

### 3. REGIONAL AGRICULTURAL INCOMES

The aim of this section is to identify the principal tendencies in the development of national and regional agricultural incomes, by taking into consideration both market factors and policy changes.

We will evaluate regional agricultural incomes by using the real net value added at factor cost (in 1985 constant prices).

This indicator is the result of price and output volume levels for products and for inputs used by agriculture in the production process, of taxes and subsidies as well as deductions for the wear and tear and obsolescence of fixed capital goods.

In particular, we will investigate the main results by considering sub-periods ante and post 1992 in order to highlight the impacts of the Mac Sharry Reform.

When producers choose what to produce and how to produce, they take into account a set of relative prices of outputs and inputs, technological assets and natural factors, as climate, soil conditions and weather; but they are also influenced by policy measures, like administered prices, direct payments and so forth. Often, policy measures may favour a particular classes of producers and damage other groups.

Likewise, agricultural policy may alter the competitiveness at regional level, by supporting products traditionally produced in specific areas and by setting up measures which well suit the agricultural structure of specific regions.

In order to evaluate the effects of this public intervention, we should build up two scenarios: one which considers new policy changes and a reference scenario, resulting in the effects of the continuation of the traditional policy. Differences between these two scenarios have to be interpreted as the effects of the policy.

In this section, we will not come out with a like framework; for that, we would need more time and we should use more sophisticated tools. More simply, we will come out with considerations on the effects of the 1992 Reform, by putting side by side the evolution of regional agricultural incomes with both the specialisation of the regional production, and with those policy measures which concern the commodities produced at regional level.

In quantitative terms, the relative variations (% changes in real net value added at factor cost among two periods) in regional agricultural incomes constitute our way of measuring:

- i) the competitive potential of the given region (positive changes are associated with major competitiveness);
- ii) the relative stability of the regional agricultural incomes (lower variations imply higher stability).

We will also use the relative variation in supply (% changes in Final Agricultural Production) as a measure of the competitiveness of a given product in a given region.

In presenting the development of income from agricultural activity in individual EU regions, we draw upon the extensive New Cronos database of statistics at regional level. Unfortunately, we will not cover the same periods for all the EU regions, since large

discontinuities can be observed in data researched. Whenever necessary, we combine data from New Cronos database with data provided by FADN<sup>1</sup>.

According to the Eurostat classification, subsidies only comprise direct transfers to agriculture, so excluding price support, investment grants, aid to the buyers of agricultural products and transfers to agricultural households.

The annual data for changes in agricultural income have been averaged on a moving two years basis. To some extent this smoothes annual fluctuations to reveal a clearer longer-term trend.

### **3.1. The CAP and agriculture incomes within the European Union: a preliminary review**

As noted in paragraph 2.2, public support in agriculture is prevalently based on MPS measures. Border protection and guaranteed prices for several crop and animal products set conditions that resulted in a Community switching from net importer to net exporter. Farmers got incentives to produce more; the increase in output volumes, set against stagnant demand, was conducive to a steady rise in interventions stocks. Furthermore, production surpluses led to a decrease of the real terms price for cereals and for some animal products. As a consequence of these budgetary and market pressures, major reforms were implemented: in 1984 milk quotas were introduced, in 1986 co-responsibility levies for cereals producers, in 1988 budgetary stabilizers for nearly all the CMOs (Common Market Organisations), up to the 1992 major Mac Sharry Reform.

Only a temporary upturn in the world markets, characterised by destocking and price rises, made for a recovery in agricultural prices and incomes in 1988 and particularly 1989; otherwise average EU incomes have been declining, in the years 1981-1987, or stagnant, in the period 1991-1993 (EC, 1999)<sup>2</sup>.

After the 1992 major reforms of the cereals, oilseeds, protein crops and cattle markets, in the period 1994 to 1996, incomes grew strongly. This was due to the stabilisation of certain markets (lower output and intervention stocks), to a favourable situation in the world market, combined with a substantial rise in subsidies. In particular, the escalation in subsidies was determined by the huge utilisation of direct payments, whose introduction was aimed at compensating for the effects of a substantial lowering of producer prices (oilseeds, cereals, protein plants and cattle).

However, during the years 1997 and 1998, there has been a fallback in the income level as prices for many agricultural products have fallen, the most serious have been due to new imbalances on the markets. Significantly, intervention stocks for cereals have built back up to pre-1993 levels (up to above 20 million tonnes). This factor and the tumble in world cereals prices have led to a further strong falls in cereals prices inside the EU.

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<sup>1</sup> A detailed examination of missing data at regional level is presented in the Appendix 3.C

<sup>2</sup> EC, 1999, Income from Agricultural Activity - 1998. Data 1980-98

### 3.2. Belgium

The level of agricultural net value added at factor cost in 1995/96 was 1343,6 millions ECU at 1985 constant prices, with a share of 1,8% in EU total level. Since 1986, there have been two distinct cyclical patterns in income: one of steadily rising income levels between 1986/87 and 1990/91, followed by a downward trend from 1986/87 to 1995/96. Considering the entire period, income levels have declined by 29,6% from 1986/87 to 1995/96.

Similar percentages have been calculated at regional level; it is to note the Region Wallonne has recorded a decrease even from 1986/87 to 1990/91 (table 3.2.1).

**Table 3.2.1: Net value added at factor cost within Belgium [1985 constant prices; 1986/87 - 1990/91 - 1995/96]**

	ECU mio [1995/96]	Shares in total EU net VAFC [1995/96]	% changes		
			1995/96 - 1990/91	1990/91 - 1986/87	1995/96 - 1986/87
Belgium	1343.6	1.8	-32.0	3.4	-29.6
Vlaams Gewest	878.4	1.2	-35.2	8.0	-30.0
Région Wallonne	465.2	0.6	-24.9	-5.5	-29.0

Source: our calculations - Eurostat data

Final animal production accounts for about two-thirds of the value of agricultural output in Belgium and pig production is the single most valuable sector within agriculture, while fresh and vegetables are the most important crop product. This is due particularly to the expansion of greenhouse vegetables such as tomatoes.

From the period 1990/91 to 1995/96, the final production of fruits, eggs and poultry and pig meat have increased in Belgium, whilst the other products have seen their production declining (Appendix 3.A).

