-17.1
Depreciation				2.0	-1.1
Net value added at f.c.				-11.5	-14.1
Rent				-5.2	-8.1
Interest				-1.0	-4.0
Net income of total labour				-13.0	-15.6
Compensation of employees				3.8	0.7
Net income of family labour				-17.2	-19.7

(*) The deflator is the implicit price index of GDP at market prices, + 3.1 %.

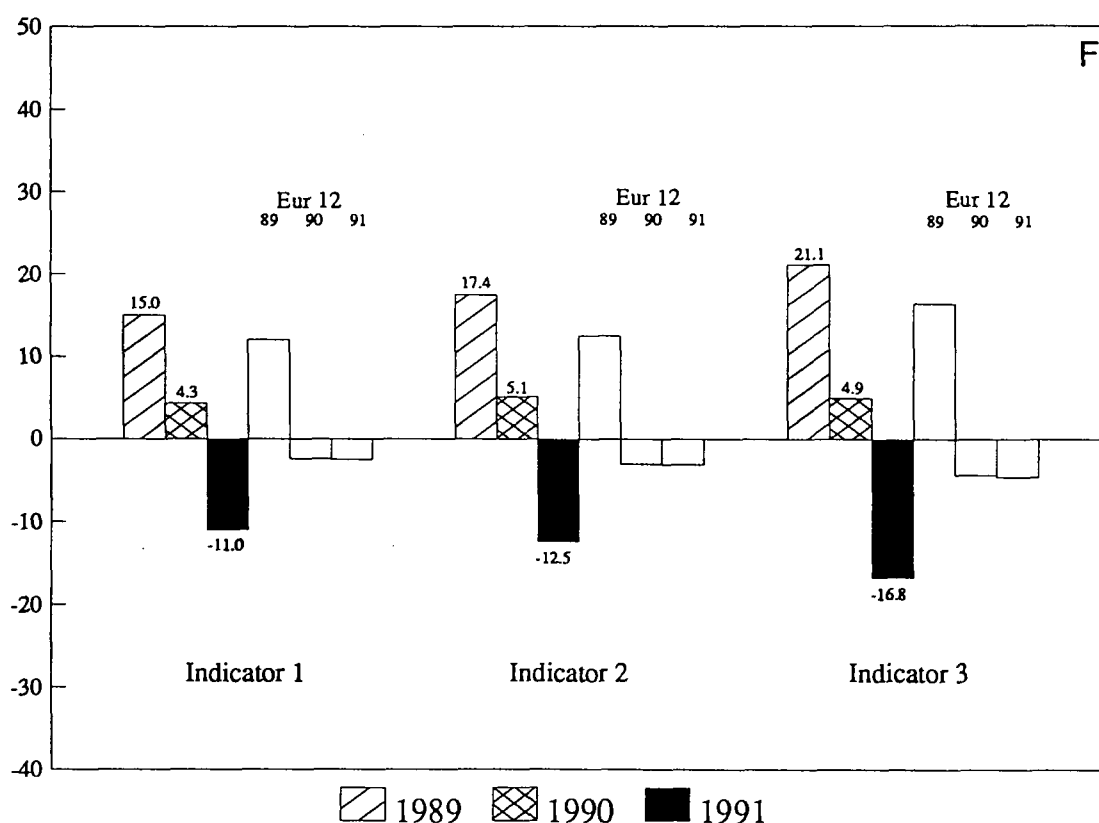
(**) Including citrus fruit and grapes.

Part of the wine harvest was destroyed by the April frosts, particularly in western France. This led to a steep fall (- 29.2%) in the volume of wine production. The bumper harvests of previous years, however, and the relatively high prices which had been obtained, meant that the lower production in 1991 did not severely affect market prices, and wine prices fell by - 3.8% in real terms. Fresh fruit harvests were also affected by the spring frosts, and production volume declined by - 26.9%. Nearly all fresh fruits were affected, except melons. A + 42.9% surge in real prices resulting from this fall in supply more than compensated for lower volumes, especially since production in other European countries was similarly affected. The volume of fresh vegetable production grew by + 5.4%, and real prices by + 4.3%.

The value of oilseed production declined by - 18.7% in real terms. Despite a reduction in the area under this crop, production volume rose by + 5.3%, but market prices fell (- 22.8%) in real terms, in line with institutional prices. A notable feature of crop production was the increase in the real value of potatoes (+ 10.2%), resulting primarily from a higher volume (+ 14.0%) and a substantial increase in the volume of seeds (+ 15.9%).

The real price of animal production fell significantly (- 6.0%) which, combined with a slight decline in production volume (- 1.0%), led to a real reduction of - 7.0% in total value. Despite lower production volume (- 2.4%) and some improvement in milk markets, milk prices retreated (- 2.4%) in nominal terms for the first time since 1973 (attention is drawn to the major deterioration in the balance of trade with the rest of the EC).

Graph 3.6 Evolution of the three income indicators for France in 1989, 1990 et 1991 (Changes in %)



The volume and real price of cattle production declined by - 3.9% and - 10.4% respectively. Despite the lower volume, surplus production depressed prices. This was because of large amounts offered for sale by

farmers with liquidity problems; slaughterings put back from 1990 to 1991, the end of the production cycle begun in 1989 and, to some extent, higher imports from Germany (which, although they do not have a significant effect on France's balance of trade in agro-food products, can have had a major impact on domestic prices).

The real value of pig production fell by -1.4% because of a decline in real prices (- 3.1%) and slow growth in volume (+ 1.8%). Following a major decline, prices recovered at the end of the year thanks to improved economic conditions both in France and elsewhere in Europe (the latter favouring exports). The volume of poultry production continued to rise (+ 6.6%) and was accompanied with a -2.8% drop in real prices. The crisis affecting sheep and goat production became more acute, with volumes declining by - 4.2% and real prices by - 1.2%, despite some recovery in prices at the end of the year in response to sustained demand.

The real value of intermediate consumption slipped back by - 1.1% as real prices fell by a similar amount (- 1.2%) and volumes remained unchanged (0.0%). This led to an implicit fall in the productivity of intermediate consumption (- 2.9%) and a deterioration in the "price scissors" (- 3.5%). The use of animal feedstuffs grew by + 5.5% in volume terms, while prices fell by - 4.9% in real terms. The use of agro-chemical products, including fertilizers and plant protection products, showed a significant fall in volume terms for the first time since 1975 (- 17.0% and -5.0% respectively). The decline in purchases of these products reflects a drive to cut operating costs and, possibly, greater environmental awareness.

Subsidies declined by - 6.0% in real terms. This has to be seen against the high level of aid granted in 1990 in response to the drought. Nevertheless, taxes linked to production declined by - 17.1%, making it possible to limit the fall in gross value added at factor cost to - 12.0%, which was nearly equal to the - 12.8% fall in gross value added at market prices. Depreciation increased by + 2.0% in nominal terms, which corresponds to a fall of - 1.1% in real terms. Real net value added at factor cost decreased by - 14.1%.

Lower rents and interest payments (- 8.1% and - 4.0% respectively in real terms) brought about a fall in net income from agricultural activity of the total labour input (- 15.6% in real terms). The increase in real wages (+ 0.7%) meant that real net income from agricultural activity of the family labour input fell even more sharply (- 19.7%). The reduction of the agricultural labour input by - 3.5%, slightly cushioned the sharp fall in the income Indicators:

Indicator 1: - 11.0% (+ 4.3% in 1990)

Indicator 2: - 12.5% (+ 5.1% in 1990)

Indicator 3: - 16.8% (+ 4.9% in 1990)

3.7 Ireland

Unlike the previous year, agricultural incomes (measured per AWU in real terms) in Ireland, in terms of Indicator 1, are expected to decrease by -8.1% (1990:+1.7%). Despite this being greater than the EC average fall in 1991, the level of Indicator 1 in Ireland is still +22.9% higher than in "1985". With the second lowest level of inflation in the Community (2.1%), the nominal price trend for each animal product in 1991 was not altered; only the magnitude of the decreases were affected.

The expected decline in incomes is predominantly due to the price falls of milk and cattle (comprising about 70% of total final production in Ireland) and the second largest real subsidy decrease (-13.2%) in the Community. Real total final production value fell -5.6%, as a result of the volume increase +0.8% only partly compensating for the -6.4% decrease in real price.

Table 3.7 Changes in the major items of the income calculation for agriculture in **Ireland**, % change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	1.7	3.5	1.4	5.3	3.1
Cereals	3.0	-2.4	-4.4	0.5	-1.6
Final animal output	0.7	-5.6	-7.5	-5.0	-6.9
Cattle	-0.9	-6.0	-7.9	-6.8	-8.7
Pigs	6.3	-2.2	-4.2	4.0	1.8
Sheep	3.6	1.7	-0.4	5.4	3.2
Milk	-1.1	-5.4	-7.3	-6.4	-8.3
Final output	0.8	-4.4	-6.4	-3.6	-5.6
Intermediate Consumption	0.1	0.0	-2.1	0.1	-1.9
Gross value added at m.p.	1.3	-7.6	-9.5	-6.4	-8.3
Subsidies				-11.4	-13.2
Taxes linked to production				12.5	10.2
Depreciation				2.2	0.1
Net value added at f.c.				-9.5	-11.4
Rent				-1.7	-3.7
Interest				-2.5	-4.5
Net income of total labour				-10.6	-12.5
Compensation of employees				-3.0	-5.0
Net income of family labour				-11.4	-13.2

(*) The deflator is the implicit price index of GDP at market prices, + 2.1 %.

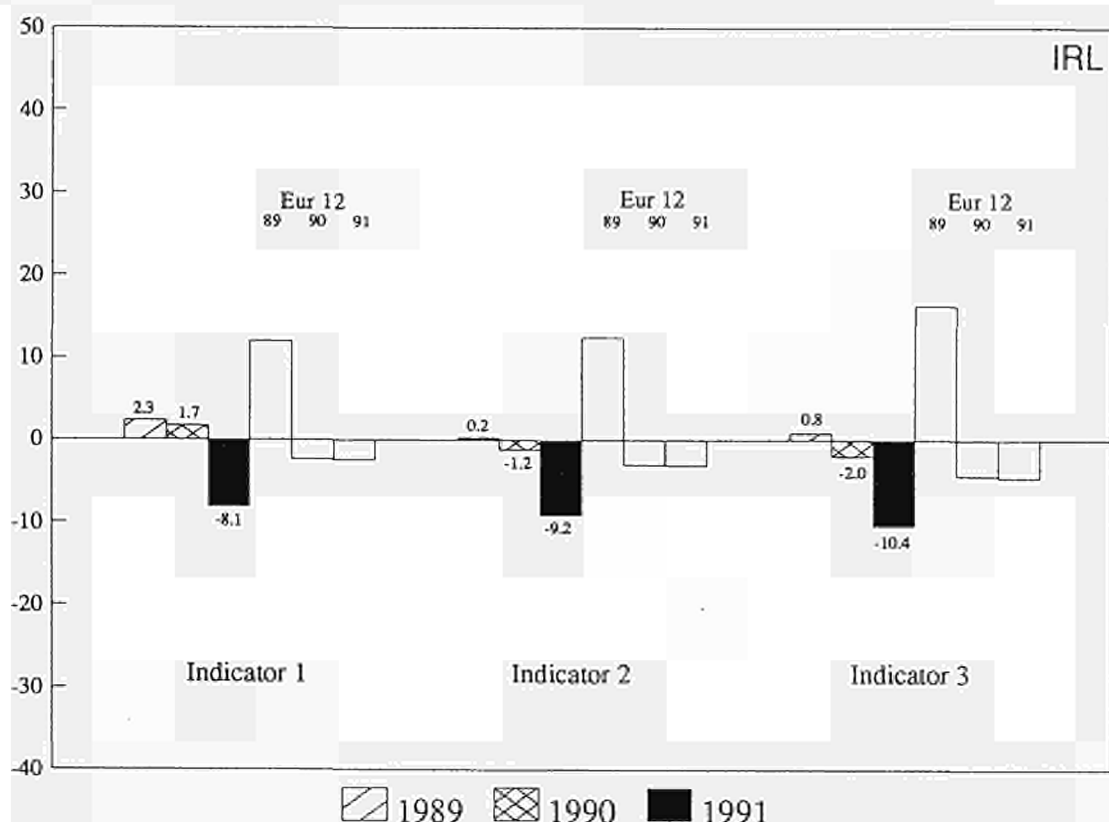
Animal production value was -6.9% down on the previous year, due to the real price fall of -7.5%, offsetting the +0.7% increase in volume. The slight decrease in cattle production volume (-0.9%) combined with the real price reductions (-7.9%) resulted in real cattle value falling by -8.7%. Exports to the UK (the principal export market) were hit hard by the continuing lower consumption levels there. The oversupply of Irish beef coincided with a peaking of the European beef production cycle (itself heightened by the additional quantities from former East Germany in 1990). This Pan-European state of disequilibrium triggered the intervention mechanism and resulted in around 250,000 tonnes of Irish beef going into intervention. The drop in the real price of milk (-7.3%) was compounded by a -1.1% decrease in volume through quota cuts, and the real value fell -8.3%. Among the other animal products, there were increases in the real production values for sheep (+3.2%), pigs (+1.8%) and poultry (+7.9%, arising principally from the largest change in volume +11.5% in the Community).

The improvement in the real value of crop production (+3.1%), which resulted from an increase in real prices (+1.4%) and volume (+1.7%), helped lessen the full impact of the -6.9% decrease in real final animal production value. Although wheat yields fell (but remaining the highest in EUR 12), the increase in production area led to a volume rise of +7.0%. The nominal wheat price remained stable and the real value of wheat production was +4.5% higher. The real production value decrease for barley was entirely due to the real price fall of -5.5%. There were volume reductions in the root crops, accompanied by real price increases, most appreciably for potatoes: +32.5% (the largest change in EUR 12).

The "price scissors" deteriorated (-4.4%), because the nominal intermediate consumption price remained unchanged while that of final production fell -4.4%. Intermediate consumption productivity rose +0.7% as the increase in total final production (+0.8%) was more than the almost stable intermediate consumption

volume (+0.1%). The real value of intermediate consumption fell (-1.9%) by the European average rate. The volume of feedingstuffs (the largest single input in expenditure terms) increased (+3.9%), but the real price fall of -6.2% resulted in a -2.4% decrease in the real value of feedingstuffs. The second largest input expenditure was on fertilisers and soil improvers, and whilst the volume decreased by -2.6%, the real price remained almost unchanged (+0.1%).

Graph 3.7 Evolution of the three income indicators for **Ireland** in 1989, 1990 et 1991 (Changes in %)



The high percentage reduction in real subsidies in 1991 (-13.2%) was part reflection of the real increase of +76% in the previous year. Combined with the increase in real taxes linked to production (+10.2%), there was a negative effect on the annual change in income as real "net subsidies" decreased -16.9%. Real depreciation value remained constant (+0.1%), rental payments fell by -3.7% in real terms, real interest payments fell -4.5%, and compensation to employees fell by -5.0% in real terms. Together with drops in the total agricultural (-3.6%) and family labour inputs (-3.2%)⁽⁵⁾, the following Indicator levels resulted :-

Indicator 1:	-8.1%	(1990: +1.7%)
Indicator 2:	-9.2%	(1990: -1.2%)
Indicator 3:	-10.4%	(1990: -2.0%)

(5) The changes in labour input in 1991 have been estimated by Eurostat.

3.8 Italy

Agricultural income in Italy rose more than anywhere else in the Community in 1991. The + 8.9% increase in Indicator 1, the biggest in Italy since 1980, offset the fall of - 8.7% recorded in 1990. It was the result of:

- a slight rise in the real value of agricultural production (+ 1.2%, one of just two such increases in the Community, together with Greece) brought about by a + 5.6% increase in the volume of crop production (particularly olive oil, cereals and wine) and a modest fall (by comparison to their long-term trend) in real agricultural prices of - 2.2%, thanks to firm prices for fresh fruit and vegetables and olive oil and despite a major decline in the real prices of animal production;
- a fall in the real value of costs which feature in the calculation of income (intermediate consumption, taxes, depreciation, rents, interest and wages).

Table 3.8 Changes in the major items of the income calculation for agriculture in Italy, % change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	5.6	8.0	0.7	14.1	6.4
Cereals	13.4	3.4	-3.5	17.3	9.4
Fresh vegetables	-3.0	12.5	4.9	9.1	1.8
Fresh fruit (**)	-5.5	7.4	0.2	1.5	-5.3
Wine	6.8	4.7	-2.3	11.8	4.3
Olive oil	250.0	19.7	11.7	319.0	290.9
Final animal output	0.2	-0.2	-6.9	0.0	-6.7
Cattles	-0.9	-4.9	-11.3	-5.8	-12.1
Pigs	1.4	0.6	-6.2	2.0	-4.9
Milk	-0.9	-1.0	-7.6	-1.9	-8.5
Final output	3.5	4.8	-2.2	8.5	1.2
Intermediate Consumption	1.0	3.1	-3.8	4.1	-2.9
Gross value added at m.p.	4.6	5.6	-1.5	10.4	3.0
Subsidies (***)				11.1	3.6
Taxes linked to production				6.6	-0.6
Depreciation (***)				3.3	-3.6
Net value added at f.c.				13.3	5.7
Rent				4.7	-2.3
Interest				3.0	-3.9
Net income of total labour				15.0	7.3
Compensation of employees				2.5	-4.4
Net income of family labour				26.7	18.2

(*) The deflator is the implicit price index of GDP at market prices, + 7.2 %.

(**) Including citrus fruit and grapes.

(***) Eurostat estimates.

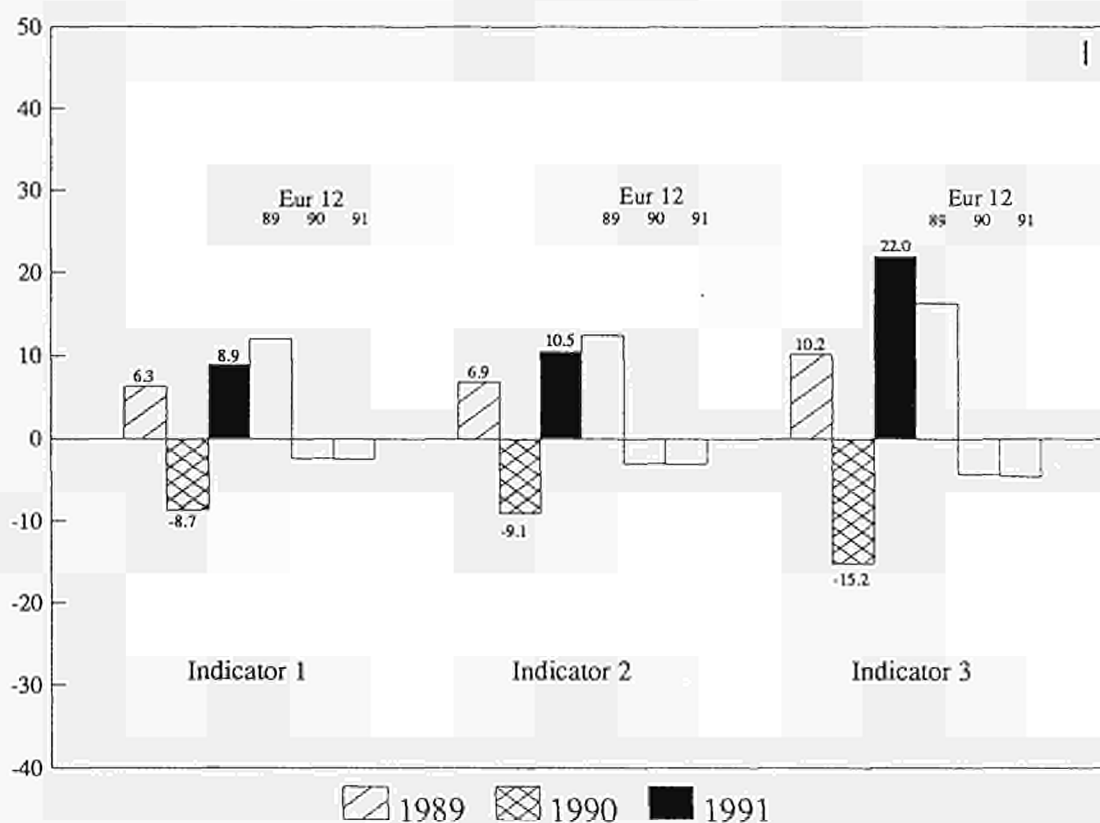
The volume and prices of crop production both increased. Climatic conditions, which were more favourable than in 1990, were such that the yields of numerous crops returned to more normal levels. The + 8.0% increase in the nominal prices of crop production was, however, largely due to the + 7.2% increase in the rate of GDP inflation. Particularly large increases were recorded for olive oil (+ 250.0%) and cereals (+ 13.4%). It should be noted, however, that the volume of olive oil production had declined steeply in 1990 (- 55.8%). The real price of olive oil also advanced significantly (+ 11.7%) as markets benefited in 1991 from the poor harvest of the previous year. The higher volume of cereal production was due to greater yields, as the area under cereals decreased slightly. Furthermore, an + 18.5% increase in the volume of wheat (comprising of a substantial increase in durum wheat and a slight fall in soft wheat), and a + 5.7%

increase in the volume of maize helped the real value of cereals to rise by + 9.4%. The decline in real prices was limited to - 3.5%.

Fresh vegetables and fresh fruits (including citrus fruits and table grapes), which account for a major share of crop production, fell in volume terms by - 3.0% and - 5.5% respectively, due mainly to unfavourable climatic conditions. Table grapes and strawberries were the only crops to escape the ravages of the weather. Higher real prices for fresh vegetables (+ 4.9%) helped to stabilize the real value of production (+ 1.8%), whereas the real value of fresh fruit declined by - 5.4% despite stable real prices (+ 0.2%).

The real value of wine production rose by + 4.3% thanks to considerably higher volume (+ 6.8%) and a slight decline in real prices (- 2.3%). There were also steep declines in the volume and real prices of oilseeds (- 19.8% and -8.7% respectively).

Graph 3.8 Evolution of the three income indicators for **Italy** in 1989, 1990 et 1991
(Changes in %)



The nominal value of animal production was unchanged from 1990 (0.0%), falling by - 6.7% in real terms. This was caused by broadly stable volumes (- 0.9% for milk, - 0.9% for cattle and + 1.4% for pigs) and a fall in real prices (- 7.6% for milk, - 11.3% for cattle and - 6.2% for pigs). As in many other Member States, consumption of beef collapsed, and this depressed market prices.

A fall in the real value of intermediate consumption (- 2.9%) led to an increase of + 3.0% in real gross value added at market prices. A slight increase in the volume of intermediate consumption (+ 1.0%) and lower real prices (- 3.8%) implies an improvement in the productivity of intermediate consumption (+ 2.4%) and in the "price scissors" (+ 1.7%). As in most other Member States, the use of fertilizers and plant protection

products fell in volume terms, by - 4.0% and - 2.0% respectively, which, in the case of fertilizers, continued a trend established several years ago.

The probable increase⁽⁶⁾ in real subsidies (+ 3.6% in real terms) and stable real taxes linked to production (- 0.6%), produced a + 3.1% increase in real gross value added at factor cost. Lower depreciation (- 3.6% in real terms), which in Italy accounts for a very large part of final agricultural production (approximately 20%) combined with slight decreases in rents (- 2.3% in real terms) and interest payments (- 3.9%), led to an increase in real net value added at factor cost (+ 5.7%) and in the real net income of the total labour input (+ 7.3%). The real net income of family labour input rose by + 18.2% thanks to a - 4.4% fall in real wages. Taken together with the reduction in the total agricultural labour input (- 2.9%) and in the family labour input (- 3.1%) these figures produce marked increases in Indicators 1, 2 and 3:

Indicator 1: + 8.9% (- 8.7% in 1990)

Indicator 2: + 10.5% (- 9.1% in 1990)

Indicator 3: + 22.0% (- 15.2% in 1990)

3.9 Luxembourg

In Luxembourg, agricultural income as measured by Indicator 1 is estimated to have fallen by - 18.7% in 1991. This decline, the worst since 1973 and the severest in the Community, was caused by:

- unfavourable weather conditions (frosts in the spring and drought in the summer) which resulted in sharply lower crop production volume, particularly that of wine;
- a steep decline in the real prices of animal production (milk, cattle, pigs).

Table 3.9 Changes in the major items of the income calculation for agriculture in Luxembourg. Percentage change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	-27.1	3.4	0.1	-24.6	-27.0
Cereals	-0.2	-3.1	-6.2	-3.3	-6.4
Wine	-43.3	5.8	2.4	-40.0	-41.9
Final animal output	-6.4	-10.5	-13.4	-16.3	-18.9
Cattle	-9.4	-16.3	-19.0	-24.2	-26.6
Pigs	0.6	-3.8	-6.9	-3.2	-6.3
Milk	-6.3	-9.2	-12.1	-14.9	-17.6
Final output	-10.1	-8.5	-11.4	-17.8	-20.4
Intermediate Consumption	1.0	1.2	-2.0	2.2	-1.1
Gross value added at m.p.	-17.5	-16.4	-19.1	-31.0	-33.2
Subsidies				136.2	128.7
Taxes linked to production				65.5	60.2
Depreciation				8.4	4.9
Net value added at f.c.				-19.2	-21.8
Rent				3.6	0.3
Interest				3.3	0.0
Net income of total labour				-24.2	-26.6
Compensation of employees				8.5	5.0
Net income of family labour				-25.8	-28.2

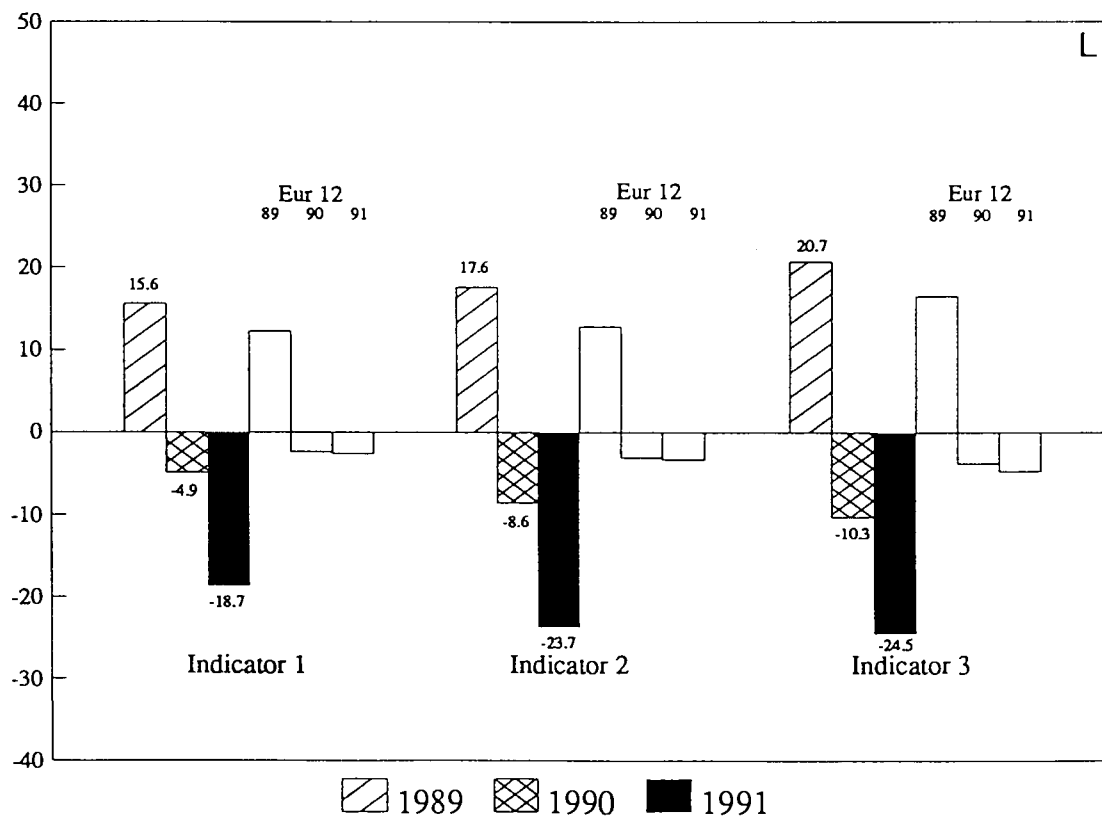
(*) The deflator is the implicit price index of GDP at market prices, + 3.3 %.

(6) Data on subsidies and depreciation are not yet available and have been estimated by Eurostat.

Animal production, which represents nearly 80% of final agricultural production, fell dramatically, its real value declining by - 18.9%. The state of the markets in Luxembourg was similar to that in other European countries, i.e. there was an imbalance between supply and demand, and the real prices of animal production fell by - 13.4%, and particularly - 19.0% for cattle. Production volumes also decreased (- 6.4%), due mainly to falls for cattle (- 9.4%) and milk (- 6.3%); the impact of significant variations in the cattle herd in 1991 was compounded by the detrimental effects which the drought had on the animals. The only sector in which volume was maintained was pig production (+ 0.6%), although the prices of pigmeat fell in real terms by - 6.9%.

The real value of crop production collapsed by - 27.0%, the result of a - 27.1% fall in production volume and stable prices (+ 0.1% in real terms). Wine production, which in 1990 made up nearly 50% of crop production, accounted for most of the fall. Unfavourable climatic conditions (late frosts) caused the wine harvest to plummet by - 43.3%, but this had no significant effect on market prices, which rose by just + 2.4% in real terms. Cereal production was adversely affected by the drought (- 0.2% in volume terms) and prices declined by - 6.2% in real terms. It should also be noted that the production volume of potatoes and fresh fruit and vegetables collapsed by - 26.1%, - 55.1% and - 77.4% respectively.

Graph 3.9 Evolution of the three income indicators for Luxembourg in 1989, 1990 et 1991 (Changes in %)



The use of intermediate consumption decreased slightly in value (- 1.1% in real terms), but increased slightly in volume (+ 1.0%). The use of animal feedingstuffs grew in volume terms by + 6.6%. The drought, which affected fodder crops and pasturage, appears to have constrained farmers to using complementary feedingstuffs. The moderate decline in the real prices of intermediate consumption (- 2.0%) led to a deterioration in the "price scissors" (- 9.6%), and the productivity of intermediate consumption again declined (- 11.0%).

The massive increase in subsidies (+ 128.7% in real terms) which was designed to compensate farmers for the ravages of the weather, combined with a somewhat less dramatic rise in taxes linked to production (+ 60.2%), meant that the decline in real gross value added at factor cost was limited to - 15.9%. However, higher depreciation (+ 4.9% in real terms) and real wages (+ 5.0%), and the stability of real interest payments (0.0%) and real rents (+ 0.3%), led to falls in net value added at factor cost, the net income of the total labour input and the net income of family labour input (- 21.8%, - 26.6% and - 28.2% respectively). Despite the decline in agricultural labour input, which continued unabated (- 3.9% for total labour input and - 5.0% for family labour input), the income Indicators showed clear falls:

Indicator 1: - 18.7% (- 4.9% in 1990)

Indicator 2: - 23.7% (- 8.6% in 1990)

Indicator 3: - 24.5% (- 10.3% in 1990)

3.10 The Netherlands

Unlike the previous year, the 1991 forecast of Indicator 1 shows a rise in agricultural income (measured per AWU in real terms) for the Netherlands of +2.9% (1990: -0.7%). The upward trend in the level of Indicator 1 is therefore expected to continue for 1991, to a net high increase (+22.5%) since "1985". Only four countries recorded an increase in Indicator 1 in 1991, and Italy, Greece and Spain are from the southern states. The inflation rate of 3.6% was below the European average.

Total final output value for the Netherlands in 1991 remained almost constant in real terms (-0.1%), through slight rises in final production volume and nominal prices. This compares favourably with the European average for real total final output value (-4.4%).

Table 3.10 Changes in the major items of the income calculation for agriculture in the Netherlands, % change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	1.1	5.3	1.6	6.5	2.8
Potatoes	1.2	-4.0	-7.3	-2.8	-6.2
Fresh Vegetables	5.4	6.6	2.8	12.3	8.4
Flowers	2.0	7.5	3.8	9.7	5.9
Final animal output	0.9	0.5	-3.1	1.3	-2.2
Cattle	15.0	-6.0	-9.3	8.1	4.3
Pigs	-6.0	4.0	0.4	-2.2	-5.6
Poultry	9.0	-3.0	-6.4	5.7	2.0
Milk	-1.0	1.0	-2.5	0.0	-3.5
Eggs	-1.0	2.0	-1.5	1.0	-2.5
Final output	1.0	2.5	-1.1	3.5	-0.1
Intermediate Consumption	0.5	-0.2	-3.7	0.3	-3.2
Gross value added at m.p.	1.4	4.4	0.8	5.9	2.2
Subsidies				15.3	11.3
Taxes linked to production				2.9	-0.7
Depreciation				6.0	2.3
Net value added at f.c.				6.3	2.6
Rent				1.5	-2.0
Interest				7.4	3.7
Net income of total labour				6.2	2.5
Compensation of employees				9.0	5.2
Net income of family labour				5.7	2.0

(*) The deflator is the implicit price index of GDP at market prices, + 3.6 %.

There were real value reductions in final animal production for all countries (except Belgium), but the Dutch experienced the lowest fall (-2.2%) in the Community (EUR 12: -6.4%). Milk has the largest share in Dutch final agricultural production, and although there was a -3.5% drop in the real value (volume -1.0%, real price -2.5%), all other countries experienced a faster decline. Cattle (including calves) and pigs represent the two largest categories within the Dutch livestock sector, although they experienced contrasting fortunes. The Netherlands was the only country within the EC (EUR 12: -10.3%), where real cattle production value increased (+4.3%). The largest rise in cattle (including calves) volume within the Community (+15.0%), where on average volumes remained stable, can be partly explained by the continued expansion of cattle numbers and also by the generally encouraged rise in suckler cow numbers by the EC. As a consequence of the greater volume and other factors, there was a real price decline of -9.3%. Pig production real value fell -5.6% (EUR 12: -1.7%). The outbreak of Blue Ear disease and new environmental laws on slurry disposal restricted the output of pigmeat onto consumer markets and pig volume decreased (-6.0%) by the largest amount in the Community, which was a considerable fall in light of the established expansion in the Netherlands since the early 1970's. As a result of these restrictions the Netherlands recorded one of only two real price increases (+0.4%) for pig production in the EC.

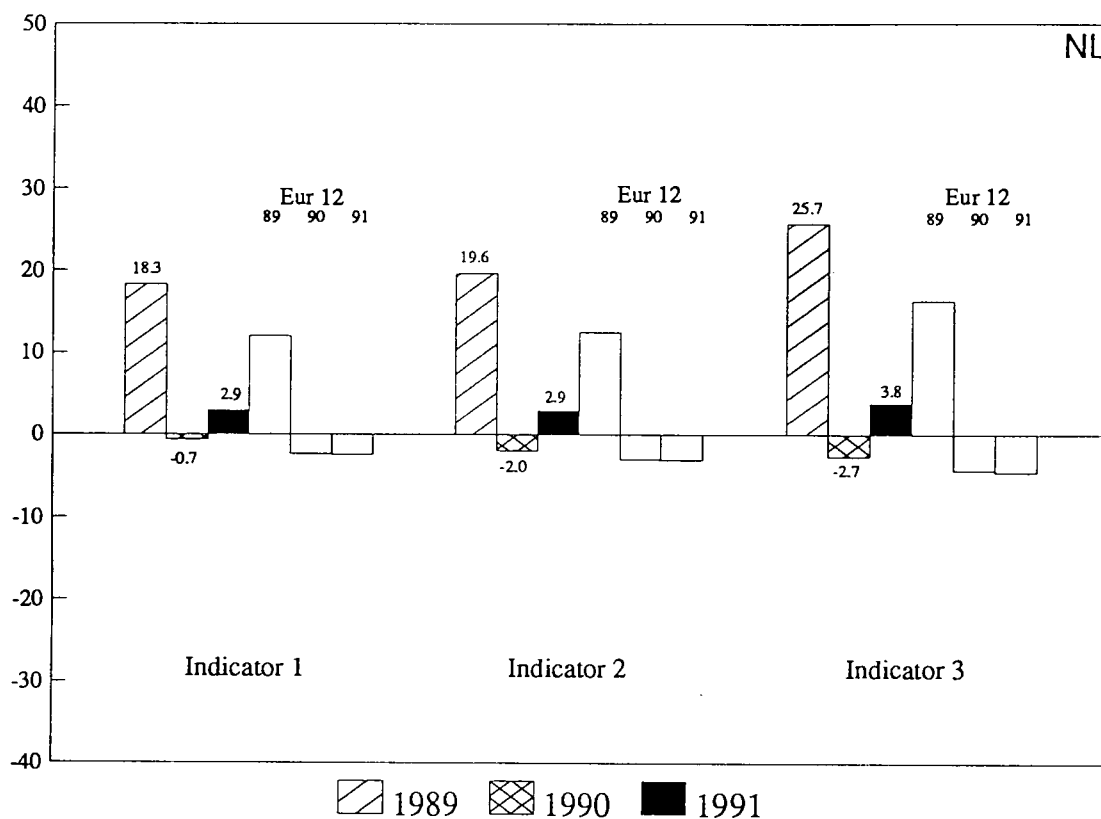
The Netherlands was the only northern state, apart from Ireland, to achieve an increase in the real value of final crop production (+2.8%), which occurred against a background of European Community losses (EUR 12: -2.5%). The principal reasons for this rise were the higher real production values for fresh vegetables (+8.4%) and flowers and ornamentals (+5.9%) which continued to expand in export markets. The real value increase of fresh vegetables was the second highest in Europe. This sustained growth was a result of the +5.4% increase in production volume (EUR 12: -1.4%), and a +2.8% rise in real price for fresh vegetables (EUR 12: +0.4%), stimulated in particular by greater demand from former East Germany and Poland. The real production value rise for flowers and ornamental plants was +6.9 points above the European average and only bettered by Greece. This occurred due to the established growth in volume (+2.0% in 1991), at the fastest rate in the Community (EUR 12: -0.3%), and the rise in real price (+3.8%) which was one of just two increases in the EC.

Of the smaller value crops produced, potatoes registered a -6.2% fall in real value, caused by a reduction in real prices (-7.3%) more than offsetting a consecutive third year volume increase (+1.2%); the production value of sugar beet fell by -14.9% in real terms, where a small real price increase of +1.4% was unable to compensate for the reduction in yields and quantity produced (-16.0%) from the previous year's "all-time high" harvest; and the volume of cereals fell -9.8% and more particularly wheat -14%, where both yields but principally production area were down on the previous year.

The Netherlands was one of only two countries to achieve an improvement in the "price scissors" (+2.7%) and attained it with higher nominal final production prices (+2.5%) and lower nominal intermediate consumption prices (-0.2%). The country has now achieved the highest net increase in the "price scissors" (+10.4%) since "1985". The productivity of intermediate consumption rose slightly (+0.5%), whilst it fell on average for the Community, and is +7.7% higher than "1985". The slight increase in the volume of intermediate consumption (+0.5%) was enough to compensate for the decrease in nominal prices of -0.2%. However, real value fell (-3.2%) at a slightly faster rate than the EC average. This greater volume was predominantly accounted for by the second highest increase in seed & seedlings in the EC (+4.7%), and the greatest rise in energy/lubricants volume (+8.0%) in the Community, caused by low spring temperatures and the continued greenhouse expansion of horticulture. The real intermediate consumption price decrease

of -3.7% can be mostly explained by the fall in the real price of feedingstuffs (-5.4%), which fell (in line with the EC average) because of lower pig production, since this category represents over 50% of the intermediate consumption market.

Graph 3.10 Evolution of the three income indicators for the Netherlands in 1989, 1990 et 1991 (Changes in %)



As part reflection of the large nominal subsidy decreases of the previous year (-9.2%) and greater compensation for milk quota schemes in 1991, nominal subsidy increases of +15.3% were recorded for 1991. This change was greater than the +2.9% increase in nominal taxes linked to production for 1991. With the absolute level of subsidies being about half that of taxes linked to production in 1990, the "net taxes" level decreased by -11.0%. There were increases in real depreciation (+2.3%), real interest payments (+3.7%), and compensation of employees (+5.2%), although there was a fall in real rent payments of -2.0%. The increase in the compensation of employees resulted from a +4% rise in non-family labour numbers and a +5% rise of the nominal wages sum per worker. While total labour input remained stable (-0.3%), there was a reduction in total family labour input (-1.7%). The changes in the income Indicators were as follows:

Indicator 1:	+2.9%	(1990 -0.7%)
Indicator 2:	+2.9%	(1990 -2.0%)
Indicator 3:	+3.8%	(1990 -2.7%)

3.11 Portugal

Agricultural income in Portugal, as measured by Indicator 1, declined in 1991 by - 14.5% to one of its lowest levels in 10 years (together with the low level of 1988). This decline, the second biggest in the Community after Luxembourg, was mainly the result of:

- the major fall in the volume of crop production of - 8.5% (most notably fresh vegetables, wine and potatoes);
- a slight fall in the nominal prices of final production (- 1.5%) which, given a very high inflation rate of + 14.6%, represents an extremely severe fall in real prices of - 14.1%, which particularly affected cereals, wine and animal production;
- a modest decline in the total labour input (- 1.0%) and a very slight increase in the family labour input (+ 0.5%) which was insufficient to offset the decline in economic aggregates (net value added at factor cost and net income) on which the income Indicators are based.

Table 3.11 Changes in the major items of the income calculation for agriculture in **Portugal**, % change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	-8.5	0.9	-11.9	-7.6	-19.4
Cereals	-3.8	-12.5	-23.6	-15.8	-26.5
Fresh vegetables	-9.0	24.0	8.2	12.8	-1.5
Wine	-10.0	-32.9	-41.4	-39.6	-47.3
Final output	3.4	-4.4	-16.5	-1.1	-13.7
Cattle	4.0	-10.1	-21.6	-6.5	-18.4
Pigs	3.0	0.7	-12.1	3.7	-9.5
Milk	4.6	-8.7	-20.4	-4.5	-16.7
Final output	-2.4	-1.5	-14.1	-3.8	-16.1
Intermediate Consumption	-3.7	5.9	-7.6	2.0	-11.0
Gross value added at m.p.	-1.0	-8.7	-20.3	-9.6	-21.1
Subsidies				42.3	24.2
Taxes linked to production				-9.6	-21.1
Depreciation				-9.6	-21.1
Net value added at f.c.				-3.0	-15.4
Rent				0.3	-12.5
Interest				17.7	2.7
Net income of total labour				-7.5	-19.3
Compensation of employees				15.1	0.4
Net income of family labour				-12.9	-24.0

(*) The deflator is the implicit price index of GDP at market prices, + 14.6 %.

The volume of crop production, which, unlike in other southern European countries, accounts for (slightly) less than half of final agricultural production, fell by - 8.5% owing to unfavourable climatic conditions (summer drought). The crops most severely affected were potatoes (- 16.3%), wine (- 10.0%), fresh vegetables (- 9.0%) and olive oil, whereas more moderate declines were recorded for cereals (- 3.8%) and fresh fruits⁽⁷⁾ (- 2.9%).

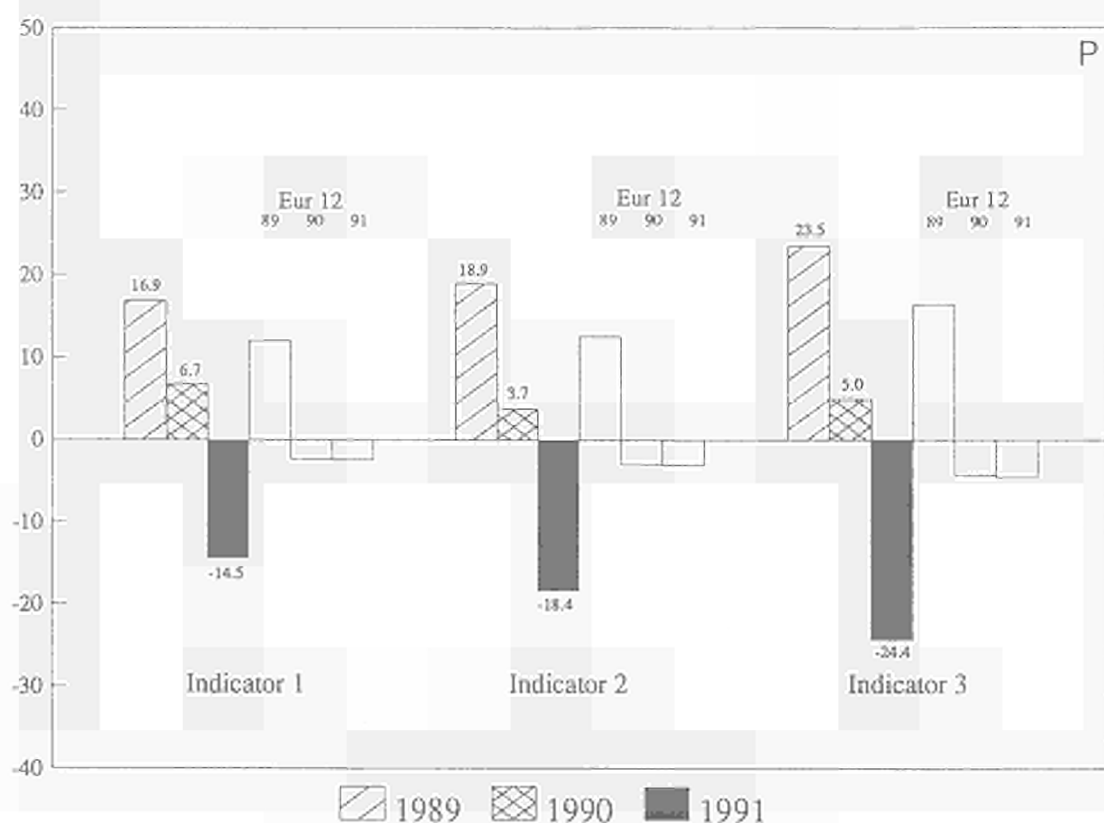
The real price of crop production fell sharply (- 11.9%). This figure conceals a wide range of individual price movements: the real prices of fresh vegetables and potatoes, for example, which benefited from low levels of production, advanced by + 8.2% and + 29.2% respectively, whereas real falls were recorded in the

(7) Including citrus fruits and table grapes.

price of wine (- 41.4%, despite lower volume), cereals (- 23.6%), olive oil (- 10.6%) and fresh fruit (- 4.3%).