Pig meat, eggs and poultry, fruit and fresh vegetables production are mainly concentrated in the Vlaams Gewest, with shares respectively of 30.7%, 9.4%, 7.1% and 13.7% in regional final agricultural production (FAP), whilst most of sugar and cereals is produced in the Region Wallonne. Sugar and cereals production in Wallonie's FAP account respectively for 12,2% and 10.4%; the corresponding shares in Vlaams-Gewest's FAP are 2.4% and 1.6%.

Beef meat and milk production are distributed evenly among the two regions, although the share of these two products in regional FAP is more relevant in Wallonie than in Vlaams-Gewest. Cereals production accounts for 3.8% in national FAP, but with a strong concentration in Wallonie (Appendix 3.A).

Differences in the composition of the final agricultural production among the two regions can help to explain two results:

- the share of subsidies in Gross Value Added at Market Prices at regional level is higher in Wallonie (table 3.2.2);
- from the period 1990/91 to 1995/96, net value added at factor cost in real terms has varied more for Vlaams-Gewest than in Wallonie (table 3.2.1); this is also because one of the effects of subsidies is to stabilise agricultural incomes.

**Table 3.2.2: Belgium. Evolution of the major income components: shares in regional Gross Value Added at Market Prices (GVAMP=100) [1995/96 - 1990/91]**

	subsidies		taxes		depreciation		net VAFC	
	1995/96	1990/91	1995/96	1990/91	1995/96	1990/91	1995/96	1990/91
Belgium	16.2	8.8	2.8	1.7	27.2	17.6	86.2	89.4
Vlaams Gewest	12.1	9.2	2.1	0.6	27.8	17.8	82.2	90.8
Région Wallonne	25.0	7.8	4.2	4.1	25.8	17.3	95.0	86.5

Source: our calculations - Eurostat data

The importance of subsidies has risen sharply, particularly since the Reform of the CAP, although one off measures for swine fever should be taken into account. It has to be remarked that the value of subsidies still represents a relatively small proportion of GVAMP compared to most other Member States; in map 3.1, the share of subsidies in total agricultural revenue is 6,1% for Belgium as a whole.

Agricultural income per unit of labour in Belgium is still above EU average. Anyway, in spite of the steady and continual decline in the volume of agricultural labour, the positive gap from the EU average is declining. In 1996, the Wallonie reached a level of GVAMP per AWU equal to 175,4, (EU15 average = 100), the same indicator was equal to 170,3 for Vlaams Gewest (maps 3.2 and 3.3).

### 3.3. Denmark

In the period 1997/98, agricultural net value added at factor cost in Denmark has been 1683,6 ECU mio at 1985 constant values, with a share of 2,4% in EU total level.

Fluctuations in the level of agricultural income in Denmark are different from those recorded for Belgium. From the period 1991/92 to 1997/98, the level of income has declined by about 5,5%, from 1986/87 to 1991/92 the slope has been equal to 20,4%; considering the whole period, income has decreased by 25,1% from 1986/87 to 1997/98 (table 3.3.1)

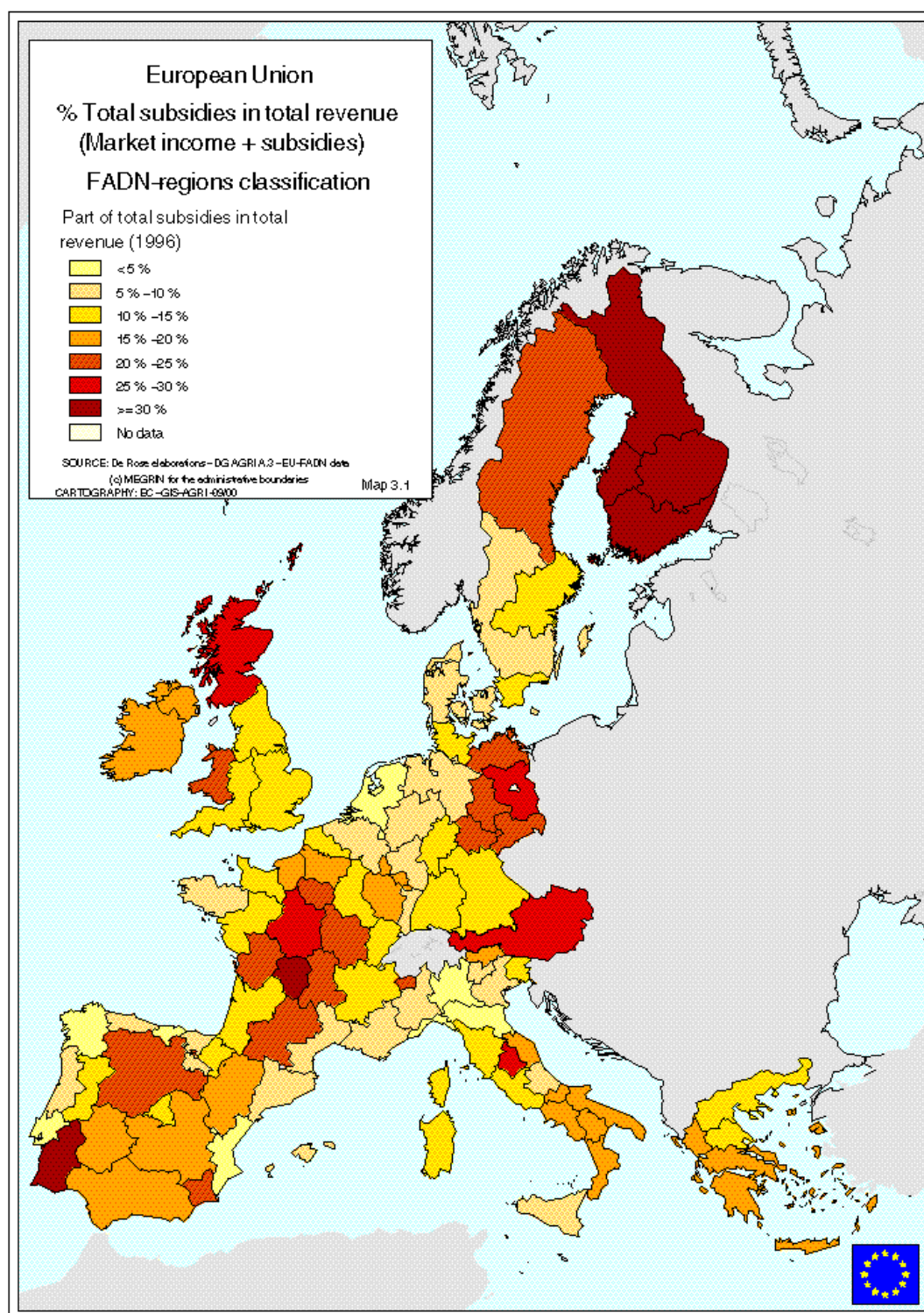
**Table 3.3.1: Net value added at factor cost within the European Union [1985 constant prices; 1986/87 - 1991/92 - 1997/98]**