The increase in the volume of animal production (+ 3.4%) was spread fairly evenly: increases were recorded for cattle (+ 4.0%), pigs (+ 3.0%) and milk (+ 4.6%). Nevertheless, prices were even more depressed than in EUR 12 (- 16.5%, compared with - 6.9%), with falls in the price of cattle (- 21.6%), pigs (- 12.1%) and milk (- 20.4%).

Graph 3.11 Evolution of the three income indicators for Portugal in 1989, 1990 et 1991 (Changes in %)



Real gross value added at market prices fell by - 21.1%, despite the lower real value of intermediate consumption (- 11.0%) which resulted from a lower volume (- 3.7%); this implies an improvement in the productivity of intermediate consumption (+ 1.3%). The decline in real prices (- 7.6%) was less severe than the fall in the real prices of agricultural production as a whole, thus causing the "price scissors" to deteriorate by - 7.0%.

An increase in the real value of subsidies (+ 24.2%), combined with a decline in taxes linked to production (- 21.1%) and depreciation (- 21.1%) cushioned the fall in real net value added at factor cost (- 15.4%). Higher real interest payments (+ 2.7%) and compensation of employees (+ 0.4%) caused the real net income of the total labour input to decline by - 19.3% and that of family labour input by - 24.0%, despite lower rents (- 12.5%).

As the size of the agricultural labour input was almost unchanged from 1990, the Indicators of agricultural income declined as follows:

Indicator 1: - 14.5% (+ 6.7% in 1990)
 Indicator 2: - 18.4% (+ 3.7% in 1990)
 Indicator 3: - 24.4% (+ 5.0% in 1990)

3.12 United Kingdom

Agricultural incomes (measured per AWU in real terms) in the United Kingdom are forecast to have fallen at a faster rate than last year, with Indicator 1 expected to decline by -7.9% (1990: -1.3%). Although this figure was below the European average (EUR 12: -2.5%), only two other northern states (NL,B) recorded better figures for the year. The -11.5% fall in Indicator 1 relative to "1985" represents the second sharpest fall (behind DK) amongst the twelve Member States.

Most of the decline in incomes can be explained by lower prices (nominal as well as real) outweighing the higher production volumes. The fall in the real value of total final production (-6.9%) was greater than the Community average (EUR 12: -4.4%). The real total value reduction arose from the -8.5% decrease in the real value of final animal production (the third largest decrease in the Community) and a -4.5% decline in the real crop production value.

Table 3.12 Changes in the major items of the income calculation for agriculture in the United Kingdom, % change in 1991 over 1990.

	Volume	Nominal price	Real price (*)	Nominal value	Real value (*)
Final crop output	1.9	-0.2	-6.3	1.7	-4.5
Cereals	3.0	4.0	-2.3	7.1	0.6
Fresh Vegetables	-0.3	-5.0	-10.8	-5.3	-11.1
Final animal output	0.9	-3.5	-9.4	-2.6	-8.5
Cattle	0.7	-0.7	-6.8	0.0	-6.1
Pigs	4.0	-9.7	-15.2	-6.1	-11.8
Sheep	4.6	-17.1	-22.2	-13.3	-18.6
Poultry	6.6	-5.1	-10.9	1.2	-5.0
Milk	-3.3	2.0	-4.2	-1.4	-7.4
Final output	1.3	-2.2	-8.2	-0.9	-6.9
Intermediate Consumption	0.0	3.6	-2.7	3.6	-2.7
Gross value added at m.p.	2.8	-8.3	-13.9	-5.8	-11.5
Subsidies				27.9	20.1
Taxes linked to production				18.6	11.4
Depreciation				1.3	-4.9
Net value added at f.c.				-4.6	-10.4
Rent				-2.1	-8.1
Interest				-14.1	-19.3
Net income of total labour				-2.1	-8.1
Compensation of employees				3.5	-2.8
Net income of family labour				-6.0	-11.8

(*) The deflator is the implicit price index of GDP at market prices, + 6.5 %.

The fall in the real value of final animal production resulted from a decrease in real prices (-9.4%) offsetting the slight increase in volume (+0.9%), a combination of changes that arose for all animal products except milk. The real value of milk fell (-7.4%) due to a reduction in real milk prices of -4.2% and a mainly quota-induced volume decrease of -3.3%. The lower real value of cattle production of -6.1% (all other EC countries experienced greater losses, except NL where there was an increase) arose from the decline in real price (-6.8%) outweighing the increase in volume (+0.7%). The market was characterized by continued low beef consumption in the UK and an oversupply on the EC market. The real value falls for sheep (-18.6%)

and poultry (-5.0%) were the greatest in the Community, based on the largest EC real price decreases of -22.2% for the former and -10.9% for the latter. The reduction in sheep prices partly resulted from a +4.6% growth in sheep production. The demand for pigmeat fell during the year, in part as a consequence of cheaper sheep prices but also as a result of reduced demand for ham. With the greatest real price fall for pigs (-15.2%) in the EC (EUR 12: -3.6%) the resulting competitiveness led to a small increase in export demand for particular cuts, but did not prevent the largest fall in real production value (-11.8%) within the Community.

The value of crop production was +1.7% higher in nominal terms, although lower in real terms. The real price fall of -6.3% was the second largest in the Community and was only partly offset by an increase in volume (+1.9%). Despite a real price decrease of -0.5% for wheat, the +3.5% increase in volume led to a +3% rise in real value. This increase in wheat volume, to the highest level since the exceptional harvest of 1984, was due to higher yields on a smaller area of wheat production. Like wheat, there was a real price reduction for barley and an increase in volume. However, the higher magnitude of the real price fall (-6.6%) to the increase in volume (+1.5%), led to a -5.2% reduction in the real production value of barley. With no increase in the volume of fresh vegetables produced (-0.3%), the losses of the previous year were not recaptured. Despite this, the United Kingdom experienced the largest real price fall (-10.8%) in the EC.

After the second fastest decline in the "price scissors" (-5.6%) for 1991, the fall of -6.4% relative to "1985" is the largest in the EC. The 1991 fall was due to the nominal total intermediate consumption price rise (+3.6%) and the nominal price fall for final production (-2.2%). In contrast, the United Kingdom improved its productivity of intermediate consumption (+1.3%) for the second successive year. Final agricultural production increased (+1.3%) whilst intermediate consumption volume remained at the same levels as the previous year. Despite the constant volume of total intermediate consumption, the largest volume changes in the Community for plant protection products (-13.6%) and services (+10.6%) occurred in the United Kingdom. The reduced real value of intermediate consumption (-2.7%) was largely brought about by the real price reductions for feedingstuffs (-4.7%), and fertilizers and soil improvers (-8.1%: the second largest fall in the Community). The fall in the real value of intermediate consumption helped reduce the full impact of the fall in real producer prices, as did the increase in the level of real subsidies.

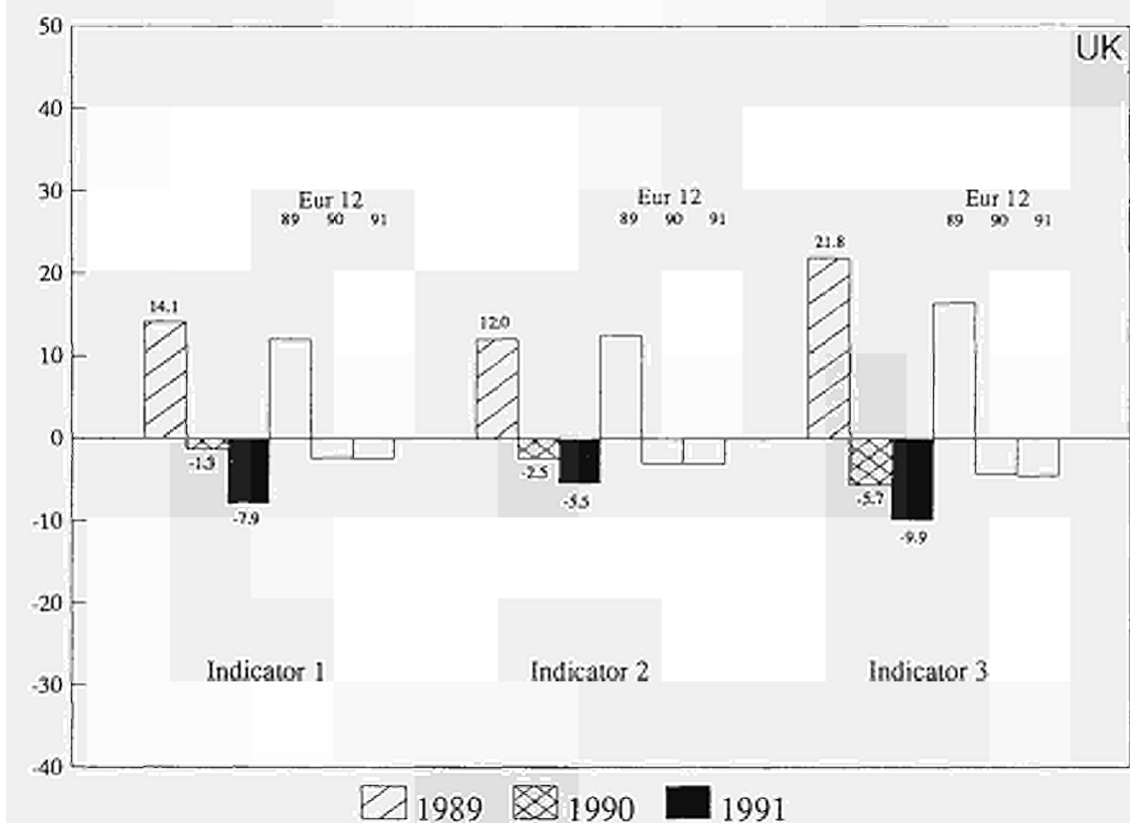
Real subsidies grew (+20.1%) faster than taxes linked to production (+11.4%) and this had an effect on incomes in the United Kingdom similar to the overall change in the EUR 12 figure, for which, in contrast, the level of taxes fell and real subsidies remained stable. With the absolute subsidy level over three and a half times the level of taxes linked to production, real "net subsidies" increased +23.4% in 1991. This positive influence on agricultural incomes, relative to the previous year, could not prevent a -9.0% fall in Gross Value Added at Factor Cost in real terms. Values for rent payments (-8.1%), interest payments (-19.3%), compensation of employees (-2.8%) and depreciation (-4.9%), all fell in real terms. With a -2.7% drop in total agricultural labour input and a -2.0% drop in family labour input, the following Indicator levels were achieved:-

Indicator 1:	-7.9%	(1990: -1.3%)
Indicator 2:	-5.5%	(1990: -2.5%)
Indicator 3:	-9.9%	(1990: -5.7%)

It was predominantly the large reduction in interest payments that caused the lesser drop in the level of Indicator 2 relative to Indicator 1. The apparently large differential between Indicators 2 and 3 is explained

by the greater sensitivity of the latter and the higher level of hired labour input (and thus total compensation to employees) in the UK.

Graph 3.12 Evolution of the three income indicators for the United Kingdom in 1989, 1990 et 1991 (Changes in %)



4 CASH FLOW IN AGRICULTURE

4.1 Introduction

In order to describe the liquidity situation in the agricultural sector, the normal calculation of income is supplemented, as in previous years, by an analysis of the cash flow in agriculture for the eight Member States who provided Eurostat with the necessary information.

The income indicators used in this report are calculated by a method used throughout the Community and based on the Economic Accounts for Agriculture. The income elements taken into consideration for each year include items which do not give rise to any direct payment flow such, as changes in stocks of products⁽¹⁾ and fixed capital goods produced on own account (new plantings and livestock) or, on the expenditure side, changes in the stocks of intermediate consumption goods and depreciation of fixed capital. The income aggregates and indicators resulting from this calculation do not, therefore, represent the payment flows in agriculture.

In the calculation of cash flow, which is compared with income calculation in graph 4.1, the items mentioned above are not taken into account as they do not give rise directly to receipts or expenditure during the year under consideration. The calculation shows, for the agricultural branch, the financial resources coming from agricultural production and available for investment, repayment of loans and personal withdrawals of cash (for consumption or savings by agricultural households). In principle, cash flow can be measured before or after deduction of gross fixed capital formation (corrected for investment aid); the results given here are based on the first of these possibilities.

The cash flow indicator covers the same population as income Indicator 3 (i.e. family labour). In order to be able to compare the two, the rates of change of cash flow are also deflated and related to the family labour input measured in AWU (Table 4.1).

(1) The change in stocks can be calculated as the difference between final stocks and initial stocks in the reference year, or as the difference between incoming and outgoing stocks during the reference year. In any case, these are stocks of agricultural products which exist in the branch (i.e. on the producer's premises). One may add that this relates to crop products which are harvested, wine must and wine, olive oil, and live animals, i.e. changes in the herd numbers (with the exception of animals forming part of fixed capital).

Figure 4.1 Comparison of the construction of the cash flow account and the income account in agriculture

Income account

Final production
of which:
sales
own consumption
processing by
producers
fixed capital goods
produced on own account
changes in stocks

- Value of intermediate
consumption

+ Subsidies

- Taxes linked to production

- Depreciation

- Net rent and interest

- Compensation of employees

= **Net income of family
labour input**

divided by family labour input
in AWU and deflated by the
implicit price index of Gross
Domestic Product

= **Income Indicator 3**

Cash flow account

Receipts from production
of which:
sales
own consumption
processing by
producers
-
-

- Expenditure on intermediate
consumption

+ Subsidies

- Taxes linked to production

- Net rent ¹⁾ and interest

- Compensation of employees

= **Cash flow**

divided by family labour input
in AWU and deflated by the
implicit price index of Gross
Domestic Product

= **Cash flow indicator**

1) plus landlords depreciation
on buildings and works (in practice
this concerns only the United Kingdom)

4.2 Results of the cash flow in agriculture for eight Member States

It can be seen that the cash flow aggregate is generally subject to annual fluctuations which are less marked than those of agricultural family income (see Table 4.1). The conclusion to be drawn is that liquidity in agriculture is subject to less variation than the development of agricultural income Indicator 3 would suggest.

This lesser volatility of cash flow is mainly explained by the fact that discrepancies between income aggregates and cash flow aggregates can, to a great extent, be ascribed to the level and changes in depreciation; these are not deducted for calculating cash flow but they are for calculating income. Depreciation tends to develop more regularly than aggregates which are subject to those severe economic fluctuations inherent in agriculture (particularly production aggregates or receipts linked to production, but also subsidies and other items). Changes of the same amplitude in absolute terms may lead to different rates of change, i.e. be more marked for a less important residue such as family income. It can be seen that in absolute values, the cash flow aggregate in 1991 was always more important than family income, but in a proportion varying between Member States in line with the level of depreciation; in Portugal, for example, where depreciation represents less than 15% of gross value added at market prices, cash flow in 1991 was only 15% higher than family income, whereas in Germany, where depreciation represents more than 40% of GVamp, cash flow is more than double family income.

An additional reason for this relative stability of cash flow in agriculture may be found in the changes in stocks of crop products which might partly compensate for fluctuations in the quantities produced. For the good harvest years, changes in stocks will tend to be positive and although receipts in such years will be higher (basically from sales), they will therefore be below the increase in production value. The reverse would hold true for poor harvest years, any falls in receipts being probably less marked than falls in production. Nevertheless, this relationship is certainly more complex in the case of animal production: firstly, the changes in animal stocks are basically variations in livestock populations, which develop with a certain inertia but are clearly linked to slaughtering rates, i.e. to fluctuations in receipts; in the second case, it is reasonable to say that price developments have an influence on producers' decisions and are connected with the production cycles for cattle and pigs; finally, the two main products (cattle and milk) depend greatly on each other and this interdependence is reinforced by the Common Agricultural Policy.

Amongst the eight Member States who provided the necessary information, seven have income indicators which went down in 1991. In all these cases, the cash flow indicator was less negative (there was even a slight increase in Belgium) than the corresponding income indicator; the discrepancies are particularly large for Luxembourg, Germany and France (see Table 4.1). In the Netherlands, on the other hand, cash flow progressed as much as family income since neither receipts, nor production value nor stocks varied significantly in real terms; this resulted in real family income going up slightly, as did depreciation.

The following are comments on the cash flow calculation for those Member States which sent data for 1991: Belgium, Germany, France, Ireland, Luxembourg, the Netherlands, Portugal and the United Kingdom.

The cash flow in **Belgium** fell by -2.3% in 1991 over 1990 in real terms. This fall is much less pronounced than that of net income from agricultural activity of family labour input (-8.6%) which is the basis of agricultural income Indicator 3. The main reasons for this are the non-inclusion of depreciation, which does

not give rise to a financial flow (and which went up by +1.8% in real terms), and the reduction in the cattle population. The fall in cattle production real values (-7.5%) in 1991 is mainly because of the reduction in livestock numbers due to the higher number of slaughterings than those required for the renewal or maintenance of the herds, as the receipts (sales) of farmers went down by -1.3% only in real terms. Animal production went up by +3.0% in real value and receipts rose by +6.8% in real terms. The other items of animal production are little different from the receipts, whereas the stocks of crop production are not accounted for. With the family labour input falling by -3.0%, the cash flow indicator rose by +0.7% as opposed to -5.8% for Indicator 3. Nevertheless, this result does not make up for the poor year in 1990 (-11.2%) which was affected by swine fever.

The 1991 **German** cash flow fell (-13.0%), in real terms, at a slower rate than real net income of family labour input (-25.9%). Since similar rates of change occurred between production-related receipts (-6.1%) in real terms and the real value of final production (-6.3%), the difference between the cash flow and net income of family labour input is due to the non-deduction of depreciation in the cash flow. With depreciation in Germany at about 20% of final production (EUR 12: 13%), there is a bigger fluctuation in net income from agricultural activity than in the cash-flow; in 1991 real depreciation increased by +0.7%. Despite similar changes in total production-based receipts and value, the development of crop and animal receipts contrasted with each other. Whereas the receipts from crop production (-6.8%) decreased more than production value (-5.5%), owing to an increase in cereals stocks (receipts +1.2%, production value +1.9%), the contrary was the case for animal production. Animal production receipts, although -5.7% down on the previous year, were higher than production value (-6.9%). This was a consequence of reduced cattle herd numbers which can be deduced from the receipts from cattle production (-6.4%) and the associated production value (-11.3%). The cash flow indicator fell (-8.4%) at a much slower rate than Indicator 3 (-22.4%) in 1991.

After a steep rise in 1990 (+34.8%), the cash flow for **France** fell by -9.0% in 1991 in real terms, though it was still far above the 1988 level. However, this fall is much less severe than that of the net income of the family labour input which plummeted by -19.7%. Apart from the methodological difference regarding depreciation costs, this discrepancy results from several factors. A large proportion of crop production was removed from stock. Whereas its receipts fell by -4.8% in real terms, the real value of production fell by -7.8% because of the substantial run-down of stocks. This phenomenon is particularly important for wine where receipts fell by -15.7% in real terms, whereas the real value of production declined by -31.9%. The reverse held true for cereals (wheat and maize) where stocks increased. Animal sales declined by -3.4% in real terms, whereas the real value of production fell by -7.0%. This discrepancy comes from the major reduction in the cattle population which led to a fall in the real production value of -13.9%, whereas the receipts only fell by -7.2% in real terms due to a high level of slaughterings. Seen against the reduction in the family labour input (-3.5%), the cash flow indicator only fell by -5.7% as opposed to -16.8% for agricultural income Indicator 3.

Real total cash flow in **Ireland** decreased (-8.1%) by less than the real net income from agricultural activity of family labour input (-13.2%). Production-based receipts in real terms fell (-4.1%) at a slower rate than real production value (-5.6%). With cattle being such a large component of Irish agriculture, it was the variance between its real receipts (-5.0%) and production value (-8.8%) that had the largest bearing on the product-based variance. In absolute terms the real receipts from cattle were lower than their real production value which suggests an increase in herd numbers, in this case at a rate below the increase of the previous year; this explains why the change in real receipts is below that of real production value. The cash flow

indicator fell (-5.1%) by less than the Indicator 3 level (-10.4%), with the difference almost entirely due to depreciation.

Table 4.1 Comparison of cash flow with net income for the family labour in eight Member States from 1987 to 1991, expressed as an annual percentage change, and comparison of the cash flow indicator and Indicator 3, expressed as an annual percentage change and as an absolute level.

		Net family income (as % change per year)			Cash-Flow (as % change per year)			Cash-flow indicator /Indicator 3	Deflator (GDP price index) (as % change per year)	Family labour input
		Total nominal	Total real	Indicator 3	Total nominal	Total real	Indicateur cash-flox			
B	1987	-9.2	-11.2	-8.2	-4.1	-6.1	-3.0	1.30	2.2	-3.2
	1988	6.6	5.0	8.8	2.5	1.0	4.7	1.25	1.5	-3.5
	1989	35.4	29.3	32.6	26.1	20.4	23.5	1.16	4.7	-2.5
	1990	-14.0	-16.5	-14.1	-11.1	-13.6	-11.2	1.20	3.0	-2.7
	1991	-5.8	-8.6	-5.8	0.7	-2.4	0.7	1.30	3.1	-3.0
D	1987	-31.3	-32.6	-28.6	-11.4	-13.1	-8.0	2.34	1.9	-5.5
	1988	44.1	41.9	45.6	15.6	13.8	16.8	1.88	1.5	-2.6
	1989	25.5	22.2	30.0	10.6	7.7	14.6	1.66	2.6	-6.0
	1990	-17.6	-20.3	-18.7	-5.8	-8.9	-7.1	1.89	3.4	-1.9
	1991	-23.1	-26.2	-22.4	-9.2	-13.0	-8.4	2.24	4.3	-5.0
F	1987	0.4	-2.5	1.2	5.8	2.7	6.7	1.40	3.0	-3.7
	1988	-7.1	-10.0	-6.5	-4.6	-7.7	-4.1	1.43	3.3	-3.8
	1989	21.2	17.1	21.1	6.7	3.1	6.6	1.26	3.5	-3.3
	1990	4.4	1.4	4.9	6.9	3.8	7.4	1.29	3.0	-3.3
	1991	-17.2	-19.7	-16.8	-6.2	-9.0	-5.7	1.46	3.1	-3.5
IRL	1987	28.4	25.0	30.2	13.7	10.8	15.3	1.23	2.7	-3.9
	1988	22.6	18.9	23.0	15.0	11.6	15.4	1.15	3.1	-3.3
	1989	2.8	-1.8	0.7	-2.6	-7.0	-4.5	1.09	4.7	-2.5
	1990	-5.3	-4.1	-2.0	2.8	4.1	6.4	1.18	-1.3	-2.1
	1991	-11.4	-13.2	-10.4	-6.2	-8.1	-5.1	1.20	2.1	-3.2
L	1987	-5.2	-4.6	0.1	-5.0	-4.3	0.4	1.29	-0.6	-4.7
	1988	0.2	-2.9	2.1	3.0	-0.2	5.0	1.33	3.2	-4.9
	1989	23.2	16.6	20.7	19.6	13.2	17.2	1.29	5.7	-3.4
	1990	-11.7	-13.5	-10.3	-8.8	-10.6	-7.3	1.33	2.1	-3.6
	1991	-25.9	-28.3	-24.5	-5.5	-8.5	-3.7	1.70	3.3	-5.0
NL	1987	-8.8	-8.4	-6.8	-3.0	-2.6	-0.8	1.27	-0.4	-1.8
	1988	1.6	-0.3	1.6	2.9	1.0	2.8	1.29	1.9	-1.8
	1989	25.8	23.8	25.7	20.8	19.0	20.8	1.24	1.6	-1.5
	1990	-1.9	-4.6	-2.7	0.0	-2.8	-0.8	1.26	2.9	-2.0
	1991	5.7	2.0	3.8	5.6	1.9	3.7	1.26	3.6	-1.7
P	1987	10.9	-0.3	-4.5	10.7	-0.5	-4.7	1.00	11.2	4.4
	1988	-17.4	-26.0	-22.7	15.7	3.6	8.3	1.41	11.6	-4.3
	1989	32.5	17.3	23.5	-7.6	-18.2	-13.9	0.98	13.0	-5.0
	1990	10.8	-3.1	5.0	24.1	8.5	17.6	1.10	14.3	-7.7
	1991	-12.9	-24.0	-24.4	-9.2	-20.7	-21.1	1.10	14.6	0.5
UK	1987	2.5	-2.4	-1.0	11.9	6.6	8.1	1.74	5.0	-1.4
	1988	-17.0	-22.1	-21.1	-13.6	-19.0	-17.9	1.81	6.6	-1.2
	1989	27.1	18.9	21.8	16.0	8.5	11.1	1.65	6.9	-2.3
	1990	-1.0	-7.3	-5.7	-0.3	-6.7	-5.0	1.67	6.8	-1.7
	1991	-6.0	-11.8	-9.9	-2.1	-8.1	-6.6	1.73	6.5	-2.0

For the second successive year, the cash flow in **Luxembourg** fell (-8.4%) in real terms, though it remained above the 1988 level. This "limited" fall, when compared to the decline in real net income from agricultural activity of family input of -28.1%, results from an upturn in the nominal value of cattle slaughterings (+1.3% or -1.9% in real terms), since cattle herds have been reduced drastically (a fall in receipts of -1.9% in real terms and decline in total cattle production in real value of -26.7%). As in Belgium, the changes in stocks of crop products are not accounted for. The rise in depreciation of +4.9% in real terms (close to the medium-term trend) also affected the development of net income. Seen against the marked fall in the family labour input (-5.0%), the cash flow indicator fell less severely, by -3.6% in real terms, than the -24.4% for agricultural income Indicator 3.

In the **Netherlands**, the total cash flow in real terms increased (+1.9%) by almost as much as real net income of the family (+2.0%). Production-based real receipts remained almost as stable (-0.2%) as real total production value (-0.1%). Real crop receipts were slightly lower than their production value in 1991, which suggests a small stock increase (principally from fresh fruit and vegetables). Real animal receipts declined (-1.8%) by a smaller amount than animal production value (-2.1%). The 1991 absolute receipts for animal production were below production value, which implies larger herd numbers (the larger cattle numbers in particular outweighing decreases in pig numbers) in this case at a rate below the increase of the previous year; this explains why the change in real receipts is smaller than the variation in real production value. The cash flow indicator rose (+3.7%) by a rate similar to that of Indicator 3 (+3.8%) despite the non-deduction of depreciation in the former. This was because real depreciation rose (+2.3%) at an almost identical rate to real net income from agricultural activity of family labour input (+2.0), and thus appeared to have little effect on Indicator 3.

The cash flow in **Portugal** experienced a fall in 1991 (-20.7% in real terms) close to that of net income for the family labour (-24.0%). The only slight difference between the two aggregates can be explained by the lower level of depreciation (compared with EUR 12), itself declining by -21.1% in real terms in 1991, combined with a trend in receipts which was broadly similar to that of the value of final production (-12.4% and -16.1% respectively in real terms). As the value of animal production and its receipts remained very close, the main factor for the difference is to be seen in crop production, for which receipts fell slightly less than the value of production (-15.9% and -19.4% respectively in real terms); this reflects a certain running-down of stocks (particularly for wine and potatoes, and fresh fruit to a lesser degree). With an increase in family labour input of +0.5%, cash flow indicator declined by -21.1% in comparison with the figure of -24.4% for Indicator 3.

The total cash flow in real terms, for the **United Kingdom**, fell by -8.1% compared to the previous year, although this decline was less than that for real net income of family labour (-11.8%). Production-based receipts in real terms fell (-6.7%) almost in line with production value (-7.0%). Real crop production receipts fell (-4.7%) by little more than the equivalent production value (-4.5%), whilst real animal production receipts declined (-8.1%) by slightly less than their production value (-8.6%). The difference between real cattle receipts (-3.9%) and real production value (-6.1%) was the largest of the discrepancies, many of which were small. The loss in cattle numbers was even greater than the previous year. The cash flow indicator fell (-6.6%) at a slower rate than Indicator 3 (-9.9%), with the variation of the rates of decline mostly explained by changes in depreciation and fixed capital goods produced on own account.

5 Long-term trends in agricultural income within the Community from 1980 to 1991

The purpose of this chapter is to analyse the changes in agricultural income, measured in real terms, throughout the Community over the last eleven years, in order to identify the main trends and illustrate how the preliminary estimates of agricultural income in 1991 fit into this overall picture.

The chapter will first examine the salient long-term trends in agricultural income between "1981" and "1990"⁽¹⁾, before describing the changes in the three Indicators of agricultural income in the Community. There then follows an analysis of the factors determining changes in agricultural income in the period 1980-91, against the backdrop of changes to the Common Agricultural Policy (CAP), the economic environment and the overall agricultural situation (production and markets). Finally, the components of the income Indicators are examined in section 5.4.

5.1 Summary of main results

Agricultural income in the Community, measured by Indicator 1, grew by an annual average of +1.6%⁽²⁾ between "1981" and "1990" (+1.4% and +1.6% measured by Indicators 2 and 3 respectively). This growth can be explained in the light of several factors:

- **higher agricultural productivity** thanks to technical progress and somewhat more intensive farming, which led to an increase in the volume of final production averaging +1.3% per annum;
- **an imbalance in agricultural markets**, caused by the above-mentioned increase in final production, and characterized by a structural deterioration in the balance between supply and demand (the latter displaying very little income elasticity). This was reflected in a decline in real producer prices of -3.0% per annum and an annual reduction of -1.7% in the real value of final production;
- major adjustments were made to the **CAP** during the reference period with a view to keeping developments in agricultural production and budgetary expenditure under control. This was principally reflected in a restrictive price policy and, in the case of milk products, in a system of quotas;
- a slight **increase in the "price scissors"**⁽³⁾ caused by movements in the price of intermediate consumption. When other cost items in the calculation of income are taken into account, real net value added declined by -1.5% per annum, the real net income of the total labour input by -1.7% per annum and the real net income of family labour input by -1.8% per annum.
- the **decline in the agricultural labour input** continued, albeit at a slower pace in the period under review (by an annual average of -3.1% for the total labour input and -3.3% for family labour input), giving rise to a slight increase in agricultural revenue as expressed by annual work units (AWUs).

(1) "1981" = (1980+1981+1982)/3; "1990" = (1989+1990+1991)/3.

(2) All averages are calculated as geometric means.

(3) The "price scissors" is the ratio between the price index for agricultural products and the price index for intermediate consumption, in nominal terms.

Changes in income fall into **three sub-periods**:

- "1981"/"1984": after collapsing in 1979 and 1980 to its lowest level since 1975, agricultural income as measured by Indicator 1 rose by an annual average of +1.5% in the period from "1981" to "1984". An outstanding year was 1982, in which income grew by +10.6%.
- "1984"/"1987": agricultural income in this sub-period stagnated as Indicator 1 was stable (0.0% per annum) with only minor fluctuations.
- "1987"/"1990": the stagnation of incomes came to an end in this sub-period. Thanks to increases in 1988 and, more particularly, 1989, which was an exceptional year, and despite renewed falls in 1990 and 1991, incomes grew by an annual average of +3.4%.

5.2 Presentation of the long-term income trends in the Community

Net value added at factor cost and in real terms, measured in AWUs (i.e. Indicator 1 of income in the Community's agricultural sector) grew by an annual average of +1.6% between "1981" and "1990" (see table 5.1), which represents a cumulative growth of +18.2% over the period.

Table 5.1 Indicators 1, 2 and 3 of agricultural income in the Community from 1980 to 1991.

Year	Indicator 1		Indicator 2		Indicator 3	
	Index	Annual variation (%)	Index	Annual variation (%)	Index	Annual variation (%)
1980	90.6	:	92.0	:	90.2	:
1981	92.5	2.1	92.9	0.9	91.1	1.0
1982	102.3	10.6	104.1	12.1	106.4	16.7
1983	98.2	-4.0	98.8	-5.1	98.5	-7.4
1984	101.8	3.7	102.6	3.9	103.5	5.1
1985	98.3	-3.5	97.6	-4.9	96.6	-6.7
1986	99.9	1.7	99.8	2.2	99.9	3.5
1987	98.3	-1.6	98.1	-1.7	97.3	-2.6
1988	100.4	2.1	100.2	2.2	99.4	2.1
1989	112.6	12.1	112.9	12.7	115.9	16.6
1990	110.0	-2.3	109.5	-3.0	111.0	-4.2
1991	107.1	-2.6	105.9	-3.3	105.6	-4.8
"1981"/"1990"		1.6		1.4		1.6

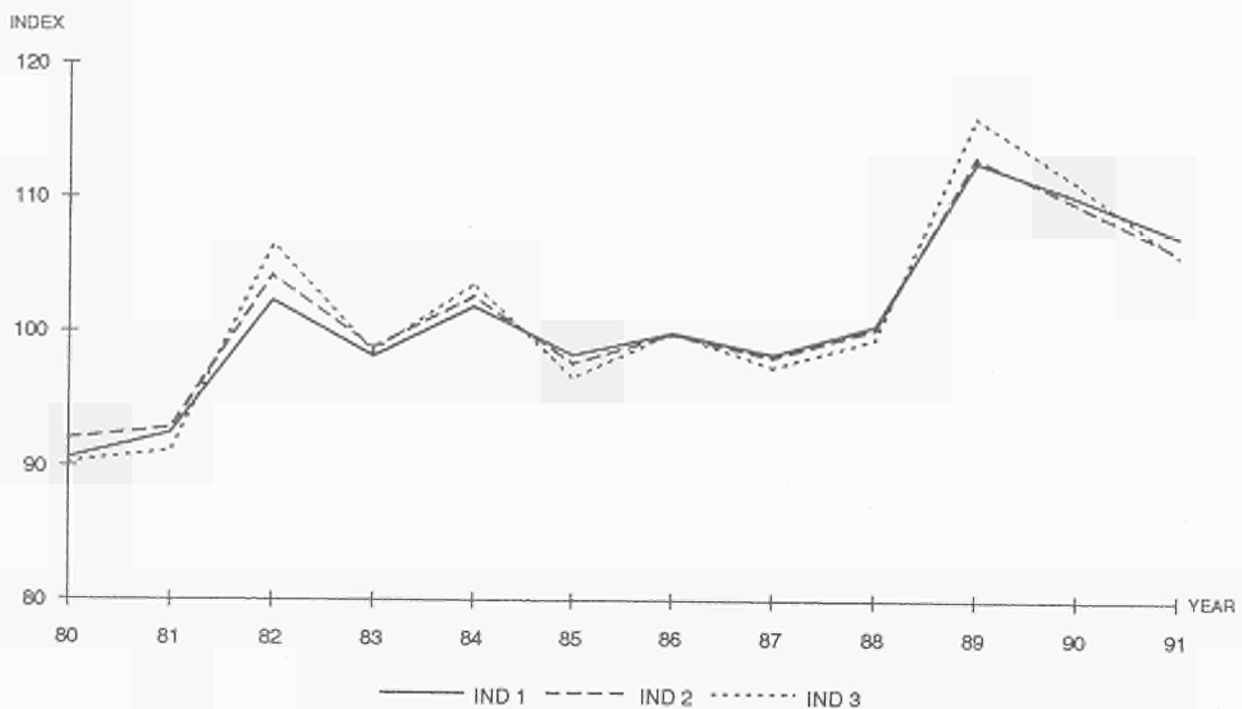
Indicators 2 (net income from agricultural activity of the total labour input in real terms, by AWU) and 3 (net income from the agricultural activity of family labour input in real terms, by AWU) underwent similar changes to Indicator 1, despite their wider fluctuations (see graph 5.1). Agricultural income as expressed by Indicators 2 and 3 grew by annual averages of +1.4% and +1.6% respectively between "1981" and "1990". These Indicators are by definition subject to wider fluctuations than Indicator 1; fluctuations in production volumes and prices are the main factors affecting income aggregates. Net agricultural income, the basis for Indicators 2 and 3, is low in absolute terms, and is therefore more susceptible to the said fluctuations. Moreover, the items which distinguish these income aggregates from net value added are subject to fairly steady variations which tend to occur independently of short-term trends in the farming economy.

In the subsequent analysis, agricultural income is measured by Indicator 1 since the three Indicators display very similar trends (see graph 5.1). Also, Indicator 1 is the most reliable macro-economic indicator for statistical purposes. Notwithstanding this, section 5.4.3 examines the trends in Indicators 2 and 3 in relation to the supplementary cost items attributable to them.

The period "1981"/"1990" has been divided into three sub-periods to match the three distinct phases in the development of agricultural income. The strong growth in income in sub-period 1 was partly the result of a slight tailing off of the fall in real prices and the "price scissors" and partly of the rapid expansion in production. Sub-period 2 was characterized by imbalances in numerous agricultural markets. These triggered an explosion of Community expenditure which led to the reform of the CAP. The reform included a lowering of real institutional prices and the introduction of a system of stabilizers and quotas.

This deterioration in the agricultural situation was interrupted in 1988. The reorganization of European agricultural markets, which took place against the background of a restrictive Community policy and a temporary upturn in the world markets (characterized by destocking and price rises) was conducive to a recovery in agricultural income in 1988 and 1989. This short-term improvement, which was mainly due to major price rises (particularly those of animals and animal products) was, however, partly offset by price decreases in 1990 and 1991, which led to renewed falls in income, although not to the level of "1985".

Graph 5.1 Income Indicators 1, 2 and 3 for the Community from 1980 to 1991



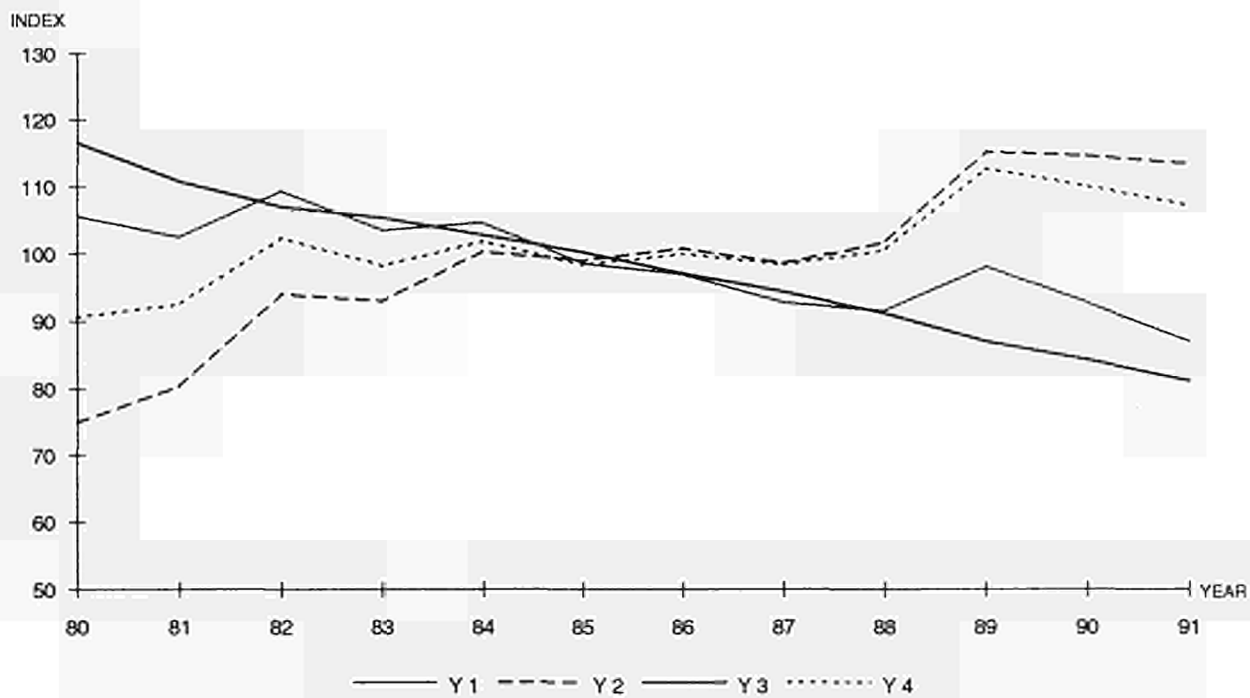
Changes in the main components of Indicator 1, namely nominal and real net value added at factor cost and the total labour input, are set out in graph 5.2. It is evident that:

- nominal net value added increased every year. The increases were, however, generally below the level of inflation (average inflation in the Member States, weighted according to the value of each product or

aggregate, expressed in national currencies and converted into ecu 1985⁽⁴⁾ with the result that real net value added declined.

- in the period under review, real net value added increased only in the years 1982, 1989 and, to a lesser extent, 1984. These years were marked either by exceptional harvests (1982 and 1984) or by major price rises (1989). The growth in real net value added during the 1982 and 1984 seasons corresponded with a structural improvement in income (the direct result of growth in production volume, to a high level), whereas the large increase in 1989 was due solely to short-term economic factors (higher prices in the Community and the world markets, particularly for animals and animal products).
- the upward trend of Indicator 1 over the decade was thus solely due to the continuing decline in the agricultural labour input. Indeed, the number of AWUs fell more rapidly in real terms than agricultural net value added (-3.1% and -1.5% respectively per annum between "1981" and "1990"), thus causing Indicator 1 to rise slightly. Annual fluctuations in Indicator 1 were dictated exclusively by variations in agricultural net value added in real terms, since the decline in the number of AWUs in agriculture was steady.

Graph 5.2 Nominal and real net value added at factor cost, total labour input and Indicator 1 in the Community from 1980 to 1991 ("1985" = 100).



- Y₁ = real net value added at factor cost
- Y₂ = nominal net value added at factor cost
- Y₃ = total agricultural labour input
- Y₄ = real net value added at factor cost per AWU (indicator 1)

(4) For more details, see methodological comment A 1.4.

Trends in agricultural income in individual Member States can differ significantly from trends in the Community as a whole. Whereas some Member States recorded increases in agricultural income which were well above the Community average (L, NL, IRL, E), others showed falls (UK, I). The same is true of variations in income and trends in the three sub-periods identified for the Community. Agricultural income in some Member States (DK, D, IRL, UK) was subject to major fluctuations attributable, among other things, to specific types of production and income structure. Movements in individual Member States broadly matched the three phases identified for the Community as a whole, although in Spain, income increased more or less continuously.

5.3 Factors determining the changes in income

There are many factors which determine changes in income and an exhaustive examination of them is difficult. Factors such as climatic conditions and production cycles (i.e. of some animals) have no more than short-term effects on income. Any analysis of long-term changes must disregard these factors, and focus on underlying trends. The structural elements include the overall agricultural environment (the CAP and the general economic situation), the state of the markets and the production process.

5.3.1 The agricultural environment

Article 39 (1b) of the Treaty of Rome states that one of the objectives of the Common Agricultural Policy is to ensure a fair standard of living for the agricultural Community, in particular by increasing the earnings of persons engaged in agriculture. The regulation of markets and prices has been the main instrument of the CAP in the pursuit of that objective. The period 1980-91 saw some major changes in the management and development of the CAP. After reaching self-sufficiency for most products, the Community moved to a situation of production surpluses. This necessitated major budgetary reforms, which could not totally prevent the negative impact of the degradation of markets on farm incomes. The milk sector was the first to be reformed, with the introduction in 1984 of quotas designed to stabilize the market for milk products. The reform of the CAP resulted, inter alia, in:

- the introduction of **stabilizers** and a guaranteed maximum quantity (GMQ), which implies that as soon as production in a particular sector exceeds a pre-determined quantity, support levels are reduced automatically;
- unchanged or decreased **institutional prices**, depending on the product (average annual declines of -2.9% in real terms between 1984/85 and 1990/91), designed to send clear signals to producers;
- more flexible **intervention mechanisms** (quantitative, qualitative and time-limits) designed to make intervention less attractive as a "substitute market" and to reinstate its function as a safety net under short-term variations in production.

Changes in agricultural income therefore have to be seen in a broad economic context. The economic convulsions, which affected Europe during the second oil crisis in the early 1980s gradually gave way to a recovery which was slow in the years to 1986 and more pronounced in the period to 1990, although it was insufficient to make a significant dent in unemployment. The second half of 1990 and the whole of 1991

brought a sudden slowdown in economic growth. Economic difficulties had some impact on agricultural income and the implementation of the CAP reforms, and poorer job prospects elsewhere stemmed the decline in the agricultural labour input.

The monetary policies pursued by the Member States also had an impact on agricultural incomes through the development of real prices of agricultural products and of interest rates. Also, some countries tended to keep their currencies undervalued in the early 1980s. In the period which followed, the effects of disinflation and the discipline of the European Monetary System combined to ensure greater stability between real exchange rates, which reduced the scope for devaluing "green" currencies and adjusting institutional prices, expressed in national currencies, to currency revaluations. Real interest rates remained fairly stable during this period.

5.3.2 The state of the markets and production processes

The strong growth in agricultural income in the 1960s and early 1970s took place in the context of a major restructuring in European agriculture, which was still not self-sufficient in many sectors. The situation then changed dramatically. Growing disparities between the production and consumption of agricultural products led to surpluses which the Community and world markets were not always able to absorb. Increased agricultural production, resulting from new technical and biological developments, led to the Community becoming self-sufficient in nearly all non-tropical agricultural products, with the exception of oilseeds, fruit, and sheepmeat. However, this led to a deterioration of agricultural markets, which had repercussions on market prices and therefore on agricultural incomes. The main products to be affected were cereals, cattle, pigs and milk.

The evolution of agricultural structures, which had undergone profound changes in the previous two decades, slowed down in the face of the harsher economic environment and imbalances in the markets. These factors acted as a brake on the modernization of agricultural holdings, the process of agricultural intensification and the decline in the agricultural labour input.

5.4 Changes in income components

5.4.1 Agricultural production

The volume of agricultural output grew steadily between "1981" and "1990" by an annual average of +1.3%. Growth was concentrated in the first half of the 1980s, led by crop production (see table 5.2). The growth in the volume of crop production (+2.2% per annum) exceeded that of animal production (+0.5% per annum) during the period under review.

The price index for agricultural products fell significantly, by an annual average of -3.0% in real terms, particularly from "1984" onwards, as institutional prices declined in real terms whilst structural surpluses on Community and world markets were present. The real value of final agricultural production declined by -1.7% per annum in line with real prices and volumes. This decline, which was more marked in animal

production than in crop production, was particularly pronounced between "1984" and "1987" as a result of steep falls in real prices (-4.5% per annum).

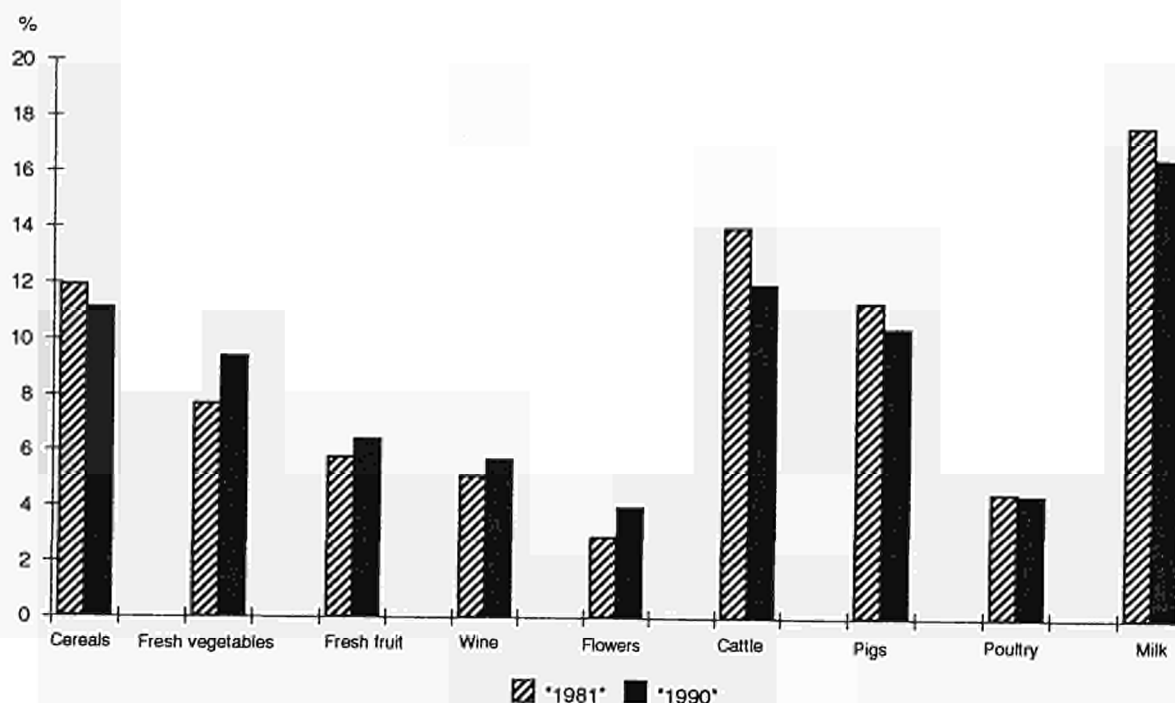
This decline in the value of production was particularly pronounced in animal production, where very weak volume growth (+0.5% per annum on average) was insufficient to compensate for a collapse in real prices (-3.2% per annum), thus producing an average annual decline of -2.6% in the final real value of production. Following a period of slow growth between 1980 and 1983, the volume of animal production stayed level during the last eight years. This is particularly true of milk after the introduction of quotas, and of beef. The decline in real prices resulted from an imbalance between production and consumption, particularly of beef, the only meat whose consumption fell between "1981" and "1990".

Table 5.2 Average annual rates of change in real prices and values of crop, animal and final agricultural output in the Community during the three sub-periods, in %.

	Volume				Real Price				Real Value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	2.7	2.5	1.4	2.2	-2.3	-4.4	-1.6	-2.9	0.4	-2.0	-0.2	-0.7
Final animal output	1.0	0.1	0.5	0.5	-2.1	-4.7	-2.7	-3.2	-1.1	-4.6	-2.2	-2.6
Final output	1.8	1.2	1.0	1.3	-2.1	-4.5	-2.3	-3.0	-0.4	-3.4	-1.3	-1.7

NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

Graph 5.3 The share of the main individual products in final agricultural production in "1981" and "1990", at current prices and exchange rates, in %.



By contrast, there were significant increases (+2.2% per annum) in the volume of crop production, which were able to compensate for much of the impact of declining real prices (-2.9% per annum) on the real value of production, which fell by -0.7% per annum. Climatic conditions were such that the growth in the volume of crop production was erratic. Strong growth was recorded in two years: in 1982, production volume grew by +9.7%, mainly due to growth in cereal production (+12.2%), fresh fruit (+16.1%), wine

(+43.5%) and industrial crops (+17.8%); in 1984, cereals (+25.3%), flowers (+9.2%) and industrial crops (+25.3%) largely accounted for higher crop production volume (+7.5%).

In the light of these developments, the share of crop production in final agricultural production, measured at current prices, rose from 45% in "1981" to 50.1% in "1990", principally due to fresh vegetables, fresh fruit, wine and flowers (see graph 5.3).

a) Crop production

Table 5.3 Average annual rates of change in the volumes, real prices and real values of crop products in the Community between "1981" and "1990" over the three sub-periods in %.

	Volume				Real Price				Real Value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	2.7	2.5	1.4	2.2	-2.3	-4.4	-1.6	-2.9	0.4	-2.0	-0.2	-0.7
Cereals	5.6	1.1	1.6	2.8	-3.9	-5.8	-5.1	-4.9	1.5	-4.7	-3.6	-2.3
Potatoes	-0.3	0.3	0.0	0.0	0.2	-7.8	1.6	-2.1	0.0	-7.5	1.5	-2.1
Sugar beet	-4.0	1.5	1.3	-0.4	-2.1	-3.8	-3.7	-3.2	-6.0	-2.3	-2.5	-3.6
Oil seeds	20.1	23.8	3.8	15.5	-1.0	-8.8	-6.4	-5.5	19.0	12.9	-2.9	9.2
Fresh vegetables	1.6	1.2	1.7	1.5	-1.0	-2.9	-0.6	-1.5	0.6	-1.7	1.2	0.0
Fresh fruit	1.6	2.1	0.0	1.0	-1.4	-4.2	-1.8	-2.2	0.2	-2.2	-1.8	-1.3
Wine	0.3	1.9	-1.1	0.3	-4.7	-3.1	4.7	-1.1	-4.4	-1.3	3.5	-0.8
Olive oil	2.8	-3.5	-1.6	-0.8	-1.3	-3.2	2.5	-0.7	1.5	-6.6	0.9	-1.4
Flowers	4.5	4.2	5.6	4.8	4.8	1.2	-2.4	1.1	9.5	5.4	3.1	6.0

NB: SSP1 = "1981"/"1984" SSP2 = "1984"/"1987" SSP3 = "1987"/"1990" P = "1981"/"1990"

Cereals

Cereal production rose in volume terms, by +2.8% per annum on average, between "1981" and "1990". The rate of increase varied because of changeable climatic conditions (droughts in 1988 and 1989) and, with the exception of maize production, tended to decline towards the end of the reference period (particularly wheat and barley production). The volume increase was due to greater yields, which more than offset the smaller area under cereals.

There were fairly major declines in producer prices (-3.9% per annum in real terms) between "1981" and "1984", when markets were saturated and intervention stocks were at very high levels. The decline in real prices then accelerated (-5.4% per annum) in the wake of a restrictive price and intervention policy (reduction in real support prices, expressed in ecu/t, of -6.8% per annum between 1984/85 and 1991/92, and the introduction in 1988 of the stabilizer mechanism, which limits the price guarantee) and of growing surpluses in Community and world cereal markets.

The real value of production thus grew by +1.5% per annum during "1981" and "1984" before declining by -4.2% per annum between "1984" and "1990", giving an average annual decline of -2.3% in the period "1981"/"1990".

Root crops (sugar beet and potatoes)

The real value of root crop production fell by an annual average of -2.9% between "1981" and "1990". Production volume was fairly stable over the decade as a whole (-0.2% per annum), despite large annual fluctuations. Indeed, the volume of **sugar beet** production fell by -0.4% per annum during the period under

review, whereas that of **potatoes** was unchanged (0.0% per annum). Real producer prices of sugar beet and potatoes declined considerably (-3.2% and -2.1% respectively per annum), particularly those of sugar beet from "1984" (-3.8% per annum) onwards.

Oilseeds

The production volume of oilseeds rapidly developed up until 1987 (+21.9% per annum) thanks to the introduction of the Community's production aid scheme and, to some extent, the restrictive policy in the cereals sector. The establishment of guarantee thresholds subsequently caused the increase in production volume to slow down. Real prices, which were fairly stable from "1981" to "1984", later fell (-5.5% over the period as a whole) in line with the reduction in Community support. Despite this fall in prices, however, the real value of oilseed production grew faster than that of any other agricultural product (+9.2% per annum).

Fresh fruit and vegetables⁽⁵⁾

Despite their sensitivity to climatic conditions, the volume of fresh fruit and vegetables produced grew fairly constantly over the period (+1.5% and +1.0% respectively per annum). The long-term trend in real prices is one of steady decline (-1.5% per annum for fresh fruit and -2.2% for fresh vegetables), albeit less pronounced than the decline in final production prices. Therefore, whereas the real value of the production of fresh vegetables was stable (0.0% per annum), the real value of fresh fruit fell by -1.3% per annum between "1981" and "1990".

Wine

The volume of wine production increased slightly from "1981" to "1990" (+0.3% per annum), despite a Community policy whose main instruments for supporting the wine market are private storage aid and distillation subsidies. During the 1980s, Community policy was aimed at reducing the imbalance between the Community production of wine and falling consumption. Intervention was later supplemented by structural measures designed to encourage winegrowers to cease production (grubbing up). Wine prices generally fell in real terms (-1.1% per annum on average) despite a recovery which began in 1988 and continued at high levels in 1989 and 1990. The drop in real prices reflected structural overproduction in European viticulture at a time of falling consumption, and triggered large-scale distillation (which regularly exceeded 20 million hectolitres for compulsory and optional distillation).

Following major falls between "1981" and "1984", the real value of wine production increased thanks to higher volumes in 1986 and 1987 and to the recovery in real prices which began in "1987". This gave an average annual decline of -0.8% per annum over the decade.

(5) Including citrus fruit and table grapes.

b) Animal production

Milk

Milk accounts for a larger share of total agricultural production in the Community than any other product (17.3% in 1985). The common organization of the market for milk, which operates a price and intervention system similar to that for cereals, combined with herd and yield increases, has been conducive to a major increase in production; it rose continually between 1973 and 1983.

Beginning in 1984, there were serious imbalances in Community milk markets; supply was far greater than demand, and surpluses exceeded 20 million tonnes. To counter this situation, a system of production quotas was introduced. The consequences were a reduction in production volume and diversification into products with higher value added (cheeses, fresh products). Over the decade, production volume declined by -0.5% per annum after peaking in 1983.

Over the period as a whole, the state of milk markets caused real producer prices to fall by an annual average of -1.6%, despite support given to the sector. This, plus the effect of production quotas from 1984 onwards, caused the real value of milk production to decline by -2.1% per annum.

Table 5.4 Average annual rates of change in volumes, real prices and real values of animal output in the Community between "1981" and "1990", in %.

	Volume				Real Price				Real Value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final animal output	1.0	0.1	0.5	0.5	-2.1	-4.7	-2.7	-3.2	-1.1	-4.6	-2.2	-2.6
Cattle	1.0	-0.8	0.8	0.3	-2.6	-4.7	-3.1	-3.5	-1.6	-5.5	-2.3	-3.2
Pigs	1.6	2.0	1.4	1.7	-3.0	-8.5	-0.7	-4.1	-1.5	-6.6	0.7	-2.5
Sheep and goats	0.5	2.6	1.3	1.5	-2.5	-3.5	-6.8	-4.3	-1.9	-1.0	-5.6	-2.9
Poultry	0.3	2.9	4.1	2.4	-1.4	-6.1	-5.1	-4.2	-1.2	-3.4	-1.2	-1.9
Milk	1.2	-1.5	-1.3	-0.5	-1.1	-1.9	-1.8	-1.6	0.1	-3.3	-3.1	-2.1
Eggs	-1.3	-0.5	-0.9	-0.9	-2.0	-5.7	-3.1	-3.6	-3.3	-6.2	-3.9	-4.5

NB: SSP1 = "1981"/"1984" SSP2 = "1984"/"1987" SSP3 = "1987"/"1990" P = "1981"/"1990"

Cattle (including calves)

Cattle production increased in volume terms by +1.0% between "1981" and "1984" whilst consumption remained stable, thus causing an imbalance between supply and demand. The introduction of quotas in the milk sector led to large-scale slaughterings of milk cows, this in turn compounding the imbalances in cattle markets. Cattle production declined slightly (-0.8% per annum) from "1984" to "1987" as a result of reduced cattle numbers, before recovering by an annual average of +0.8% from "1987" to "1990". Over the period as a whole, cattle production was fairly stable (+0.3% per annum). Real prices declined by -3.5% per annum between "1981" and "1990". Market surpluses, combined with a steady decline in beef and veal consumption, had an adverse effect on prices. The upturn in the markets, recorded in 1988 and 1989 was no more than a short-term adjustment.

The slight increase in production volume and the sharp decline in real prices were reflected in a decrease in the real value of production (-3.2% per annum on average).

Pigs

The volume of pig production rose almost uninterruptedly from "1981" to "1990", by an annual average of +1.7%. There was a slight decline in 1988/89, brought about by the collapse of prices in the wake of the swine fever crisis and the downward phase of the pig production cycle. The pig sector is assisted by price support and intervention measures, but not by guaranteed prices. Real producer prices retreated by -4.1% per year between "1981" and "1990". The falls were particularly severe from 1986 to 1988, during the swine fever crisis. Prices rallied in 1989 (owing to reduced supply and sustained demand), only to decline again in 1990 and 1991. This sharp drop in real prices caused the real value of production to fall by -2.5% over the period as a whole.

5.4.2 Intermediate consumption

Table 5.5 Average annual rates of change in volumes, real prices and real values of intermediate consumption in the Community from "1981" to "1990", in %.

	Volume				Real Price				Real Value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Intermediate consumption	1.0	1.0	0.9	1.0	-0.3	-5.3	-2.6	-2.8	0.6	-4.4	-1.7	-1.8
Energy	0.0	2.0	0.8	0.9	1.0	-11.9	-0.8	-4.1	0.9	-10.1	0.0	-3.2
Fertilizers	0.9	0.8	-1.3	0.2	-1.5	-7.6	-4.8	-4.7	-0.6	-6.8	-6.0	-4.5
Plant protection products	4.6	4.2	3.5	4.1	0.0	-2.4	-1.9	-1.5	4.6	1.7	1.6	2.6
Feedingstuffs	0.8	0.7	0.8	0.8	-0.9	-6.4	-4.1	-3.8	-0.1	-5.7	-3.3	-3.1
Material and small tools	-0.2	-0.6	0.1	-0.2	0.9	0.1	-0.2	0.3	0.7	-0.5	-0.1	0.0
Services	0.8	0.8	1.0	0.9	0.8	-0.6	-0.3	0.0	1.6	0.2	0.7	0.8

NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

Between "1981" and "1990", the volume of intermediate consumption grew by an annual average of +1.0%. Real prices declined by -0.3% per annum between "1981" and "1984". The decline accelerated in 1986 and 1987, in line with world prices for agricultural commodities, the weaker dollar and lower oil prices. Despite a slight slowdown in the subsequent period, prices declined by an annual average of -2.8% over the period "1981"/"1990". With the growth in consumption remaining relatively constant in real terms, the real value of intermediate consumption moved in parallel with real prices, showing a decline of -1.8% over the period under review.

Although animal feedingstuffs were consistently the largest item of intermediate consumption, their share declined from 44% in "1981" to 40% in "1990". This decline was only marginally related to the lower share of animal production in total agricultural production. The main reason was the large fall in the real prices of animal feedingstuffs. The proportion of intermediate consumption accounted for by energy and services rose over the decade, suggesting continued agricultural intensification and technological development.

a) Fertilizers and additives

The very slight rise in the volume of fertilizers and soil additives consumed over the period as a whole (+0.2% per annum) conceals very large fluctuations. The growth rate in the volume of fertilizers slowed down steadily and became negative from "1987" to "1990". Fertilizer prices decreased in real terms by an annual average of -4.7%. The decline was particularly steep from "1984" to "1987" (-7.6% per annum), because of falling energy prices (especially of crude oil), the weaker dollar and tougher competition on the

European market. The slight growth in the volume of fertilizers combined with a sharp fall in prices, depressed the real value of fertilizer consumption by an annual average of -4.5% from "1981" to "1990".

b) Energy, small tools, services and plant protection products

Energy prices fell back slightly in real terms until 1986, before nosediving in the period to 1989 as a result of the weaker dollar and declining oil prices. Over the period as a whole, real prices went down by an average of -4.1% per annum. Agricultural producers used more energy in the period from 1986 (by an average of +0.9% per annum from "1981" to "1990") because of falling prices. The volume of appliances and small tools used fell very slightly over the period under review (-0.2% per annum), while prices remained relatively stable (+0.3%). The volume of services rose slightly from "1981" to "1990" (+0.9% per annum), whilst their real prices were stable (0.0% per annum). The volume of plant protection products increased strongly by an average of +4.1% per annum from "1981" to "1990", this being related to a decline in real prices (-1.5% per annum).

c) Animal feedingstuffs

The consumption of animal feedingstuffs grew in volume terms by an annual average of +0.8% over the period "1981"/"1990". This was despite a slight decline in 1984 and 1985, which can be attributed to higher feedingstuff prices in those two years and to the sharp reduction in the milk herd following the introduction of quotas. The price of feedingstuffs fell in real terms in 1986 and 1987 in line with world commodity prices (particularly soya, manioc and other substitute feedingstuffs) and the weaker dollar. This trend was set to continue, despite a slight correction in 1988 and 1989 due, in part, to the drought in the United States. Over the period "1981"/"1990", prices declined by an annual average of -3.8%. This decline and the slight increase in volume combined to give an annual average fall of -3.1% in the real value of feedingstuffs.

d) Productivity of intermediate consumption and the "price scissors"

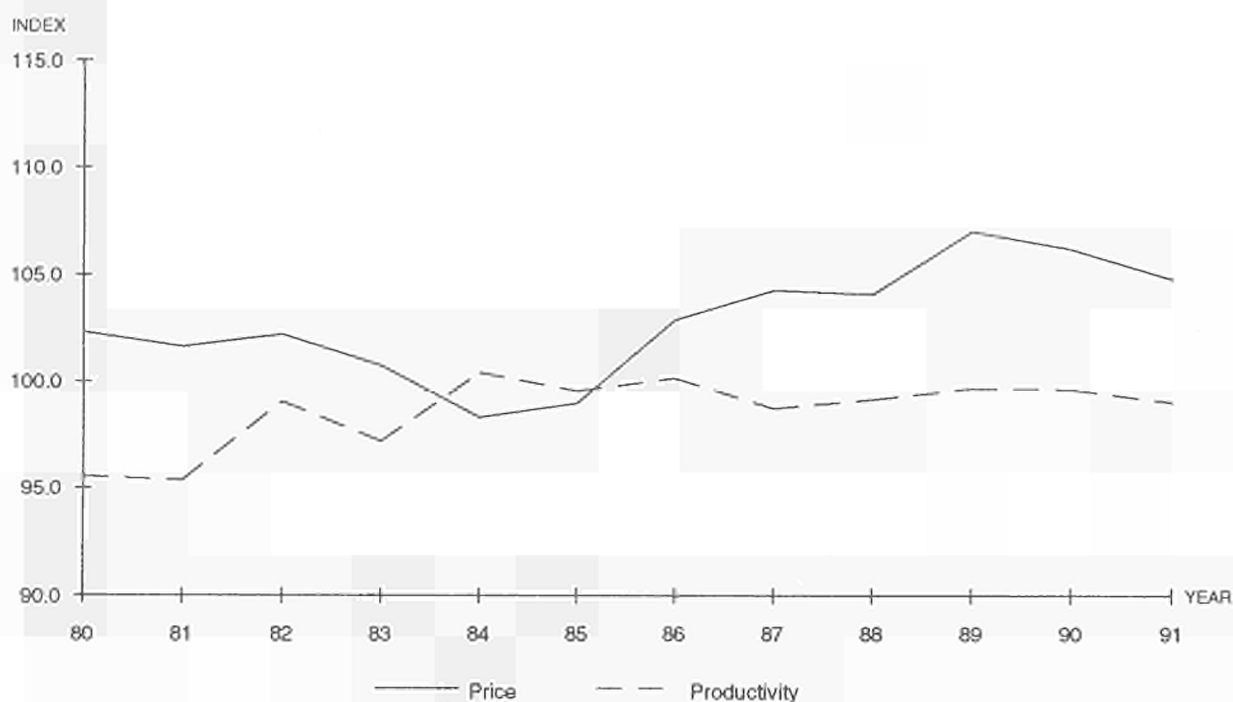
Agricultural production and intermediate consumption have both been examined separately. The following is a comparison of changes in volumes and prices. The productivity of intermediate consumption is defined for present purposes as the ratio between the volume of production and the volume of intermediate consumption. Similarly, the "price scissors" are the ratio between the producer price index and the price index of intermediate consumption, in nominal terms.

Between "1981" and "1984", agricultural production grew more rapidly in volume terms than intermediate consumption. This resulted in a slight increase in the productivity of intermediate consumption (see graph 5.4). The productivity ratio was stable from "1984", which was surprising, given the decline in the share of total production accounted for by animal production.

The results obtained during the second half of the 1980s would appear to indicate that the productivity of intermediate consumption may have reached its upper limit given the current state of technology. In order to produce more, European agriculture would require even more inputs. It would appear that animal production is largely responsible for the unchanged productivity ratio of intermediate consumption. Indeed, the cost of animal feedingstuffs can be attributed to animal consumption. The volume of feedingstuffs consumed grew fairly steadily from "1984" to "1990", whereas the volume of animal production remained constant over the same period. During the last five years of the period under review, the prices of animal

feedingstuffs, which represent slightly more than 40% of intermediate consumption in EUR 12, declined continuously (-5.3% per annum). This may have caused the consumption of feedingstuffs to rise, yet without triggering a proportional increase in production. Lower prices may have given rise to purchases of feedingstuffs in sectors other than agriculture (i.e. feedingstuffs not produced on agricultural holdings within the meaning of the methodology of the Economic Accounts of Agriculture (EAA)). This may have been taken into account in the EAA, unlike feedingstuffs produced on the "national farms".

Graph 5.4 Development of the productivity of intermediate consumption and of the "price scissors" in the Community between "1981" and "1990" ("1985" = 100).



Changes in this indicator of productivity must, however, be interpreted with care:

- this productivity ratio must be examined in a long-term perspective, since it is fairly sensitive to short-term changes, particularly climatic factors which can have a significant effect on production volume. Nor can this measure of productivity be compared with productivity as defined in other economic sectors. The productivity of intermediate consumption concerns only one factor of production. All the variations in production which can stem from other factors (technological progress, etc.) are thus attributed to intermediate consumption.
- intra-sector consumption in agriculture causes some distortion. It is not covered by the EAA (see above) and can lead to underestimates of the real level of intermediate consumption. The productivity ratio of intermediate consumption can therefore vary from one Member State to another (depending on the relative importance of animal production and fodder production) and can be affected by climatic conditions and the supply of and demand for substitution products (i.e. products purchased in sectors other than agriculture).

The "price scissors" declined from "1981" to "1984" (-0.9% per annum), thereby continuing the steady deterioration which had taken place in most Member States since 1975, but staged a recovery starting in "1984" (+1.1% per annum from "1984" to "1990"). Nominal prices of agricultural production increased by

-2.0% per year from "1984" to "1990" while those for intermediate consumption rose only by +0.9% per annum. This is particularly due to energy, animal feedingstuffs and fertilizers, the prices of which fell considerably from 1986 in the wake of lower oil prices, a weaker dollar and the decline in world prices for agricultural commodities. Over the period as a whole, therefore, the "price scissors" slightly increased (+0.4 % per annum)⁽⁶⁾.

5.4.3 Other components of income

It must be stressed that the **subsidies** covered by the EAA are only those which consist in direct transfers to agriculture, i.e. not price support, investment grants, or aid given to the buyers of agricultural products, which are more or less reflected in prices. As a result, neither the level nor the trend of subsidies within the meaning of the EAA reflects the overall aid received by the agricultural sector in the Community. These subsidies, which regularly increased by +6.5% per annum in real terms, accounted for a growing share of the value of final agricultural production, rising from 3% in "1981" to 6% in "1990". The amount of **taxes linked to production** also increased, albeit at a slower rate (+1.7%) than subsidies, and this reinforced the latter's impact on income.

It should be pointed out that these items reflect widely varying conditions in different Member States. Indeed, the system and extent of agricultural support and disparate methodologies have caused considerable variations between Member States. Some care therefore has to be taken when examining the absolute value of these items although the balance (subsidies less taxes linked to production) reflects the growing support given to agriculture in the form of direct transfers to producers. The balance represented nearly 13% of net value added at factor cost in "1990" (compared with 3% in "1981"). The result was that annual variations in "net subsidies" had a major impact on net value added and income aggregates, particularly during periods of income stability (e.g. 1983, 1985, 1986, 1987).

The real value of **depreciation** increased slightly between "1981" and "1984" (+0.8% per annum) before stabilizing (+0.1% per annum). Nevertheless, the share of depreciation in the value of total production was on an upward trend from 1985 (10.5% between "1981" and "1985" and 12.7% in "1990"), which might reflect renewed increases in capitalization costs in the sector and, more generally, costs linked to the intensiveness of the production process.

It is not possible to interpret the development of **net value added** in relation to a specific type of production, because intermediate consumption, subsidies, taxes linked to production and depreciation are not broken down along these lines. Real net value added declined by an annual average of -1.5% between "1981" and "1990". This decline was particularly pronounced between "1984" and "1987", when the real value of final agricultural production plummeted (-3.4% per annum) in line with the fall in the real prices of products (cereals, root crops, oilseeds, fresh fruit, cattle and pigs).

(6) However, when this ratio is expressed in real terms, an opposite development becomes apparent (decrease of -0.2% per year) because of a decline in real prices of agricultural output (-3.0% per year) at a faster rate than that of intermediate consumption (-2.8%). These two ratios diverge because of the more important weighting of high inflation countries (particularly Italy and Greece) in the output price index than in the intermediate consumption price index, in which northern European countries with moderate inflation rates have a larger weight.

The share of **interest, rent and compensation of employees** in final agricultural production was broadly unchanged from "1981" to "1990" at 6%, 2% and 10% respectively (13%, 5% and 21% respectively in terms of net value added factor costs). The stability of these figures confirms that these components had little impact on net income in the Community as a whole (although this may not be true of individual Member States). Their costs fell by -0.2%, -1.5% and -1.5% respectively per annum over the period "1981"/"1990".

Real net incomes of the total labour input and family labour input moved in line with real net value added at factor cost, falling by -1.7% and -1.8% respectively per annum over the period under review. Therefore, when the decline in the total labour input (-3.1% per annum) and in the family labour input (-3.3% per annum) is taken into account, Indicators 2 and 3 of agricultural income rose by +1.4% and +1.6% per annum on average. These figures, which are similar to the corresponding figure for Indicator 1, underline once again the weak long-term impact of interest costs, rent and compensation of employees on the average changes in Indicators 2 and 3 in the Community as a whole (at a time when reductions in the total labour input and in the family labour input are very similar).

Table 5.6 Annual average rate of variation in the components of indicators of agricultural income in the Community, from "1981" to "1990", over three sub-periods, and changes in the share of each component as a percentage of final output.

	Real value				as % of final output	
	SSP1	SSP2	SSP3	P	"1981"	"1990"
Final output	-0.4	-3.4	-1.3	-1.7	100.0	100.0
Intermediate consumption	0.6	-4.4	-1.7	-1.8	44.1	43.6
Gross value added at m.p.	-1.2	-2.6	-1.0	-1.6	55.9	56.4
Subsidies	7.7	5.2	6.5	6.5	2.9	5.9
Taxes linked to production	2.9	4.9	-2.4	1.7	1.4	2.0
Depreciation	0.8	0.2	0.0	0.3	10.5	12.7
Net value added at f.c.	-1.2	-2.8	-0.4	-1.5	46.7	47.7
Rent	-1.2	-1.6	-1.7	-1.5	2.1	2.1
Interest	1.2	-2.3	0.4	-0.2	5.6	6.3
Net income of total labour	-1.5	-3.0	-0.6	-1.7	39.2	39.2
Compensation of employees	-1.6	-2.0	-0.8	-1.5	10.0	10.2
Net income of family labour	-1.4	-3.3	-0.5	-1.8	29.2	29.0

NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

6 LONG-TERM TRENDS IN AGRICULTURAL INCOME IN THE COMMUNITY MEMBER STATES FROM 1980 TO 1991

6.1 Introduction

The trend in agricultural income in the Community Member States differed considerably in the period "1981"/"1990". A specific scrutiny of agricultural income in each Member State is based on the division of the reference period into three phases adopted in Chapter 5. The different trends recorded mainly stem from the intensity of each of these phases in each Member State and from factors such as the individual climatic conditions and consequent specific production, production techniques and structures, as well as the internal market situation subject to the supply and demand structure of each country. Nonetheless, European policy of support and intervention in the agricultural sector, as well as the main trends of the agricultural markets in the Community, can be traced in all Member States with differing time-scales as far as their influence on agricultural income is concerned.

Real net value added at factor cost per AWU, i.e. Indicator 1, had highly divergent trends for "1981"/"1990" (cf. Table 6.1): Spain (+4.6%), Ireland (+4.0%) and the Netherlands (+3.5%) have the sharpest increases. Italy (-1.2%) and the United Kingdom (-0.4%) were the only countries to record falling income in the Community. Income in some cases fluctuated sharply, as in Denmark, where the annual rate of increase moved from +6.1% from "1981" to "1984" to -2.0% from "1984" to "1987".

Table 6.1 Indices of real net value added at factor cost per annual work unit, (Indicator 1)

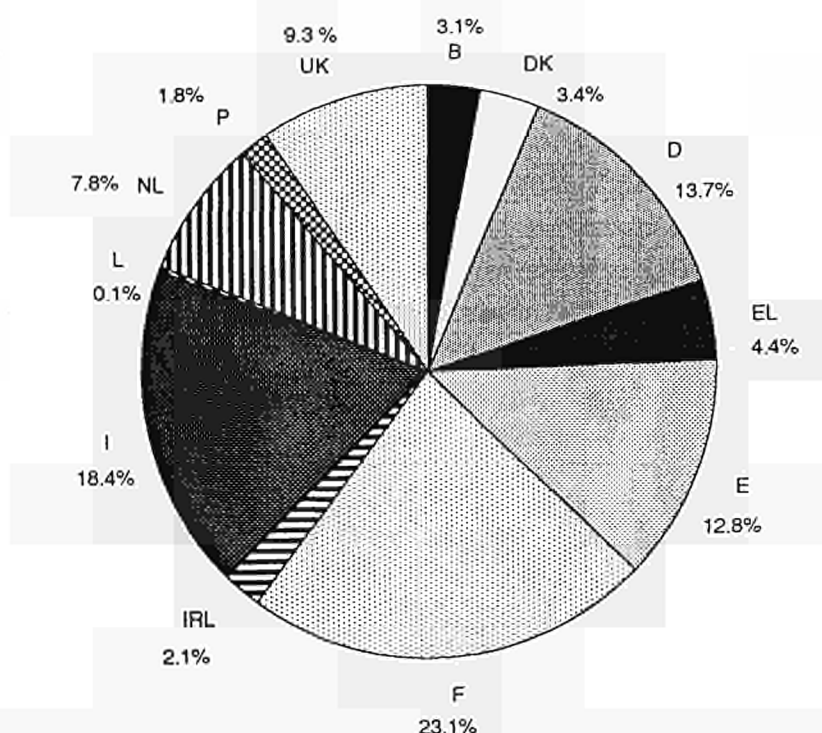
	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
"1981"/"1984"	3.4	6.1	-0.9	0.2	5.1	1.5	4.4	-0.9	4.8	3.1	1.0	0.5	1.5
"1984"/"1987"	-2.9	-2.0	2.0	2.6	3.3	0.0	1.8	-2.7	2.6	1.6	-1.1	-2.1	0.0
"1987"/"1990"	6.2	2.0	4.3	4.6	5.3	3.7	5.7	-0.1	2.2	5.9	0.8	0.5	3.4
"1981"/"1990"	2.2	2.0	1.8	2.4	4.6	1.7	4.0	-1.2	3.2	3.5	0.2	-0.4	1.6

The Member States' share in final agricultural Community production only changed slightly in the 1980s. France occupied the first place in "1990" with 23.1% of total Community production (cf. Graph 6.1), followed by Italy (18.4%) and Germany (13.7%). The only notable changes were Spain, whose share increased considerably (12.8% in "1990") and the United Kingdom, with the steepest decline (9.3%).

The trend of final agricultural production in the Community, which is characterized by a rise in volume (+1.3% per year) accompanied by an annual fall in real prices of -3.0%, can be found in all Member States in varying degrees (cf. Table 6.2). For example, whilst three countries recorded an annual increase in their final production volume of over +2.0% (Ireland, Netherlands and Denmark) and Luxembourg, Germany and Italy recorded an increase of less than +1.0% per year, the production of the six other Member States (B, E, GR, F, P and UK) kept close to the Community average. Real prices fell minimally in Luxembourg (-1.0%) and only slightly in Greece (-1.2%) and the Netherlands (-1.8%). The fall in real prices varied between -2.5% and -3.5% for the other Member States, except Portugal, Denmark and Italy, where it exceeded -3.5% per year. These trends led to a decline in the real value of total production in 11 countries,

especially in Italy, Germany, the United Kingdom and Portugal, where it was over -2.0% per year. Only the Netherlands recorded an increase of real final production value (+0.6% per year).

Graph 6.1 Member States' share (in values) of total production in "1990".



The average decline in the value of production in EUR 12 (-1.7%) was partly offset by a fall in the real value of intermediate consumption of -1.8% per year. The increase in the use of intermediate consumption for the Community (+1.0% per year, i.e. increases in all countries except Germany) is less steep in volume terms, than for final production, thus automatically resulting in a slight increase in productivity (+0.3% per year). This productivity is also positive in seven countries, but negative in Belgium, Greece, France, Italy and Luxembourg. The fall in the real prices of intermediate consumption can be traced in all Member States (but to a lesser degree than for the prices of final production) and reaches -2.8% as an annual average for the Community as a whole. The "price scissors" increased by an average of +0.4% per year for the Community (and more specifically four Member States).

Table 6.2 Average annual rates of change in the real value of final production and intermediate consumption in agriculture, in the productivity of intermediate consumption and in the "price scissors" from "1981" to "1990", in %.

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
Final production													
Volume	1.8	2.3	0.4	1.2	2.0	1.5	2.6	0.7	0.2	2.5	2.0	1.1	1.3
Real price	-2.0	-4.1	-3.4	-1.2	-2.6	-2.5	-3.0	-4.0	-1.0	-1.8	-4.2	-3.3	-3.0
Value	-0.2	-1.9	-3.0	0.0	-0.6	-1.0	-0.4	-3.4	-0.7	0.6	-2.2	-2.3	-1.7
Intermediate consumption													
Volume	2.1	0.4	-0.4	1.8	2.0	1.7	2.0	1.1	2.2	0.6	0.8	0.3	1.0
Real price	-2.6	-3.4	-3.2	-1.0	-2.4	-2.0	-3.0	-4.6	-2.1	-2.4	-1.4	-2.5	-2.8
Value	-0.6	-3.0	-3.6	0.8	-0.5	-0.4	-1.1	-3.6	0.1	-1.9	-0.6	-2.2	-1.8
Productivity of Intermediate consumption	-0.3	1.9	0.8	-0.6	0.0	-0.2	0.6	-0.4	-2.0	1.9	1.2	0.8	0.3
"Price scissors"	0.6	-0.7	-0.2	-0.2	-0.2	-0.5	0.0	0.6	1.1	0.6	-2.8	-0.8	0.4

The real value of intermediate consumption increased slightly in Greece and Luxembourg but fell slightly in four Member States (B, E, F, IRL), more steeply in NL, UK, P and especially in DK, D and I.

The labour input in Community agriculture fell in the 1980s at an average rate of -3.1% per year (cf. Table 6.3). In Spain and Luxembourg the rate of fall was especially high (-4.8% and -4.0% per year), whereas it remained relatively small in the Netherlands (-0.7%). The decline in agricultural labour input accelerated in the second part of the period, especially in Belgium, Germany, Greece, Ireland and the United Kingdom.

Table 6.3 Average annual rates of change in total labour input in agriculture in %

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
"1981"/"1984"	-1.4	-3.2	-2.0	-0.6	-4.4	-2.9	-1.0	-2.2	-4.5	-0.5	-3.9	-1.2	-2.7
"1984"/"1987"	-2.0	-4.0	-2.4	-2.4	-4.7	-3.5	-2.4	-2.3	-4.0	-0.9	-2.1	-1.8	-2.9
"1987"/"1990"	-2.7	-3.4	-4.1	-2.5	-5.2	-3.7	-2.6	-3.7	-3.5	-0.6	-3.6	-2.1	-3.7
"1981"/"1990"	-2.1	-3.5	-2.8	-1.8	-4.8	-3.4	-2.0	-2.8	-4.0	-0.7	-3.2	-1.7	-3.1

6.2 Belgium

The development of agricultural income in Belgium, as measured by Indicator 1, is slightly above the European average with a real annual average growth of +2.2% over the reference period "1981"/"1990". As in other Member States, three phases may be distinguished: a rise from 1980 to 1983, a falling-off and decline from 1984 to 1987 and then a slight pick-up from 1988 to 1990. Nevertheless, each of these phases is much more pronounced in Belgium; from "1981" to "1984" for example, income went up considerably (+3.4% per annum) as a consequence of higher agricultural prices (+0.7%), this being partly due to more favourable Community policies and a downward movement of the Belgian franc. From "1984" to "1987", agricultural income fell by -2.9% per annum on average, the rise in production (+2.5%) not being sufficient to offset a major fall in real prices (-5.7%). The period "1987"/"1990" saw a major increase in income (+6.2% per year) but this rise was very irregular; income went up rapidly in 1988 and 1989, principally because of higher agricultural prices (particularly for cattle, pigs and milk) which profited from the readjustment of Community agricultural markets following a more restrictive agricultural policy was less restrictive and world markets were more favourable, but the years 1990 and 1991 were particularly bad in certain sectors (particularly cattle and milk).

Over the entire period "1981"/"1990", the fall in real prices is less marked than in the other Member States (-2.0% per year) and the increase in production volume is slightly above the Community average (+1.8% per year), despite a certain slowing-down from "1987" to "1990". Animal production represents approximately two thirds of total agricultural production (principally pigs, cattle and milk), with fresh vegetables being the major item of crop production.

The growth in production volume was mainly due to crop products (+2.4%) during the first two sub-periods when cereals, potatoes and fresh vegetables had high annual rates of growth (+3.2%, +4.2% and +4.7% respectively). The production of fresh vegetables developed strongly up until 1986, in line with domestic consumption, but then grew at a slightly lower rate (+4.2% per annum on average from "1981" to "1990"). After having increased from "1981" to "1984" (+2%), the real price of fresh vegetables declined,

particularly from "1984" to "1987" (-5.2%) and then less dramatically through to "1990" (-1.1%), whereupon there was a major rise in 1990. The real value of fresh vegetable production rose (although by irregular amounts) at an annual rate of +2.7% for the whole of the period.

Table 6.4 Annual average rates of change for production volume, real prices and real value of agricultural products in Belgium from "1981" to "1990", in % terms

	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	1.6	3.2	1.0	1.9	1.7	-5.1	0.1	-1.1	3.4	-2.0	1.1	0.8
Cereals	4.9	1.5	-0.9	1.8	-1.6	-6.1	-6.0	-4.6	3.2	-4.7	-6.8	-2.9
Potatoes	1.3	7.1	6.4	4.9	4.5	-15.3	6.1	-2.0	5.9	-9.2	12.9	2.8
Fresh vegetables	4.0	5.4	3.2	4.2	2.0	-5.2	-1.1	-1.5	6.1	-0.1	2.1	2.7
Final animal output	1.5	2.2	1.4	1.7	0.2	-6.1	-1.3	-2.4	1.7	-4.1	0.1	-0.8
Cattle	4.2	1.6	2.5	2.8	-1.0	-6.1	-2.1	-3.1	3.2	-4.6	0.3	-0.4
Pigs	0.2	4.9	2.0	2.3	-0.5	-9.3	1.4	-2.9	-0.3	-4.8	3.5	-0.6
Milk	0.4	-0.5	-1.9	-0.7	1.5	-1.5	-1.7	-0.6	1.9	-2.0	-3.5	-1.2
Final output	1.5	2.5	1.2	1.8	0.7	-5.7	-0.8	-2.0	2.3	-3.3	0.5	-0.2
Intermediate consumption	1.0	3.4	2.0	2.1	1.4	-6.2	-3.0	-2.6	2.4	-3.0	-1.0	-0.6
Gross value added at m.p.	2.3	1.3	0.1	1.2	-0.3	-5.0	2.3	-1.0	2.0	-3.8	2.4	0.2
Subsidies									1.6	-1.7	8.8	2.8
Taxes linked to production									8.6	13.0	3.8	8.4
Depreciation									1.5	2.4	0.5	1.5
Net value added at f.c.									2.0	-4.9	3.4	0.1
Interest									3.4	-2.2	5.1	2.1
Rent									-3.3	-0.9	-1.9	-2.1
Net income of total labour									2.1	-5.6	3.4	-0.1
Compensation of employees									4.3	3.6	1.6	3.2
Net income of family labour									2.0	-6.3	3.6	-0.3

NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

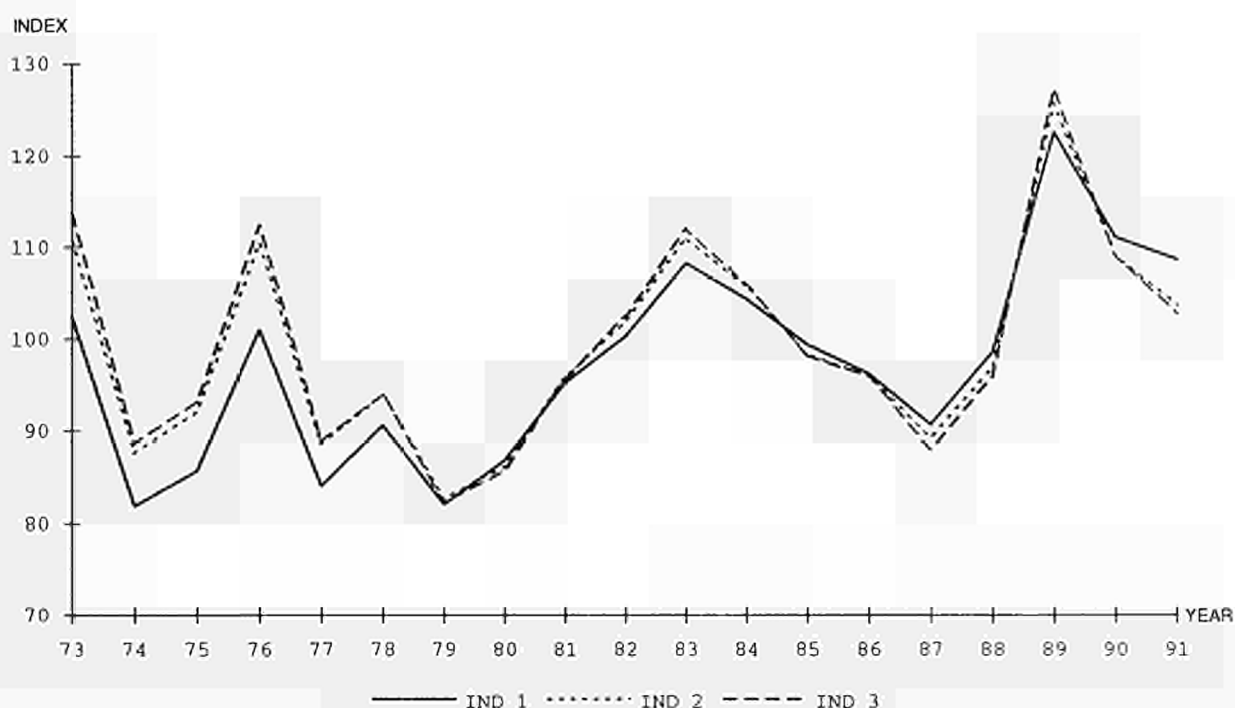
After having remained at almost constant levels from "1981" to "1984" (+0.2%), pig production increased steeply in volume during the second half of the decade (+3.4% per year from "1984" to "1990"), despite a fall of -11.2% in 1990 following the swine fever which led to massive slaughterings. Real prices fell overall over the period "1981/1990" (-2.9%), particularly from "1984" to "1987" (-9.3%). Milk production was more or less maintained at a level in volume terms from 1980 to 1987, but fell from 1988 (-0.7% per year over the entire period). There was a slowly declining trend in real milk prices (-0.6% per annum on average) from "1981" to "1990". The short term rises of 1988 and 1989 (lower production volume and lower surpluses on the market) were offset by the falls of 1990 and 1991. Cattle production, the volume of which had been somewhat restricted from "1984" to "1987" (+1.6%) by milk quotas, went up by +2.8% per year over the whole period. The real price of cattle fell regularly (-3.1% per annum from "1981" to "1990") except for the years 1981, 1982 and 1989, because of surplus supply on the market and a continued decline in consumption (particularly in 1990 and 1991).