	ECU mio [1997/98]	National shares in total EU net VAFC [1997/98]	% changes		
			1997/98 - 1991/92	1991/92 - 1986/87	1997/98 - 1986/87
Belgium	1246.7	1.8	-32.8	-3.5	-35.1
Denmark	1683.6	2.4	-5.9	-20.4	-25.1
Germany	7444.0	10.6	-23.6		
Greece	4865.3	7.0	-9.3	7.4	-2.6
Spain	10855.8	15.5	5.1	10.8	16.5
France	15766.3	22.5	-2.0	-13.3	-15.0
Ireland	1806.8	2.6	-1.5	4.9	3.3
Italy	13274.2	19.0	-24.2	-11.7	-33.1
Luxembourg	63.8	0.09	-7.1	-21.0	-26.6
Netherlands	4125.8	5.9	-13.1	-10.2	-22.0
Austria	1026.2	1.5	-33.1	-4.0	-35.8
Portugal	1458.9	2.1	-17.6	-4.7	-21.5
Finland	1176.1	1.7	-30.4	-11.8	-38.6
Sweden	573.9	0.8	-30.6	-26.9	-49.3
UK	4592.3	6.6	-15.0	-6.5	-20.5

Source: our calculations - Eurostat data

Agricultural production in Denmark is dominated by four sectors: pigs, with a share of 35.6% in national FAP, milk, 21.9%, cereals, 11.9%, and cattle, 5.9% (Appendix 3.A)

Changes in the volumes and prices of these products tended to set the declining of the absolute level of net value added at factor cost.



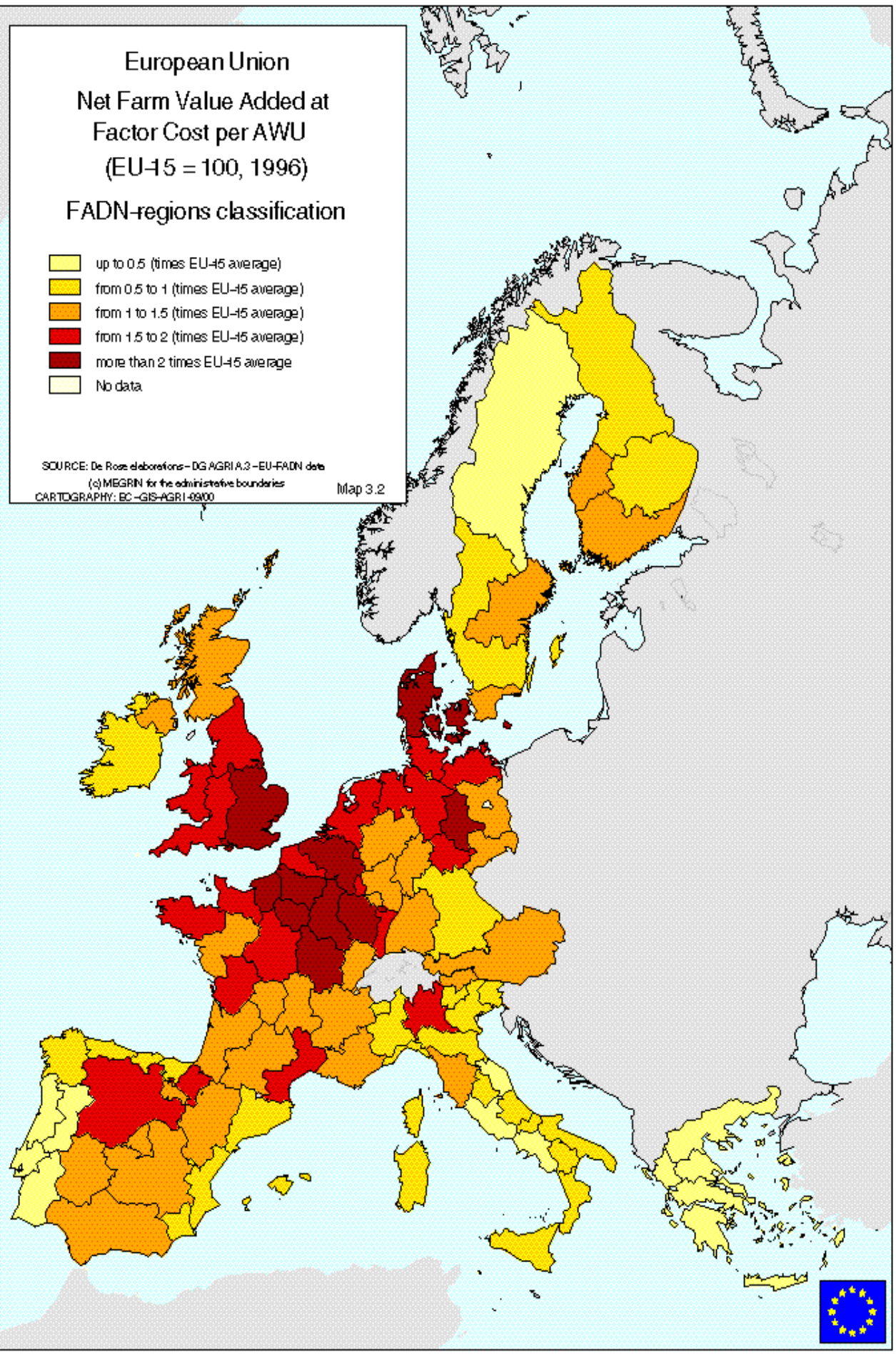
European Union  
Net Farm Value Added at  
Factor Cost per AWU  
(EU-15 = 100, 1996)

FADN-regions classification

-  up to 0.5 (times EU-15 average)
-  from 0.5 to 1 (times EU-15 average)
-  from 1 to 1.5 (times EU-15 average)
-  from 1.5 to 2 (times EU-15 average)
-  more than 2 times EU-15 average
-  No data

SOURCE: De Rose elaborations - DG AGRI A.3 - EU-FADN data  
(c) MEGRI for the administrative boundaries  
CARTOGRAPHY: EC - GIS-AGRI - 09/00

Map 3.2

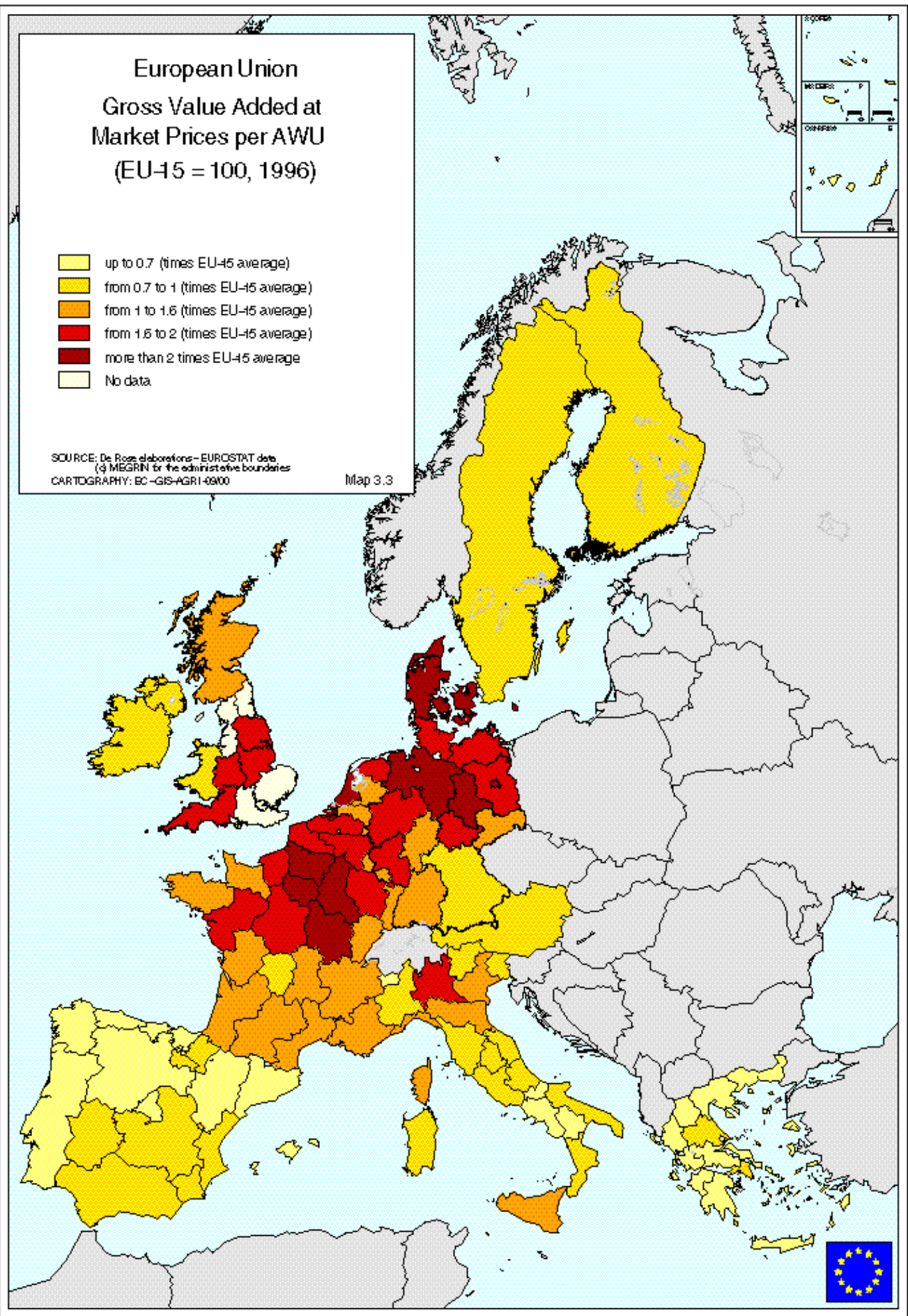


# European Union Gross Value Added at Market Prices per AWU (EU-15 = 100, 1996)

- up to 0.7 (times EU-15 average)
- from 0.7 to 1 (times EU-15 average)
- from 1 to 1.6 (times EU-15 average)
- from 1.6 to 2 (times EU-15 average)
- more than 2 times EU-15 average
- No data

SOURCE: De Rose elaborations - EUROSTAT data  
(4 MEGRN for the administrative boundaries)  
CARTOGRAPHY: EC - GIS-AGRI 09/00

Map 3.3



After Spain, Ireland and France, Denmark has recorded the lowest slope in net value added at factor cost between the 1991/92 and 1997/98. This is also due to a steady increase in the level of subsidies following the 1992 CAP reform: the proportion of GVAMP accounted for subsidies has surged to 26,3% in average for the period 1997/98 (table3.3.2).

**Table 3.3.2: Evolution of the major income components: shares in national Gross Value Added at Market Prices (GVAMP=100) [1997/98 - 1991/92 - 1986/87]**

	subsidies			taxes		
	1997/98	1991/92	1986/87	1997/98	1991/92	1986/87
Belgium	17.3	7.5	7.8	3.1	2.9	4.3
Denmark	26.3	2.3	2.9	3.5	5.2	4.7
Germany	33.7	27.5		5.1	4.4	
Greece	34.8	14.2	8.0	4.8	3.1	2.9
Spain	27.6	11.5	2.0	0.8	1.1	0.6
France	32.7	9.4	6.1	5.3	6.8	7.7
Ireland	62.6	19.8	10.9	1.5	2.6	3.2
Italy	19.1	12.2	8.7	1.9	1.4	1.0
Luxembourg	45.5	28.7	10.5	2.0	4.5	2.8
Netherlands	10.8	2.5	1.5	5.4	5.4	5.7
Austria	81.6	16.9	7.7	9.6	4.4	2.1
Portugal	23.1	11.2	4.2	1.6	1.3	1.2
Finland	252.4	66.0	29.5	1.3	3.3	2.1
Sweden	90.2	35.8	4.8	5.0	5.4	4.0
UK	59.4	14.0	10.7	2.8	3.2	3.1