The growth in intermediate consumption volume (+2.1% per annum on average) was higher than the growth of final production volume, thus leading to a decline in productivity (-0.3% per year), which was mainly due to the costs of animal production. It would therefore seem that there was a measure of continuity in the intensification of production. The real price of intermediate consumption fell by -2.6% which improved the "price scissors" by +0.6% per year.

The share of intermediate consumption in final production was high (58% as compared to 44% for EUR 12). The extensive use of these items appears to have offset a limited capital investment level; this

development is reflected in the depreciation and interest charges, whose share in total production is only 7% and 5% respectively (lower than for EUR 12) despite increasing +1.5% and +2.1% per year. The share of subsidies in total production remained fairly stable and limited, despite a short-term increase in 1990 (compensation for the massive slaughtering following swine fever). Taxes linked to production went up regularly. The level of net income in final production is lower than in the other Member States at 28% (compared with 39% for EUR 12). The total labour input in agriculture declined (-2.1% from "1981" to "1990") at a slow rate from "1981" to "1985" but more rapidly from "1985" to "1990" (following the slowing-down of agricultural activity), thus permitting agricultural income (measured in AWU terms) to rise.

Graph 6.2 Development of the three indicators of agricultural income in **Belgium** between 1973 and 1991, with "1985" = 100.



Indicators 2 and 3, which take interest charges, rents and compensation of employees into account, underwent a similar development to that of Indicator 1 (+2.0%).

6.3 Denmark

The growth in agricultural income in Denmark, measured at +2.0% per annum by Indicator 1, was slightly higher than the Community average during the period under review. However, this figure does conceal very large annual fluctuations, since agricultural income showed sustained growth in the first half of the decade (+5.2% per annum), to be followed by a severe decline in the second half (-1.5% per annum).

This fluctuation in agricultural income, which gives rise to a certain vulnerability in Danish agriculture, can be explained by the low proportion of total production accounted for by net income. It is therefore very susceptible to slight variations in volume and price, particularly if measured by Indicators 2 and 3, and by price fluctuations. Intermediate consumption represents about 51% of total production, compared with an average of 44% for the Community as a whole. The difference reflects the major intensification of the

agricultural production process in Denmark and the importance of animal production. Likewise, the major investments which have been made in the agricultural sector represent a considerable burden on accounts, since financial costs have risen to about 16% of total product compared with 6% for the Community. This is even clearer more pronounced when measured in real terms. Finally, this accumulation of expense explains why the net income of the total labour input, the basis of Indicator 2, is only a small part (19%) of total product in the sector, compared with about 39% for the Community as a whole (the corresponding figures obtained using Indicator 3 are 10% and 29% respectively). Agricultural income as measured by Indicators 2 and 3, increased by +3.2% and +4.7% respectively during the period under review, owing more to the fall in interest charges (-2.7% per annum), than to compensation of employees and rent which were little changed (- 1.6% and +1.2% per annum respectively).

Table 6.5 Annual average rates of change for production volume, real prices and real value of agricultural products in Denmark from "1981" to "1990", in % terms

	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	6.1	3.7	6.1	5.3	-3.1	-6.4	-5.3	-5.0	2.8	-2.9	0.5	0.1
Cereals	4.2	2.3	7.7	4.7	-4.4	-8.2	-6.6	-6.4	-0.4	-6.1	0.6	-2.0
Final animal output	1.7	0.4	0.7	0.9	-1.7	-6.6	-3.0	-3.8	0.0	-6.1	-2.3	-2.9
Cattle	-0.6	-4.3	0.6	-1.5	-1.9	-6.8	-3.4	-4.1	-2.4	-10.9	-2.9	-5.5
Pigs	2.3	3.0	1.9	2.4	-2.4	-9.4	-1.7	-4.5	-0.1	-6.7	0.2	-2.2
Milk	0.9	-2.7	-1.1	-1.0	-0.9	-1.9	-1.5	-1.4	0.0	-4.5	-2.6	-2.4
Final output	2.9	1.4	2.5	2.3	-2.1	-6.5	-3.8	-4.1	0.8	-5.1	-1.4	-1.9
Intermediate consumption	0.4	-0.1	1.0	0.4	-0.5	-6.6	-2.9	-3.4	-0.1	-6.7	-1.9	-3.0
Gross value added at m.p.	6.2	3.1	3.9	4.4	-4.1	-6.3	-4.6	-5.0	1.8	-3.4	-0.8	-0.8
Subsidies									3.7	-14.1	-13.8	-8.4
Taxes linked to production									-11.3	7.8	4.1	-0.2
Depreciation									1.9	-0.1	-1.2	0.2
Net value added at f.c.									2.8	-5.7	-1.6	-1.5
Interest									-5.6	-2.4	-0.1	-2.7
Rent									7.3	-1.5	-2.0	1.2
Net income of total labour									12.3	-9.1	-3.0	-0.3
Compensation of employees									1.3	-1.6	-4.4	-1.6
Net income of family labour									20.0	-13.2	-2.1	0.7

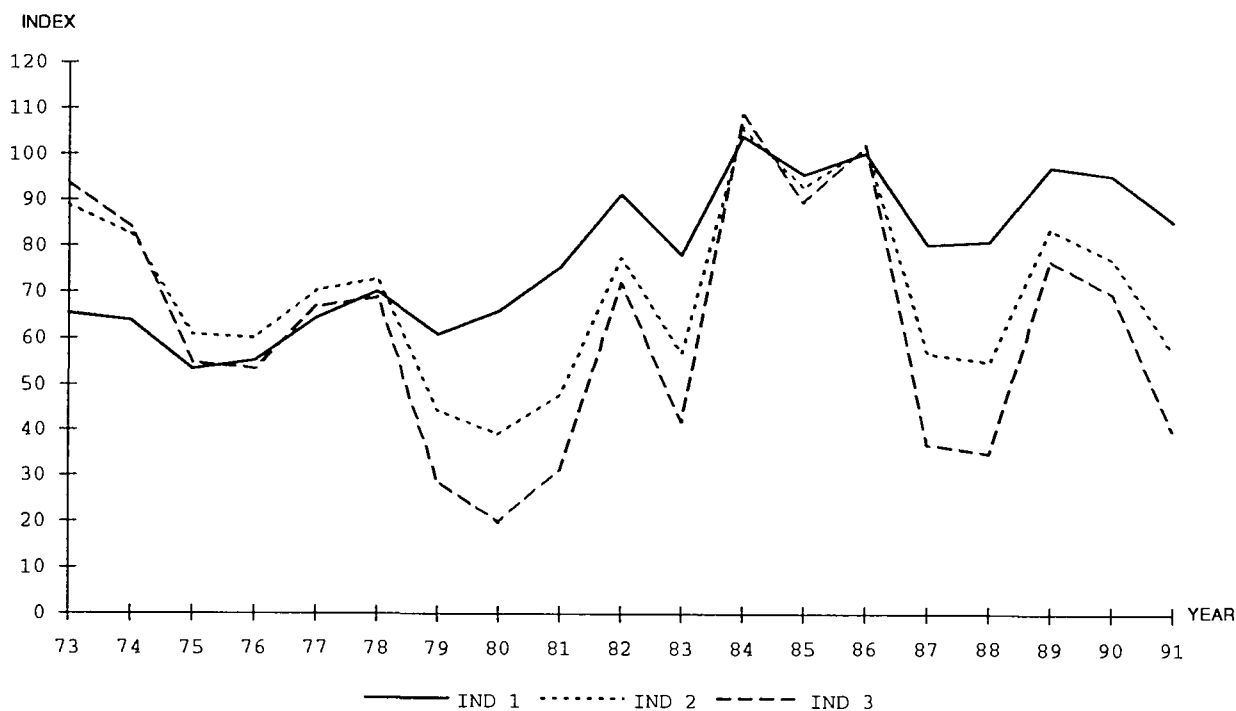
NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

The mainstay of agricultural production in Denmark is animal production (particularly pig and milk production), which represents nearly two thirds of the total. Production is highly concentrated, with the average number of animals per holding being much higher than in the Community as a whole. Denmark has a pigmeat and milk self-sufficiency rate of more than 200%. The volume of total agricultural production increased between "1981" and "1984" (+2.9% per annum) and was then followed by a period of stability. Renewed growth began in 1988, with crop production rising by +6.1% per annum whilst animal production only increased by +0.7% per annum. Over the period as a whole, real prices decreased fairly sharply (particularly after 1984) at a rate of - 4.1% per annum which was only partly compensated for by increased volume (+2.3% per annum). The net result was a fall in the real value of production (- 1.9%).

Pig production volume rose by +2.4% over the entire period, although the annual increases slowed down in the latter years of the decade. Production has stabilized at a high level since 1986, as increases in the consumption of pigmeat, and the falling price of feedingstuffs, together compensated for the drop in producer prices. Real prices fell by - 2.4% per annum until "1984", before plummeting by - 9.4% per annum between "1984" and "1987". This was followed by a rally in 1989 and by further falls in 1990 and

1991. Following a period of relatively weak growth from 1980 to 1983, the volume of milk production fell steeply (- 1.7% per annum) from "1984" to "1990" owing to the introduction of milk quotas, although since then it has gradually stabilized, partly as a result of higher yields.

Graph 6.3 Development of the three indicators of agricultural income in Denmark between 1973 and 1991, with "1985" = 100.



Crop production increased thanks mainly to cereal and oilseed volume increases of +4.7% and +11.0% per annum respectively. The real prices of crop products were on an upward curve until 1983, after which they declined in line with real prices in most other European countries.

Intermediate consumption volume rose only slightly throughout the period "1981"- "1990" (+0.4% per annum). This is in stark contrast to the 1970s, which witnessed a marked intensification of production. However, the fall in the real price of intermediate consumption (- 3.4%) was not as steep as the fall in the implicit prices of agricultural products (- 4.1% per annum). This led to a deterioration in the "price scissors".

Taxes on production were little changed in real terms (- 0.2%), compared with the value of the land to which they are closely linked, whilst subsidies fell considerably (- 8.4% following a national policy of reducing production subsidies). The proportion of total agricultural production accounted for by taxes linked to production increased from 2% in "1981" to 3.1% in "1990". The corresponding figures for subsidies are 1.7% in 1981 and 0.9% in 1990 (the lowest in the Community). Depreciation stabilized at a relatively high level, representing nearly 14% of final production, slightly higher than the Community average.

The reduction in the agricultural labour input continued to be high throughout the period (- 3.5% for the total labour input and - 4.2% for family labour input). This was reflected in a recovery of agricultural income per AWU at the end of the 1980s.

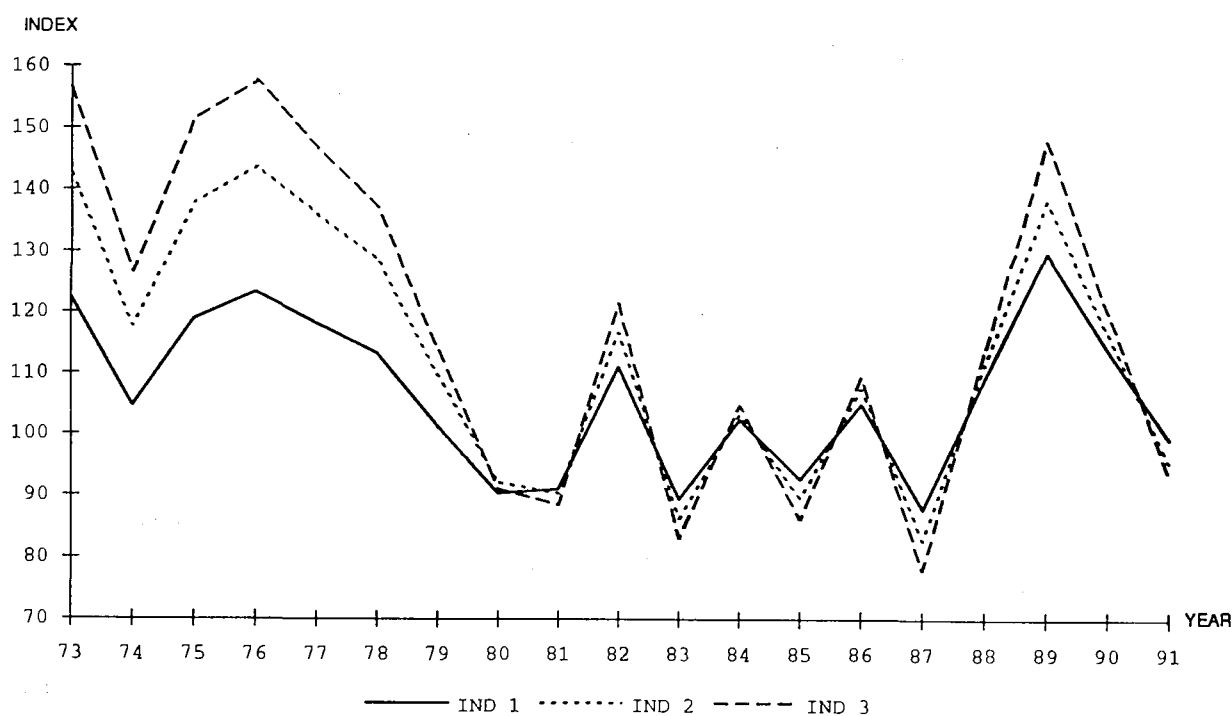
6.4 Germany

Table 6.6 Annual average rates of change for production volume, real prices and real value of agricultural products in Germany from "1981" to "1990", in % terms

	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	0.8	1.9	0.6	1.1	-2.8	-5.0	-1.4	-3.1	-1.9	-3.2	-0.8	-2.0
Cereals	2.4	1.8	1.3	1.8	-4.2	-6.2	-6.4	-5.6	-1.9	-4.6	-5.1	-3.9
Fresh fruit	1.5	2.4	-9.1	-1.9	1.3	-3.9	6.7	1.3	2.9	-1.6	-3.0	-0.6
Final animal output	1.1	-0.5	-0.6	0.0	-2.8	-6.1	-1.7	-3.5	-1.7	-6.6	-2.4	-3.6
Cattle	1.4	0.0	0.7	0.7	-3.0	-7.0	-4.1	-4.8	-1.7	-7.1	-3.5	-4.1
Pigs	0.9	0.8	-1.3	0.1	-4.5	-10.5	1.3	-4.7	-3.7	-9.8	-0.1	-4.6
Milk	1.5	-2.3	-2.0	-0.9	-0.9	-2.3	-1.5	-1.6	0.6	-4.5	-3.4	-2.5
Final output	1.0	0.3	-0.2	0.4	-2.8	-5.7	-1.6	-3.4	-1.8	-5.5	-1.8	-3.0
Intermediate consumption	0.2	-0.8	-0.5	-0.4	-0.9	-6.5	-2.2	-3.2	-0.8	-7.3	-2.7	-3.6
Gross value added at m.p.	2.2	1.7	0.2	1.3	-5.2	-4.8	-1.0	-3.7	-3.1	-3.2	-0.8	-2.4
Subsidies									18.2	18.8	1.3	12.5
Taxes linked to production									3.8	6.3	-7.9	0.5
Depreciation									0.1	-1.8	-0.6	-0.8
Net value added at f.c.									-2.8	-0.5	0.1	-1.1
Interest									0.5	-3.6	-3.9	-2.3
Rent									3.0	2.9	2.7	2.9
Net income of total labour									-4.2	0.1	0.9	-1.1
Compensation of employees									-0.8	-0.9	-3.3	-1.7
Net income of family labour									-5.0	0.4	2.0	-0.9

NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

Graph 6.4 Development of the three indicators of agricultural income in Germany between 1973 and 1991, with "1984-1986" = 100.



Agricultural income in Germany, measured by Indicator 1, grew by an average of +1.8% per annum during the period under review (fractionally higher than the figure for EUR 12). The biggest increases occurred in 1988 and 1989, but much of this was neutralised by steep falls in 1990 and 1991 (-12.3% and -12.8% respectively). Growth in production volume was relatively weak, rising by an annual average of just +0.4%

between "1981" and "1990". This rate of increase, together with that of Luxembourg, was the lowest in EUR 12. The fall in real producer prices (- 3.4% per annum) was also important and above the EUR 12 average. However, the decline in the real value of agricultural production resulting from these trends was balanced by the lower volume of intermediate consumption (- 0.4% per annum, representing the only fall in the Community) and by a drop in the real prices of intermediate consumption (- 3.2%, this being higher than in EUR 12). Furthermore, although the "price scissors" deteriorated slightly, there was an improvement in the productivity of intermediate consumption. The increase in agricultural income resulted from a decline of the NVA in real terms of -1.1% per year which was more than offset by a decline in the agricultural labour input at close to the EUR 12 average (- 2.8%), although the speed of departures had nearly doubled by the second half of the decade.

The three phases which can generally be identified for the Community as a whole are not so distinct for Germany, where fluctuations in income were more marked than in the other countries, although the general trend is similar to that of EUR 12. Net income accounted for 25% of final production, compared with a Community average of 39%, making for less stability. The use of intermediate consumption was high, but declined towards the end of the 1980s. This has to be seen in relation to animal production, which represents nearly two-thirds of agricultural production in Germany. Depreciation, which accounts for a large part of final production (nearly 17%) but whose real value fell slightly during the period under review, reflects the high level of capital intensiveness in German agriculture. Although taxes on production rose slightly (+0.5%), the value of subsidies grew at a double-digit rate (+12.5%) to a level where it represents nearly 10% of total agricultural product, the highest figure in EUR 12. This is especially due to the compensation given to Germany for cut-backs in monetary compensation amounts in 1984 and, in the second half of the 1980s', to the subsidies granted for milk quotas and set-aside.

The growth in volume of agricultural production took place in the first half of the decade before stabilizing or even falling back slightly. Crop production, which grew by an annual average of +1.1% over the whole period (compared with a 0.0% growth rate in animal production) accounted for this higher volume, particularly between "1984" and "1990" (+1.2% per annum), whereas the situation in the animal sector deteriorated (-0.6% per annum over the same period).

The growth in the volume of cereal production fell slightly after 1984; the decline in the area under cultivation being more than compensated for by higher yields. Real producer prices fell substantially (by an average of - 5.6% per annum) over the entire period, and particularly after 1984, in parallel with institutional prices.

Cattle production increased slightly in volume terms during the 12 years under review (+0.7%). After growing by an annual rate of +1.4% at the beginning of the decade, it stabilized following the introduction of milk quotas, which led to a short-term increase in cow slaughterings and a fall in the cattle population. The volume of milk produced fell after 1984 (- 2.2% from "1984" to "1990"), as in the other Community countries, following the introduction of milk quotas. Over the period as a whole, the fall in the cattle population was - 0.9% per annum. Real producer prices of milk and beef fell in each of the sub-periods (-1.6% and - 4.8% per annum respectively from "1981" to "1990"), despite some recovery in 1988 and 1989.

Over the decade as a whole, pig production volume was stable (the slight increase recorded between 1980 and 1986 was wiped out by falls from 1987 to 1991). The crisis which affected the pig sector in the

Community in 1987 and 1988 brought about a fall in the volume of production which was particularly pronounced in Germany in 1989. This fall led to a slight recovery in real prices (+1.3%) over the period from "1987" to "1990", which followed a period of steep falls in real prices (at an annual average of - 7.5%) between "1981" and "1987".

Agricultural income in Germany was severely affected by declines in real values of milk, beef, pig meat and cereal production, which was only partly compensated for by increases in the production of fresh vegetables (+2.4%) and wine (+1.5%). Indicators 2 and 3 of agricultural income, which take account of interest, rent and compensation of employees, followed a similar trend to Indicator 1 (+1.8% and +2.0% respectively).

6.5 Greece

Agricultural income in Greece, measured by Indicator 1, grew by +2.4% per annum, which is slightly above the Community average. The various phases in agricultural income movements identified for the Community as a whole were less pronounced in Greece, where income rose more sharply between "1987" and "1990" (+4.6% per annum, compared with +0.2% per annum between "1981" and "1984"). The reduction in the agricultural labour input was slight from 1980 to 1985, but then accelerated, resulting in an overall decline of - 1.8% per annum in the period under review.

Agricultural production grew little in volume terms between "1981" and "1990" at an average annual rate of +1.2%. This rate, which is low compared with that of some other Member States, represents a definite break with the 1970s, which were marked by sustained increases. This lower rate of growth was partly compensated for by the limited fall in producer prices (- 1.2% per annum compared with - 3.0% for EUR 12). Agricultural production is dominated by crop production (fresh fruit and vegetables, textiles, olive oil and cereals), which represents about 70% of total production. The volume of crop production grew at an annual rate of +1.6% between "1981" and "1990". However this increase was not evenly distributed over the period under review, due to an annual growth rate of +0.4% from "1981" to "1984" and +2.2% from "1984" to "1990", the latter having been achieved despite unfavourable weather conditions in 1987 and 1989/90. The volume of animal production (mainly sheep/goats and milk) grew at an average annual rate of +0.5% between "1984" and "1990", following a fall of - 0.7% per annum in the period to 1984.

Production of fresh vegetables rose by +1.0% per annum, whereas the production of fresh fruit⁽¹⁾ fell by -0.9% per annum. These figures conceal wide fluctuations brought about by varying weather conditions. Over the period as a whole, the real price of fresh vegetables increased slightly (+1.0% per annum), thanks to the considerable rises between "1981" and "1984" (+3.9%) not being totally wiped out by falls from "1984" to "1990". The real prices of fresh fruit dropped by an annual average of - 1.3%. The volume of olive oil produced remained unchanged over the decade (0.0%), despite an increase of +2.7% between "1984" and "1987". Real producer prices for olive oil rose by +1.5% per annum over the period as a whole (+5.0% from "1987" to "1990", despite the fall in the support price).

The volume of industrial crops produced soared, because of the strong growth in textile crop production (an annual average of +7.9%), despite a relative decline in tobacco production after 1986 (-3.4% from "1987" to "1990"). Growth in the volume of cotton production slowed down considerably (+11.0% from "1981" to

(1) Including citrus fruit and table grapes.

"1987", down to +1.8% between "1987" and "1990") as a result of the introduction of the maximum guaranteed quantity, and the fall in the target price and Community assistance triggered by the stabilizer mechanism with effect from the 1987/88 season. Producer prices for textile plants fell in real terms (-0.2%), particularly during the second half of the decade when measured against institutional prices (-4.9%). The fall in institutional prices, brought about by the stabilizer mechanism affecting the various varieties of tobacco, combined with very high levels of intervention stocks from 1985 onwards, contributed to an average annual decline in prices of -4.0% between "1984" and "1990".

Table 6.7 Annual average rates of change for production volume, real prices and real value of agricultural products in Greece from "1981" to "1990", in % terms

	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	0.4	2.3	2.2	1.6	0.4	-3.1	0.4	-0.8	0.9	-0.9	2.6	0.9
Cereals	-4.7	5.7	4.0	1.6	-0.5	-5.9	-1.5	-2.6	-5.2	-0.5	2.5	-1.1
Textile plants	9.8	12.3	1.8	7.9	6.6	-9.1	-0.4	-0.2	17.1	2.0	1.4	7.7
Fresh vegetables	1.6	-0.2	1.5	1.0	3.9	-2.2	1.3	1.0	5.6	-2.4	2.8	1.9
Fresh fruit	1.9	-3.5	-1.1	-0.9	-1.7	0.0	-2.2	-1.3	0.1	-3.4	-3.3	-2.2
Olive oil	-2.3	2.7	-0.4	0.0	1.5	-1.8	5.0	1.5	-0.8	0.8	4.6	1.5
Final animal output	-0.7	1.2	-0.1	0.2	-1.2	-1.8	-3.2	-2.1	-1.9	-0.7	-3.3	-1.9
Sheep and goats	1.1	3.9	1.5	2.2	-4.1	-3.3	-7.4	-4.7	-3.0	0.5	-6.0	-2.6
Milk	0.4	-0.6	-0.3	-0.3	0.5	0.3	0.1	0.5	0.9	-0.3	-0.2	0.2
Final output	0.0	1.9	1.5	1.2	-0.1	-2.7	-0.7	-1.2	-0.1	-0.8	0.8	0.0
Intermediate consumption	2.1	0.1	3.1	1.8	-0.6	-1.6	-0.9	-1.0	1.5	-1.5	2.2	0.8
Gross value added at m.p.	-0.6	2.5	1.1	1.0	0.0	-3.0	-0.7	-1.2	-0.5	-0.6	0.4	-0.3
Subsidies									4.4	6.3	11.5	7.4
Taxes linked to production									-0.8	-15.7	-49.2	-24.8
Depreciation									2.6	1.8	-0.9	1.2
Net value added at f.c.									-0.4	0.1	2.0	0.6
Interest									8.0	1.4	2.5	3.9
Rent									8.6	-3.9	-6.0	-0.6
Net income of total labour									-1.2	0.3	4.6	0.5
Compensation of employees									-3.0	-2.0	-1.2	-2.1
Net income of family labour									-1.1	0.5	2.6	0.6

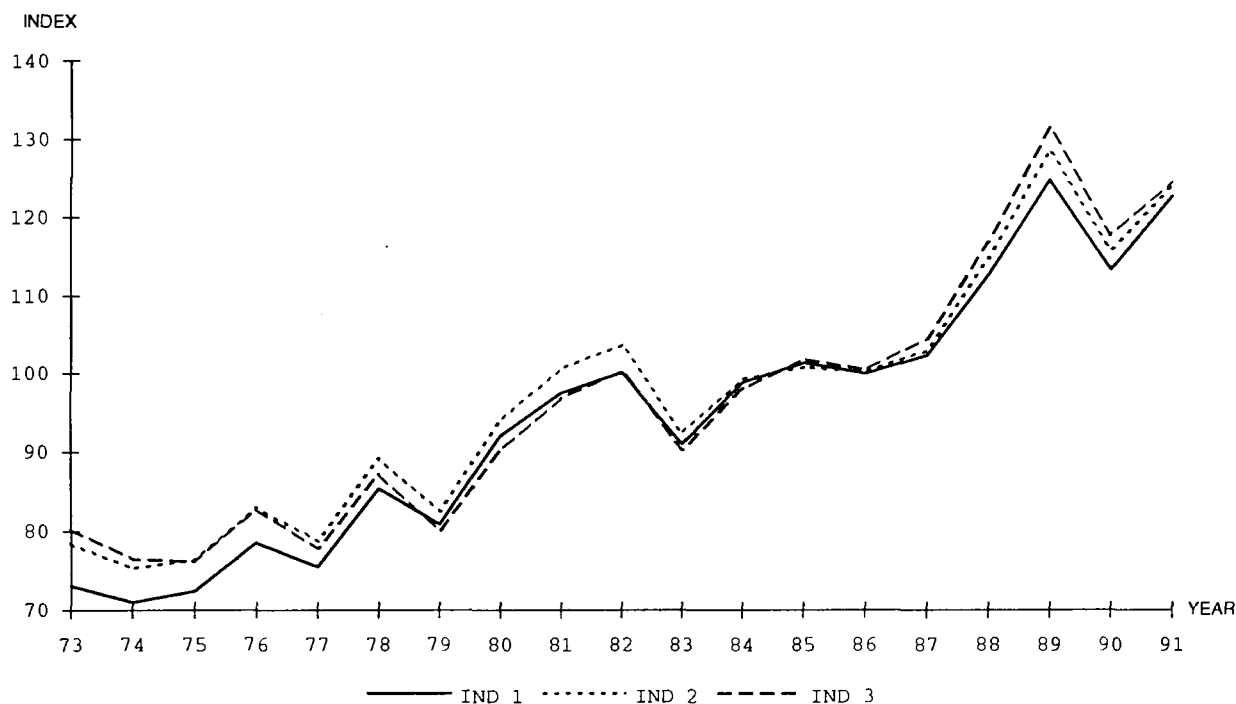
NB: SSP1 = "1981"/"1984" SSP2 = "1984"/"1987" SSP3 = "1987"/"1990" P = "1981"/"1990"

Sheep and goat production grew by an annual rate of +2.2% between "1981" and "1990". This rate of growth must be seen in the light of the continuous increase in consumption and of the common organisation of the market in these products, as the system of ewe premiums favoured growth in the sector. The restrictive policy of institutional prices failed to cap production in the period from "1987" to "1990", when it grew by +1.5% per annum (+3.9% per annum from "1984" to "1987"). Milk production volume was almost unchanged over the period (-0.3% per annum), as were real prices (+0.5% per annum).

The use of intermediate consumption grew at a relatively fast rate (an annual average of +1.8%) although in terms of absolute value it was particularly low (about 23% of the value of final production). This was due mainly to the large proportion of final agricultural production accounted for by crops and to the fact that agricultural production in Greece is less intensive than in the other Member States. The "price scissors" and the productivity of intermediate consumption slightly declined over the 12-year period. The lower level of intensive production is reflected in capital utilization. The level of depreciation is much lower than in the Community as a whole (4.5% of total production, compared with 13% for the Community) and increased only slightly in the period under review (+1.2% per annum). Subsidies, which started from a relatively high base, rose by +7.4% per year, although taxes on production fell sharply in real terms (-24.8%) and are now practically non-existent. Net agricultural income, the basis for Indicator 2, represents nearly 70% of total

product (compared with 39% for EUR 12) and is therefore less susceptible to variations in price and production volumes.

Graph 6.5 Development of the three indicators of agricultural income in Greece between 1973 and 1991, with "1985" = 100.



Indicators 2 and 3 of agricultural income, which take account of interest (+3.9%), rent (-0.6%) and compensation of employees (-2.1%) rose broadly in line with Indicator 1 (+2.3% and +2.9% per annum respectively).

6.6 Spain

During the period under review, Spain recorded a higher increase in agricultural income, when measured by Indicator 1, than any other Member State; agricultural income rose by + 4.6% per annum, and by + 5.3% per annum from "1987" to "1990". Agricultural income in Spain displays a different trend to that in the other Member States. This is because of Spain's recent accession to the Community (1986) and its specific types of agricultural production. The surge in income per AWU, reflects a relatively minor fall in real net value added (- 0.4% per annum on average), being more than offset by the considerable reduction in the agricultural labour input (- 4.8% per annum, this being the highest rate in EUR 12).

A feature of Spanish agriculture is the dominance of crop production, which represents about 57% of the value of final agricultural production. The main agricultural products are fresh fruit and vegetables, cereals, pigs and, to a lesser extent, milk and cattle.

The wave of modernization in Spain has had two effects: firstly, a major increase in the volume of production (+ 2.0% per annum on average, one of the highest in EUR 12), accompanied by a decline in real producer prices which was less severe (- 2.6%) than in other Member States; and secondly, higher costs

resulting from more intensive use of intermediate consumption (+ 2.0% per year in volume, one of the highest rates in EUR 12) and of fixed capital.

Fresh vegetable volume increased continually during the period "1981"/"1990", at an annual average of + 3.0%, thanks to increases in the area under cultivation and rising yields. Real prices were fairly stable over the medium term (- 0.5% per annum), despite major annual fluctuations. The volume of fresh fruit production⁽¹⁾ also increased, with wide fluctuations giving way to solid growth towards the end of the decade (+ 4.5% from "1981" to "1990"). Higher production resulting from larger areas under cultivation and greater yields, translated into a rise in exports whilst domestic consumption plummeted by - 5% per annum on average. Real prices varied with production, most notably in 1981, 1986 and 1989, and declined by an annual average of -4.6% over the period as a whole.

Table 6.8 Annual average rates of change for production volume, real prices and real value of agricultural products in Spain, from "1981" to "1990", in % terms

	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	5.2	2.8	0.7	2.9	-1.2	-3.2	-2.3	-2.3	4.0	-0.5	-1.7	0.6
Cereals	16.5	2.1	-4.4	4.4	-0.6	-4.4	-6.3	-3.8	15.8	-2.4	-10.5	0.4
Fresh vegetables	2.8	2.1	4.3	3.0	-3.2	1.5	0.4	-0.5	-0.5	3.6	4.7	2.6
Fresh fruit	3.0	2.8	7.8	4.5	-2.9	-1.0	-10.0	-4.6	-0.1	1.8	-3.0	-0.3
Final animal output	0.6	1.3	1.0	1.0	-0.2	-4.8	-4.4	-3.2	0.4	-3.6	-3.5	-2.2
Cattle	-3.0	1.7	-0.3	-0.5	1.2	-3.4	-2.5	-1.6	-1.9	-1.8	-2.8	-2.1
Pigs	3.5	2.3	5.4	3.7	0.3	-6.5	-4.8	-3.7	3.8	-4.4	0.4	-0.1
Milk	2.1	-1.2	0.0	0.3	-0.9	-3.2	-3.2	-2.4	1.2	-4.3	-3.3	-2.1
Final output	2.9	2.2	0.9	2.0	-0.7	-3.8	-3.1	-2.6	2.3	-1.7	-2.3	-0.6
Intermediate consumption	2.1	2.1	1.6	2.0	1.9	-4.6	-4.4	-2.4	4.1	-2.6	-2.9	-0.5
Gross value added at m.p.	3.6	2.3	1.2	2.3	-2.7	-3.2	-2.9	-2.9	0.9	-1.0	-1.8	-0.7
Subsidies									3.9	8.0	33.6	14.4
Taxes linked to production									10.6	8.9	14.1	11.2
Depreciation									5.0	3.5	-4.0	1.4
Net value added at f.c.									0.3	-1.5	0.0	-0.4
Interest									2.7	-2.7	7.7	2.5
Rent									-3.6	-0.1	1.3	-0.8
Net income of total labour									0.3	-1.5	-1.2	-0.8
Compensation of employees									-4.6	-4.2	-0.5	-3.1
Net income of family labour									2.2	-0.6	-1.4	0.1

NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

Cereal production increased by + 4.4% per annum over the period. However, this figure does conceal a progressive decline over the decade and major annual variations brought about by very wide fluctuations in the area under cultivation. Following slight falls in the period to 1986, real prices rose steeply, giving an average annual decline of - 3.8% over the period "1981"/"1990", which was in line with other cereal markets in the Community.

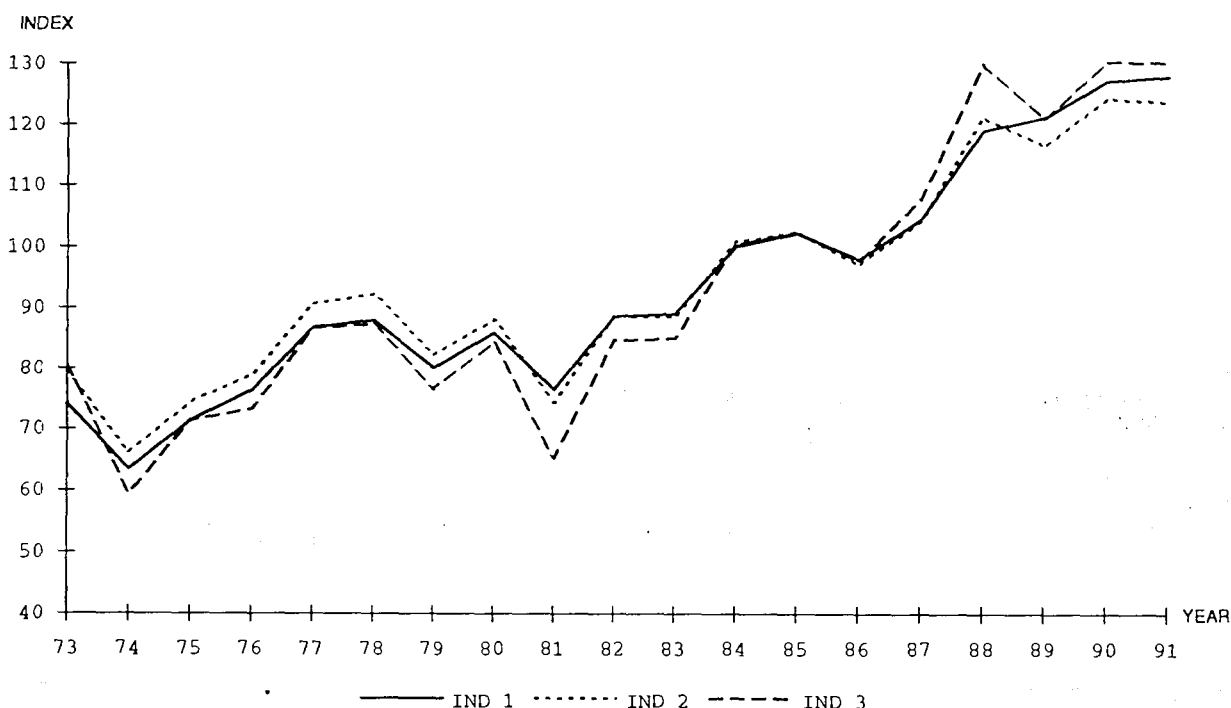
Pig production experienced sustained growth (+ 3.7% per annum), particularly during the period "1987"/"1990" (+ 5.4% per annum). This has to be seen in the context of a major increase in pork consumption in Spain (+4% per annum between 1983 and 1990). Real prices held their ground in the first half of the decade, only to plummet in the second half (- 5.6% in the period "1984"/"1990"). The swine fever crisis, which affected all of Europe, combined with sustained levels of domestic production, appears to have depressed prices. Milk production rose by + 0.3% in volume terms over the reference period, although the

(1) Including citrus fruits and table grapes.

increases were concentrated in the period from "1981" to "1984" (+ 2.1% per annum) before Spain's exposure to overproduction in the Community and the introduction of the common milk policy put a brake on growth in the sector. Real prices declined in the period as a whole (- 2.4%), despite a slight recovery in 1989.

Following Spain's accession to the Community, subsidies paid to Spanish agriculture rocketed (+ 33.6% from "1987" to "1990"), although they remained low compared with those paid in other Member States. The subsidies were paid either for specific products (sheep and goats, and olive oil) or as part of aid programmes for mountain farming and other less favoured areas. The low rate of taxation on agricultural production should also be borne in mind, since this remained less than 0.5% of the value of final agricultural production.

Graph 6.6 Development of the three indicators of agricultural income in Spain between 1973 and 1991, with "1985" = 100.



The growing share of depreciation in final production reflects the drive towards more capital-intensive agriculture, despite some decline at the end of the period.

Interest payments rose by + 2.5% per annum in real terms, which would seem to indicate more intensive agriculture. With rent payments being relatively stable (- 0.8% per annum), Indicator 2 rose by + 4.2% per annum. These changes, plus the decline in the compensation of employees (- 3.1% per annum), were such that Indicator 3 rose by + 5.5% per annum.

6.7 France

Agricultural income, as measured by Indicator 1, rose on average by +1.7% per year from "1981" to "1990" in France (this rate being very close to that of EUR 12). It underwent a period of growth from 1980 to 1982 (+10.6% per year) to reach a level which more or less stayed the same in 1983 and 1984, since the upswing

which most Community states experienced in 1984 did not take place in France. Nevertheless, the levelling out of income in the Community from "1984" to "1987" did not spare France (0.0% per year), and the country did not profit from the renewed rise in income until 1989. Income levels went up by +3.7% from "1987" to "1990" to be followed by a severe fall in 1991 (the biggest for 15 years).

Table 6.9 Annual average rates of change for production volume, real prices and real value of agricultural products in France from "1981" to "1990", in % terms

	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	3.4	3.0	1.9	2.8	-2.5	-4.6	-0.8	-2.6	0.8	-1.7	1.1	0.1
Cereals	5.8	0.1	3.9	3.2	-4.0	-4.8	-3.8	-4.2	1.5	-4.7	-0.1	-1.1
Oil seeds	15.7	24.5	0.5	13.2	0.1	-9.1	-5.6	-4.9	15.9	13.2	-5.1	7.6
Fresh vegetables	1.4	0.5	0.4	0.8	0.7	-4.4	-1.1	-1.6	2.0	-3.9	-0.6	-0.8
Wine	2.4	3.4	-0.9	1.6	-4.7	-2.3	6.2	-0.4	-2.4	1.1	5.3	1.3
Final animal output	0.5	-0.4	0.7	0.2	-1.6	-4.0	-1.8	-2.5	-1.1	-4.4	-1.1	-2.2
Cattle	0.8	-1.9	0.7	-0.1	-2.2	-3.8	-1.5	-2.5	-1.4	-5.6	-0.8	-2.6
Pigs	0.0	2.4	2.5	1.6	-2.4	-8.2	0.8	-3.4	-2.5	-6.0	3.3	-1.8
Milk	0.6	-1.2	-1.5	-0.7	-0.9	-1.8	-1.2	-1.3	-0.3	-3.0	-2.7	-2.0
Final output	2.0	1.3	1.4	1.5	-2.0	-4.3	-1.3	-2.5	-0.1	-3.1	0.1	-1.0
Intermediate consumption	0.8	1.7	2.6	1.7	0.0	-4.4	-1.6	-2.0	0.8	-2.8	0.9	-0.4
Gross value added at m.p.	3.1	0.9	0.3	1.4	-3.7	-4.2	-0.9	-3.0	-0.8	-3.3	-0.6	-1.6
Subsidies									-2.1	9.5	3.4	3.5
Taxes linked to production									5.2	4.2	-2.4	2.3
Depreciation									0.2	-1.5	-0.5	-0.6
Net value added at f.c.									-1.4	-3.5	-0.1	-1.7
Interest									6.9	-2.9	-3.3	0.1
Rent									-3.0	-4.0	-2.8	-3.3
Net income of total labour									-2.0	-3.5	0.4	-1.7
Compensation of employees									0.1	-1.2	-0.2	-0.4
Net income of family labour									-2.6	-4.1	0.6	-2.0

NB: SSP1 = "1981"/"1984" SSP2 = "1984"/"1987" SSP3 = "1987"/"1990" P = "1981"/"1990"

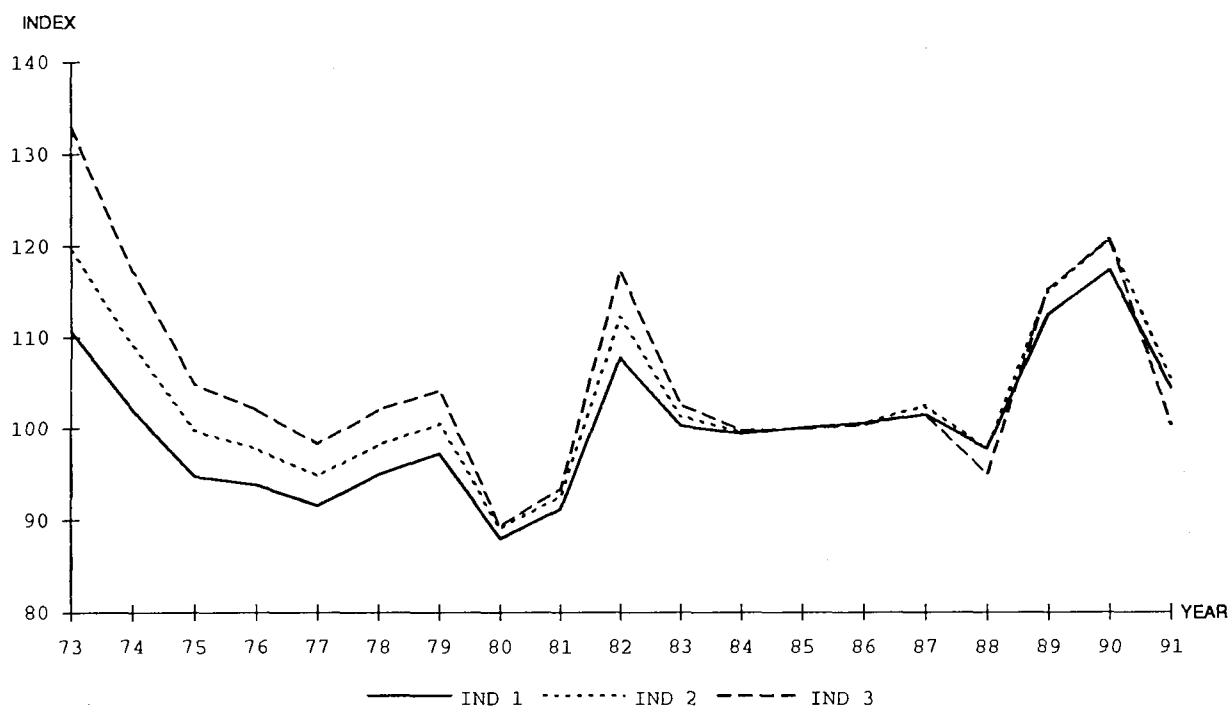
The main products are cereals, wine, milk and cattle, which make up rather more than 60% of total French agricultural production. Crop production (slightly more than 50%) expanded greatly in volume during the reference period (+2.8% as an annual average). This virtually continuous development was mainly the result, from "1981" to "1984", of cereal production (wheat and maize) and oilseeds plants which increased by +5.8% and +15.7% respectively per year (the gradual reduction in production area devoted to cereals being offset by the rise in yields, +4.1% and +3.3% per year for wheat and maize). During "1984" to "1987", whereas the volume of cereal production stabilized (+0.1%), there was a record growth rate for oilseeds (+24.5%). The upswing in cereal production from "1987" to "1990" was accompanied by a stabilization in oilseeds production following a more restrictive Community policy and more difficult climatic conditions. The real prices of cereals declined by -4.2% per annum on average over the entire period. This reflects the situation on French cereal markets, which were oversupplied for the whole decade, and the reduction in Community support measures. The same factors also brought about a deterioration in the real prices of oilseeds from "1984" to "1990" (-7.4%).