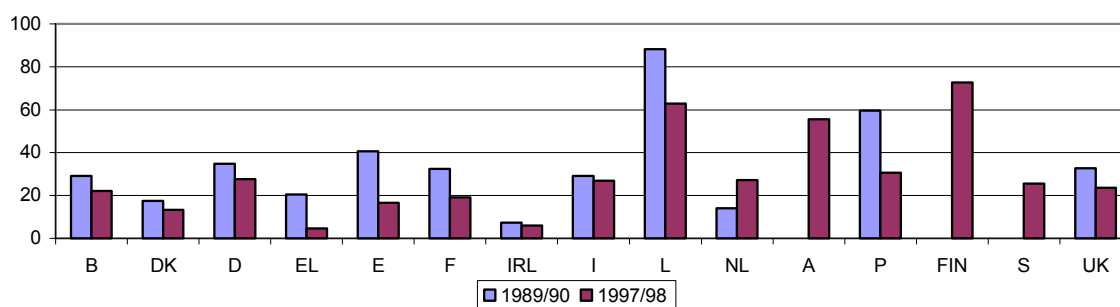
	depreciation			net value added at factor cost		
	1997/98	1991/92	1986/87	1997/98	1991/92	1986/87
Belgium	27.1	18.1	17.0	87.0	86.5	86.5
Denmark	34.2	25.9	24.5	88.7	71.2	73.7
Germany	48.5	41.7		80.0	81.1	
Greece	7.8	5.5	6.0	122.3	105.5	99.1
Spain	15.3	15.5	14.9	111.5	94.8	86.5
France	21.3	17.9	16.5	106.1	84.8	81.9
Ireland	28.4	18.6	18.6	132.7	98.6	89.1
Italy	35.9	30.7	24.7	81.3	80.1	83.0
Luxembourg	38.6	33.7	20.4	104.9	90.5	87.3
Netherlands	27.3	23.3	18.0	78.1	73.9	77.8
Austria	78.8	43.0	39.8	93.2	69.5	65.8
Portugal	7.1	7.0	6.2	114.4	102.9	96.8
Finland	84.2	46.6	37.3	266.9	116.2	90.1
Sweden	83.7	56.6	38.1	101.6	73.9	62.7
UK	45.2	27.7	27.6	111.4	83.1	80.0

Source: our calculations - Eurostat data

National subsidies are being reduced and national agricultural expenditure is a small proportion of total expenditure devoted to danish agricultural operators (graph 3.1), so the increase of the importance of subsidies is entirely due to the 1992 Reform's effects.

In 1998, the share of subsidies in total revenue has been 10,8% (map 3.1).

**Graph 3.1 National expenditure in total agricultural expenditure by Member States (%) [1989/90 - 1997/98]**



Note: Total agricultural expenditure is equal to national expenditure plus EU expenditure

Source: our elaborations - DG Agri data

Though absolute income has declined, income per labour unit has increased since there has been a high rate of decline in the amount of work in agriculture, about -3,4% per year from 1980/82 to 1996/98, one of the faster rates in the European Union. Income per labour unit is very high in Denmark; in terms of Gross Value Added at Market Prices per AWU, Denmark ranks at the third position, that is 2,4 times more than the EU average, only behind Champagne-Ardenne and Picardie. In terms of net value added at factor cost per AWU, Denmark ranks fifth behind the two regions above mentioned, and Sachsen-Anhalt and Île de France, which rank respectively at the third and fourth position (maps 3.2 and 3.3)

### 3.4. Germany

In the framework of the analysis of the trends in income of agricultural activity in Germany, it has to be noted that there is a statistical break in the series, caused by Germany's boundary changes followed to the reunification.

As a result, long term trends will be presented for the "western regions", while annual data for the former GDR regions are available for the period 1989-1997.

From the period 1990/91 to 1996/97, the trend in real net value added at factor cost has been down over all german regions, except Hamburg, Thüringen, Sachsen-Anhalt and Rheinland-Pfalz.

The highest increases have been occurred for Hamburg, specialised in fresh vegetables production, and for Rheinland-Pfalz, which is highly specialised in wine production; important regions in terms of agricultural production, like Bayern, Baden-Württemberg, Niedersachsen and Nordrhein-Westfalen have recorded decreasing trends (table 3.4.1).

**Table 3.4.1: Net value added at factor cost within Germany [1985 constant prices; 1986/87 - 1990/91 - 1996/97]**

	ECU mio [1996/97]	Shares in total EU net VAFC [1996/97]	% changes		
			1996/97 - 1990/91	1990/91 - 1986/87	1996/97 - 1986/87
Germany	8288.1	11.1	-16.7		
Baden-Württemberg	779.0	1.0	-35.6	-8.6	-41.1
Bayern	978.6	1.3	-24.6	-4.2	-27.8
Berlin	9.5	0.0	-49.3	35.8	-31.1
Brandenburg	424.4	0.6	-3.5		
Bremen	6.4	0.0	-32.2	-16.5	-43.4
Hamburg	40.7	0.1	26.5	-14.4	8.3
Hessen	308.8	0.4	-14.7	6.2	-9.4
Mecklenburg-Vorpommern	385.9	0.5	-12.9		
Niedersachsen	1937.3	2.6	-17.6	-10.6	-26.3
Nordrhein-Westfalen	1080.2	1.4	-18.2	-3.8	-21.3
Rheinland-Pfalz	703.6	0.9	8.0	28.9	39.3
Saarland	26.8	0.0	-2.7	-39.0	-40.7
Sachsen	365.8	0.5	-11.2		
Sachsen-Anhalt	442.6	0.6	1.2		
Schleswig-Holstein	470.4	0.6	-24.3	-13.0	-34.1
Thüringen	328.3	0.4	2.4		

Source: our calculations - Eurostat data

By ranking in decreasing order, in 1996/97 the top german regions in terms of net value added at factor cost have been:

- *Niedersachsen*, with a level of 1937,3 ECU mio at 1985 constant values. In this region, agricultural production is prevalently based on animal products, specifically pig production, which accounts for 24.8% in regional FAP, milk, with a share of nearly 22% in regional FAP, cattle, 10%, eggs and poultry, 10.9%. The region is the second producer of milk in the EU, only behind Bayern, and the third producer of pig meat, behind respectively Denmark and Bretagne. Among the group of crops, the main products are cereals, whose share in regional FAP is equal to 8.2%, and fresh fruit, with 3.6% (Appendix 3.A). The region is the second producer of fresh fruit in Germany. The share of subsidies in Gross Value Added at Market Prices is slightly increased from 20% in 1990/91 to 24.8% for the period 1996/97 (table 3.4.2).
- *Nordrhein-Westfalen*; the real net value added at factor cost has been equal to 1080.2 for the period 1996/97. Agricultural production in this region is dominated by pig production, which has increased up to 29.7% of regional FAP in 1996/97. Other main products are milk, cattle and cereals, with respectively shares of 16.6%, 9.8% and 8.3% in regional FAP. Furthermore, Nordrhein-Westfalen is the first producer of fresh vegetables in Germany and the third producer of fresh fruit. The importance of subsidies in GVAMP has increased from 17,9 in 1990/91 to 25.6 in 1996/97.
- *Bayern*; the real net value added at factor cost has been equal to 978,6 ECU mio at 1985 prices. Agricultural production is highly specialised, being the region the largest national producer of milk, cattle and cereals; These three products occupy shares in regional FAP respectively of 35.3%, 16.2% and 10.1%. Pig production covers 14,2% in regional FAP, sugar nearly 4% and fresh vegetables 2.4%. The region is the second largest producer of fresh vegetables in Germany. In 1996, Bayern was the first producer of milk in the

EU, the second for beef meat production, behind Ireland, and the fourth producer of cereals, behind respectively Castilla y Leon, Centre and Denmark. Subsidies have increased sharply as a percentage in GVAMP, staying at around 37.7% of regional GVAMP in 1996/97.

- *Baden-Württemberg*. The net value added at factor cost accounts for 779 ECU mio at 1985 constant prices. In this region, there is a tendency towards the specialisation in crop output; Baden-Württemberg is the first producer of fresh fruit in Germany, the share of this production in regional FAP has been 12.5% for the period 1996/97. Wine, cereals and fresh vegetables production respectively account for 10.1%, 8.3% and 4.2% in regional FAP. The main animal products are milk, pigs and cattle with shares respectively of 20.4%, 15.5% and 9.7% in regional FAP, but their share is decreasing. The share of subsidies in GVAMP has increased by nearly ten points after the 1992 reform, reaching 29% for the period 1996/97.
- *Rheinland-Pfalz*; the net value added at factor cost in real terms was equal to 703,6 in 1996/97. The region is the first producer of wine in Germany; the share of wine in regional FAP is 43%. In 1996, Rheinland-Pfalz was the fourth producer of wine in Europe. Other main production are milk, 12.9% in regional FAP, fresh vegetables, 7.8%, cereals, 7.3%, cattle, 5.6%, and fresh fruit, 4.1%. The increase of subsidies in regional GVAMP has not been very pronounced, being 22% in 1990/91 and standing at about 25.3% in 1996/97

**Table 3.4.2: Germany. Evolution of the major income components: shares in regional Gross Value Added at Market Prices (GVAMP=100) [1996/97 - 1990/91]**

	subsidies		taxes		depreciation		net VAFC	
	1996/97	1990/91	1996/97	1990/91	1996/97	1990/91	1996/97	1990/91
Germany	37.0	29.5	4.5	4.9	48.0	41.9	84.4	82.7
Baden-Württemberg	29.0	20.4	3.2	3.2	54.1	39.9	71.7	77.4
Bayern	37.7	28.6	8.4	8.1	75.2	65.2	54.1	55.3
Berlin	6.4	13.3	0.4	0.5	48.1	40.2	57.9	72.6
Brandenburg	89.9	90.1	6.8	5.4	51.1	46.7	132.0	137.9
Bremen	11.7	13.4	1.6	1.8	47.9	39.3	62.1	72.3
Hamburg	6.7	9.3	1.0	3.8	29.7	39.7	76.0	65.8
Hessen	42.9	25.8	5.3	6.0	56.5	52.1	81.0	67.7
Mecklenburg-Vorpommern	102.3	81.1	11.2	6.6	58.8	43.3	132.4	131.2
Niedersachsen	24.8	20.0	2.9	3.7	31.7	28.3	90.3	88.0
Nordrhein-Westfalen	25.6	17.9	2.9	3.6	39.1	35.4	83.5	78.9
Rheinland-Pfalz	25.3	22.0	2.1	3.0	28.5	32.7	94.6	86.3
Saarland	49.3	32.2	3.2	5.3	54.0	53.8	92.1	73.1
Sachsen	51.9	67.7	4.2	4.9	50.2	41.9	97.5	120.9
Sachsen-Anhalt	68.0	69.2	6.4	6.7	46.3	39.7	115.3	122.7
Schleswig-Holstein	28.9	23.4	2.9	4.1	45.4	36.5	80.6	82.8
Thüringen	62.4	70.1	3.8	5.2	49.1	43.4	109.4	121.6

Source: our calculations - Eurostat data

The trends pointed out for the main regions are common to nearly all the German regions: in general, the share of crop output in national FAP has increased, and consequently the share of animal products has declined.

Further analysis shows that the increase in the share of crop products is mainly due to the increase recorded for fresh fruits, fresh vegetables and wine, whilst sugar and cereals have diminished in terms of importance in FAP. Within the animal products sector, only pig production shows a slight positive trend.

In Germany, the relationship between the distribution of subsidies and the regional agricultural specialisation is not as clear as in other countries. Subsidies are relatively more important in Eastern Germany, although at a declining trend. The gradual decrease of agricultural subsidies in Eastern Germany accompanies the passage from the planned to the market economy. Furthermore, the importance of subsidies in total revenue is much greater in eastern Germany (map 3.1).

In Germany, agricultural incomes per labour unit are above the EU average with a positive trend. Compensation per AWU increased mainly in the years immediately after the reunification, since the restructuring of farms in the new Länder accelerated the rate of decline in the volume of total labour.