The volume of wine production rose by +1.6% per year from "1981" to "1990", despite major annual fluctuations due to the weather and a -2.0% decrease in planted area which was, however, offset by better yields. The real price of wine fell by -0.4% per year from "1981" to "1990".

Animal production volume remained fairly constant over the entire period (+0.2% per year). A fall in this volume was avoided by the steady progression of pork production from "1984" to "1990" (+2.4% per year).

In fact, the volume of cattle production declined (-0.6% per year) from "1984" to "1990", as did milk production (-1.4%) following the introduction of quotas. These falls followed a slight rise in the volume of production in the cattle (+0.8%) and milk sectors (+0.6%) from "1981" to "1984". As in all other European countries, the imbalance between supply and demand affected the domestic prices of animal production. Real prices fell on an annual average, by -2.5% between "1981" and "1990" for cattle, by -1.3% for milk and by -3.4% for pigs. The introduction of milk quotas in 1984 enabled the French market to recover in 1988 and 1989, given a certain upswing in real producer prices of milk and beef, although it could not prevent a fall in real prices from "1987" to "1990".

Graph 6.7 Development of the three indicators of agricultural income in France between 1973 and 1991, with "1985" = 100.



The share of the main costs in final production is similar to that in the Community by reason of the share of French agriculture in the Community agricultural sector and the great variety of French agricultural production which reflects the diversity of Community agriculture.

Nevertheless, it is apparent that the share of animal feedingstuffs in intermediate consumption is the lowest in EUR 12, whereas the charges directly connected with crop production represent around 35% of intermediate consumption as compared with 24% for EUR 12. This might reflect the large proportion of feedingstuffs which comes directly from the agricultural holdings. The volume increase in intermediate consumption (+1.7% per year) was higher than the Community average and that of French production volume. The slight decline in productivity of intermediate consumption (-0.2% per year) was combined with a decline in the price scissors (-0.5% per year). The level of taxes linked to production (the highest in EUR 12) was higher than the amount of subsidies, although these taxes went up only +2.3% per annum in real terms as opposed to +3.5% for the subsidies. The development of depreciation and interest, whose share in total production, at 9% and 4% respectively, is slightly lower than in the rest of the Community, would seem to point to a reduction in capital intensity. Thus, while depreciation fell by -0.6% per year, interest stabilized at an annual rate of change of +0.1%.

The agricultural labour input has persistently reduced in number (-3.4% per year), which allowed agricultural income, expressed in AWU, to rise slightly despite the fall in real net value added at factor cost (-1.7%). Indicators 2 and 3, which take interest charges, rent and compensation of employees into account, underwent a similar development to indicator 1 (+1.7% and 1.3% per year respectively).

6.8 Ireland

Agricultural income in Ireland, as measured by Indicator 1, rose substantially but unevenly between "1981" and "1990" (+4.0% per year, the second best result in the Community), but did not recover to the levels reached just after accession to the European Community. The trend in agricultural income in Ireland is fairly similar to the Community average but with more marked fluctuations (steep declines in 1985, 1986 and 1991 and sharp increases in 1982, 1984, 1987 and 1988).

This development in agricultural income is the result of the trend in final production volume, which increased at an annual average rate of +2.6% (the highest in the Community). This rise in production occurred together with increased intermediate consumption (+2.0% per year in volume, which is lower than the result for the previous decade), although its share of total production (about 40%) was fairly small, considering the predominance of animal production.

Table 6.10 Annual average rates of change for production volume, real prices and real value of agricultural products in Ireland from "1981" to "1990", in % terms

	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	1.3	-2.6	4.6	1.0	-4.3	-4.4	-1.2	-3.3	-3.0	-6.9	3.3	-2.3
Final animal output	4.7	1.1	2.7	2.8	-3.8	-2.9	-2.0	-2.9	0.8	-1.8	0.6	-0.1
Cattle	4.6	2.2	3.1	3.3	-3.5	-3.3	-2.9	-3.2	0.9	-1.1	0.1	0.0
Pigs	-0.7	0.1	4.7	1.3	-6.2	-9.1	0.6	-5.0	-6.8	-9.0	5.2	-3.7
Sheep and goats	6.3	8.1	15.5	9.9	-6.3	-3.7	-12.2	-7.4	-0.4	4.1	1.5	1.7
Milk	5.8	-1.3	-0.7	1.2	-3.2	-0.6	0.6	-1.1	2.4	-1.8	-0.1	0.2
Final output	4.3	0.7	2.9	2.6	-3.9	-3.1	-1.9	-3.0	0.2	-2.5	1.0	-0.4
Intermediate consumption	2.2	1.6	2.1	2.0	-2.3	-5.6	-1.3	-3.0	-0.2	-4.0	0.8	-1.1
Gross value added at m.p.	6.2	-0.2	3.7	3.2	-5.4	-1.0	-2.5	-3.0	0.5	-1.2	1.1	0.1
Subsidies									15.9	4.1	16.0	11.8
Taxes linked to production									-20.3	9.8	-4.3	-5.7
Depreciation									-2.2	-2.0	2.0	-0.8
Net value added at f.c.									3.4	-0.8	3.2	1.9
Interest									-9.4	-11.2	5.9	-5.2
Rent									-6.3	-6.0	-4.1	-5.4
Net income of total labour									7.0	1.0	2.8	3.6
Compensation of employees									-3.2	2.0	1.6	0.1
Net income of family labour									8.3	0.9	2.9	4.0

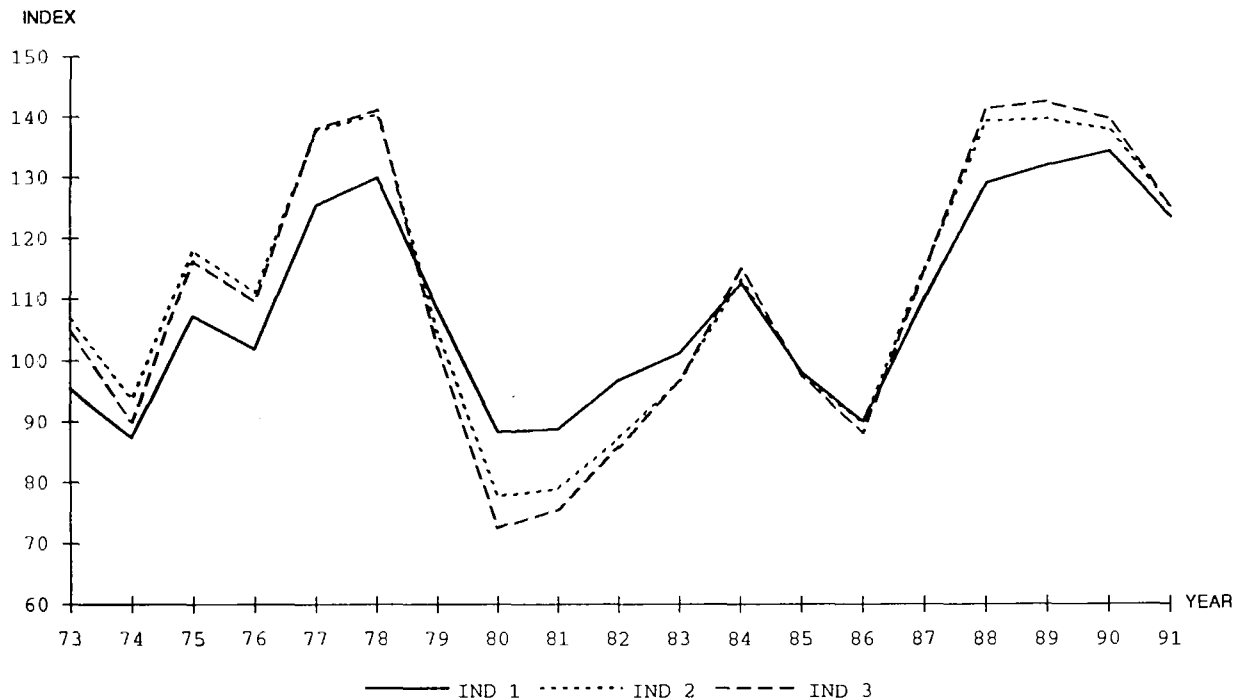
NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

The trend in the volume of agricultural production largely follows that of animal production, which accounts for over 85% of the total and increased by an annual average of +2.8%. Crop production had an uneven development; -2.6% from "1984" to "1987" and +4.6% per year from "1987" to "1990" (largely due to fresh vegetables).

Real prices for agricultural products fell by an annual average of -3.0%. This is the same as the Community average and represents a break with the previous period in which Ireland had benefited from the Irish pound

being undervalued (a situation which ended with Ireland's entry into the European Monetary System). Nevertheless, the drop in real prices for intermediate consumption (-3.0%) led to a stabilization of the "price scissors" (+0.0% as an annual average).

Graph 6.8 Development of the three indicators of agricultural income in Ireland between 1973 and 1991, with "1985" = 100.



The main products are cattle and milk, which grew considerably in volume from "1981" to "1984" (+4.6% and +5.8% per year respectively). Following the introduction of milk quotas, milk production declined before becoming stabilized in 1989 and 1990; an annual reduction rate of -1.0% was recorded between "1984" and "1990". In spite of the impact of milk quotas on beef production, it has continued to increase at an annual rate of +2.6% from "1984" to "1990" in Ireland. The real price of cattle fell until 1988, then recovered in 1988 and 1989 before falling again in 1990 and 1991, resulting in a decline of -3.2% for the whole period. Real milk prices followed a similar trend but the very substantial increase which occurred in 1988 and 1989, allowed the downward impact on prices, caused by markets with a structural surplus, to be partly offset (-3.2% per annum from "1981" to "1984" and 0.0% from "1984" to "1990").

The volume of pig production increased at an annual rate of +1.3%, in spite of a sharp decline in 1984 and 1985. Despite the rise in 1989, real producer prices fell during the whole period (-5.0% per year). The volume of sheep and goat production rose considerably (by +9.9% per year) in spite of a steep decline in real prices (-7.4% per year).

Agricultural incomes recovered on the basis of more moderate intensification (intermediate consumption and capital), after falling considerably between 1979 and 1981 in the wake of the decline in prices of agricultural products, the high costs of a period of intensification (especially interest costs) and the loss of the advantages derived from currency devaluation.

This relative decline in the use of factors, combined with the increase in production volume and a sharp increase in subsidies (+11.8% per year) led to growth in real net value added at an average annual rate of

+1.9%. The reduction in the agricultural labour input, which had been large-scale in the 1970s, slowed down to an annual rate of -2.0% for the total labour input (-2.2% per annum for family labour input) which is one of the lowest rates in EUR 12. The fall in real interest charges, rents and compensation of employees (-5.2%, -5.4% and -0.1% per year respectively) led to a sharp increase in Indicators 2 and 3 (+5.7% and +6.3% per year).

6.9 Italy

Italy is the country in the Community which recorded the steepest fall in agricultural income over the period "1981"/"1990". As measured by Indicator 1, income fell by an annual average of -1.2%. While the other Member States profited from an upswing in income in 1984 and 1988, the situation in Italy deteriorated continually, the exceptional rises in 1989 and 1991 not being sufficient to brake this trend. The impact of the fall of agricultural production real values (-3.4% per annum on average) on income was slightly attenuated by the reduction in real cost of intermediate consumption (-3.6% per year). Nevertheless, the higher depreciation costs (which represented an important and probably over-estimated share of around 21% of total production in "1990") of +1.6% contributed to the fall in net value added in real terms by -4.0% per annum on average. This decline became more marked in the period "1984"/"1990", when the annual average rate of reduction was -4.5%.

Table 6.11 Annual average rates of change for production volume, real prices and real value of agricultural products in Italy from "1981" to "1990", in % terms

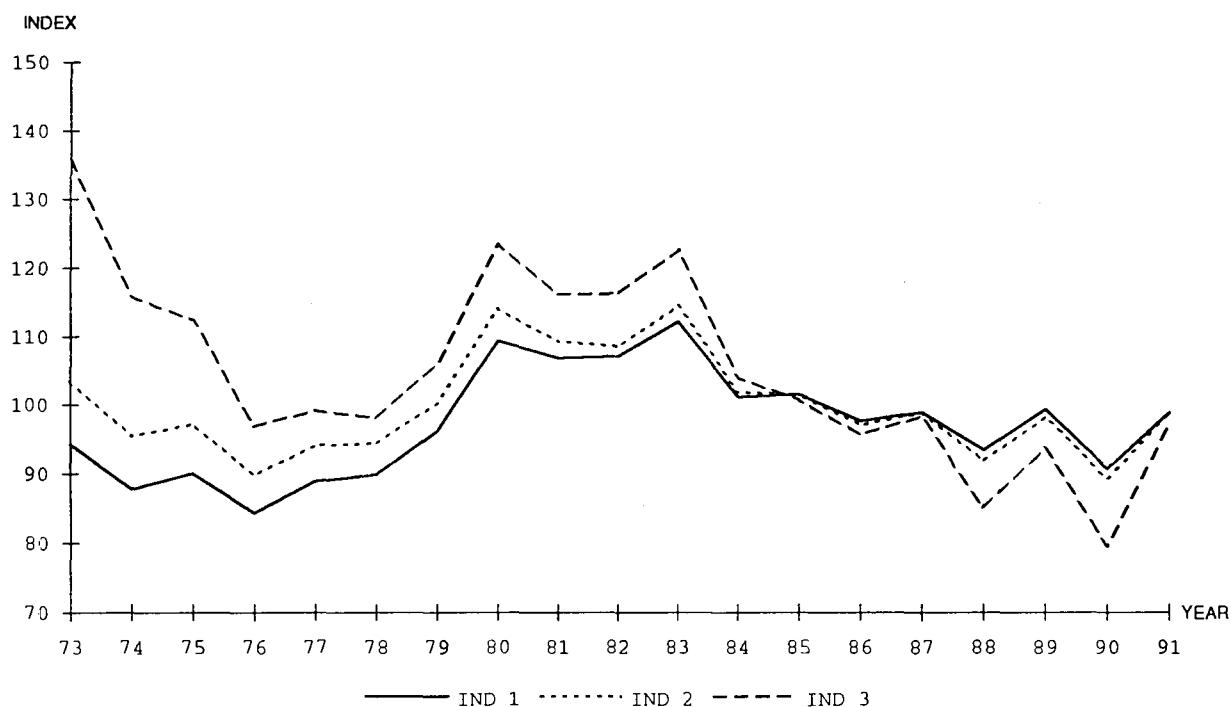
	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	1.2	2.0	-0.2	1.0	-3.6	-4.9	-3.2	-3.9	-2.4	-3.0	-3.5	-3.0
Cereals	3.4	2.8	-1.8	1.4	-5.4	-6.8	-6.7	-6.3	-2.2	-4.2	-8.4	-5.0
Fresh vegetables	0.4	-0.2	-0.3	0.0	-2.4	-4.4	-2.0	-3.0	-2.0	-4.5	-2.3	-3.0
Fresh fruit	-1.0	2.1	3.4	1.5	-4.3	-3.7	-4.9	-4.3	-5.3	-1.7	-1.7	-2.9
Wine	-2.3	-0.4	-6.1	-3.0	-2.8	-0.8	4.8	0.3	-5.1	-1.3	-1.5	-2.6
Final animal output	0.7	-0.2	0.1	0.2	-3.7	-5.6	-3.8	-4.4	-3.1	-5.8	-3.7	-4.2
Cattle	0.4	-1.4	-1.3	-0.8	-4.9	-5.7	-3.6	-4.7	-4.5	-7.0	-4.8	-5.5
Milk	0.9	-0.1	-1.0	-0.1	-2.1	-3.6	-2.9	-2.9	-1.2	-3.7	-3.9	-2.9
Final output	1.0	1.2	-0.1	0.7	-3.6	-5.1	-3.4	-4.0	-2.6	-4.0	-3.5	-3.4
Intermediate consumption	0.5	2.1	0.6	1.1	-2.6	-7.2	-3.9	-4.6	-2.1	-5.3	-3.3	-3.6
Gross value added at m.p.	1.2	0.8	-0.4	0.5	-4.0	-4.2	-3.2	-3.8	-2.9	-3.5	-3.5	-3.3
Subsidies									7.2	-2.9	6.9	3.6
Taxes linked to production									3.9	7.8	4.3	5.3
Depreciation									1.7	1.8	1.4	1.6
Net value added at f.c.									-3.1	-5.0	-4.0	-4.0
Interest									3.5	-0.7	-3.3	-0.2
Rent									-11.5	-4.3	-3.3	-6.4
Net income of total labour									-3.6	-5.5	-4.0	-4.4
Compensation of employees									-2.2	-2.5	-0.9	-1.8
Net income of family labour									-4.5	-7.4	-6.4	-6.1

NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

The small increase in production volume (+0.7% per year) and the clear fall in real producer prices (-4.0% per year) during the period "1981"/"1990" (which was marked by a certain upwards movement of the Italian lire, unlike the period 1975/80) were partially offset by the severe fall in the real prices of intermediate consumption (-4.6% per year), which led to an improvement in the price scissors (+0.6%). At the same time, there was a slight decline in the productivity of intermediate consumption (-0.4%). The reduction of the agricultural labour input, although less marked than that in the other Member States, was still regular

from "1981" to "1990" (-2.8%) and thus cushioned the impact of the lower NVA. Subsidies also moved upwards in real terms (+3.6%) to make up almost 10% of production value in "1990", while the level of taxes linked to production remained very low.

Graph 6.9 Development of the three indicators of agricultural income in Italy between 1973 and 1991, with "1985" = 100.



The cost of intermediate consumption was only 29% of the value of final production, which indicates the importance of crop production in Italian agriculture. The main items in the latter category are fresh vegetables, fresh fruits, cereals and wine, with the main animal production items being milk and cattle.

Fresh vegetable volume remained constant during the period (0.0%), despite certain annual variations due mainly to climatic conditions. Real prices fell by -3.0% per year. The rates of change for real wine prices regularly improved over the entire period (+0.3% per annum on average), despite two major falls in 1984 and 1987 which followed two excellent harvests. Wine production volume fell markedly (-3.0% per year), in connection with a significant decline in the area under cultivation. The real price of fresh fruit⁽¹⁾ fell sharply (-4.3%), whereas production went up by +1.5% in volume from "1981" to "1990".

Cereal production volume increased by +3.1% per year between "1981" and "1987", with the exceptional harvest in 1984 being a special feature. It then declined by -1.8% per year; this resulted from a smaller area under production for soft wheat and maize, and difficult climatic conditions. Real prices fell by -6.3% on an annual average over the entire period, due to a stricter Community policy and unfavourable market conditions.

Animal production volume remained virtually level from "1981" to "1990" with a movement of +0.2% per year, resulting from expanded poultry and pig production on the one hand, and a decline in milk and cattle production on the other (-0.1% and -0.8% annually).

(1) Including citrus fruit and table grapes.

This recession started in 1984 and 1985 with the introduction of milk quotas which brought about an almost constant fall in production (-0.6% and -1.4% per year from "1984" to "1990" respectively).

The annual falls in real interest charges (-0.2%), rents (-6.4%, but this item is of little importance) and compensation of employees (-1.8%, the part of this item in NVA at factor cost being around one third, which is the highest level in EUR 12) caused Indicators 2 and 3 to fall by -1.6% and -3.0% respectively per annum on average.

6.10 Luxembourg

Agricultural income, as measured by Indicator 1, had a special development in Luxembourg during the period "1981"/"1990" since there was an almost continuous rise (+3.2% per year) despite the lowest rate of increase of production volume in the Community (+0.2% per year). The fluctuations in agricultural income, when measured by Indicator 1, do not follow the three distinct phases identifiable in the other Member States, since income progressed steadily over the whole of the period under review despite a decline in 1983, which followed an exceptional 1982, and in 1990 and 1991. The levelling off in production went hand in hand with greater use of intermediate consumption (+2.2% in volume), thus marking a break with the preceding ten years.

Table 6.12 Annual average rates of change for production volume, real prices and real value of agricultural products in Luxembourg from "1981" to "1990", in % terms

	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	-1.6	3.0	1.4	0.9	-2.7	-2.1	-3.6	-2.8	-4.3	0.8	-2.3	-2.0
Wine	3.2	0.1	1.7	1.7	-9.3	0.8	-1.5	-3.4	-6.3	1.0	0.2	-1.8
Final animal output	1.9	-0.6	-0.9	0.1	0.7	-1.6	-0.6	-0.5	2.6	-2.1	-1.5	-0.4
Cattle	0.5	-0.6	-0.1	-0.1	0.1	-4.7	-2.6	-2.4	0.6	-5.3	-2.7	-2.5
Pigs	3.1	2.1	1.3	2.1	-2.6	-8.1	0.3	-3.5	0.4	-6.2	1.6	-1.5
Milk	2.9	-1.1	-2.0	-0.1	2.2	1.7	0.6	1.5	5.1	0.6	-1.4	1.4
Final output	1.2	0.0	-0.5	0.2	0.0	-1.7	-1.2	-1.0	1.2	-1.6	-1.8	-0.7
Intermediate consumption	2.7	1.3	2.5	2.2	0.3	-4.3	-2.1	-2.1	3.0	-3.0	0.4	0.1
Gross value added at m.p.	0.2	-0.8	-2.8	-1.1	-0.2	0.1	-0.4	-0.2	0.0	-0.7	-3.2	-1.3
Subsidies									1.8	2.3	23.0	8.6
Taxes linked to production									7.6	11.6	-3.3	5.1
Depreciation									-0.9	2.6	4.3	2.0
Net value added at f.c.									0.3	-1.5	-1.2	-0.8
Interest									2.9	0.3	8.5	3.8
Rent									-0.1	2.0	-0.8	0.4
Net income of total labour									0.1	-2.0	-2.1	-1.3
Compensation of employees									-0.7	6.7	2.1	2.6
Net income of family labour									0.1	-2.3	-2.3	-1.5

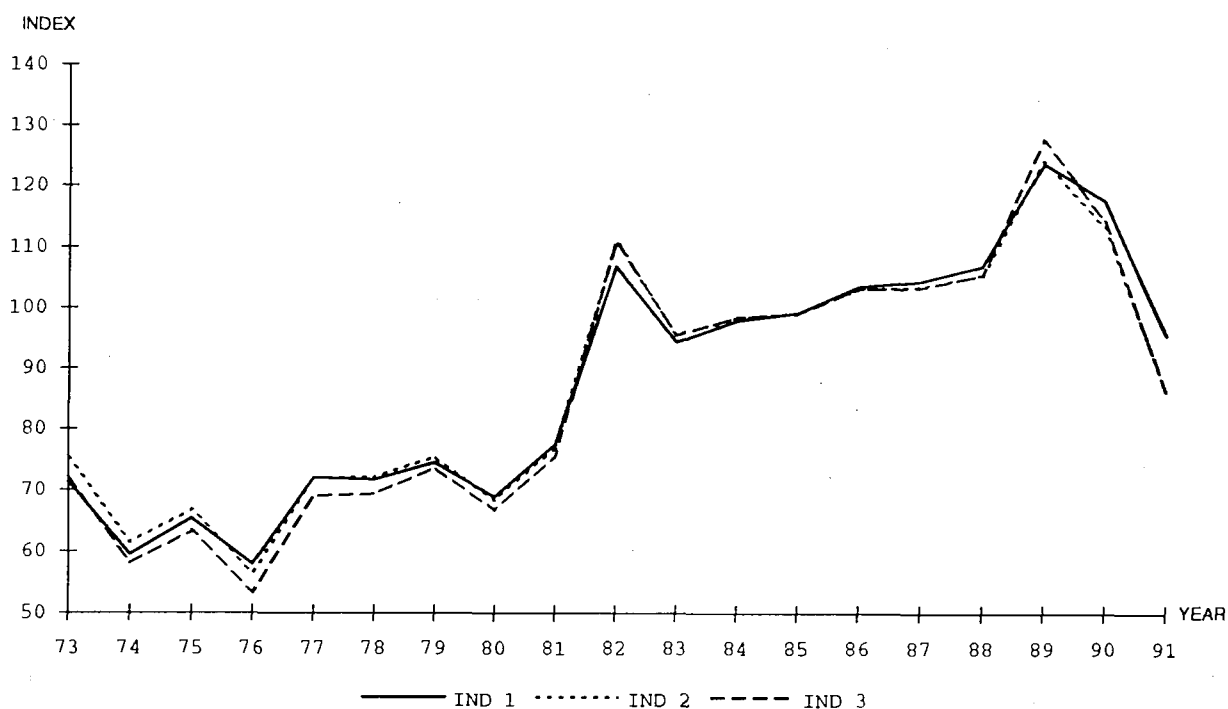
NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

The decline in productivity of intermediate consumption (-2.0% per year) was nevertheless offset by an improvement in the "price scissors" (+1.1% per year). This improvement resulted from the lowest fall, in EUR 12, of agricultural prices in real terms (-1.0%), which took place in the overall perspective of a relative undervaluation of the currency.

Luxembourg agriculture is dominated by animal production, which represents almost 80% of the total. It is constituted by mostly milk and cattle production, while wine-growing accounts for almost 50% of crop production.

Milk production volume developed at an annual rate of +2.9% from "1981" to "1984", then, following the introduction of quotas, fell at an annual rate of -1.6% up to "1990". Despite the crisis which struck milk markets in the other Member States, real prices developed in a positive direction. The volume of beef production stabilized (-0.1% per year from "1981" to "1990") in the general context of livestock reduction although large annual disparities were recorded. Real producer prices fell by an annual average of -2.4% over the period "1981"/"1990". Nevertheless, this fall in real prices had not begun before 1982 and thus the milk crisis only reinforced the existing trend. Pig production volume rose by +2.1% per year over the period "1981"/"1990". Real prices fell severely (by an average -3.5% per year over the period), particularly in 1986, 1987 and 1988.

Graph 6.10 Development of the three indicators of agricultural income in Luxembourg between 1973 and 1991, with "1985" = 100.



The production volume of wine, which was characterized by major fluctuations (+165% in 1982), increased by +1.7% per annum on average. This volume growth in the 1980s was almost completely wiped out by the severe falls of 1990 and 1991, which were caused by unfavourable weather conditions. Real prices declined by -3.4% per year over the period "1981"/"1990".

The total labour input declined considerably over the period (-4.0% per year), only Spain recording a higher rate. This is part of a general tendency for the agricultural input factors to be reduced or to level out (although the general disinvestment of the agricultural branch, which started in the 70s, slowed down somewhat): stagnation in value terms of the use of intermediate consumption (at less than 40% of final production, which is low for a country whose animal production is dominant), reduction of agricultural labour input and a slight increase in the capital factor.

Thus, agricultural income measured by AWU increased considerably. Indicators 2 and 3 have risen by +2.6% and +2.9% per year respectively.

6.11 Netherlands

Agricultural income in the Netherlands, measured by Indicator 1, rose rapidly, at an annual rate of +3.5% from "1981" to "1990". This result (the third best in the Community) and the absolute level of agricultural income (the highest in the Community), may explain the very slight decrease in the agricultural labour input (-0.7% per year, the least in EUR 12) This also reflects diverging trends in the agricultural labour input according to the sector concerned: whilst it increased in the horticultural sector (including fresh fruit and vegetables) which was enjoying expansion, agricultural employment declined in the other agricultural sectors (animal production and field crops).

Table 6.13 Annual average rates of change for production volume, real prices and real value of agricultural products in the Netherlands from "1981" to "1990", in % terms

	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	3.6	4.9	5.6	4.7	-0.1	-3.0	-1.0	-1.4	3.5	1.7	4.6	3.3
Fresh vegetables	3.3	3.7	6.4	4.5	-0.1	-2.0	-0.5	-0.9	3.3	1.6	5.9	3.6
Flowers	6.7	6.9	8.7	7.4	-0.6	-1.7	-5.3	-2.8	6.1	5.0	2.8	4.4
Final animal output	2.6	0.5	0.6	1.2	-1.1	-3.7	-1.3	-2.1	1.4	-3.2	-0.8	-0.9
Cattle	2.3	-0.9	3.8	1.7	-1.9	-2.8	-2.2	-2.3	0.3	-3.7	1.5	-0.6
Pigs	4.6	4.9	0.5	3.3	-2.3	-8.7	2.3	-3.0	2.2	-4.3	2.9	0.2
Milk	1.5	-2.7	-2.1	-1.1	0.3	0.2	-2.4	-0.6	1.7	-2.4	-4.4	-1.7
Final output	2.9	2.0	2.5	2.5	-0.8	-3.4	-1.1	-1.8	2.1	-1.5	1.3	0.6
Intermediate consumption	1.8	0.8	-0.9	0.6	-0.3	-5.1	-1.9	-2.4	1.6	-4.3	-2.8	-1.9
Gross value added at m.p.	4.1	3.4	5.7	4.4	-1.3	-1.8	-0.9	-1.3	2.7	1.5	4.8	3.0
Subsidies									6.0	-2.6	13.8	5.5
Taxes linked to production									6.4	4.6	0.8	3.9
Depreciation									2.5	4.4	5.1	4.0
Net value added at f.c.									2.6	0.7	5.2	2.8
Interest									-5.0	0.5	5.9	0.3
Rent									0.4	3.4	2.1	2.0
Net income of total labour									4.3	0.7	5.2	3.4
Compensation of employees									-0.6	3.8	4.6	2.6
Net income of family labour									5.3	0.0	5.4	3.5

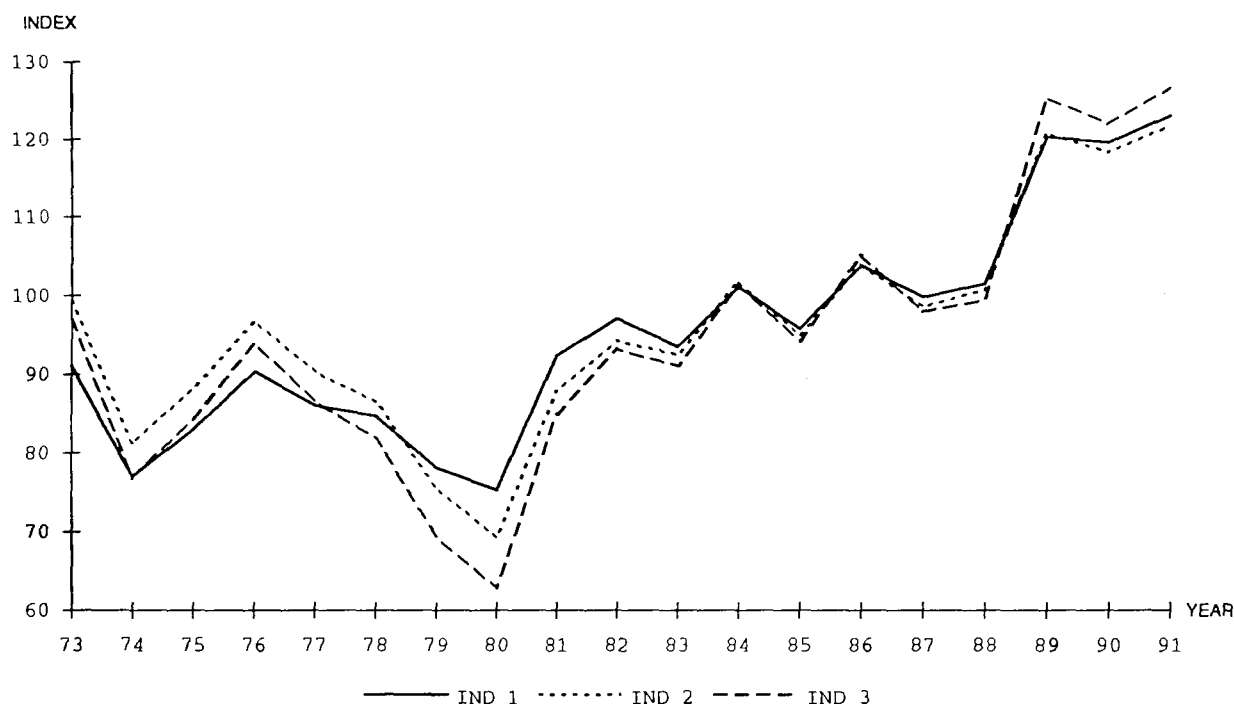
NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

The increase in real net value added (+2.8% per year) is the result of a constant increase in real production value (the most substantial in EUR 12 despite a levelling out from 1985 onwards, and particularly 1987 due in part to milk quotas), which reflects a production volume growing by +2.5% and a more moderate fall in real producer prices (-1.8% as an annual average). The moderate decline in the real prices of agricultural products is due to several factors: a very low inflation rate (the lowest in EUR 12), a large share of production marketed in developing sectors (flowers, etc.) and a less unfavourable trend in real institutional prices than in the other Member States (-2.0% per year compared with -3.3% for EUR 12). The use of intermediate consumption declined in real value (-1.9% per year, which is close to the Community average) and therefore the agricultural branch benefited from improved productivity of intermediate consumption and improved "price scissors" (+1.9% and +0.8% per year respectively).

Agricultural production is dominated by animal production, which represented about 65% of final production in 1985. The main agricultural products are milk, flowers, pigs, cattle and fresh vegetables,

which together constitute about 80% of total production. The volume of milk production fell by an average of -1.1% per year. This decline began in 1984 after the introduction of the new Community policy for the milk sector (-2.4% per year from "1984" to "1990"). Cattle production was also affected by large-scale slaughterings following the decline in milk quotas. This helped to aggravate the situation of this sector's markets. The growth in production volume was +1.7% for the reference period and +1.4% between "1984" and "1990". In spite of a levelling-out of the growth of production volume between "1987" and "1990" (+0.5% per year as against +4.7% between "1981" and "1987"), pig production continued to expand. The structure of the trend in real prices for the main animal products (milk, cattle and pigs) was fairly similar; a slight increase from 1980 to 1982, a decline from 1983 to 1991 as a result of flooded markets and a stricter Community policy, a degree of recovery in 1988 and 1989 (only 1989 for pigs) with the markets benefiting from favourable economic conditions and a relative structural adjustment of production. Over the period "1981"/"1990", the fall in real average prices was -0.6% for milk, -3.0% for pigs and -2.3% for cattle.

Graph 6.11 Development of the three indicators of agricultural income in Netherlands between 1973 and 1991, with "1985" = 100.



Flower production, which plays a major role in the crop sector, increased in volume at an annual rate of +7.4% for the reference period. Real prices of flowers fell regularly so that by the end of the reference period, an annual decrease of -2.8% was recorded. Fresh vegetable production also increased substantially, the growth rate for volume being +4.5%, and a similar acceleration took place during the second half of the decade. Real prices fluctuated greatly but there was a general decline of -0.9% per year for the overall period.

Intermediate consumption increased slightly in volume terms (+0.6%, which is close to the Community average). After increasing unevenly between "1981" and "1984" (+1.8%) it then stabilized (0.0% between "1984" and "1990"). This should be seen in the context of the slight decline in animal production of which the final production share (65% in 1985) fell to 56% in 1991. The decline in real prices of intermediate consumption (-2.4%), though higher than the decline in real prices of products, was slightly lower than the

Community average. The share of final production represented by taxes linked to production is higher than that of subsidies (as in France and Denmark).

There was a considerable increase in the use of capital in the Netherlands as shown by the trend in depreciation in real terms which, with an average annual rate of change of +4.0% from "1981" to "1990", is one of the highest in EUR 12. The limited increase in real interest charges, rents and compensation of employees (+0.3%, +2.0% and +2.6% per year respectively), compared with the increase in gross value added, combined with the sharper reduction in family workers (-1.4%), led to a greater increase in agricultural income Indicators 2 and 3 than for Indicator 1 (+4.1% and +5.0%).

6.12 Portugal

Agricultural income in Portugal as measured by Indicator 1 was fairly stable (+ 0.2% per annum) during the period under review. Following slight improvements from "1981" to "1984" (+ 1.0% per annum), it fell until "1987" (- 1.1%). There was an increase of only +0.8% per annum from "1987" to "1990" (this contrasted with the surge in income recorded for EUR 12), because the rise in 1989 (+16.9%) was mostly offset by the sharp falls in 1988 (- 15.8%) and 1991 (-14.5%). The stability of agricultural income during the reference period reflects the similar trends in real net value added at factor cost (-3.0%) and agricultural labour input (- 3.2%), which balanced each other out over the period as a whole.

Table 6.14 Annual average rates of change for production volume, real prices and real value of agricultural products in Portugal from "1981" to "1990", in % terms

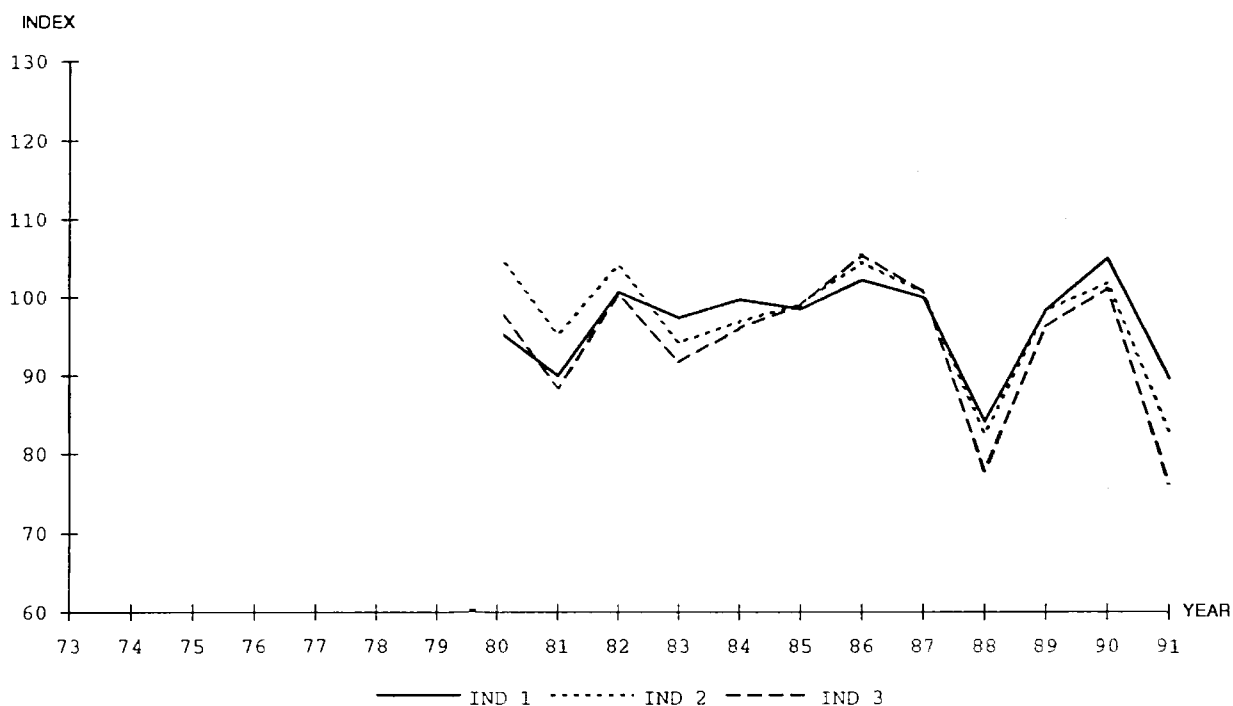
	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	1.4	-0.3	2.6	1.2	-3.8	-3.4	-4.9	-4.0	-2.5	-3.7	-2.4	-2.9
Cereals	1.8	6.9	-2.1	2.1	7.1	-4.4	-10.8	-3.0	9.0	2.2	-12.7	-0.9
Fresh vegetables	5.2	-2.0	2.1	1.7	-5.1	-2.5	5.6	-0.8	-0.2	-4.5	7.8	0.9
Wine	-2.3	-4.8	14.3	2.1	-10.7	-4.4	-9.9	-8.4	-12.8	-9.0	3.0	-6.5
Final animal output	-0.7	3.3	5.3	2.6	2.9	-5.6	-9.7	-4.3	2.2	-2.5	-4.9	-1.8
Cattle	-1.5	2.3	1.5	0.8	4.1	-4.6	-12.3	-4.5	2.5	-2.4	-11.0	-3.8
Pigs	-1.3	1.1	12.2	3.8	3.8	-6.9	-9.5	-4.4	2.5	-5.9	1.5	-0.7
Sheep and goats	0.1	4.1	-2.0	0.7	0.0	-7.1	-9.1	-5.5	0.1	-3.3	-10.8	-4.8
Milk	1.1	5.7	6.0	4.3	3.2	-4.3	-6.9	-2.8	4.3	1.2	-1.4	1.3
Final output	0.4	1.8	4.0	2.0	-0.4	-4.7	-7.3	-4.2	0.0	-3.0	-3.6	-2.2
Intermediate consumption	-2.3	1.2	3.6	0.8	6.2	-3.9	-6.1	-1.4	3.8	-2.7	-2.7	-0.6
Gross value added at m.p.	3.7	2.3	4.3	3.4	-6.7	-5.5	-8.4	-6.9	-3.3	-3.3	-4.4	-3.7
Subsidies									28.3	23.2	27.4	26.3
Taxes linked to production									3.8	-23.1	-25.4	-15.9
Depreciation									-2.1	12.6	8.2	6.0
Net value added at f.c.									-2.9	-3.1	-2.9	-3.0
Interest									15.9	-8.0	3.0	3.2
Rent									-1.0	5.4	1.7	2.0
Net income of total labour									-5.5	-2.3	-4.1	-4.0
Compensation of employees									-8.9	-2.3	-0.4	-3.9
Net income of family labour									-4.7	-2.3	-5.1	-4.0

NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

The value of production decreased in real terms (- 2.2% per annum) as a result of the fairly steep fall in real prices (- 4.2%) and despite higher production volume (+ 2.0%). The downward movement in prices and the increase in volumes accelerated during the period "1981"/"1990" as a result of Portugal's entry into the European Community. The use of intermediate consumption grew in volume terms by + 0.8%, while the

decline in real prices (- 1.4%) was less dramatic than in the other Member States, possibly as a result of the dominant role played by the State in the marketing of energy products and animal feedingsuffs in the early 1980s. The average productivity of intermediate consumption improved over the reference period by an average of + 1.2% per annum, although the rate of increase was on a downward trend (i.e. marginal productivity declined) as intermediate consumption reached an intensive level.

Graph 6.12 Development of the three indicators of agricultural income in Portugal between 1973 and 1991, with "1985" = 100.



The average "price scissors" deteriorated sharply (the - 2.8% per annum on average, being the steepest fall in EUR 12). Nevertheless, the deterioration was cushioned by Portugal's entry into the Community, which meant lower prices for agricultural products but also for intermediate consumption.