Actually, all the German regions record levels of agricultural income per labour unit above the EU average. The only exception is constituted by Bayern, that presents levels of three points below the EU average, by using the NVA<sub>fc</sub> per AWU, or eight points below the EU average, by using the GV<sub>amp</sub> per AWU (maps 3.2 and 3.3).

It is remarkable that all the German objective 1 regions present agricultural incomes per labour unit which are above the EU average. This holds true either if we assess agricultural incomes in terms of net value added at factor cost per AWU, or in terms of GV<sub>amp</sub> per AWU.

In particular, we refer to the following regions:

- *Sachsen-Anhalt*, the region has per capita GDP equal to 61% the European average level, but the net value added at factor cost per AWU is 249,3 with the EU average as reference (EU15=100).
- *Thüringen*, in this region the per capita GDP is 61 whilst NVA<sub>fc</sub> per labour unit is 155;
- *Sachsen*, per capita GDP equals 64 and NVA<sub>fc</sub> per AWU is at 131,1
- *Mecklenburg-Vorpommern*, per capita GDP is 61 whereas the net value added at factor cost per labour unit is 180
- *Brandenburg*, with a per capita GDP equal to 67 and NVA<sub>fc</sub> per labour unit at 137.6.

### **3.5. Greece**

As for Greece, Eurostat data at regional level are not very recent since the most updated statistics cover up to 1991 for the final agricultural production of the main products, and up to 1994 for gross value added at factor cost and market prices, depreciation, intermediate consumption, subsidies and taxes. Furthermore, data on the major components of income present discontinuities; for example, we have no data for 1991.

Therefore, we will introduce data elaborated from FADN, whereas an evaluation of the trends in income components can be made only until 1994, by using Eurostat data.

There has been a decline in agricultural incomes during the 90s, the real net value added at factor cost has declined by about 9,3% from the period 1991/92 to 1997/98 (table 3.3.1).

The highest levels of net value added at factor cost are recorded in Sterea Ellas-Nissi Egeou-Kriti (FADN codes)<sup>3</sup>, followed by Ipiros-Peleponissos-Nissi Ioniou, by Makedonia Thraki, and finally by Thessalia. In the last region, agricultural income has declined by 41.8% from the period 1990/91 to 1996/97; this is the highest rate of decline among the four regions (table 3.5.1).

**Table 3.5.1: Net value added at factor cost within Greece [1985 constant prices; 1990/91-1996/97]**

	ECU mio [1996/97]	Shares in total EU net VAFC [1996/97]	% changes [1996/97 - 1990/91]
Greece	3307.1	5.7	-24.1
Makedonia-Thraki	846.8	1.5	-26.8
Ipiros-Peloponissos-Nissi Ioniou	1019.9	1.8	-27.3
Thessalia	352.8	0.6	-45.1
Sterea Ellas-Nissi Egeou-Kriti	1087.6	1.9	-4.3

Source: *our elaborations - FADN data*

Agricultural production is spread all over Greece; we have also to consider that agricultural importance as share of total employment is the highest in the European Union

The value of crop production accounts for over two-thirds of the value of agriculture, the key products are fibre plants, fresh vegetables, fresh fruit, olive oil and oilseeds. Some of these production benefit from the expenditure provided by the EAGGF funds. In particular, this is the case of cotton, olive oil, tobacco and also oilseeds (through price compensations).

The share of final animal output in agricultural production has declined, even if we note some changes due to the lower importance of sheep production and to a relative increase in milk production. Altogether, final animal production has covered 29.4% of the greek FAP in 1996/98.

In general, the incidence of subsidies in total revenue is around 15% for Sterea Ellas-Niss Egeou-Kriti and Ipiros-Peleponissos-Nissi Ioniou; as for Thessalia this indicator is almost 10,8% (map 3.1).

Agricultural expenditure in Greece is based mainly on the EU expenditure, being the national one only a small fraction, 1.7%, of the total agricultural expenditure (graph3.1).

<sup>3</sup> In the appendix 3.B, we indicate how to match FADN and Eurostat codes.

In Greece, the share of subsidies in GVAMP has increased from 14,2% to 34,8%, from the period 1991/92 to 1997/98 (table 3.3.2). At regional level, our data cover a period from 1986 to 1994, with a “hole “ for 1991. From 1986/87 to 1993/94, the highest increases of subsidies as percentages in regional GVAMP, have been recorded in Ionia Nisia, Attiki and Kriti. It is to remark that net value added at factor cost has been always higher than the GVAMP; this may be due to the lower level of production intensiveness in comparison to other Member States: the level of depreciation is much inferior in Greece than in the rest of the European Union (table 3.5.2).

**Table 3.5.2: Greece. Evolution of the major income components: shares in regional Gross Value Added at Market Prices (GVAMP=100) [1993/94 - 1987/88]**

	subsidies		taxes		depreciation		net VAFC	
	1993/94	1987/88	1993/94	1987/88	1993/94	1987/88	1993/94	1987/88
Greece	22.1	9.5	4.5	0.5	6.0	6.0	111.6	103.0
Anatoliki Makedonia	8.8	6.6	4.4	0.7	8.1	8.6	96.4	97.4
Kentriki Makedonia	14.3	6.6	5.0	0.6	9.2	8.5	100.2	97.6
Dytiki Makedonia	28.9	15.8	5.0	0.8	8.9	10.1	115.0	104.8
Thessalia	18.1	8.0	4.3	0.6	9.1	9.1	104.7	98.3
Ipeiros	26.4	14.5	4.5	0.6	2.4	2.9	119.5	111.1
Ionia Nisia	61.9	15.0	4.2	0.4	3.2	3.0	154.5	111.7
Dytiki Ellada	24.1	7.0	4.3	0.5	4.5	4.0	115.3	102.5
Stereia Ellada	13.0	8.2	4.7	0.6	6.4	6.2	101.9	101.4
Peloponnisos	28.0	11.8	4.1	0.4	3.5	4.1	120.4	107.3
Attiki	10.7	5.0	4.8	0.5	3.1	2.7	102.9	101.7
Voreio Aigaio	45.7	15.1	4.1	0.4	2.0	1.8	139.5	112.9
Notio Aigaio	10.1	9.1	4.0	0.4	2.6	2.4	103.5	106.4
Kriti	43.6	17.1	4.2	0.4	2.1	2.3	137.2	114.4

Source: our calculations - Eurostat data

Agricultural income per unit of labour has actually risen mainly because of a fast rate of decline in the volume of agricultural work carried out in Greece (total labour input falling an average  $-2.7\%$  per year from the 1980/82 to 1996/98). However, during the years 1996, 1997 and 1998, the steepness of the general upward trend has been reduced.