Agricultural production in Portugal breaks down fairly evenly between animal and crop production. The products examined below (cereals, fresh vegetables, wine, pigs, milk and cattle) represent about two-thirds of final production. Crop production grew in volume terms by an annual average of + 1.2%. This increase was not spread evenly over the reference period: after rising by + 1.4% per annum between "1981" and "1984", crop production declined by - 0.3% between "1984" and "1987", before recovering by + 2.6% between "1987" and "1990". These short-term fluctuations were caused by climatic conditions, which can have very marked effects in Portugal. The volume of cereal production rose by + 2.1% per annum. The increase was not consistent, however, owing to fairly large variations in the area under cultivation. Real prices of cereals rose by + 7.1% per annum between "1981" and 1984", only to decline by - 7.7% per annum in the following years. The volume of fresh vegetable production increased by + 1.7% per annum and that of wine by + 2.1%, with major annual fluctuations in both cases. For example, wine production fell by a massive - 66.8% in 1988, bringing about a steep decline in income. The real prices of fresh vegetables and wine declined in the period under review by - 0.8% and - 8.4% per annum respectively, both figures concealing wide annual fluctuations.

In line with the growth in meat consumption, the volume of animal production rose significantly (+ 2.6% per annum) over the reference period (one of the biggest increases in the Community). This increase was largely concentrated in the period from "1984" to "1990" (+ 4.3%), led by pig production (+ 6.5%) and milk production (+ 5.8%). Cattle, pig and milk production increased in volume terms by + 0.8%, + 3.8% and + 4.3% respectively. Following increases of + 2.9% from "1981" to "1984", real prices of animal production fell steeply (- 7.7%) from "1984" to "1990". From "1981" to "1990", real prices recorded annual average falls of - 4.5% for cattle, - 4.4% for pigs and - 2.8% for milk.

The share of depreciation in final production is below the Community average, but has been on an upward trend (+ 6.0% per annum), which might indicate growing capital intensiveness in Portuguese agriculture. The value of subsidies rose (+ 26.3% per annum in real terms), particularly following Portugal's entry into the Community, to reach one of the highest levels in EUR 12. Taxes linked to production, which are among the lowest in the Community, declined by an annual average of -15.9%. Increases in interest payments of +3.2% (one of the highest in EUR 12, further evidence of capital investment), combined with higher rents (+2.0% per annum) and a decline in compensation of employees of - 3.9% per annum in real terms (although this is not a major cost item, given the importance of family labour input in Portuguese agriculture) caused Indicators 2 and 3 to decline slightly (- 0.8% and - 0.6% respectively per annum).

6.13 United Kingdom

The trend in agricultural income in the United Kingdom, as measured by Indicator 1, was marked by strong fluctuations which resulted in an average annual decline of -0.4% (one of only two declines in the Community) for the reference period. This is the continuation of a trend which has existed since "1974", although there was a temporary interruption from "1981" to "1984". The trend in incomes from "1984" to "1990" is different from that of the Community in that, after declining from "1984" to "1987", they rose slightly on average between "1987" and "1990". There was a dramatic decline in 1988 (-10.5%), with income at its lowest level for ten years in the wake of stagnation in production value, the sharp increase in running costs and high inflation. The general fall in income follows the trend in production volume fairly closely. After increasing from "1981" to "1984" (+2.3% per annum) it stabilized. Over the period "1981"/"1990" the annual increase was limited to +1.1% (which is lower than the EUR 12 figure, +1.3%). The impact on income of this slow development was compounded by a steeper fall in real prices (-3.3% per year) than for EUR 12 (-3.0%).

The period "1981"/"1984" was marked by a sharp increase in the volume of crop production (+5.4%) which, though only representing 38% of final production, caused most of the total production increase. Indeed, the volume of animal production levelled out over the entire period (+0.6% from "1981" to "1984" and -0.1% from "1984" to "1990"). During the second half of the decade, the crop production growth rate slowed down considerably as a result of a more restrictive agricultural policy. Partly as a consequence of this policy, the volume of cereal production, which had increased by +8.1% from "1981" to "1984", stabilized from "1984" to "1990" (+0.6%) (barley in particular). The volume of fresh vegetable production increased gradually (+1.9% as an annual average). Real prices of cereals fell from "1981" to "1984" (-4.7%) and even more sharply afterwards (-6.4% over the period "1984"/"1990"). Whilst the real price of fresh vegetables had increased by +1.3% from "1981" to "1984", it declined by -2.6% from "1984" to "1990".

The stability of the volume of animal production from "1981" to "1984" is mainly the result of the slow development of milk, cattle and pig production (+0.6%, +1.6% and +0.4% per year respectively). This restricted growth turned into volume decreases in the milk and cattle sectors between "1984" and "1990" (-1.7% and -0.7% per year respectively) following the introduction of milk quotas. The pig sector also recorded a stabilization of its production volume (+0.0% per year) for the whole reference period. The development of sheep production (+3.6% per year) contributed to the slight increase in animal production volume over the second half of the decade. Real prices for cattle, pigs and milk remained relatively stable at the start of the 1980s before declining (-3.8%, -3.9% and -2.0% respectively for the whole period).

Table 6.15 Annual average rates of change for production volume, real prices and real value of agricultural products in the **United Kingdom** from "1981" to "1990", in % terms

	Volume				Real price				Real value			
	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P	SSP1	SSP2	SSP3	P
Final crop output	5.4	1.5	1.6	2.8	-2.4	-4.9	-3.8	-3.7	2.8	-3.5	-2.2	-1.0
Cereals	8.1	-0.6	1.9	3.1	-4.7	-6.8	-5.9	-5.8	3.0	-7.4	-4.1	-2.9
Fresh vegetables	1.4	3.3	0.9	1.9	1.3	-2.7	-2.4	-1.3	2.7	0.6	-1.6	0.6
Final animal output	0.6	-0.5	0.3	0.1	-2.8	-3.1	-3.6	-3.2	-2.2	-3.6	-3.4	-3.1
Cattle	1.6	-2.6	1.2	0.1	-3.5	-3.1	-4.8	-3.8	-1.9	-5.6	-3.6	-3.7
Pigs	0.4	0.8	-1.1	0.0	-3.3	-6.3	-2.0	-3.9	-2.9	-5.5	-3.1	-3.9
Milk	0.6	-1.8	-1.5	-0.9	-2.6	-1.6	-1.8	-2.0	-2.0	-3.3	-3.3	-2.9
Final output	2.3	0.2	0.8	1.1	-2.5	-3.8	-3.6	-3.3	-0.3	-3.6	-2.8	-2.3
Intermediate consumption	1.7	0.2	-1.0	0.3	-0.6	-4.2	-2.6	-2.5	1.1	-4.1	-3.5	-2.2
Gross value added at m.p.	3.0	0.2	3.2	2.1	-4.8	-3.2	-5.0	-4.3	-1.9	-3.1	-2.0	-2.3
Subsidies									13.4	-0.6	1.7	4.7
Taxes linked to production									1.3	11.3	-2.9	3.1
Depreciation									-1.8	-1.3	-1.4	-1.5
Net value added at f.c.									-0.6	-3.8	-1.7	-2.0
Interest									-1.0	-1.1	5.4	1.0
Rent									10.3	-0.5	-11.2	-0.8
Net income of total labour									-0.9	-4.5	-2.8	-2.7
Compensation of employees									1.6	-3.7	-2.1	-1.8
Net income of family labour									-1.4	-5.4	-3.2	-3.3

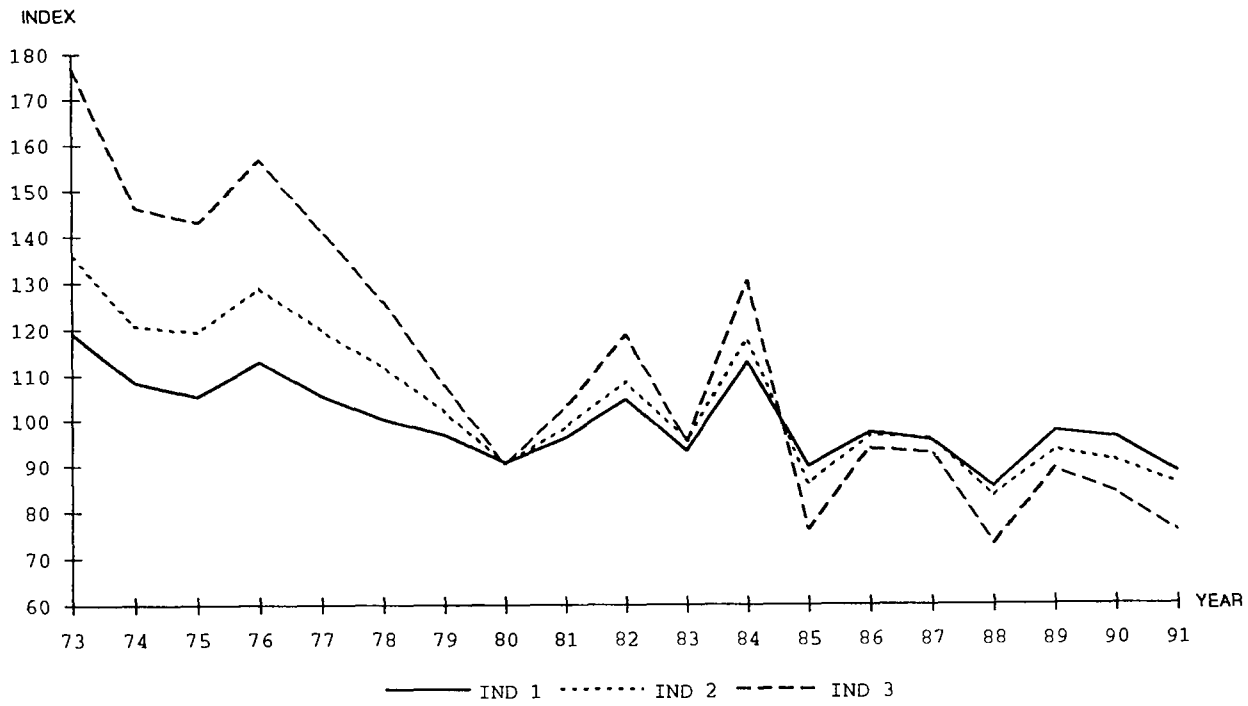
NB: SSP1= "1981"/"1984" SSP2= "1984"/"1987" SSP3= "1987"/"1990" P = "1981"/"1990"

Intermediate consumption rose only slightly in volume (+0.3% as an annual average from "1981" to "1990") with a slight decline (-0.4%) from "1984" to "1990", which led to an increase in the productivity of this item by +0.8% per year over the whole period. The "price scissors" deteriorated by -0.8% per year, following a fall in intermediate consumption prices (-2.5% per year) which was less steep than the fall in product prices. Indeed, the stronger £ sterling from 1986 onwards resulted in a fall in the prices of imported intermediate consumption.

Although none of the costs included in the calculation of income is unusually high, the proportion of final production represented by net income (for the total labour input) is only 30% compared with 39% for EUR 12. Fluctuations in Indicator 2 may be explained by this low level. This volatile situation becomes even more accentuated for Indicator 3, due to the very high employee compensation charges in the United Kingdom (about 18% of the final product compared with 10% for EUR 12). They fell by -1.8% per year over the period under study whereas interest payments increased by +1.0% in real value.

In spite of a slight increase in the rate of decline of the agricultural labour input during the second half of the decade, agricultural employment only fell by -1.7% per year for the total labour input (-3.1% for EUR 12) and by -0.9% for family workers. As a result, agricultural income Indicators 2 and 3 fell by -1.1% and -2.5% per year respectively.

Graph 6.13 Development of the three indicators of agricultural income in the **United Kingdom** between 1973 and 1991, with "1985" = 100.



7 COMPARISON OF AGRICULTURAL INCOME LEVELS IN THE MEMBER STATES OF THE COMMUNITY

The previous chapters have concentrated on the annual rates of change of agricultural income. This chapter deals with the differences in income levels between the Member States and the relative trends in these levels⁽¹⁾.

For this purpose, the parameter chosen is **net value added at factor cost per annual work unit**. Three-year averages have been used ("1990" for the comparison of current levels, with "1981" and "1985" for trends in income levels⁽²⁾) in order to attenuate the short-term effects on income (annual fluctuations in production, agricultural prices and subsidies). The basic data in nominal value and national currencies have been converted into ECU and PPS via current exchange rates. The use of PPS brings the purchasing power of the national currencies in the Member States more into line⁽³⁾. To improve comparability, the values for each Member State have been compared with a Community average.

The statistical and methodological reservations expressed below mean that, economically speaking, the data published in this chapter can only be regarded as indicative and limited in value.

- The data refer only to incomes from agricultural activity. It should not be forgotten that for numerous farmers, agricultural income represents only one part of the total or disposable income of their household. The relative size of this portion can of course vary from one Member State to another.
- The use of other income indicators, such as net income from agricultural activity of the family labour input by AWU, might show significant changes in the relative position of certain Member States, since the share of rents, interest paid and compensation of employees differs from one country to another. As stated in the introduction, however, the corresponding series do not seem to be sufficiently harmonized as yet.
- Methodological and statistical checking of the Economic Accounts for Agriculture is in hand; this applies to all the items (production, intermediate consumption, distributive transactions, gross fixed capital formation and depreciation) and will probably lead to more amendments to the absolute levels than to the annual changes. In particular, it will be seen that the various methods used to calculate depreciation could create systematic bias in income levels.
- The agricultural labour input is measured in annual work units; this is justified by the importance of part-time work in agriculture. In spite of the advantages which this concept presents, one should not forget

(1) For Italy (depreciation) and Portugal, more detailed plausibility checks are in hand.

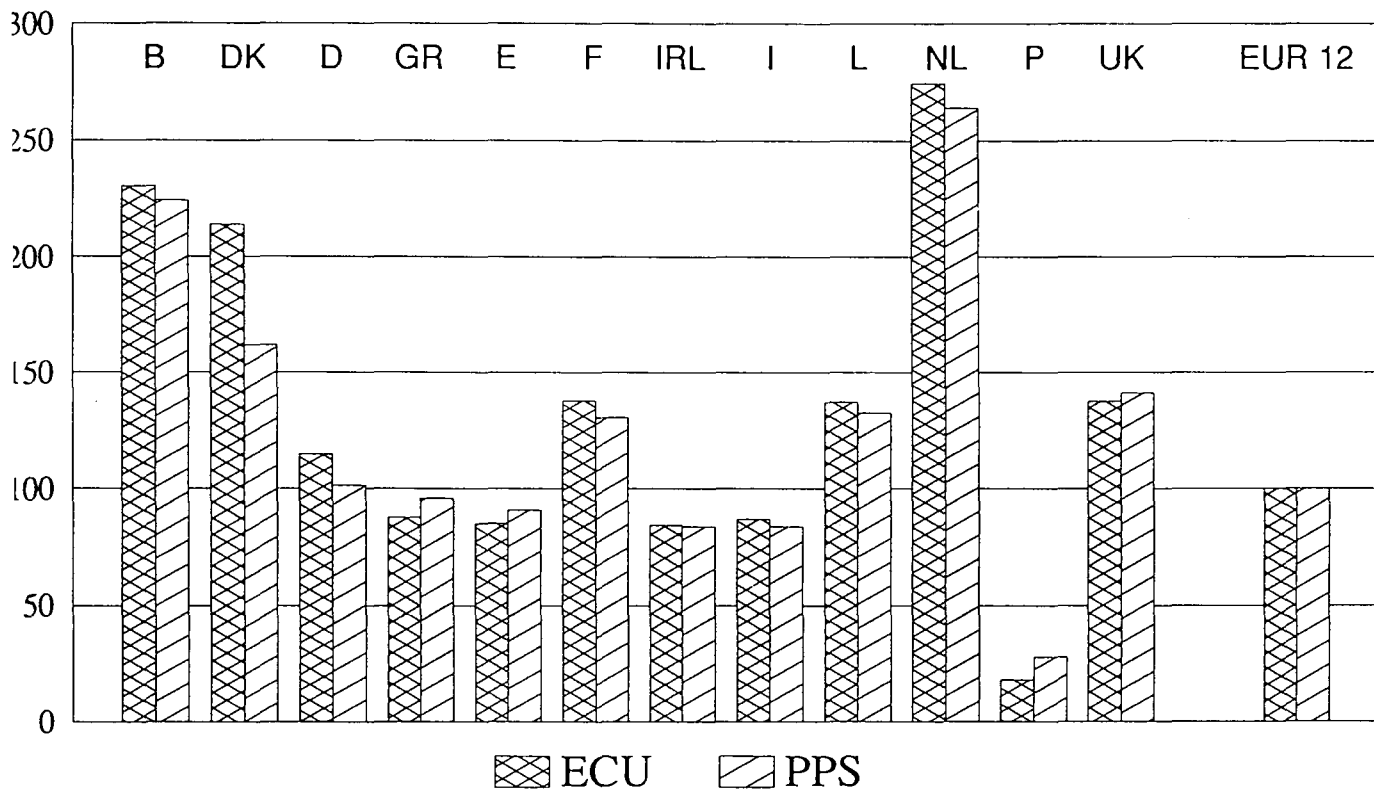
(2) "1990" = (1989 + 1990 + 1991)/3.

(3) PPS = purchasing power standard; for the definition, see Eurostat: **Purchasing power parities and real gross domestic product - results for 1985, Luxembourg 1988** (theme 2, series C). In the absence of specific purchasing power parities for the agricultural sector, the ones used are applicable to the whole economy and reflect the general structure of expenditure in each Member State.

that it does not allow any under-employment in agriculture to be taken into account. In addition, data on the agricultural labour input measured in AWU are not yet completely harmonized at Community level.

With the above reservations in mind, it is clear that considerable differences in agricultural income per annual work unit exist between the Member States (see graph 7.1 and Table 7.1). It is also evident that the relative levels and the income order of Member States change little according to whether the ECU or PPS is taken as the basis, and have changed only slightly over the ten-year period.

Graph 7.1 Indices of net value added at factor cost per annual work unit in "1990", in ECU and PPS (EUR 12 = 100).



Three Member States of northern Europe (the Netherlands, Belgium and Denmark) are at the top of the agricultural income scale measured by net value added at factor cost for "1990" in ECU, with levels more than twice as high as the Community average (and even 2.7 times higher for the Netherlands). In France, the United Kingdom and Luxembourg, agricultural income is also well above the Community average (about 40% higher), whereas in Germany it is only slightly over 10% higher. Agricultural income is clearly below the Community average in the other Member States; although in Ireland and in the three Mediterranean countries (Greece, Spain, Italy) the difference is moderate (from 12 to 16% below the average), income is much lower in Portugal, at around 5.5 times lower than the average. Although direct comparisons between Member States, especially using ECU, should be treated with caution (cf. the reservations already made above), it can be concluded that the differences in income received by a person (whether self-employed or employed) for activities in the agricultural branch over a one-year period (after adjustment for subsidies, taxes linked to production and depreciation) may be very substantial, especially in extreme cases (Netherlands and Portugal).

The use of PPS for measuring net value added at factor cost slightly reduces differences in agricultural income between Member States. Income measured in PPS is in fact lower in relative terms than when measured in ECU for almost all Member States above the Community average (except the United Kingdom,

where income in PPS is slightly higher), Denmark being an especially clear-cut case. In three of the countries below the average (GR, E and P), conversion into PPS results in an improvement in the relative position of income, whereas in the other two (IRL and I) the difference (in the other direction) is negligible. Although Portugal's relative position definitely improves with the use of PPS (its difference with the countries who have a relatively high agricultural income is clearly reduced as a result), agricultural income remains by far the lowest in the Community (28% of the average). It should be added that the order of classification of the Member States according to level of agricultural income is only very slightly changed by conversion into PPS instead of ECU: France moves from fourth to sixth position, giving way to the United Kingdom and Luxembourg, and Italy changes places with Spain (ninth and tenth), the levels of the two being very close to each other in both cases.

Table 7.1 Indices of net value added at factor cost per annual work unit in "1981", "1985" and "1990", in ECU and PPS (EUR 12 = 100)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
"1981" ECU	240.8	204.9	117.0	82.4	59.9	148.5	72.5	93.8	132.0	263.0	18.3	190.6	100.0
"1985" ECU	224.4	254.9	113.5	75.0	64.6	144.1	80.1	93.9	139.0	270.5	17.7	169.1	100.0
"1990" ECU	230.5	214.0	114.9	87.9	85.2	137.9	84.4	87.0	137.3	274.6	18.2	137.6	100.0
"1981" PPS	213.9	157.7	100.7	88.8	69.7	130.0	68.1	107.8	119.9	223.9	31.4	168.6	100.0
"1985" PPS	216.1	192.5	98.2	87.9	79.6	129.2	70.9	95.8	131.8	241.0	31.4	164.9	100.0
"1990" PPS	224.2	162.0	101.5	95.9	90.7	130.7	83.8	83.9	132.8	264.1	27.8	141.2	100.0

The differences between the levels of agricultural income of the Member States in "1990" having been described, a brief review will now be made of the trend in their relative positions since 1980 (see Table 7.1). For this purpose, the relative positions of net value added at factor cost per AWU have been calculated in ECU and PPS for each Member State, taking as a reference the NVA_{fc} of EUR 12 for each of the years studied ("1981" and "1985", as well as "1990").

When measured in PPS, which would appear preferable for a comparative analysis of income levels over a ten-year period, the relative situations of some Member States changed significantly over the decade, as a result of the effect of differing trends compared with the Community average. Substantial improvements, for example, are to be found in the Netherlands, Spain, Ireland and Luxembourg, and definite declines in the United Kingdom and Italy, in line with the trends of agricultural income indicator 1 of these countries (see Chapter 6).

The two Member States with the highest agricultural income (NL and B) have remained the same and they have also regularly improved (especially NL) their relative income, which is now 2.6 and 2.2 times the Community average respectively. In Denmark, income increased sharply in the middle of the decade and then fell back to its relative level in "1981" (60% more than EUR 12), whilst remaining third in the Community because of the decline recorded in the United Kingdom (where income is only 40% above the average as against 70% ten years ago). The relative situation of Luxembourg improved at the beginning of the decade (moving from sixth to fifth place) and then stagnated, whereas France has hardly changed its position (these two countries are now about 30% above the average). In Germany, income remained very close to the EUR 12 level throughout the decade.

Among the Member States which are below the Community average, the relative situations of Greece, Ireland and especially Spain improved considerably, over the second part of the ten-year period for the first

two, and on a constant basis for Spain. Agricultural income in Spain is now less than 10% below the average, as against 30% ten years ago; in Greece the difference has moved from over 10% to less than 5% and in Ireland from over 30% to 16%. The opposite occurred in Italy, where relative income declined steeply, so that it is now at the same level as in Ireland, whereas in "1981" it was above the average and that of Germany. Finally, the relative situation of agricultural income in Portugal remained stable, at about 30% of the Community average.

8 TOTAL INCOME OF AGRICULTURAL HOUSEHOLDS

8.1 Introduction

The Economic Accounts for Agriculture, and hence the income indicators used elsewhere in this publication, give information on the level and development of income arising from the production of agricultural commodities. While this is a central element in the income of the agricultural community, there is now a strong realisation that the economic situation of those households which make up this community cannot be adequately described using these indicators alone. Previous Agricultural Income reports have given information about the work which Eurostat is undertaking, with the support of the Directorate-General for Agriculture and with the cooperation of Member States, into estimating the aggregate incomes of agricultural households. This has become known as the Total Income of Agricultural Households (TIAH) project. The need for this project is now well established. This chapter describes progress up-to-date and illustrates the first results.

From the outset of the Common Agricultural Policy there has been recognition of the interaction of agriculture with the rest of the rural economy. The Farm Structure Survey has established that about one third of farm holders have another gainful activity, to which should be added the work of spouses and other members of farmer's households in activities off the holding. The use of farm resources in forms of production which are not strictly agricultural (such as food processing, tourism and for the provision of environmental services) is encouraged as one way of enabling farmers to cope with the changes to the CAP which are intended to make Community agriculture more sensitive to market conditions. To these could be added other forms of direct payments which either already exist for example, pensions for elderly farmers which are important in some Member States or have been proposed by the Commission as part of its reform package. Thus, while it is recognised that farmers and their households as a group have always secured part of their incomes from non-agricultural activities, knowledge of the composition of overall income and the ways that this income is changing in the present evolving economic situation is of increasing importance. There is therefore a requirement for reliable and harmonized information on the overall income situation of farmers and their households.

Objectives of the TIAH project

A harmonized methodology is to be used to generate an aggregate income measure for the following purposes:

- *monitoring the year-to-year changes in the total income of agricultural households at aggregate level in Member States;*
- *monitoring the changing composition of income especially the proportions of income from the agricultural holding and from other gainful activities, from property and from social benefits;*
- *comparing the trends in the total income of agricultural households per unit (household, household member, consumer unit) with that of other socio-professional groups;*
- *comparing the absolute income of farmers with that of other socio-professional groups, on a per unit basis.*

It is worth restating the objectives of the TIAH project (see figure). The intention is to provide information at aggregate level on the total income of agricultural households in each Member State as a

supplement to the existing production-branch indicators. There is no suggestion that the new measure should be a substitute for them.

8.2 Progress to date

Following on from the initial assessment of the available information on the total income of agricultural households and the establishment of a methodology (both of which have been published by Eurostat)¹, Member States have been applying this methodology. At the outset, countries differed in the basic data which could be used to construct estimates of total income of agricultural households and in their experience of making such calculation. Consequently some Member States had to take far greater steps than others and a variety of approaches had to be used, dependent on data sources. In 1991 a detailed internal review of how Member States were generating estimates was undertaken. At the same time, the initial results were monitored and evaluated. This has led to one important modification to the published methodology, concerning the way that an agricultural household is defined.

Initially the "target" methodology contained in the TIAH Manual of Methodology specified that an agricultural household was to be defined as one where the main source of household income was from independent agricultural activity (farming), and the incomes of all members of the household were to be added together for the purpose of this classification process. However, in practice many Member States found this household-based system difficult to operate. During 1991 it became clear that an alternative system of classifying households, based on a reference person (see figure), was the one on which a far greater degree of harmonization was possible. Consequently, in the interests of comparability between the Member States, all countries have been requested to produce TIAH estimates using a reference person system, with the main source of income as the criterion for allocating reference persons to socio-professional groups. Where this is not possible, the main occupation of the reference person is an acceptable interim basis of classification.

Revised definition of an agricultural household, for use in the TIAH methodology

An agricultural household is one in which income from independent agricultural activity (farming), net of capital consumption, constitutes the main source of the total income of the reference person. Total income (resources) comprises income from dependent and independent activity, from property (including interest) and transfers received (including pensions) but before the deduction of taxation, social contributions and other negative current transfers. "Main" is to be interpreted as 50 per cent or more, or where no component satisfies this condition, the largest single source. At present there is no harmonized methodology for selecting the reference person, though it is anticipated that this will be the head of the household or the person contributing the most to the family budget. In the absence of an agreed methodology, Member States are using procedures already in place, most commonly for family budget surveys. Where an income criterion cannot be used, alternative acceptable (interim) criteria can be used, such as time spent or a mixture of time and income.

Because of anticipated problems this system had already been included in the Manual of Methodology as an acceptable interim alternative, and the switch in emphasis has been agreed by the Member States.

¹ Hill, Berkeley (1988) *Total Income of Agricultural Households*, Theme 5, Series D, Luxembourg; Eurostat (1990) *Manual on the Total Income of Agricultural Households*, Theme 5, Series E, Luxembourg.

Inevitably the use of a reference person system involves a number of anomalies (households where the main income comes from non-farming) but these are offset by its far greater practicality. Reference person classification systems are already to be found operating in the Community's family budget surveys, and are the likely basis for classification when the European System of Integrated Economic Accounts (ESA) progresses to the stage of disaggregating household sector accounts.

8.3 Results

For the reasons touched on above, results for the TIAH project are not at the same level of development throughout the EC, and for several countries there are large gaps. Methodological differences remain between Member States. Caution must therefore be exercised in interpreting results. Nevertheless, even in an incomplete form the new information demonstrates the value of the TIAH project in terms of an ability to cast additional light on the income situation of the agricultural community in ways not possible using the existing branch Indicators 1 to 3.

At the present stage of development, while for some Member States it would be appropriate to give absolute income figures for their agricultural households (and these may indeed be already published nationally), for others this is clearly not the case. It has therefore been decided to present the initial results in the form of a special document without direct comparisons between Member States (Total Income of Agricultural Households 1991 Report, prepared by B. Hill) to be published in the Spring of 1992. This gives the background to the TIAH project, an outline of the methodology, an overall view of progress made and still to be achieved. In a series of twelve chapters the results for each Member State are presented in ways appropriate to the level of methodological development in that country.

Taking a broad view of available statistics across the Community, the following patterns are evident:

- (a) Not all holdings are operated by households which qualify as being agricultural households, as defined in the TIAH project. The relationship between the number of agricultural households and the number of holdings shown in the Farm Structure Survey varies widely between Member States and depends on a variety of factors. In some the ratio is about 4/5 (Denmark, Netherlands), but in others fewer than half the holdings appear to be operated by households which are classed as agricultural (Greece, Ireland, Italy).
- (b) Agricultural households are shown to be recipients of substantial amounts of income from outside agriculture. Though typically only about a half to two thirds of the total comes from farming, there are substantial differences between Member States and resulting from using alternative systems of household classification. There is also some change between years. Countries in which less than half of the total household income came from farming (using a reference person classification system and in the latest year for which information is available) include Denmark, Germany, Spain and Italy. At the other end of the spectrum, with more than two thirds coming from farming, are Ireland, the Netherlands and Portugal. It should be remembered that households where the head (reference person) fails to satisfy the TIAH criteria will already have been excluded from consideration when drawing up these figures (see also (f) below).
- (c) Countries differ in the amounts of income taken in taxation and other deductions from their agricultural households, so that the same average total income (resources) figure can imply different levels of disposable income in different Member States.

- (d) For those countries in which comparisons are possible, agricultural households appear to have average disposable incomes which are typically higher than the all-household average. The relative position is eroded or reversed when income per household member or per consumer unit is examined. In Member States which have information extending over several decades (Germany and France, though in the latter case there are breaks in the methodology) the relative disposable income situation of agricultural households seems to have been deteriorating over time.
- (e) There is evidence that total household income is more stable than the income from independent agricultural activity. Non-agricultural income (taken all together) is less variable from year to year than is farming income (though this is not a necessary condition for total income to be more stable). Disposable income seems to be less stable than total income, but no clear relationship seems to hold between the relative stability of disposable income and farming income; a variety of factors are operating here, including the way that taxation is levied.
- (f) The limited amount of information concerning households which operate an agricultural holding but where farming is *not* the main income source or occupation of the head suggests that, on average, the amount of income these households derive from farming is small compared with that of households which satisfy the TIAH definition. Their holdings are also on average smaller.

The evidence on income sources, distributions and developments over time supports the warnings that Eurostat has for some time attached to its branch Indicators; that they should not be interpreted as measures of personal or household income. Certainly, absolute levels of personal incomes, and most probably movements from year to year are not adequately represented by the branch indicators. However, it would be equally wrong to interpret the new measure as a direct approximation of the level of private consumption or the standard of living. The calculation of these involves many other factors which are not considered here, such as the cost of consumer goods and the provision of public health and education services. Nevertheless, the justification for the TIAH project seems to be strengthened by these first results.

8.4 Progress still to be made

The TIAH project is still in its development phase. Understandably, there are outstanding issues in the application of the methodology set out in the TIAH Manual. There is a general need to improve the quality of the statistics, especially in countries for which this form of calculation is new. Also, at present there are important gaps in the required information. Mostly this affects the ability to draw comparisons between agricultural and other households and to construct estimates expressed per household member or per consumer unit. Quality and gaps have formed the subject of bilateral correspondence with Member States, and it is hoped thereby to overcome many deficiencies.

A central issue to be explored further is the way in which the choice of classification system, used to distinguish agricultural households from other households, affects the income results. Member States which are committed to a "main-occupation" approach for classifying household reference persons might bring their results more in line with an income criterion result by the use of a cut-off age (at which state pensions are received) and the elimination of occupiers of very small holdings.

Recent changes implemented or proposed in the CAP have meant that there is now a policy interest in extending the measurement of income from agricultural households selected using a "narrow" concept, on which the TIAH project has so far concentrated, to a "broad" concept, which would include all

households which operate a holding. Eurostat, in conjunction with the Directorate-General for Agriculture and Member States, is considering how such an estimate might be achieved. This is seen as a supplement to, and not a replacement for, the present approach.

For most countries, comparison of the income of agricultural households is at present confined to the all-household average. This may not be adequate. Some Member States have already subdivided their household sector into sub-sectors, of which agricultural households form one (Germany, France, Italy). In others the basic data seem to exist by which such a breakdown could be made. This opens up the possibility, at some time in the future, of drawing comparisons between farmer households and other more narrowly-defined groups (for example, independent households, households of managers and so on). In order to make further progress in this direction, when the present methodology has reached a satisfactory state of development, it will be necessary to consider which socio-professional groups should be used for drawing comparisons, how these groups should be defined (there are large differences between countries in the categories used at present), and the possibilities within existing data sources for generating estimates of disposable income for them.

Steps are also being taken to enable more recent results to be produced. At present the most recent year varies from 1985 (the Netherlands, from the socio-economic accounts) to 1990 (Portugal), with most countries covering 1987, 1988 or 1989. Already some Member States are regularly updating their estimates as data come available. However, this is possibly less than ideal since, while historical information may be useful, the greater interest will always be in what has been happening to incomes in the immediate past.

Finally, links are being strengthened with the Community Farm Accountancy Data Network with regards to its proposed extension of questions to cover the non-farming income of agricultural holdings within its field of observation². This is seen as a complement to Eurostat's TIAH project. Inevitably there will be some policy questions concerning farm households that require distributional information, such as how the importance of additional income sources varies by size or farming type, which only microeconomic data sources such as FADN can answer. However, this does not diminish the need for the sector-level estimations which are the characteristic of Eurostat's approach.

These plans for improvements and developments suggest that the TIAH project, while already giving rise to substantial new information, should be seen more as a starting point than as an end in itself.

² See the Report from the Commission to the Council on the Farm Accountancy Data Network, COM(90) 144 final

ANNEXES

I Notes on methodology

II Detailed tables

I NOTES ON METHODOLOGY

A.1.1 Income indicators

Computation or estimation of income indicators is based on the Economic Accounts for Agriculture¹⁾, which form part of the European System of Integrated Economic Accounts (ESA). The three indicators are worked out as follows:

Final production					
Intermediate consumption	Gross value added at market prices			Subsidies	
	Taxes linked to production	Gross value added at factor cost			
		Depreciation	Net value added at factor cost		Deflated, divided by AWU (total labour input)
			Net income from agricultural activity of total labour input		Deflated, divided by AWU (total labour input)
		Rents interest	Net income from agricultural activity of family labour input		Deflated, divided by AWU (family labour input)
		Compensation of employees			

INDICATOR 1

INDICATOR 2

INDICATOR 3

The data cover the **production branch** "Products of Agriculture and Hunting" which includes all **agricultural production** (defined according to a list of products) resulting from a main or secondary activity, but excludes non-agricultural secondary activities of agricultural holdings. They therefore do not refer to the activity sector "Agriculture", which may be taken to be the total of economic activities of agricultural holdings. Nor are the aggregates and income indicators used in Chapters 2 to 7 of this publication indicative of total income or disposable income of households engaged in agriculture, since these may receive income from sources other than agriculture (non-agricultural activities, wages or salaries, social benefits, property income) which are only dealt with in Chapter 8 of this report. In other words, **agricultural income** as described and analysed in this report must not be regarded as farmers' income.

It should also be noted that the concept used for assessing production, on which value added and income aggregates naturally depend, is that of **final production**, which in particular results in the exclusion of intra-branch consumption of agricultural products (seeds and animal feedingstuffs produced by the agricultural branch and used directly by it).

This concept of final production, and the income aggregates to which it leads, may differ in some cases from those used in the calculations and estimates made by the Member States for their own purposes. For example, some Member States use the concept of "deliveries", which implies inclusion of the production supplied in the course of the year (either sold or used for own consumption) even if it was produced in a

1) cf. Eurostat: "Manual on Economic Accounts for Agriculture and Forestry", theme 5, series E, Luxembourg 1989 (revised edition to be published in 1992), and "Economic Accounts for Agriculture and Forestry 1985-1990", theme 5, series C, Luxembourg 1992.

previous year; the income indicator resulting from it therefore measures the income actually received during the year. The concept of final production, by contrast, is used for measuring **income generated by the year's production**, even if the corresponding payments are not received until later in some cases; this result is obtained by summing to sales and own consumption additions to stocks and deducting from them withdrawals from stocks. It should also be noted that the income indicators in this report relate to **calendar years**, which goes some way to explain the substantial differences between these figures and those in a number of national publications, which are based on the farm year. Other variances may result from a different list of the deductions operated on the value of production in order to calculate income.

Finally, since harmonization of the absolute values of income indicators is not yet completed between Member States, the data and analyses of this report are mainly expressions of **annual changes**.

A.1.2 Agricultural labour input

Labour input or rates of change in it are calculated in **annual work units (AWUs)** to reflect the phenomenon of part-time and seasonal work in agriculture. An AWU is equivalent to the time worked by one person employed full-time in agricultural activities on a holding over a whole year²⁾. A distinction is made between family AWUs (the holder and members of his family working on the holding) and non-family AWUs (paid workers not belonging to the holder's family), the two added together constituting the total AWUs.

The data published and used in this report for calculating agricultural income indicators are based on the trend in the number of AWUs used in absolute values. Harmonization of time series at Community level is not yet quite complete, especially as far as the definition of an AWU in hours worked per year is concerned. Furthermore, for some Member States the results have been estimated partly or totally by Eurostat in the absence of complete national data³⁾.

A.1.3 Aggregation of Community data

Indices and rates of change for the Community as a whole (EUR 12, unless otherwise stated) can be calculated as weighted averages of national indices or rates of change, or calculated directly from Community aggregates resulting from conversion of national data into ECUs (or PPSs). In both cases, a base year has to be chosen: the one used for establishing the different countries' share in the calculation of Community averages, or the one taken for the rates of change used for calculating aggregates.

In this report, the calculations for the short-term (changes in 1991 compared with 1990) and long-term (trends from 1980 to 1991) sections are based on slightly different methods and on different base years.

For the **short-term section** (chapters 2 to 4 and tables 3 to 7 of Annex 2), the rates of change of volumes and nominal or real values of the Community for 1991 compared with 1990 have been calculated as **weighted averages** of the corresponding rates of change estimated in the Member States. The weighting coefficients have been calculated from **EAA data for 1990**, converted into ECUS at **1990 exchange rates**;

2) cf. Eurostat: "Structure of Holdings - Community Survey Methodology", theme 5, series E, Luxembourg 1986 (p. 21).

3) The countries concerned are Ireland, for the entire series, and Denmark, Spain and Portugal for some of the data on family workers.

clearly, these coefficients are specific to each item. Rates of change of nominal or real prices have been deduced from those of values and volumes. All in all, this method, which is based on 1990, appears the most logical for short-term analysis and the most consistent with that used in the Member States for calculating rates of change in volumes and prices in 1991 for mixed product groups.

For the **long-term section** (chapters 5 and 6, and tables 8 et seq. of Annex 2), income indices and rates of change of volumes and values for the Community have been calculated from **Community aggregates expressed in ECUs at constant 1985 exchange rates**; for real values, **the deflators are also based on 1985 = 100**. The indices and rates of change of prices are deduced from the corresponding values and volumes. This method based on 1985 appears the most logical one for describing and analysing trends for the whole of the decade, as well as being consistent with the EAA at 1985 constant prices (which allow calculations of indices and changes in volume and price per Member State). It should also be noted that indices (especially the three agricultural income indicators) are expressed as base "1985" = 100⁴). Finally, the annual average rates of change for a period or sub-period are computed as geometric averages of the rates of change observed for the corresponding years.

A.1.4 Calculation of deflated series

For each Member State, **indices and changes** in the prices and values in real terms of different products, aggregates and indicators are obtained by deflating the corresponding nominal figures with the **implicit price index of gross domestic product at market prices**. For long-term series, use is made of the GDP price index with base 1985 = 100. For short-term changes (1991 compared with 1990), forecasts of this index for 1991 were supplied by the Commission's Directorate-General for Economic and Financial Affairs (DG II).

There are a number of important points in favour of using this deflator, such as its reliability and comparability. The GDP implicit price index is an indicator of trends in the general level of prices of all goods produced and all services rendered in an economy. The price index of national final "uses" could also be used as a deflator. Unlike the GDP price index, it also directly takes account of the effect of external trade and thus reacts faster and less ambiguously to price changes for imports (e.g. energy price changes). However, to ensure comparability with other Commission publications, it was decided not to introduce a new deflator.

Real values for the Community as a whole are calculated by deflating each Member State's nominal figures (at current prices) with the GDP implicit price index of the country concerned and converting the results into ECUs (at 1985 exchange rates for the long term and 1990 exchange rates for the short term as indicated above). The results are then added together to give real values for the Community. These aggregates, in real terms, are used for calculating indices and rates of change for EUR 12 and therefore there is never any explicit application of a "Community deflator". In particular, it is the Community income aggregates in this deflated form expressed in 1985 ECUs, that are set against the number of annual work units in the Community as a whole in order to calculate the trend of income indicators since 1973 for EUR 11 and since 1980 for EUR 12. As an example, the following algorithm is used to calculate indicator 1 for the Community :

4) It should be recalled that "1985" throughout this report means $(1984+1985+1986)/3$, an operation aimed at choosing a base year which is hardly affected by short-term fluctuations.

$$IND\ 1_{EC,t} = \frac{\sum_i \frac{NVA_{i,t}}{PGDP_{i,t} \times ER_{i,85}}}{\sum_i TLI_{i,t}},$$

- where: IND 1 = Indicator 1 (in ECUs per AWU);
 NVA = Net Value Added at Factor Cost for agriculture (in national currency);
 PGDP = Implicit Price Index of Gross Domestic Product at Market Prices (1985=100);
 ER = Exchange Rate (1ECU = ...N.C.);
 TLI = Total Labour Input of Agriculture (in AWU's);
 i = Member State (B...UK);
 t = Year (1973...1991).

Finally, it should be noted that this method renders unnecessary the calculation of a deflator for the Community as a whole and therefore none is given in this publication. However, it should be noted that the "average rate of inflation for the Community" which could be derived from the above-mentioned real values (a rate which would in fact differ according to the product or aggregate chosen for calculating it) would not correspond to the figures in the Commission's other publications for the average change in the implicit price index of gross domestic product in the Community (as this rate of change is generally calculated from each Member State's share in the Community's GDP expressed in PPSs).

II DETAILED TABLES

Table A.1

Share of net value added at factor cost of agriculture in net domestic product at factor cost (in %)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	4.2	5.7	2.8	20.3	10.1	7.1	18.5	7.8	3.8	5.4	:	2.7	:
1980	2.3	3.9	1.4	17.6	6.5	4.1	10.1	5.9	2.4	3.4	7.8	1.8	3.6
1985	2.3	4.1	1.3	17.6	5.8	3.8	9.4	4.4	2.5	4.0	6.7	1.5	3.2
1990	2.0	3.1	1.1	15.8	4.5	3.2	9.0	3.0	2.0	4.3	4.8	1.2	2.6

Table A.2

Agricultural employment as a share of total employment (in %)

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	4.0	9.4	7.1	36.8	23.6	10.9	23.9	17.8	7.9	6.0	34.9	2.9	11.3
1980	3.1	8.0	5.2	28.7	18.7	8.5	18.1	13.9	5.4	4.8	28.0	2.6	9.4
1985	3.1	7.0	4.5	27.5	17.9	7.4	15.8	10.9	4.2	4.8	23.5	2.5	8.3
1987	2.9	6.3	4.1	25.7	14.7	6.8	15.2	10.2	3.9	4.8	21.8	2.3	7.5
1988	2.8	6.0	3.9	25.3	14.0	6.5	15.2	9.6	3.6	4.7	20.3	2.3	7.2
1989	2.7	5.9	3.6	24.1	12.7	6.2	15.0	9.1	3.4	4.6	18.7	2.2	6.8
1990	2.7	5.9	3.4	23.5	11.5	5.9	14.8	8.7	3.3	4.5	17.5	2.1	6.4

Eurostat estimate for GR, NL, P and EUR 12 in 1973, for UK and EUR 12 in 1990.

Table A.3

Percentage change in volume of 1991 over 1990

		B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
+	Final crop output	-3.2	-5.3	-7.6	9.1	-2.9	-4.4	1.7	5.6	-27.1	1.1	-8.5	1.9	-0.8
	Cereals	-2.7	-6.9	9.2	45.4	4.4	10.9	3.0	13.4	-0.2	-9.8	-3.8	3.0	9.1
	Potatoes	18.0	0.0	-5.0	17.2	-2.8	14.0	-2.8	-8.4	-26.1	1.2	-16.3	-3.9	0.1
	Sugarbeet	-11.3	-5.0	-11.2	-6.9	-10.7	-4.1	-5.5	-1.0	0.0	-16.0	:	0.0	-7.3
	Industrial crops	0.5	-7.5	19.5	0.3	-14.5	5.6	0.7	-13.9	25.0	-16.2	-2.6	5.0	-1.3
	Oil seeds and oleaginous fruit (excl.olives)	30.0	-7.5	13.2	-18.4	-26.0	5.3	0.0	-19.8	25.0	-18.0	-11.0	4.0	-3.6
	Fresh vegetables	1.0	4.0	2.3	1.3	-7.7	5.4	6.8	-3.0	-55.1	5.4	-9.0	-0.3	-1.4
	Fresh fruit (with citrus fruit and grapes)	-34.2	-10.0	-55.6	-11.0	0.6	-26.9	1.3	-5.5	-77.4	-16.0	-2.9	0.5	-13.3
	Grape must and wine	:	:	9.5	14.8	-23.8	-29.2	:	6.8	-43.3	:	-10.0	:	-15.8
	Olive oil	:	:	:	28.6	16.1	:	:	250.0	:		-16.0	:	68.9
	Flowers and ornamentals	1.8	0.0	-0.6	0.0	0.0	-2.8	0.0	-3.0	:	2.0	:	1.1	-0.3
+	Final animal output	6.7	1.4	0.1	-0.2	1.5	-1.0	0.7	0.2	-6.4	0.9	3.4	0.9	0.5
	Total animals	9.3	3.5	2.0	0.4	3.9	-0.5	1.4	0.7	-6.8	2.4	3.0	2.9	1.9
	Cattle (including calves)	6.0	4.9	3.0	-0.4	-2.4	-3.9	-0.9	-0.9	-9.4	15.0	4.0	0.7	0.6
	Pigs	14.0	4.8	-0.5	4.1	5.8	1.8	6.3	1.4	0.6	-6.0	3.0	4.0	2.0
	Sheep and goats	-11.0	30.0	35.9	-1.1	6.7	-4.2	3.6	5.6	:	7.0	1.7	4.6	4.0
	Poultry	5.0	1.0	10.0	0.2	5.0	6.6	11.5	2.0	0.0	9.0	2.8	6.6	5.5
	Total animal products	0.4	-2.2	-2.3	-0.8	-3.2	-1.8	-0.7	-0.6	-6.2	-1.0	3.9	-2.2	-1.6
	Milk	-0.5	-2.2	-2.3	-0.7	-3.5	-2.4	-1.1	-0.9	-6.3	-1.0	4.6	-3.3	-2.0
	Eggs	5.0	-2.0	-1.6	-2.1	-4.4	3.9	9.2	1.0	-1.8	-1.0	2.2	3.8	0.3
=	Final output	3.0	-1.0	-2.8	6.4	-1.1	-2.9	0.8	3.5	-10.1	1.0	-2.4	1.3	-0.1
	Seeds and seedlings	1.0	-2.0	2.0	-2.0	1.9	14.1	3.6	-1.0	13.6	4.7	:	-4.9	6.8
	Energy and lubricants	1.0	0.0	1.0	7.0	0.0	1.0	-0.3	2.0	0.0	8.0	-9.8	-0.1	1.4
	Fertilizers and soil improvers	0.0	-2.0	-5.5	3.2	-1.0	-17.0	-2.6	-4.0	-1.4	-4.2	:	-5.3	-7.9
	Plant protection products	1.0	0.0	-7.4	1.0	0.0	-5.0	2.4	-2.0	2.2	-5.0	-5.7	-13.6	-5.1
	Feedingstuffs	1.0	4.0	0.0	0.0	1.9	5.5	3.9	2.0	6.6	-1.0	-1.0	2.4	2.1
	Material and small tools ; maintenance and repairs	0.0	0.0	-3.0	9.6	5.2	-5.0	-0.5	0.0	1.4	1.0	-11.2	0.1	-0.6
	Services	0.0	0.0	0.0	4.7	0.7	2.0	1.0	0.0	0.0	1.5	-6.9	10.6	2.1
-	Intermediate consumption	1.4	1.5	-0.3	5.9	1.6	0.0	0.1	1.0	1.0	0.5	-3.7	0.0	0.5

Table A.4

Percentage change in nominal prices of 1991 over 1990

		B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
+	Final crop output	-4.3	-1.5	6.7	23.6	1.5	-0.6	3.5	8.0	3.4	5.3	0.9	-0.2	4.4
	Cereals	1.2	2.1	-2.6	11.0	3.6	-4.7	-2.4	3.4	-3.1	0.6	-12.5	4.0	-0.3
	Potatoes	-12.0	6.6	13.4	32.6	17.5	-0.3	35.3	12.8	2.1	-4.0	48.0	1.5	8.4
	Sugarbeet	2.0	1.6	7.0	12.2	-2.8	4.8	3.5	5.1	0.0	5.0	:	-1.3	4.1
	Industrial crops	-0.3	-15.0	-11.2	29.4	8.0	-18.2	2.8	-0.9	-14.8	0.0	3.0	-8.8	-2.5
	Oil seeds and oleaginous fruit (excl.olives)	-1.0	-15.0	-9.8	9.4	7.9	-20.4	0.0	-2.1	-14.8	0.0	3.4	-9.0	-11.3
	Fresh vegetables	2.4	5.0	7.2	7.8	-0.8	7.5	1.6	12.5	47.1	6.6	24.0	-5.0	6.0
	Fresh fruit (with citrus fruit and grapes)	54.6	24.4	39.9	24.6	4.6	47.3	2.6	7.4	201.8	25.0	9.7	6.4	15.5
	Grape must and wine	:	:	0.0	28.8	-13.5	-0.8	:	4.7	5.8	:	-32.9	:	-1.0
	Olive oil	:	:	:	39.5	9.4	:	:	19.7	:	:	2.4	:	20.0
	Flowers and ornamentals	-0.2	-5.0	4.0	40.9	-11.6	-0.2	0.0	5.1	:	7.5	:	0.4	5.0
+	Final animal output	-2.9	-3.4	-3.0	12.6	-2.7	-3.1	-5.6	-0.2	-10.5	0.5	-4.4	-3.5	-2.1
	Total animals	-2.8	-4.3	-3.0	13.8	-1.7	-3.6	-5.4	-0.2	-12.8	-0.1	0.4	-5.5	-2.3
	Cattle (including calves)	-10.0	-15.4	-10.2	5.9	0.2	-7.6	-6.0	-4.9	-16.3	-6.0	-10.1	-0.7	-6.5
	Pigs	4.5	-1.2	3.5	11.5	1.1	-0.1	-2.2	0.6	-3.8	4.0	0.7	-9.7	1.1
	Sheep and goats	-12.0	2.6	4.0	16.8	-9.2	1.9	1.7	-2.9	:	6.0	-7.4	-17.1	-4.2
	Poultry	-5.4	1.0	-2.0	15.7	-1.7	0.2	-1.2	6.3	0.0	-3.0	24.2	-5.1	0.9
	Total animal products	-3.1	-1.4	-2.9	11.5	-5.3	-2.2	-5.7	-0.2	-9.0	1.2	-13.3	-0.1	-1.7
	Milk	-4.5	-1.4	-3.5	5.2	-5.8	-2.4	-5.4	-1.0	-9.2	1.0	-8.7	2.0	-1.9
	Eggs	3.5	-0.9	1.9	39.1	-3.9	-0.1	-7.5	3.5	0.0	2.0	-28.0	-10.1	-0.1
=	Final output	-0.4	-2.7	0.5	20.7	-0.2	-1.8	-4.4	4.8	-8.5	2.5	-1.5	-2.2	1.2
	Seeds and seedlings	-4.0	0.0	1.0	19.3	8.8	6.6	-2.1	2.0	-1.3	-4.5	:	3.3	4.4
	Energy and lubricants	0.0	0.0	7.0	41.9	9.4	3.0	1.8	-0.9	3.5	2.0	12.2	7.0	6.2
	Fertilizers and soil improvers	-2.0	-1.0	3.5	27.4	2.8	1.0	2.2	1.7	2.5	5.9	:	-2.1	2.1
	Plant protection products	0.0	10.0	8.0	13.6	3.8	3.1	3.8	3.5	5.2	8.0	3.4	11.0	5.1
	Feedingstuffs	-0.5	-5.8	-1.0	23.1	-0.6	-2.0	-4.2	3.5	-2.2	-2.0	2.6	1.5	0.0
	Material and small tools ; maintenance and repairs	3.0	2.0	5.1	18.0	1.8	3.0	4.8	0.0	3.6	3.0	16.4	5.5	4.3
	Services	4.0	1.0	3.2	18.7	5.1	5.0	-0.4	0.0	0.0	4.0	3.2	6.0	4.5
-	Intermediate consumption	-0.1	-1.9	2.4	25.2	2.5	1.9	0.0	3.1	1.2	-0.2	5.9	3.6	-2.6

Table A.5

Percentage change in real price of 1991 over 1990

		B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
+	Final crop output	1.1	-3.3	2.3	3.0	-4.8	-3.6	1.4	0.7	0.1	1.6	-11.9	-6.3	-1.7
	Cereals	-1.9	0.2	-6.6	-7.5	-2.8	-7.6	-4.4	-3.5	-6.2	-2.9	-23.6	-2.3	-5.5
	Potatoes	-14.6	4.6	8.7	10.5	10.2	-3.3	32.5	5.2	-1.2	-7.3	29.2	-4.7	2.1
	Sugarbeet	-1.1	-0.3	2.6	-6.5	-8.8	1.6	1.4	-2.0	0.0	1.4	:	-7.3	-0.7
	Industrial crops	-3.3	-16.6	-14.9	7.8	1.3	-20.6	0.7	-7.6	-17.5	-3.5	-10.1	-14.3	-9.6
	Oil seeds and oleaginous fruit (excl.olives)	-4.0	-16.6	-13.5	-8.8	1.2	-22.8	0.0	-8.7	-17.5	-3.5	-9.8	-14.6	-15.3
	Fresh vegetables	-0.7	3.0	2.8	-10.2	-6.9	4.3	-0.5	4.9	42.4	2.8	8.2	-10.8	-0.4
	Fresh fruit (with citrus fruit and grapes)	49.9	22.1	34.1	3.8	-1.9	42.9	0.5	0.2	192.1	20.7	-4.3	-0.1	7.8
	Grape must and wine	:	:	-4.1	7.3	-18.9	-3.8	:	-2.3	2.4	:	-41.4	:	-6.0
	Olive oil	:	:	:	16.2	2.6	:	:	11.7	:	:	-10.6	:	9.2
	Flowers and ornamentals	-3.2	-6.8	-0.3	17.4	-17.1	-3.2	0.0	-2.0	:	3.8	:	-5.7	-0.7
+	Final animal output	-5.8	-5.2	-7.0	-6.2	-8.7	-6.0	-7.5	-6.9	-13.4	-3.1	-16.5	-9.4	-6.9
	Total animals	-5.7	-6.1	-7.0	-5.2	-7.8	-6.5	-7.4	-6.9	-15.6	-3.6	-12.4	-11.3	-7.1
	Cattle (including calves)	-12.7	-17.0	-13.9	-11.8	-6.0	-10.4	-7.9	-11.3	-19.0	-9.3	-21.6	-6.8	-10.8
	Pigs	1.4	-3.1	-0.8	-7.1	-5.1	-3.1	-4.2	-6.2	-6.9	0.4	-12.1	-15.2	-3.6
	Sheep and goats	-14.6	0.7	-0.3	-2.7	-14.8	-1.2	-0.4	-9.5	:	2.3	-19.2	-22.2	-11.1
	Poultry	-8.2	-0.9	-6.0	-3.6	-7.8	-2.8	-3.2	-0.9	-3.2	-6.4	8.4	-10.9	-4.5
	Total animal products	-6.0	-3.3	-6.9	-7.0	-11.1	-5.2	-7.7	-6.9	-11.9	-2.3	-24.3	-6.2	-6.5
	Milk	-7.4	-3.3	-7.5	-12.3	-11.6	-5.3	-7.3	-7.6	-12.1	-2.5	-20.4	-4.2	-6.5
	Eggs	0.4	-2.8	-2.3	15.9	-9.8	-3.1	-9.4	-3.5	-3.2	-1.5	-37.2	-15.6	-5.8
=	Final output	-3.4	-4.5	-3.6	0.6	-6.4	-4.7	-6.4	-2.2	-11.4	-1.1	-14.1	-8.2	-4.3
	Seeds and seedlings	-6.9	-1.9	-3.2	-0.6	2.1	3.4	-4.1	-4.8	-4.5	-7.8	:	-3.0	0.0
	Energy and lubricants	-3.0	-1.9	2.6	18.2	2.6	-0.1	-0.3	-7.5	0.2	-1.5	-2.1	0.5	0.3
	Fertilizers and soil improvers	-4.9	-2.9	-0.8	6.2	-3.5	-2.1	0.1	-5.2	-0.7	2.3	:	-8.1	-3.0
	Plant protection products	-3.0	7.9	3.5	-5.3	-2.6	0.0	1.7	-3.5	1.8	4.2	-9.8	4.2	-0.1
	Feedingstuffs	-3.5	-7.5	-5.1	2.6	-6.7	-4.9	-6.2	-3.4	-5.3	-5.4	-10.4	-4.7	-5.1
	Material and small tools ; maintenance and repairs	-0.1	0.1	0.7	-1.7	-4.5	-0.1	2.6	0.0	0.3	-0.6	1.6	-0.9	-0.9
	Services	0.9	-0.9	-1.1	-1.1	-1.4	1.8	-2.4	0.0	0.0	0.4	-9.9	-0.5	0.0
-	Intermediate consumption	-3.1	-3.7	-1.8	4.3	-3.9	-1.2	-2.1	-3.8	-2.0	-3.7	-7.6	-2.7	-2.5

Table A.6

Percentage change in nominal value of 1991 over 1990

		B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
+	Final crop output	0.9	-6.7	-1.4	34.8	-1.5	-4.9	5.3	14.1	-24.6	6.5	-7.6	1.7	3.6
	Cereals	-1.5	-4.9	6.3	61.4	8.2	5.6	0.5	17.3	-3.3	-9.3	-15.8	7.1	8.7
	Potatoes	3.8	6.6	7.8	55.4	14.2	13.7	31.5	3.3	-24.6	-2.8	23.9	-2.5	8.4
	Sugarbeet	-9.5	-3.5	-5.0	4.5	-13.2	0.5	-2.2	4.0	0.0	-11.8	:	-1.3	-3.5
	Industrial crops	0.2	-21.4	6.1	29.7	-7.7	-13.6	3.5	-14.7	6.5	-16.2	0.3	-4.2	-3.8
	Oil seeds and oleaginous fruit (excl.olives)	28.7	-21.4	2.1	-10.7	-20.2	-16.2	0.0	-21.5	6.5	-18.0	-8.0	-5.4	-14.5
	Fresh vegetables	3.4	9.2	9.7	9.2	-8.4	13.3	8.5	9.1	-34.0	12.3	12.8	-5.3	4.6
	Fresh fruit (with citrus fruit and grapes)	1.8	12.0	-37.9	10.8	5.2	7.7	3.9	1.5	-31.8	5.0	6.5	6.9	0.1
	Grape must and wine	:	:	9.5	47.8	-34.1	-29.8	:	11.8	-40.0	:	-39.6	:	-16.7
	Olive oil	:	:	:	79.4	27.0	:	:	319.0	:	:	-13.9	:	102.6
	Flowers and ornamentals	1.6	-5.0	3.4	40.9	-11.6	-3.0	0.0	1.9	:	9.7	:	1.5	4.8
+	Final animal output	3.6	-2.0	-2.9	12.4	-1.3	-4.1	-5.0	0.0	-16.3	1.3	-1.1	-2.6	-1.6
	Total animals	6.2	-1.0	-1.1	14.3	2.1	-4.1	-4.1	0.5	-18.7	2.3	3.4	-2.8	-0.4
	Cattle (including calves)	-4.6	-11.3	-7.5	5.4	-2.2	-11.2	-6.8	-5.8	-24.2	8.1	-6.5	0.0	-6.0
	Pigs	19.1	3.5	3.0	16.0	7.0	1.7	4.0	2.0	-3.2	-2.2	3.7	-6.1	3.1
	Sheep and goats	-21.7	33.3	41.3	15.4	-3.1	-2.4	5.4	2.5	:	13.4	-5.8	-13.3	-0.3
	Poultry	-0.7	2.0	7.8	15.9	3.2	6.8	10.2	8.4	0.0	5.7	27.7	1.2	6.4
	Total animal products	-2.7	-3.6	-5.1	10.6	-8.3	-4.0	-6.4	-0.8	-14.6	0.2	-9.9	-2.3	-3.3
	Milk	-5.0	-3.6	-5.7	4.5	-9.1	-4.7	-6.4	-1.9	-14.9	0.0	-4.5	-1.4	-3.8
	Eggs	8.7	-2.9	0.3	36.2	-8.1	3.8	1.0	4.5	-1.8	1.0	-26.4	-6.7	0.2
=	Final output	2.6	-3.7	-2.3	28.3	-1.3	-4.6	-3.6	8.5	-17.8	3.5	-3.8	-0.9	1.0
	Seeds and seedlings	-3.0	-2.0	3.0	16.9	10.9	21.6	1.4	1.0	12.1	0.0	:	-1.8	11.5
	Energy and lubricants	1.0	0.0	8.1	51.8	9.4	4.0	1.5	1.1	3.5	10.2	1.2	6.9	7.7
	Fertilizers and soil improvers	-2.0	-3.0	-2.2	31.5	1.8	-16.2	-0.4	-2.4	1.1	1.4	:	-7.3	-6.0
	Plant protection products	1.0	10.0	0.0	14.8	3.8	-2.1	6.3	1.4	7.5	2.6	-2.5	-4.1	-0.2
	Feedingstuffs	0.5	-2.0	-1.0	23.1	1.3	3.4	-0.4	5.6	4.3	-3.0	1.6	3.9	2.1
	Material and small tools ; maintenance and repairs	3.0	2.0	1.9	29.4	7.1	-2.2	4.3	0.0	5.1	4.0	3.4	5.6	3.7
	Services	4.0	1.0	3.2	24.2	5.8	7.1	0.6	0.0	0.0	5.6	-3.9	17.2	6.7
-	Intermediate consumption	1.3	-0.4	2.1	32.6	4.1	1.9	0.1	4.1	2.2	0.3	2.0	3.6	3.1

Table A.6 (continued)

Percentage change in nominal value of 1991 over 1990

		B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
=	Gross value added at market prices	4.3	-6.9	-7.3	26.9	-5.2	-10.1	-6.4	10.4	-31.0	5.9	-9.6	-5.8	-0.5
+	Subsidies	-42.0	-11.2	-6.8	25.2	30.0	-3.1	-11.4	11.1	136.2	15.3	42.3	27.9	6.6
-	Taxes linked to production	0.0	4.2	-8.2	-34.5	6.0	-14.5	12.5	6.6	65.5	2.9	-9.6	18.6	-5.3
=	Gross value added at factor cost	-1.0	-7.7	-7.1	26.8	-3.1	-9.3	-7.7	10.5	-13.2	6.2	-3.9	-3.1	0.3
-	Depreciation	5.0	1.8	5.0	18.9	-14.7	2.0	2.2	3.3	8.4	6.0	-9.6	1.3	1.9
=	Net value added at factor cost	-2.1	-11.1	-13.6	27.3	-1.3	-11.5	-9.5	13.3	-19.2	6.3	-3.0	-4.6	-0.1
-	Rent and other payments in cash or in kind	3.0	-1.2	4.0	19.6	-1.4	-5.2	-1.7	4.7	3.6	1.5	0.3	-2.1	0.2
-	Interest	12.0	2.0	2.0	61.5	5.4	-1.0	-2.5	3.0	3.3	7.4	17.7	-14.1	2.9
=	Net income from agricultural activity of total labour input	-5.0	-26.4	-18.8	25.7	-2.4	-13.0	-10.6	15.0	-24.2	6.2	-7.5	-2.1	-0.6
-	Compensation of employees	4.0	2.5	0.0	18.4	7.2	3.8	-3.0	2.5	8.5	9.0	15.1	3.5	4.0
=	Net income from agricultural activity of family labour input	-5.8	-43.3	-23.1	26.2	-5.2	-17.2	-11.4	26.7	-25.8	5.7	-12.9	-6.0	-2.2

Table A.7

Percentage change in real value of 1991 over 1990

		B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
+	Final crop output	-2.1	-8.4	-5.5	12.4	-7.6	-7.8	3.1	6.4	-27.0	2.8	-19.4	-4.5	-2.5
	Cereals	-4.5	-6.7	1.9	34.5	1.5	2.4	-1.6	9.4	-6.4	-12.5	-26.5	0.6	3.1
	Potatoes	0.7	4.6	3.4	29.5	7.1	10.3	28.8	-3.6	-27.0	-6.2	8.1	-8.5	2.1
	Sugarbeet	-12.3	-5.3	-8.9	-13.0	-18.6	-2.5	-4.2	-3.0	0.0	-14.9	:	-7.3	-7.9
	Industrial crops	-2.8	-22.8	1.7	8.1	-13.4	-16.2	0.0	-20.4	3.1	-19.1	-12.5	-10.0	-10.8
	Oil seeds and oleaginous fruit (excl.olives)	24.8	-22.8	-2.1	-25.6	-25.1	-18.7	0.0	-26.8	3.1	-20.8	-19.7	-11.2	-18.4
	Fresh vegetables	0.3	7.2	5.2	-9.0	-14.1	9.9	6.3	1.8	-36.1	8.4	-1.5	-11.1	-1.8
	Fresh fruit (with citrus fruit and grapes)	-1.3	9.9	-40.5	-7.6	-1.3	4.5	1.8	-5.3	-34.0	1.4	-7.1	0.4	-6.5
	Grape must and wine	:	:	5.0	23.2	-38.2	-31.9	:	4.3	-41.9	:	-47.3	:	-20.9
	Olive oil	:	:	:	49.5	19.1	:	:	290.9	:	:	-24.9	:	84.4
	Flowers and ornamentals	-1.5	-6.8	-0.9	17.4	-17.1	-5.9	0.0	-4.9	:	5.9	:	-4.7	-1.0
+	Final animal output	0.5	-3.8	-6.9	-6.4	-7.4	-7.0	-6.9	-6.7	-18.9	-2.2	-13.7	-8.5	-6.4
	Total animals	3.0	-2.8	-5.2	-4.8	-4.2	-7.0	-6.1	-6.3	-21.3	-1.3	-9.8	-8.7	-5.3
	Cattle (including calves)	-7.5	-13.0	-11.3	-12.2	-8.3	-13.9	-8.7	-12.1	-26.6	4.3	-18.4	-6.1	-10.3
	Pigs	15.5	1.6	-1.2	-3.3	0.4	-1.4	1.8	-4.9	-6.3	-5.6	-9.5	-11.8	-1.7
	Sheep and goats	-24.0	30.8	35.5	-3.8	-9.1	-5.3	3.2	-4.4	:	9.5	-17.8	-18.6	-7.6
	Poultry	-3.7	0.1	3.4	-3.4	-3.2	3.6	7.9	1.1	-3.2	2.0	11.4	-5.0	0.8
	Total animal products	-5.7	-5.4	-9.0	-7.8	-14.0	-6.9	-8.3	-7.5	-17.3	-3.3	-21.4	-8.3	-8.0
	Milk	-7.8	-5.4	-9.6	-12.9	-14.7	-7.6	-8.3	-8.5	-17.6	-3.5	-16.7	-7.4	-8.3
	Eggs	5.4	4.7	-3.8	13.5	-13.8	0.7	-1.1	-2.5	-4.9	-2.5	-35.8	-12.4	-5.5
=	Final output	-0.5	-5.4	-6.3	6.9	-7.4	-7.5	-5.6	1.2	-20.4	-0.1	-16.1	-6.9	-4.4
	Seeds and seedlings	-6.0	-3.8	-1.2	-2.6	4.0	17.9	-0.7	-5.8	8.5	-3.5	:	-7.8	6.8
	Energy and lubricants	-2.0	-1.9	3.6	26.5	2.6	0.9	-0.6	-5.7	0.2	6.4	-11.7	0.4	1.7
	Fertilizers and soil improvers	-4.9	-4.8	-6.2	9.6	-4.5	-18.7	-2.4	-9.0	-2.1	-2.1	:	-13.0	-10.7
	Plant protection products	-2.0	7.9	-4.1	-4.4	-2.6	-5.0	4.1	-5.4	4.1	-1.0	-14.9	-10.0	-5.2
	Feedingstuffs	-2.5	-3.8	-5.1	2.6	-5.0	0.3	-2.4	-1.5	1.0	-6.4	-11.3	-2.4	-3.1
	Material and small tools ; maintenance and repairs	-0.1	0.1	-2.3	7.8	0.5	-5.1	2.2	0.0	1.7	0.4	-9.8	-0.8	-1.5
	Services	0.9	-0.9	-1.1	3.5	-0.8	3.9	-1.5	0.0	0.0	1.9	-16.1	10.0	2.0
-	Intermediate consumption	-1.8	-2.2	-2.1	10.5	-2.3	-1.1	-1.9	-2.9	-1.1	-3.2	-11.0	-2.7	-2.0

Table A.7 (continued)

Percentage change in real value of 1991 over 1990

		B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
=	Gross value added at market prices	1.1	-8.6	-11.1	5.7	-11.1	-12.8	-8.3	3.0	-33.2	2.2	-21.1	-11.5	-6.2
+	Subsidies	-43.7	-12.9	-10.6	4.4	22.0	-6.0	-13.2	3.6	128.7	11.3	24.2	20.1	0.1
-	Taxes linked to production	-3.0	2.3	-12.0	-45.4	-0.5	-17.1	10.2	-0.6	60.2	-0.7	-21.1	11.4	-9.0
=	Gross value added at factor cost	-4.0	-9.4	-11.0	5.7	-9.1	-12.0	-9.6	3.1	-15.9	2.5	-16.1	-9.0	-5.5
-	Depreciation	1.8	-0.1	0.7	-1.0	-20.0	-1.1	0.1	-3.6	4.9	2.3	-21.1	-4.9	-3.4
=	Net value added at factor cost	-5.1	-12.7	-17.1	6.0	-7.5	-14.1	-11.4	5.7	-21.8	2.6	-15.4	-10.4	-6.1
-	Rent and other payments in cash or in kind	-0.1	-3.0	-0.3	-0.3	-7.5	-8.1	-3.7	-2.3	0.3	-2.0	-12.5	-8.1	-5.1
-	Interest	8.6	0.1	-2.2	34.6	-1.1	-4.0	-4.5	-3.9	0.0	3.7	2.7	-19.3	-2.6
=	Net income from agricultural activity of total labour input	-7.8	-27.8	-22.1	4.8	-8.4	-15.6	-12.5	7.3	-26.6	2.5	-19.3	-8.1	-6.7
-	Compensation of employees	0.9	0.6	-4.1	-1.4	0.6	0.7	-5.0	-4.4	5.0	5.2	0.4	-2.8	-1.9
=	Net income from agricultural activity of family labour input	-8.6	-44.3	-26.2	5.2	-11.0	-19.7	-13.2	18.2	-28.2	2.0	-24.0	-11.8	-8.4

Table A.8

Belgique/Belgie

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU ¹⁾	Real net value added at factor cost per AWU
1973	66.1	46.1	143.2	139.9	102.4
1974	57.3	51.9	110.1	134.5	81.9
1975	64.3	58.2	110.4	128.8	85.7
1976	77.6	62.6	123.7	122.5	101.1
1977	66.4	67.3	98.6	117.2	84.1
1978	72.3	70.2	102.8	113.4	90.7
1979	68.2	73.4	92.7	112.9	82.1
1980	71.9	76.2	94.2	108.5	86.8
1981	80.3	79.8	100.4	105.5	95.3
1982	88.8	85.4	103.8	103.4	100.4
1983	100.5	90.2	111.2	102.7	108.3
1984	101.2	94.9	106.4	102.0	104.3
1985	99.8	100.7	99.0	99.6	99.4
1986	99.0	104.4	94.6	98.4	96.2
1987	92.5	106.7	86.5	95.4	90.8
1988	98.6	108.3	90.9	92.3	98.6
1989	125.3	113.4	110.3	90.1	122.5
1990	114.1	116.8	97.5	87.9	111.0
1991	111.7	120.4	92.6	85.2	108.7
% 91/90	-2.1	3.1	-5.1	-3.0	-2.1

1) AWU : Annual Work Unit

Table A.9

Danmark

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU ¹⁾	Real net value added at factor cost per AWU
1973	38.2	35.6	107.1	163.9	65.4
1974	39.2	40.3	97.2	152.5	63.7
1975	35.1	45.3	77.5	145.5	53.3
1976	38.4	49.4	77.7	140.9	55.1
1977	47.2	54.1	87.1	135.4	64.4
1978	54.2	59.4	91.1	130.2	70.0
1979	48.6	63.9	75.9	124.9	60.8
1980	54.2	69.2	78.3	119.0	65.8
1981	65.3	76.1	85.6	113.7	75.4
1982	84.3	84.2	99.9	109.6	91.2
1983	75.8	90.6	83.6	107.1	78.1
1984	103.7	95.7	108.2	104.1	104.0
1985	94.9	99.9	94.9	99.2	95.7
1986	101.4	104.4	97.0	96.7	100.3
1987	79.9	109.3	72.9	90.9	80.3
1988	80.9	114.3	70.7	87.4	81.0
1989	98.8	119.2	82.7	85.2	97.1
1990	95.8	122.0	78.4	82.4	95.3
1991	85.2	124.3	68.4	80.2	85.4
% 91/90	-11.1	1.9	-12.7	-2.6	-10.4

1) AWU : Annual Work Unit

Table A.10

Deutschland

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU 1)	Real net value added at factor cost per AWU
1973	104.2	61.4	169.8	138.6	122.5
1974	91.3	65.7	139.0	132.8	104.6
1975	107.0	69.5	153.9	129.5	118.8
1976	112.2	72.0	155.8	126.3	123.4
1977	105.9	74.7	141.8	120.0	118.2
1978	103.6	77.9	133.0	117.4	113.3
1979	91.6	80.9	113.2	111.6	101.3
1980	83.9	84.9	98.8	109.4	90.3
1981	86.9	88.4	98.3	108.0	91.1
1982	108.0	92.3	117.1	105.4	111.0
1983	87.7	95.5	91.9	102.8	89.4
1984	101.0	97.5	103.6	101.1	102.4
1985	92.5	99.6	92.8	100.2	92.6
1986	106.6	102.9	103.6	98.7	105.0
1987	85.4	104.9	81.4	92.7	87.8
1988	105.8	106.5	99.3	91.0	109.1
1989	121.8	109.3	111.5	85.9	129.7
1990	107.5	113.0	95.1	83.6	113.8
1991	92.9	117.9	78.8	79.4	99.3
% 91/90	-13.6	4.3	-17.1	-5.0	-12.8

1) AWU : Annual Work Unit

Table A.11

Ellas

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU 1)	Real net value added at factor cost per AWU
1973	12.5	14.1	89.1	121.9	73.1
1974	14.4	17.0	84.7	119.3	71.0
1975	16.1	19.1	84.4	116.6	72.4
1976	19.8	22.0	89.6	114.1	78.5
1977	21.0	24.9	84.2	111.6	75.4
1978	26.2	28.1	93.1	109.1	85.3
1979	28.8	33.4	86.2	106.8	80.8
1980	37.7	39.3	96.0	104.4	92.0
1981	46.8	47.0	99.5	102.1	97.4
1982	59.4	58.8	101.0	100.9	100.1
1983	63.8	70.1	91.0	100.1	90.9
1984	83.5	84.3	99.0	100.3	98.8
1985	102.2	99.2	103.0	101.7	101.3
1986	114.3	116.5	98.0	98.1	99.9
1987	126.2	133.2	94.7	92.7	102.2
1988	156.5	153.9	101.7	90.4	112.4
1989	191.8	173.4	110.5	88.9	124.4
1990	203.1	206.9	98.1	86.8	113.1
1991	258.4	248.3	104.0	85.0	122.4
% 91/90	27.3	20.0	6.0	-2.0	8.2

1) AWU : Annual Work Unit

Table A.12

Espana

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU ¹⁾	Real net value added at factor cost per AWU
1973	27.7	18.4	150.2	202.7	74.1
1974	26.7	21.4	124.2	196.0	63.4
1975	32.5	25.0	129.7	182.0	71.3
1976	37.4	29.1	127.9	167.7	76.3
1977	48.8	35.8	135.6	156.3	86.8
1978	57.8	43.2	133.1	151.5	87.9
1979	57.6	50.6	113.4	141.7	80.0
1980	65.0	57.8	112.0	130.5	85.9
1981	59.0	64.7	90.8	118.8	76.5
1982	74.9	73.6	101.3	114.4	88.6
1983	82.6	82.2	100.2	112.5	89.0
1984	95.8	91.2	104.7	104.7	100.0
1985	101.7	99.0	102.3	100.2	102.1
1986	102.5	109.8	93.0	95.1	97.9
1987	111.2	116.3	95.3	91.4	104.3
1988	129.7	122.9	105.1	88.5	118.8
1989	132.0	131.5	100.0	82.8	120.9
1990	142.0	141.1	100.2	79.0	126.9
1991	140.0	150.4	92.7	72.7	127.6
% 91/90	-1.3	6.6	-7.5	-8.0	0.6

1) AWU : Annual Work Unit

Table A.13

France

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU ¹⁾	Real net value added at factor cost per AWU
1973	47.2	31.0	151.8	137.2	110.6
1974	47.3	34.8	135.6	132.8	102.0
1975	48.0	39.4	121.7	128.4	94.8
1976	51.6	43.7	117.9	125.6	93.8
1977	53.7	47.6	112.7	123.1	91.6
1978	60.3	52.4	115.0	121.1	95.0
1979	67.0	57.7	115.9	119.2	97.2
1980	65.9	64.5	102.2	116.2	88.0
1981	74.0	71.8	103.0	113.0	91.2
1982	95.3	80.4	118.4	110.0	107.6
1983	94.5	88.1	107.1	106.8	100.3
1984	97.5	94.5	103.0	103.6	99.4
1985	100.2	100.1	100.0	100.0	100.0
1986	102.3	105.4	97.0	96.5	100.5
1987	102.6	108.6	94.4	93.0	101.5
1988	98.2	112.1	87.5	89.6	97.7
1989	112.6	116.1	96.9	86.2	112.3
1990	116.5	119.5	97.3	83.0	117.2
1991	103.1	123.3	83.5	80.1	104.2
% 91/90	-11.5	3.1	-14.1	-3.5	-11.0

1) AWU : Annual Work Unit

Table A.14

Ireland

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU ¹⁾	Real net value added at factor cost per AWU
1973	28.8	23.6	121.8	127.8	95.4
1974	26.8	25.0	106.7	122.3	87.4
1975	38.5	30.0	127.5	119.1	107.2
1976	43.4	36.4	118.7	116.7	101.8
1977	59.3	41.2	143.2	114.5	125.3
1978	66.4	45.5	145.3	112.0	129.8
1979	61.3	51.7	117.9	109.1	108.2
1980	55.9	59.3	93.7	106.2	88.3
1981	64.6	69.7	92.2	104.1	88.6
1982	79.8	80.3	98.9	102.4	96.7
1983	91.3	88.9	102.3	101.3	101.1
1984	107.9	94.5	113.6	101.2	112.3
1985	98.7	99.4	98.8	101.2	97.7
1986	93.4	106.0	87.7	97.6	89.9
1987	112.1	108.8	102.5	93.4	109.9
1988	131.7	112.2	116.9	91.0	128.6
1989	138.2	117.5	117.1	89.2	131.5
1990	135.9	115.9	116.6	87.3	133.7
1991	122.9	118.4	103.4	84.2	122.9
% 91/90	-9.5	2.1	-11.4	-3.6	-8.1

¹⁾ AWU : Annual Work Unit ; Eurostat estimates.

Table A.15

Italia

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU ¹⁾	Real net value added at factor cost per AWU
1973	21.2	16.6	127.3	135.1	94.3
1974	23.1	19.9	116.2	132.3	87.8
1975	26.6	23.2	114.6	127.2	90.1
1976	29.4	27.4	107.2	127.2	84.3
1977	35.5	32.5	109.0	122.7	88.9
1978	41.0	37.1	110.2	122.7	89.9
1979	49.6	42.7	115.9	120.7	96.0
1980	65.5	51.3	127.3	116.5	109.3
1981	71.3	61.1	116.4	109.1	106.7
1982	78.9	71.6	109.9	102.8	106.9
1983	97.1	82.4	117.5	104.9	112.0
1984	95.9	91.9	104.1	103.0	101.0
1985	100.6	100.1	100.3	98.9	101.4
1986	103.5	108.0	95.6	98.1	97.5
1987	108.9	114.4	94.9	96.1	98.8
1988	104.7	122.0	85.6	91.7	93.3
1989	111.8	129.4	86.2	87.0	99.2
1990	107.6	139.1	77.2	85.2	90.6
1991	121.9	149.1	81.6	82.7	98.7
% 91/90	13.3	7.2	5.7	-2.9	8.9

¹⁾ AWU : Annual Work Unit

Table A.16

Luxembourg

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU ¹⁾	Real net value added at factor cost per AWU
1973	57.4	46.0	124.8	174.8	71.3
1974	53.7	53.8	99.8	167.9	59.4
1975	55.2	53.3	103.4	158.3	65.3
1976	51.5	59.9	86.0	148.6	57.8
1977	63.7	60.6	105.1	145.9	72.0
1978	63.5	63.7	99.7	139.0	71.7
1979	67.4	67.7	99.5	133.5	74.5
1980	63.7	73.1	87.2	126.6	68.8
1981	71.8	78.3	91.7	118.3	77.4
1982	105.8	86.8	121.9	114.2	106.6
1983	95.1	92.7	102.6	108.7	94.3
1984	97.7	96.8	100.9	103.2	97.7
1985	99.3	99.7	99.6	100.5	99.0
1986	103.1	103.5	99.6	96.3	103.3
1987	98.9	102.8	96.1	92.2	104.2
1988	99.8	106.2	94.0	88.1	106.6
1989	120.0	112.2	106.9	86.7	123.2
1990	110.9	114.5	96.8	82.6	117.2
1991	89.6	118.3	75.7	79.3	95.3
% 91/90	-19.2	3.3	-21.8	-3.9	-18.7

1) AWU : Annual Work Unit

Table A.17

Nederland

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU ¹⁾	Real net value added at factor cost per AWU
1973	55.9	52.5	106.4	116.8	91.1
1974	50.6	57.3	88.3	114.7	77.0
1975	59.4	63.2	94.0	113.3	82.9
1976	69.5	68.8	101.0	111.7	90.3
1977	68.5	73.4	93.4	108.6	86.0
1978	69.5	77.4	89.8	106.1	84.7
1979	65.8	80.4	81.8	104.7	78.1
1980	66.4	85.0	78.1	103.8	75.2
1981	84.2	89.6	94.0	101.8	92.3
1982	93.3	95.0	98.1	101.3	96.9
1983	91.7	96.8	94.7	101.4	93.4
1984	100.2	98.6	101.6	100.7	100.9
1985	96.3	100.4	95.8	100.2	95.6
1986	103.5	100.9	102.6	99.1	103.5
1987	98.3	100.5	97.8	98.2	99.6
1988	100.5	102.4	98.1	96.9	101.2
1989	120.9	104.0	116.2	97.0	119.8
1990	122.3	107.1	114.3	96.0	119.0
1991	130.0	110.9	117.2	95.7	122.5
% 91/90	6.3	3.6	2.6	-0.3	2.9

1) AWU : Annual Work Unit

Table A.18

Portugal

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU ¹⁾	Real net value added at factor cost per AWU
1973	:	10.4	:	136.9	:
1974	:	12.3	:	133.9	:
1975	:	14.5	:	130.8	:
1976	:	15.1	:	133.0	:
1977	:	20.9	:	129.0	:
1978	:	25.6	:	122.1	:
1979	:	30.5	:	121.9	:
1980	42.9	36.9	115.9	121.0	95.7
1981	44.9	43.4	102.9	114.3	90.0
1982	58.5	52.4	111.2	110.6	100.5
1983	65.0	65.3	99.2	101.9	97.3
1984	83.3	81.4	102.0	102.4	99.6
1985	100.6	99.1	101.1	102.8	98.4
1986	116.1	119.4	96.9	94.8	102.1
1987	131.7	132.8	98.9	99.0	99.8
1988	118.4	148.3	79.6	94.7	84.0
1989	148.5	167.5	88.4	90.0	98.2
1990	170.1	191.4	88.6	84.5	104.7
1991	165.0	219.4	74.9	83.6	89.6
% 91/90	-3.0	14.6	-15.4	-1.0	-14.5

1) AWU : Annual Work Unit

Table A.19

United Kingdom

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU ¹⁾	Real net value added at factor cost per AWU
1973	35.7	24.7	143.9	120.9	119.1
1974	35.9	28.4	125.9	116.2	108.5
1975	43.1	36.1	119.0	113.1	105.2
1976	53.7	41.6	128.6	114.0	112.9
1977	56.5	47.4	118.7	112.7	105.4
1978	59.6	52.8	112.5	112.4	100.2
1979	64.6	60.4	106.6	110.1	96.9
1980	70.3	72.2	97.1	107.1	90.7
1981	81.1	80.4	100.6	104.8	96.1
1982	94.2	86.5	108.5	103.9	104.6
1983	87.6	91.0	95.9	102.9	93.3
1984	109.0	95.2	114.2	101.3	112.7
1985	91.1	100.6	90.3	100.4	90.0
1986	99.9	104.2	95.6	98.3	97.3
1987	100.2	109.4	91.4	95.9	95.4
1988	93.9	116.5	80.3	94.2	85.3
1989	111.7	124.6	89.4	91.9	97.3
1990	116.0	133.0	86.9	90.5	96.0
1991	110.7	141.7	77.9	88.1	88.5
% 91/90	-4.6	6.5	-10.4	-2.7	-7.9

1) AWU : Annual Work Unit

**Major components of the calculation of indicator 1
(indices, 1984-1986 = 100)**

	Nominal net value added at factor cost	Implicite price index of gross domestic product at market prices	Real net value added at factor cost	Total labour input in AWU ¹⁾	Real net value added at factor cost per AWU
1973	:	:	:	:	:
1974	:	:	:	:	:
1975	:	:	:	:	:
1976	:	:	:	:	:
1977	:	:	:	:	:
1978	:	:	:	:	:
1979	:	:	:	:	:
1980	74.9	:	105.6	116.6	90.6
1981	80.3	:	102.4	110.7	92.5
1982	94.0	:	109.4	107.0	102.3
1983	93.0	:	103.4	105.4	98.2
1984	100.3	:	104.6	102.7	101.8
1985	99.0	:	98.5	100.3	98.3
1986	100.8	:	96.9	97.0	99.9
1987	98.5	:	92.7	94.3	98.3
1988	101.6	:	91.5	91.1	100.4
1989	115.1	:	98.0	87.0	112.6
1990	114.5	:	92.7	84.3	110.0
1991	113.3	:	86.9	81.1	107.1
% 91/90	-1.1	:	-6.2	-3.7	-2.6

¹⁾ AWU : Annual Work Unit

Table A.21

Indicator 1

**Indices of real net value added at factor cost of total labour input per annual work unit (AWU) from
1973 to 1991
1984-86 = 100**

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	102.4	65.4	122.5	73.1	74.1	110.6	95.4	94.3	71.3	91.1	:	119.1	:
1974	81.9	63.7	104.6	71.0	63.4	102.0	87.4	87.8	59.4	77.0	:	108.5	:
1975	85.7	53.3	118.8	72.4	71.3	94.8	107.2	90.1	65.3	82.9	:	105.2	:
1976	101.1	55.1	123.4	78.5	76.3	93.8	101.8	84.3	57.8	90.3	:	112.9	:
1977	84.1	64.4	118.2	75.4	86.8	91.6	125.3	88.9	72.0	86.0	:	105.4	:
1978	90.7	70.0	113.3	85.3	87.9	95.0	129.8	89.9	71.7	84.7	:	100.2	:
1979	82.1	60.8	101.3	80.8	80.0	97.2	108.2	96.0	74.5	78.1	:	96.9	:
1980	86.8	65.8	90.3	92.0	85.9	88.0	88.3	109.3	68.8	75.2	95.7	90.7	90.6
1981	95.3	75.4	91.1	97.4	76.5	91.2	88.6	106.7	77.4	92.3	90.0	96.1	92.5
1982	100.4	91.2	111.0	100.1	88.6	107.6	96.7	106.9	106.6	96.9	100.5	104.6	102.3
1983	108.3	78.1	89.4	90.9	89.0	100.3	101.1	112.0	94.3	93.4	97.3	93.3	98.2
1984	104.3	104.0	102.4	98.8	100.0	99.4	112.3	101.0	97.7	100.9	99.6	112.7	101.8
1985	99.4	95.7	92.6	101.3	102.1	100.0	97.7	101.4	99.0	95.6	98.4	90.0	98.3
1986	96.2	100.3	105.0	99.9	97.9	100.5	89.9	97.5	103.3	103.5	102.1	97.3	99.9
1987	90.8	80.3	87.8	102.2	104.3	101.5	109.9	98.8	104.2	99.6	99.8	95.4	98.3
1988	98.6	81.0	109.1	112.4	118.8	97.7	128.6	93.3	106.6	101.2	84.0	85.3	100.4
1989	122.5	97.1	129.7	124.4	120.9	112.3	131.5	99.2	123.2	119.8	98.2	97.3	112.6
1990	111.0	95.3	113.8	113.1	126.8	117.2	133.7	90.6	117.2	119.0	104.7	96.0	110.0
1991	108.7	85.4	99.3	122.4	127.6	104.2	122.9	98.7	95.3	122.5	89.6	88.5	107.1
% 91/90	-2.1	-10.4	-12.8	8.2	0.6	-11.0	-8.1	8.9	-18.7	2.9	-14.5	-7.9	-2.6

Table A.22

Indicator 2

**Indices of real net income from agricultural activity of total labour input per annual work unit (AWU)
from 1973 to 1991
1984-86 = 100**

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	110.6	88.9	142.4	78.3	79.3	119.5	106.6	103.3	75.3	99.2	:	135.5	:
1974	87.6	82.4	117.6	75.3	66.0	108.9	93.8	95.4	61.4	81.1	:	120.6	:
1975	92.1	60.7	137.7	76.3	74.4	99.8	117.9	97.1	66.7	88.3	:	119.3	:
1976	110.3	60.0	143.6	82.9	78.8	97.8	111.0	89.8	56.3	96.7	:	128.8	:
1977	88.6	70.2	135.9	78.7	90.6	94.8	137.4	94.1	71.9	90.3	:	119.7	:
1978	94.0	72.8	128.6	89.1	92.2	98.2	140.2	94.3	72.1	86.5	:	111.8	:
1979	82.8	44.4	109.6	82.4	82.1	100.4	104.5	100.1	75.4	75.5	:	102.0	:
1980	86.2	39.1	92.1	93.9	88.0	89.0	77.6	113.9	68.2	69.2	105.5	90.5	92.0
1981	95.8	47.9	90.3	100.6	74.4	92.5	78.8	109.1	76.8	87.7	95.2	98.4	92.9
1982	102.0	77.2	116.5	103.5	88.6	112.0	87.1	108.4	110.7	94.2	104.0	108.5	104.1
1983	111.0	56.9	86.3	92.3	88.5	101.3	96.8	114.3	95.4	92.4	94.1	95.7	98.8
1984	105.7	105.8	103.1	99.3	100.7	99.6	112.8	101.8	98.2	101.6	96.8	117.6	102.6
1985	98.3	92.8	89.6	100.7	102.4	99.9	97.6	101.3	99.0	94.8	98.9	86.0	97.6
1986	96.0	101.5	107.3	100.1	96.9	100.5	89.6	96.9	102.9	103.6	104.3	96.5	99.8
1987	89.4	56.9	82.8	102.8	104.1	102.4	114.8	98.7	103.2	98.4	100.4	95.8	98.1
1988	96.7	54.9	111.3	114.5	121.0	97.7	138.7	91.7	105.1	100.5	82.4	83.3	100.2
1989	125.5	83.6	138.0	128.0	116.2	114.7	138.9	98.0	123.6	120.2	98.1	93.3	112.9
1990	109.1	77.0	116.4	115.5	124.0	120.5	137.3	89.1	113.0	117.8	101.6	90.9	109.5
1991	103.7	57.1	95.4	123.5	123.4	105.4	124.6	98.5	86.2	121.2	82.9	86.0	105.9
% 91/90	-5.0	-25.9	-18.0	6.9	-0.5	-12.5	-9.2	10.5	-23.7	2.9	-18.4	-5.5	-3.3

Table A.23

Indicator 3

**Indices of real net income from agricultural activity of family labour input per annual work unit (AWU)
from 1973 to 1991
1984-86 = 100**

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	113.5	93.8	156.4	80.1	80.4	132.8	104.7	135.6	71.9	96.9	:	176.5	:
1974	88.7	83.9	126.5	76.4	59.4	117.1	90.0	115.8	58.0	76.8	:	146.3	:
1975	93.2	54.8	151.4	76.1	71.3	104.9	116.2	112.3	63.2	84.4	:	142.9	:
1976	112.4	53.4	157.5	82.7	73.2	102.1	109.5	96.9	53.3	93.9	:	156.3	:
1977	89.0	66.7	146.8	77.7	86.6	98.3	137.8	99.1	69.0	86.5	:	141.0	:
1978	94.0	68.8	137.0	87.1	87.2	102.0	140.9	98.0	69.3	81.9	:	125.8	:
1979	82.3	28.7	113.9	79.9	76.5	104.1	101.8	105.9	73.6	69.3	:	107.6	:
1980	85.8	19.9	91.1	90.1	84.2	89.3	72.4	123.3	66.7	62.8	98.6	90.2	90.2
1981	95.7	31.4	88.4	96.7	65.2	93.4	75.4	116.0	75.5	84.9	88.4	102.9	91.1
1982	102.5	71.9	121.3	100.2	84.6	117.1	85.7	116.1	110.6	93.1	100.2	118.4	106.4
1983	112.0	42.0	83.1	90.1	84.9	102.6	96.6	122.4	95.3	90.9	91.7	95.4	98.5
1984	105.8	108.5	104.6	97.9	100.2	99.7	114.6	103.8	98.3	101.2	95.9	130.0	103.5
1985	98.2	89.6	86.2	101.7	102.2	99.9	97.4	100.6	98.8	94.0	98.8	76.3	96.6
1986	95.9	101.9	109.2	100.4	97.5	100.3	88.0	95.6	103.0	104.8	105.3	93.7	99.9
1987	88.0	36.9	78.0	104.3	107.6	101.5	114.5	98.1	103.0	97.7	100.6	92.7	97.3
1988	95.8	35.0	113.5	116.5	129.7	94.9	140.8	84.9	105.2	99.2	77.8	73.1	99.4
1989	127.1	76.9	147.6	131.0	120.6	115.0	141.8	93.6	127.0	124.8	96.1	89.1	115.9
1990	109.1	69.6	120.0	117.4	130.0	120.6	139.0	79.4	113.9	121.4	100.8	84.0	110.8
1991	102.8	40.1	93.2	124.1	129.9	100.3	124.6	96.8	86.0	126.0	76.2	75.7	105.5
% 91/90	-5.8	-42.4	-22.4	5.7	-0.1	-16.8	-10.4	22.0	-24.5	3.8	-24.4	-9.9	-4.8

Table A.24

Volume indices of final output in agriculture from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	89.7	72.4	83.9	81.0	79.2	80.8	73.4	82.2	94.6	65.2	:	86.2	:
1974	91.8	79.0	84.2	82.1	76.2	79.3	73.9	83.5	97.6	69.1	:	83.6	:
1975	85.2	72.5	84.4	88.1	76.8	76.5	75.4	86.5	94.7	68.7	:	79.5	:
1976	84.4	73.4	84.7	87.6	80.0	76.6	74.8	84.8	90.6	71.5	:	78.4	:
1977	85.9	79.9	89.0	84.0	80.4	78.3	81.9	86.4	92.6	74.6	:	84.0	:
1978	89.4	82.3	92.2	91.3	84.5	84.0	86.0	89.0	93.2	79.5	:	86.9	:
1979	90.3	84.8	92.5	87.6	85.2	90.9	86.0	94.5	92.3	83.2	:	87.7	:
1980	90.7	85.5	93.6	96.1	93.5	90.3	84.9	98.6	90.1	85.2	96.8	90.4	92.4
1981	91.4	87.7	92.8	97.0	86.3	89.9	84.7	97.5	93.8	89.2	94.0	89.5	91.5
1982	94.3	92.1	101.1	98.2	91.6	98.2	90.2	95.9	102.2	92.6	97.8	95.7	96.3
1983	93.2	90.1	98.3	94.0	94.2	95.9	93.4	102.6	97.7	94.7	94.8	94.4	96.6
1984	97.7	99.1	101.1	97.0	99.9	99.6	101.1	98.7	100.2	97.7	97.3	101.9	99.6
1985	98.5	99.9	96.9	100.7	101.9	99.9	100.0	99.5	98.5	98.7	100.4	98.5	99.4
1986	103.8	101.0	101.9	102.3	98.2	100.5	98.8	101.8	101.3	103.6	102.3	99.6	101.0
1987	102.1	97.9	96.9	94.8	106.1	103.2	100.0	106.0	98.0	101.5	108.6	98.6	101.6
1988	106.2	102.6	99.9	104.0	111.8	103.1	101.6	103.7	97.5	104.2	97.3	98.0	102.9
1989	109.0	105.7	100.0	112.5	106.2	106.0	103.7	104.7	101.3	107.1	110.4	99.3	104.1
1990	105.8	109.8	99.8	102.1	109.9	108.4	111.5	101.2	100.4	112.3	119.5	101.6	105.0
1991	108.9	108.7	97.0	108.6	108.7	105.3	112.4	104.8	90.2	113.4	116.6	102.9	104.9
% 91/90	3.0	-1.0	-2.8	6.4	-1.1	-2.9	0.8	3.5	-10.1	1.0	-2.4	1.3	-0.1

Table A.25

Nominal price indices of final output in agriculture from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	59.3	48.3	83.3	14.5	27.6	43.4	30.6	22.7	57.6	74.5	:	36.0	:
1974	57.6	47.8	81.6	16.8	30.1	47.3	31.4	27.1	56.0	70.4	:	41.7	:
1975	66.6	53.8	89.2	18.0	34.4	50.4	41.4	30.9	61.0	78.4	:	50.3	:
1976	76.1	60.9	98.7	21.7	38.5	56.6	50.9	37.3	66.2	87.4	:	64.5	:
1977	73.0	63.3	97.1	24.2	48.2	60.5	62.6	43.8	67.4	86.8	:	68.0	:
1978	72.4	68.3	93.9	27.3	53.9	63.9	69.2	49.6	67.6	84.1	:	70.0	:
1979	73.2	69.3	96.2	32.8	57.2	66.8	73.7	55.1	70.6	83.6	:	78.1	:
1980	77.5	76.2	96.8	39.9	59.6	71.9	72.8	62.0	72.8	88.0	39.0	82.2	72.8
1981	83.9	85.8	104.0	48.1	68.3	80.6	84.7	71.1	79.2	96.9	46.4	91.1	81.5
1982	91.1	95.7	104.8	58.8	77.7	88.8	91.6	81.5	92.1	99.5	55.7	96.5	88.8
1983	101.3	99.3	104.0	69.4	85.8	96.3	99.0	89.7	97.1	100.4	69.4	99.9	94.4
1984	101.7	103.2	103.6	85.5	94.5	98.7	101.6	96.2	97.8	102.9	87.6	101.2	98.7
1985	101.6	99.2	101.6	101.5	98.9	100.8	99.0	101.1	101.5	101.7	99.9	98.6	100.5
1986	96.8	97.7	95.0	112.3	106.7	100.5	99.5	102.7	100.7	95.7	111.9	100.2	100.8
1987	94.4	92.9	90.6	128.3	103.8	98.3	103.8	101.9	100.6	93.4	119.4	103.1	100.4
1988	94.3	91.8	92.4	144.2	108.1	100.2	112.3	103.3	103.4	92.9	131.3	103.9	103.0
1989	104.7	97.6	98.7	156.4	115.8	106.4	117.3	107.9	110.7	99.4	135.6	111.3	109.9
1990	100.7	93.0	93.6	189.1	117.8	106.1	104.3	111.6	110.7	93.6	140.7	111.6	110.2
1991	100.4	90.4	94.1	228.2	117.6	104.2	99.7	117.0	101.3	95.9	138.6	109.2	111.5
% 91/90	-0.4	-2.7	0.5	20.7	-0.2	-1.8	-4.4	4.8	-8.5	2.5	-1.5	-2.2	1.2

Table A.26

Real price indices of final output in agriculture from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	128.4	135.3	135.5	103.2	149.5	139.5	129.4	136.5	125.3	141.8	:	145.3	:
1974	110.8	118.5	124.1	99.0	140.6	135.6	125.2	136.1	104.1	122.9	:	146.4	:
1975	114.3	118.6	128.1	94.2	137.4	127.8	137.6	133.1	114.4	124.2	:	139.0	:
1976	121.4	123.0	136.8	98.6	132.1	129.3	139.7	136.0	110.5	126.9	:	154.6	:
1977	108.3	116.8	129.8	97.1	134.3	126.9	151.7	134.5	111.2	118.3	:	143.1	:
1978	103.0	114.7	120.4	97.0	124.4	121.7	151.6	133.6	106.1	108.7	:	132.2	:
1979	99.5	108.3	118.7	98.4	112.7	115.5	141.9	128.6	104.2	103.9	:	129.0	:
1980	101.6	110.0	113.9	101.6	102.9	111.4	122.3	120.6	99.6	103.6	104.9	113.6	107.8
1981	105.0	112.5	117.5	102.4	105.2	112.1	121.2	116.1	101.1	108.1	106.3	113.1	109.6
1982	106.6	113.5	113.4	99.9	105.2	110.3	113.8	113.7	106.1	104.6	105.7	111.3	109.4
1983	112.2	109.4	108.8	99.0	104.1	109.1	111.1	108.6	104.7	103.7	105.6	109.5	106.0
1984	107.1	107.6	106.1	101.5	103.3	104.3	107.1	104.4	101.0	104.3	106.9	106.1	105.2
1985	100.8	99.2	101.8	102.3	99.7	100.6	99.2	100.8	101.8	101.2	100.2	97.8	100.3
1986	92.6	93.4	92.2	96.3	96.9	95.2	93.5	94.9	97.2	94.8	93.2	96.0	94.6
1987	88.3	84.8	86.3	96.4	89.0	90.4	95.1	88.8	97.8	92.9	89.4	94.1	89.8
1988	87.0	80.2	86.6	93.7	87.8	89.2	99.8	84.5	97.4	90.7	88.1	89.0	88.9
1989	92.2	81.7	90.2	90.2	87.9	91.6	99.5	83.2	98.7	95.5	80.5	89.2	90.8
1990	86.2	76.1	82.7	91.4	82.8	88.6	89.7	80.1	96.7	87.4	73.1	83.7	86.4
1991	83.3	72.7	79.7	91.9	77.5	84.4	84.0	78.4	85.7	86.4	62.8	76.8	82.7
% 91/90	-3.4	-4.5	-3.6	0.5	-6.4	-4.7	-6.4	-2.2	-11.4	-1.1	-14.1	-8.2	-4.3

Table A.27

Nominal value indices of final output in agriculture from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	53.2	35.0	69.9	11.8	21.8	35.0	22.5	18.6	54.5	48.5	:	31.0	:
1974	52.9	37.8	68.7	13.8	23.0	37.5	23.2	22.6	54.7	48.7	:	34.9	:
1975	56.7	39.0	75.2	15.9	26.4	38.5	31.3	26.7	57.8	53.9	:	40.0	:
1976	64.2	44.7	83.6	19.0	30.8	43.3	38.1	31.7	60.0	62.4	:	50.6	:
1977	62.7	50.6	86.4	20.3	38.8	47.4	51.3	37.8	62.4	64.8	:	57.2	:
1978	64.7	56.2	86.6	24.9	45.6	53.6	59.5	44.2	63.0	66.9	:	60.8	:
1979	66.1	58.8	89.0	28.8	48.7	60.7	63.3	52.0	65.2	69.6	:	68.5	:
1980	70.3	65.1	90.6	38.3	55.7	65.0	61.8	61.1	65.6	75.0	37.7	74.3	67.2
1981	76.6	75.2	96.4	46.7	58.9	72.4	71.8	69.3	74.3	86.4	43.6	81.6	74.5
1982	85.9	88.2	105.9	57.7	71.1	87.2	82.6	78.2	94.2	92.2	54.5	92.4	85.5
1983	94.5	89.5	102.3	65.2	80.8	92.4	92.5	92.0	94.8	95.0	65.8	94.3	91.2
1984	99.4	102.3	104.7	83.0	94.4	98.3	102.7	95.0	98.0	100.5	85.2	103.1	98.3
1985	100.0	99.1	98.4	102.2	100.8	100.6	99.0	100.6	100.1	100.4	100.3	97.2	99.9
1986	100.5	98.7	96.8	114.9	104.8	101.0	98.3	104.5	102.0	99.1	114.5	99.8	101.8
1987	96.3	91.0	87.8	121.7	110.1	101.4	103.8	108.0	98.6	94.8	129.7	101.6	102.0
1988	100.1	94.2	92.3	149.9	120.9	103.4	114.1	107.0	100.8	96.8	127.8	101.8	105.9
1989	114.2	103.2	98.7	175.9	123.0	112.8	121.6	112.9	112.2	106.4	149.7	110.6	114.4
1990	106.6	102.1	93.4	193.0	129.5	115.0	116.2	113.0	111.1	105.0	168.1	113.4	115.7
1991	109.4	98.3	91.3	247.7	127.0	109.7	112.0	122.6	91.4	108.7	161.7	112.4	116.9
% 91/90	2.6	-3.7	-2.3	28.3	-1.3	-4.6	-3.6	8.5	-17.8	3.5	-3.8	-0.9	1.0

Table A.28

Real value indices of final output in agriculture from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	115.2	97.9	113.7	83.6	118.4	112.8	95.0	112.3	118.5	92.4	:	125.3	:
1974	101.8	93.6	104.5	81.3	107.1	107.5	92.6	113.7	101.6	84.9	:	122.5	:
1975	97.4	86.0	108.1	83.0	105.5	97.7	103.8	115.1	108.3	85.3	:	110.5	:
1976	102.5	90.3	116.0	86.4	105.6	99.0	104.5	115.3	100.1	90.7	:	121.2	:
1977	93.1	93.4	115.6	81.6	108.0	99.4	124.2	116.2	103.0	88.2	:	120.2	:
1978	92.0	94.4	111.1	88.6	105.1	102.2	130.4	118.9	98.9	86.4	:	114.9	:
1979	89.9	91.8	109.8	86.3	96.0	105.0	122.0	121.6	96.2	86.5	:	113.2	:
1980	92.1	94.0	106.6	97.6	96.2	100.6	103.9	119.0	89.8	88.3	101.6	102.7	99.6
1981	95.9	98.6	109.0	99.3	90.8	100.7	102.7	113.2	94.8	96.4	99.9	101.2	100.2
1982	100.5	104.6	114.7	98.1	96.4	108.3	102.6	109.0	108.4	96.9	103.4	106.6	105.3
1983	104.6	98.6	107.0	93.1	98.1	104.7	103.8	111.5	102.2	98.1	100.1	103.3	102.4
1984	104.7	106.6	107.3	98.5	103.3	103.8	108.3	103.1	101.2	101.9	104.0	108.0	104.8
1985	99.2	99.0	98.7	103.0	101.6	100.4	99.2	100.3	100.3	99.9	100.6	96.4	99.7
1986	96.1	94.3	94.0	98.5	95.1	95.7	92.5	96.6	98.5	98.2	95.4	95.6	95.5
1987	90.2	83.1	83.6	91.4	94.5	93.3	95.1	94.2	95.8	94.3	97.1	92.7	91.2
1988	92.4	82.3	86.5	97.4	98.1	92.0	101.4	87.5	94.9	94.5	85.7	87.2	91.4
1989	100.6	86.4	90.2	101.4	93.3	97.0	103.2	87.1	99.9	102.3	88.9	88.6	94.5
1990	91.2	83.6	82.6	93.3	91.0	96.0	99.9	81.1	97.0	98.1	87.3	85.0	90.7
1991	90.7	79.0	77.4	99.8	84.3	88.8	94.3	82.1	77.2	98.0	73.3	79.2	86.7
% 91/90	-0.5	-5.4	-6.3	6.9	-7.4	-7.5	-5.6	1.2	-20.4	-0.1	-16.1	-6.9	-4.4

Table A.29

Volume indices of intermediate consumption in agriculture from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	90.8	83.9	84.8	66.3	54.5	81.2	71.9	72.4	96.9	70.3	:	97.9	:
1974	91.0	78.2	82.0	68.7	58.8	83.9	64.1	73.9	100.2	73.1	:	93.1	:
1975	91.5	81.4	83.8	75.6	60.6	80.3	61.1	74.3	98.3	73.5	:	93.4	:
1976	91.0	89.2	90.2	78.3	65.8	84.3	68.5	78.4	107.4	78.1	:	95.1	:
1977	92.3	91.4	94.9	83.3	69.8	86.2	75.5	83.4	100.7	81.1	:	96.2	:
1978	93.5	99.4	98.5	85.5	75.2	90.8	86.8	89.5	92.5	86.1	:	96.2	:
1979	95.0	106.2	103.3	87.5	81.9	95.0	99.5	95.3	91.0	90.8	:	97.8	:
1980	94.0	101.1	102.9	91.8	87.4	96.4	88.7	98.7	92.2	96.0	105.9	95.3	96.7
1981	92.8	98.6	99.3	95.4	92.4	96.2	93.1	96.3	92.1	94.3	109.9	93.1	95.9
1982	94.7	99.9	99.5	97.1	95.6	96.8	92.6	96.4	90.0	93.5	108.5	98.7	97.3
1983	94.3	102.3	102.1	100.0	95.8	97.7	97.4	98.0	99.1	101.5	103.4	102.4	99.5
1984	96.5	99.9	100.7	99.8	98.8	99.3	97.2	98.5	97.5	96.9	99.0	100.2	99.2
1985	99.1	101.0	100.4	103.0	98.9	99.5	98.2	99.5	100.7	101.3	100.0	99.6	99.9
1986	104.3	99.0	98.9	97.2	102.3	101.2	104.5	102.0	101.8	101.8	100.9	100.2	100.9
1987	107.4	102.7	99.1	102.9	103.6	103.9	100.9	106.3	104.4	102.9	107.3	101.5	102.9
1988	109.2	100.7	98.2	103.7	106.7	106.7	101.8	106.7	103.3	101.9	105.5	101.9	103.8
1989	113.0	100.8	97.3	105.4	107.1	110.0	107.6	107.2	108.3	99.7	115.5	99.5	104.5
1990	112.9	104.7	97.2	110.6	109.4	113.2	109.6	106.1	112.1	99.2	119.0	97.5	105.4
1991	114.5	106.3	96.9	117.1	111.2	113.2	109.7	107.1	113.2	99.7	114.6	97.5	105.9
% 91/90	1.4	1.5	-0.3	5.9	1.6	0.0	0.1	1.0	1.0	0.5	-3.7	0.0	0.5

Table A.30

Nominal price indices of intermediate consumption in agriculture from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	51.4	39.8	67.2	13.7	31.4	30.5	21.7	20.1	47.9	64.9	:	29.7	:
1974	56.1	46.4	72.4	17.0	34.5	37.9	29.7	27.1	53.6	68.6	:	38.1	:
1975	58.9	49.8	74.0	19.3	35.3	40.6	36.4	31.0	59.4	70.3	:	42.5	:
1976	65.9	54.5	80.4	21.0	38.6	45.0	44.0	36.8	64.7	76.8	:	51.3	:
1977	67.4	57.8	82.0	22.9	42.8	50.0	53.1	41.7	66.2	79.2	:	59.4	:
1978	65.2	57.2	79.0	24.4	45.4	53.3	55.4	44.7	66.0	77.3	:	62.0	:
1979	68.9	61.3	84.2	30.9	49.0	57.9	60.0	49.4	68.1	82.1	:	69.3	:
1980	74.2	71.3	89.1	41.0	54.1	66.5	68.2	59.1	74.3	86.8	29.6	78.0	71.1
1981	80.9	83.5	98.0	49.7	65.5	75.2	78.5	72.3	82.6	95.0	37.1	84.5	80.2
1982	89.7	92.7	101.1	57.2	72.1	83.5	86.9	82.0	89.5	99.5	45.8	90.5	86.9
1983	97.7	98.4	102.0	70.8	84.4	92.3	93.2	91.5	98.3	98.4	63.1	96.8	93.7
1984	102.7	103.5	104.5	84.2	95.5	99.9	99.8	99.6	103.1	105.8	86.2	100.2	100.4
1985	101.4	100.9	101.7	100.1	101.6	101.7	102.2	102.2	100.0	102.1	100.4	101.1	101.6
1986	96.2	95.5	93.6	116.1	102.8	98.5	98.1	98.3	97.0	92.4	113.2	98.7	98.0
1987	90.5	91.2	88.6	126.8	104.5	97.1	93.0	97.2	92.3	87.1	117.2	99.2	96.3
1988	91.7	96.0	88.2	143.3	105.4	100.4	96.1	98.6	96.1	89.4	128.4	103.3	99.0
1989	94.6	98.8	90.8	159.6	108.5	103.9	99.6	102.2	97.2	92.3	134.3	107.9	102.7
1990	92.2	95.6	90.5	190.6	109.9	102.1	99.1	105.7	98.9	88.3	142.0	112.6	103.8
1991	92.1	93.9	92.3	238.6	112.6	104.0	99.1	108.9	100.1	88.1	150.4	116.7	106.5
%													
91/90	-0.1	-1.9	2.4	25.2	2.5	1.9	0.0	3.1	1.2	-0.2	5.9	3.6	2.6

Table A.31

Real price indices of intermediate consumption in agriculture from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	111.3	111.3	109.3	97.2	170.4	98.1	91.8	120.7	104.1	123.5	:	119.9	:
1974	107.9	114.8	110.1	100.0	161.1	108.6	118.8	135.9	99.6	119.6	:	134.0	:
1975	101.1	109.7	106.2	100.7	141.2	103.0	121.2	133.3	111.3	111.3	:	117.5	:
1976	105.2	110.0	111.5	95.1	132.3	102.8	120.8	133.9	108.0	111.6	:	123.0	:
1977	100.1	106.7	109.6	91.7	119.2	104.7	128.9	127.8	109.2	107.9	:	125.1	:
1978	92.7	96.0	101.3	86.8	104.7	101.5	121.7	120.1	103.5	99.8	:	117.2	:
1979	93.7	95.8	103.9	92.6	96.5	100.1	115.8	115.2	100.5	102.1	:	114.5	:
1980	97.3	102.8	104.8	104.2	93.5	102.9	114.8	114.7	101.5	102.1	79.6	107.8	102.1
1981	101.2	109.4	110.7	105.5	101.0	104.6	112.5	117.9	105.4	106.0	85.0	104.9	105.4
1982	104.8	109.8	109.3	97.0	97.7	103.7	108.1	114.1	103.0	104.7	86.8	104.4	104.4
1983	108.2	108.4	106.6	100.9	102.5	104.5	104.7	110.6	105.9	101.6	96.0	106.1	105.0
1984	108.1	107.9	107.1	99.8	104.5	105.5	105.4	107.9	106.4	107.2	105.2	105.1	106.0
1985	100.6	100.8	101.9	100.7	102.4	101.4	102.7	101.7	100.2	101.6	100.7	100.3	101.5
1986	92.0	91.2	90.8	99.5	93.4	93.2	92.5	90.7	93.7	91.5	94.2	94.6	92.7
1987	84.7	83.2	84.3	95.1	89.6	89.2	85.4	84.7	89.7	86.6	87.7	90.6	87.4
1988	84.6	83.8	82.7	93.0	85.6	89.3	85.5	80.5	90.5	87.2	86.1	88.5	86.4
1989	83.3	82.7	82.9	91.9	82.3	89.3	84.7	78.7	86.5	88.7	79.7	86.5	85.6
1990	78.9	78.2	80.0	91.9	77.7	85.3	85.4	75.7	86.3	82.4	73.8	84.5	82.1
1991	76.4	75.4	78.5	95.9	74.7	84.3	83.6	72.8	84.6	79.4	68.2	82.2	80.0
%													
91/90	-3.1	-3.7	-1.8	4.3	-3.9	-1.2	-2.1	-3.8	-2.0	-3.7	-7.6	-2.7	-2.5

Table A.32

Nominal value indices of intermediate consumption in agriculture from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	46.6	33.4	57.0	9.1	17.1	24.8	15.6	14.5	46.4	45.6	:	29.1	:
1974	51.0	36.2	59.4	11.7	20.3	31.8	19.1	20.0	53.8	50.1	:	35.5	:
1975	53.9	40.5	62.0	14.6	21.4	32.6	22.3	23.0	58.5	51.7	:	39.7	:
1976	60.0	48.6	72.6	16.4	25.4	38.0	30.1	28.9	69.5	60.0	:	48.8	:
1977	62.2	52.9	77.8	19.1	29.9	43.1	40.1	34.8	66.7	64.3	:	57.2	:
1978	61.0	56.9	77.8	20.9	34.1	48.4	48.1	40.0	61.0	66.6	:	59.6	:
1979	65.5	65.1	87.0	27.1	40.1	55.1	59.7	47.1	62.0	74.5	:	67.8	:
1980	69.8	72.1	91.7	37.7	47.3	64.1	60.5	58.3	68.5	83.3	31.3	74.3	68.8
1981	75.1	82.3	97.2	47.4	60.5	72.4	73.1	69.6	76.1	89.5	40.8	78.7	76.9
1982	84.9	92.5	100.5	55.5	69.0	80.9	80.5	79.1	80.5	93.0	49.6	89.3	84.5
1983	92.1	100.7	104.1	70.8	80.9	90.2	90.7	89.7	97.4	99.9	65.3	99.1	93.2
1984	99.1	103.5	105.3	84.1	94.3	99.2	97.0	98.1	100.5	102.5	85.3	100.4	99.6
1985	100.6	101.9	102.1	103.0	100.5	101.2	100.4	101.7	100.7	103.4	100.4	100.7	101.5
1986	100.3	94.6	92.6	112.9	105.2	99.6	102.6	100.2	98.8	94.1	114.3	98.9	98.9
1987	97.2	93.6	87.7	130.5	108.3	100.9	93.8	103.4	96.4	89.7	125.7	100.7	99.2
1988	100.1	96.6	86.7	148.6	112.5	107.1	97.8	105.2	99.3	91.0	135.5	105.4	102.7
1989	106.9	99.6	88.3	168.2	116.2	114.3	107.2	109.6	105.3	92.0	155.2	107.4	107.3
1990	104.1	100.1	88.0	210.8	120.2	115.6	108.6	112.1	110.8	87.6	169.0	109.8	109.4
1991	105.5	99.7	89.8	279.5	125.1	117.8	108.7	116.7	113.3	87.8	172.4	113.7	112.8
% 91/90	1.3	-0.4	2.1	32.6	4.1	1.9	0.1	4.1	2.2	0.3	2.0	3.6	3.1

Table A.33

Real value indices of intermediate consumption in agriculture from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E ¹⁾	F	IRL ²⁾	I	L	NL	P	UK	EUR 12
1973	101.0	93.4	92.7	64.4	92.9	79.6	66.0	87.4	100.8	86.8	:	117.4	:
1974	98.2	89.8	90.3	68.7	94.8	91.1	76.1	100.5	99.8	87.4	:	124.8	:
1975	92.5	89.3	89.1	76.1	85.6	82.7	74.0	99.1	109.5	81.8	:	109.7	:
1976	95.7	98.2	100.6	74.5	87.1	86.7	82.7	105.0	116.1	87.1	:	117.0	:
1977	92.3	97.5	104.0	76.4	83.2	90.3	97.3	106.6	110.0	87.5	:	120.4	:
1978	86.7	95.5	99.8	74.1	78.7	92.2	105.6	107.5	95.7	86.0	:	112.7	:
1979	89.1	101.7	107.3	81.0	79.1	95.2	115.2	109.8	91.5	92.7	:	112.1	:
1980	91.5	103.9	107.9	95.7	81.7	99.3	101.8	113.2	93.6	98.0	84.3	102.7	98.8
1981	94.0	107.8	109.9	100.6	93.3	100.6	104.8	113.5	97.1	99.9	93.5	97.7	101.1
1982	99.3	109.7	108.7	94.2	93.4	100.4	100.1	110.1	92.7	97.9	94.2	103.1	101.5
1983	102.0	110.8	108.9	100.9	98.2	102.1	101.9	108.4	105.0	103.1	99.3	108.7	104.4
1984	104.3	107.8	107.9	99.6	103.2	104.8	102.5	106.3	103.7	103.8	104.2	105.3	105.1
1985	99.7	101.8	102.4	103.7	101.3	100.9	100.9	101.2	101.0	102.9	100.7	99.9	101.4
1986	95.9	90.4	89.8	96.7	95.6	94.3	96.7	92.5	95.4	93.2	95.1	94.8	93.5
1987	91.0	85.4	83.5	97.8	92.9	92.7	86.1	90.0	93.6	89.2	94.1	91.9	90.0
1988	92.3	84.3	81.2	96.4	91.3	95.3	87.1	85.9	93.5	88.9	90.9	90.3	89.6
1989	94.2	83.3	80.7	96.8	88.2	98.3	91.1	84.4	93.7	88.4	92.1	86.1	89.4
1990	89.0	81.9	77.8	101.7	85.0	96.5	93.6	80.3	96.7	81.8	87.8	82.4	86.6
1991	87.5	80.1	76.1	112.4	83.0	95.4	91.8	77.9	95.6	79.2	78.1	80.2	84.9
% 91/90	-1.8	-2.2	-2.1	10.5	-2.3	-1.1	-1.9	-2.9	-1.1	-3.2	-11.0	-2.7	-2.0

Table A.34

Trends in productivity of intermediate consumption ¹⁾ from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	98.9	86.3	99.0	122.2	145.4	99.6	102.0	113.6	97.7	92.7	:	88.0	:
1974	100.9	101.0	102.7	119.6	129.6	94.5	115.4	113.0	97.4	94.5	:	89.9	:
1975	93.1	89.1	100.6	116.6	126.8	95.3	123.5	116.4	96.3	93.4	:	85.2	:
1976	92.7	82.3	93.9	111.9	121.5	90.8	109.3	108.1	84.3	91.5	:	82.5	:
1977	93.1	87.4	93.8	100.9	115.2	90.9	108.5	103.6	91.9	92.0	:	87.3	:
1978	95.6	82.8	93.7	106.8	112.4	92.5	99.0	99.5	100.7	92.3	:	90.3	:
1979	95.0	79.9	89.6	100.2	104.0	95.6	86.4	99.2	101.4	91.7	:	89.7	:
1980	96.5	84.5	91.0	104.7	106.9	93.7	95.8	99.9	97.8	88.8	91.4	94.9	95.5
1981	98.4	89.0	93.5	101.7	93.5	93.4	91.0	101.3	101.8	94.7	85.5	96.2	95.4
1982	99.6	92.3	101.7	101.2	95.8	101.4	97.4	99.5	113.6	99.1	90.2	97.0	99.0
1983	98.9	88.1	96.3	94.0	98.4	98.2	96.0	104.7	98.5	93.3	91.6	92.2	97.2
1984	101.2	99.2	100.4	97.2	101.2	100.3	104.0	100.2	102.8	100.9	98.2	101.7	100.4
1985	99.3	98.9	96.5	97.7	103.1	100.4	101.8	100.0	97.8	97.5	100.4	98.9	99.5
1986	99.5	102.0	103.1	105.3	95.9	99.4	94.5	99.8	99.5	101.7	101.4	99.4	100.1
1987	95.0	95.4	97.8	95.7	102.4	99.3	99.1	99.8	93.9	98.6	101.2	97.2	98.7
1988	97.3	101.9	101.7	104.2	104.8	96.6	99.8	97.1	94.4	102.2	92.2	96.1	99.1
1989	96.5	104.9	102.8	106.8	99.1	96.3	96.3	97.6	93.5	107.5	95.6	99.8	99.6
1990	93.7	104.9	102.7	92.3	100.4	95.8	101.7	95.4	89.6	113.2	100.4	104.2	99.6
1991	95.2	102.3	100.1	92.7	97.7	93.0	102.4	97.8	79.7	113.7	101.7	105.6	99.0
% 91/90	1.6	-2.5	-2.5	0.4	-2.7	-2.9	0.7	2.5	-11.0	0.5	1.3	1.3	-0.6

¹⁾ Index of volume of final output divided by the index of volume of intermediate consumption.

Table A.35

Trends in "price scissors of ¹⁾ from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E	F	IRL	I	L	NL	P	UK	EUR 12
1973	115.4	121.4	123.9	106.4	87.7	142.1	141.3	112.9	120.3	114.9	:	121.2	:
1974	102.8	103.1	112.6	99.2	87.2	124.8	105.6	100.0	104.5	102.7	:	109.3	:
1975	113.1	108.0	120.4	93.8	97.2	124.1	113.8	99.7	102.7	111.6	:	118.4	:
1976	115.4	111.7	122.6	103.9	99.8	125.7	115.9	101.5	102.3	113.8	:	125.7	:
1977	108.3	109.4	118.3	106.1	112.6	121.1	117.9	105.1	101.8	109.6	:	114.4	:
1978	111.1	119.3	118.8	112.1	118.7	119.9	124.9	111.1	102.5	108.9	:	112.9	:
1979	106.3	112.9	114.1	106.6	116.7	115.3	122.9	111.5	103.7	101.8	:	112.7	:
1980	104.4	106.9	108.5	97.7	110.0	108.2	106.8	105.0	98.0	101.4	131.9	105.4	102.3
1981	103.7	102.7	106.0	97.3	104.1	107.2	108.0	98.4	95.9	102.0	125.1	107.8	101.6
1982	101.7	103.2	103.5	103.2	107.6	106.3	105.5	99.4	102.9	100.0	121.8	106.7	102.2
1983	103.7	100.8	101.9	98.4	101.5	104.3	106.3	98.0	98.8	102.1	110.1	103.2	100.7
1984	99.1	99.6	99.0	101.9	98.9	98.8	101.9	96.7	94.9	97.3	101.7	101.0	98.3
1985	100.2	98.3	99.8	101.8	97.3	99.1	96.8	98.9	101.6	99.6	99.6	97.6	98.9
1986	100.7	102.2	101.4	97.0	103.7	102.1	101.4	104.5	103.8	103.6	99.0	101.5	102.9
1987	104.3	101.8	102.3	97.8	99.2	101.3	111.7	104.8	109.0	107.3	102.0	103.9	104.2
1988	102.9	95.6	104.7	97.2	102.5	99.9	117.0	104.8	107.6	104.0	102.3	100.5	104.1
1989	110.7	98.7	108.6	98.3	106.7	102.5	117.9	105.6	114.0	107.7	101.1	103.2	107.0
1990	109.3	97.2	103.3	99.6	106.5	103.9	105.2	105.7	112.0	106.0	99.2	99.1	106.1
1991	109.0	96.3	101.3	96.0	103.8	100.3	100.6	107.5	101.2	108.8	92.3	93.6	104.6
% 91/90	-0.3	-0.9	-1.9	-3.6	-2.6	-3.5	-4.4	1.7	-9.6	2.7	-7.0	-5.6	-1.4

¹⁾ Nominal index of prices of final output divided by the nominal index of prices of intermediate consumption.

Table A.36

Volume of total labour input in agriculture in annual work units (AWU) from 1973 to 1991
1984-86 = 100

	B	DK	D	GR	E ¹⁾	F	IRL ²⁾	I	L	NL	P	UK	EUR 12
1973	149.0	189.5	1250.0	1116.0	3606.8	2147.0	348.4	3407.5	12.7	286.0	1360.0	597.1	14470.0
1974	143.3	176.3	1198.0	1092.0	3488.2	2078.0	333.4	3336.7	12.2	281.0	1330.0	574.0	14043.1
1975	137.2	168.2	1168.0	1068.0	3238.8	2008.0	324.6	3209.1	11.5	277.5	1299.3	558.8	13469.0
1976	130.5	162.9	1139.0	1045.0	2985.0	1965.0	318.1	3207.5	10.8	273.7	1320.8	563.0	13121.3
1977	124.9	156.5	1082.0	1022.0	2782.0	1926.0	312.0	3094.4	10.6	265.9	1281.7	556.8	12614.8
1978	120.8	150.5	1059.0	999.0	2695.7	1895.0	305.4	3094.5	10.1	259.9	1212.8	555.4	12358.1
1979	120.3	144.4	1007.0	978.0	2521.7	1864.0	297.3	3044.4	9.7	256.5	1210.7	543.8	11997.8
1980	115.6	137.6	987.0	956.0	2323.3	1817.0	289.6	2938.8	9.2	254.3	1202.2	529.2	11559.8
1981	112.4	131.4	974.0	935.0	2114.3	1768.0	283.8	2751.6	8.6	249.3	1135.7	517.5	10981.6
1982	110.2	126.7	951.0	924.0	2036.4	1720.0	279.0	2593.4	8.3	248.0	1098.1	513.1	10608.2
1983	109.4	123.8	927.0	917.0	2003.0	1671.0	276.1	2645.8	7.9	248.3	1012.2	508.2	10449.7
1984	108.7	120.3	912.0	918.0	1863.4	1620.0	275.9	2598.7	7.5	246.7	1017.0	500.5	10188.7
1985	106.1	114.7	904.0	931.0	1784.0	1564.0	275.8	2494.1	7.3	245.4	1020.7	495.9	9943.0
1986	104.8	111.8	890.0	898.0	1691.8	1509.0	266.0	2473.4	7.0	242.7	942.0	485.6	9622.1
1987	101.6	105.1	836.0	849.0	1626.7	1455.0	254.5	2422.9	6.7	240.5	983.2	473.6	9354.8
1988	98.3	101.0	821.0	828.0	1575.4	1401.0	248.0	2313.2	6.4	237.4	940.7	465.3	9035.7
1989	96.0	98.5	775.0	813.6	1472.9	1349.0	243.0	2193.6	6.3	237.5	893.5	453.9	8632.8
1990	93.6	95.2	754.0	794.4	1406.8	1299.0	238.0	2148.9	6.0	235.1	839.2	447.3	8357.5
1991	90.8	92.7	716.3	778.5	1294.3	1253.5	229.4	2086.6	5.8	234.4	830.8	435.0	8048.1
% 91/90	-3.0	-2.6	-5.0	-2.0	-8.0	-3.5	-3.6	-2.9	-3.9	-0.3	-1.0	-2.7	-3.7

1) Eurostat estimate for the period 1973-1979.

2) Eurostat estimate.

Table A.37

Volume of family labour input in agriculture in annual work units (AWU) from 1973 to 1991
1984-86 = 100

	B	DK ¹⁾	D	GR	E ¹⁾	F	IRL ²⁾	I	L	NL	P ¹⁾	UK	EUR 12
1973	139.0	156.6	1122.0	974.0	2952.7	1824.0	314.3	2237.7	12.1	237.5	1140.0	343.2	11453.1
1974	134.0	144.5	1066.0	956.0	2853.5	1771.0	299.6	2207.3	11.7	232.3	1114.8	328.0	11118.7
1975	129.1	137.1	1045.0	939.0	2645.0	1716.0	291.9	2146.0	11.0	228.9	1088.9	322.7	10700.6
1976	122.4	132.2	1024.0	922.0	2432.7	1675.0	285.0	2131.9	10.3	224.9	1107.0	329.3	10396.7
1977	117.2	126.3	971.0	906.0	2263.0	1639.0	278.7	2055.8	10.1	217.1	1074.1	324.6	9982.9
1978	113.7	120.8	951.0	889.0	2190.8	1610.0	272.0	2111.0	9.6	210.3	1016.1	325.8	9820.1
1979	112.9	115.2	895.0	874.0	2018.1	1581.0	264.5	2095.4	9.1	207.0	964.8	319.3	9456.3
1980	108.7	109.8	881.0	858.0	1883.0	1534.0	257.3	2069.9	8.6	203.7	1027.7	310.8	9252.5
1981	106.3	105.0	860.0	843.0	1715.9	1492.0	250.8	1940.2	8.0	198.8	970.8	306.3	8797.1
1982	103.8	98.9	841.0	827.0	1646.7	1451.0	245.7	1807.1	7.7	197.1	938.7	305.7	8470.4
1983	102.6	95.8	820.0	813.0	1611.1	1409.0	242.2	1880.0	7.3	197.6	847.0	304.1	8329.7
1984	101.5	91.9	812.0	808.0	1537.9	1366.0	241.1	1864.6	6.9	196.5	851.1	304.0	8181.5
1985	99.1	86.7	791.0	803.0	1435.1	1319.0	240.7	1767.8	6.7	193.7	854.1	303.1	7900.0
1986	97.2	84.7	780.0	781.0	1346.3	1272.0	233.0	1766.5	6.4	189.4	788.2	303.2	7647.9
1987	94.1	79.1	737.0	729.0	1282.2	1225.0	223.8	1729.7	6.1	186.0	822.9	299.0	7413.9
1988	90.8	76.2	718.0	712.0	1241.0	1179.0	216.5	1633.0	5.8	182.6	787.2	295.3	7139.0
1989	88.5	73.7	675.0	700.0	1161.0	1140.0	211.0	1502.6	5.6	179.8	747.7	288.4	6773.3
1990	86.1	71.0	662.0	683.0	1108.5	1102.0	206.5	1459.1	5.4	176.2	690.1	283.4	6533.3
1991	83.5	68.6	628.9	679.6	986.6	1063.4	199.9	1413.9	5.1	173.2	693.6	277.7	6274.0
% 91/90	-3.0	-3.4	-5.0	-0.5	-11.0	-3.5	-3.2	-3.1	-5.0	-1.7	0.5	-2.0	-4.0

1) Eurostat estimate for the period 1973-1979.

2) Eurostat estimate.

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