All the greek regions present levels of agricultural income per labour unit which are below the EU average; this is to be combined with per capita GDP which is inferior to the 75% of the EU average for nearly all the greek regions in 1996 (but Attiki and Notio Aigaio, respectively gr3 and gr42 – NUTS code).

### 3.6. Spain

As concerns Spain, regional data are updated until 1995; therefore, we will cover only the period 1986-1995.

Agricultural income developments in Spain change considerably after the accession of Spain to the European Union in 1986. The real net value added at factor cost has increased by 16,5% from 1986/87 to 1997/98 (table 3.3.1), thanks also to the huge presence of subsidies flowed in Spain after the accession. Since 1986, the level of subsidies paid to spanish agriculture has increased almost exactly six folds in real terms.

Incomes per labour unit rose, in virtue also of the reduction of the spanish considerable agricultural workforce.

Fresh fruit and fresh vegetables production account for about 25% to 30% of the Spanish FAP, a proportion which is considerably higher than that recorded for the other EU countries. Olive oil, wine and cereals are the other three important crop products accounting for another 20% of the value of final output.

No less important contributor than fresh fruit and vegetables to the agricultural output is given by pig production. In Spain, almost all of the 80% increase in pig output volumes has occurred since accession.

From the period 1986/87 to 1994/95, there has been a rise in real net value added at factor cost, above all for Cataluña, 54.2%, La Rioja, 36.2%, Extremadura, 26.6%, Murcia, 19.2%. Important agricultural regions have also improved their competitiveness: Andalucía has increased its real NVA<sub>fc</sub> by 17.4% from 1986/87 to 1994/95, Castilla y León by 9.3%, whilst the Comunidad Valenciana has slightly decreased by 0.5% (table 3.6.1)

**Table 3.6.1:**  
**Net value added at factor cost within Spain [1985 constant prices; 1986/87 - 1990/91 -**

	ECU mio [1994/95]	Shares in total EU net VAFC [1994/95]	% changes		
			1994/95 - 1990/91	1990/91 - 1986/87	1994/95 - 1986/87
Spain	10267.9	14.0	-10.7	22.9	9.8
Galicia	681.2	0.9	5.4	-15.3	-10.7
Asturias	124.0	0.2	-17.1	-3.6	-20.1
Cantabria	108.0	0.1	-6.8	5.5	-1.6
Pais Vasco	132.0	0.2	-6.4	0.7	-5.8
Navarra	196.9	0.3	-3.8	7.5	3.4
La Rioja	224.2	0.3	9.8	24.0	36.2
Aragón	336.9	0.5	-8.9	0.3	-8.7
Comunidad de Madrid	79.5	0.1	-11.6	22.8	8.6
Castilla y León	1251.3	1.7	19.5	-8.6	9.3
Castilla-la Mancha	851.5	1.2	-17.1	24.1	2.9
Extremadura	570.1	0.8	-28.0	75.7	26.6
Cataluña	763.2	1.0	-1.2	56.1	54.2
Comunidad Valenciana	1079.4	1.5	-16.8	19.7	-0.5
Baleares	84.2	0.1	-23.2	4.0	-20.2
Andalucía	3001.1	4.1	-16.5	40.5	17.4
Murcia	516.5	0.7	-16.9	43.6	19.2
Ceuta y Melilla (ES)	n.a.	n.a.	n.a.	n.a.	n.a.
Canarias (ES)	267.9	0.4	-14.4	8.0	-7.6

n.a. not available

Source: our calculations - Eurostat data

The increase of agricultural net value added at factor cost in real terms in the most dynamic regions is led by rising export demand (wine, fresh fruit and vegetables) and by a steep rise of domestic consumption (pig production).

Andalucía is largely the most important Spanish region in terms of value added at factor cost, accounting also for 4.2% of EU total net value added at factor cost. Fresh fruit and vegetables production accounts for nearly 40% of regional FAP.

Andalucía ranks first in the EU in terms of GVAMP; the region is also the first EU producer of fresh vegetables, with an incidence of 7.7% in EU total fresh vegetables production.

Comunidad Valenciana is the largest producer of fresh fruit in Europe, with a share of 10.7% in total EU production.

Castilla y León is specialised in products heavily subsidised after the Mac Sharry: in 1996, the region was the first European producer of cereals; furthermore it is the first Spanish region in cattle production. Another important production in the region is pig meat, which accounts for 17.3% in regional FAP.

Among the other principal regions, Galicia is more specialised in animal products, with cattle and milk production shares respectively equal to 26.6% and 18.9% in regional FAP; Cataluña production is mainly based on eggs and poultry, pigs and fresh fruit production.

Whether wine production is declining in Spain, it is also becoming more concentrated in specific regions like Asturias, Navarra and La Rioja. In these three regions, wine production has increased from the period 1990/91 to 1995. Analogous phenomena of concentration are undergoing for fresh fruit; within this sector we occur an enhancement of the coastal regions, which have a comparative advantage, that is to say Andalucía, Comunidad Valenciana and Cataluña.

From 1990/91 to 1994/95, the importance of subsidies as percentage of regional GVAMP has considerably increased in Spain. The most significant highs have been reached in Aragón, where subsidies have increased from 17.7% of GVAMP in 1990/91 up to 85.9% in 1994/95, in Castilla-la Mancha, with an increase of about 75%, in Castilla y León, where subsidies are actually 55.8% of regional GVAMP, and in Extremadura, which records a rise of 40.5 points, recording a share of 53% in regional GVAMP for 1994/95. (table 3.6.2)

**Table 3.6.2: Spain. Evolution of the major income components: shares in regional Gross Value Added at Market Prices (GVAMP=100) [1994/95 - 1990/91]**

	subsidies		taxes		depreciation		net VAFC	
	1994/95	1990/91	1994/95	1990/91	1994/95	1990/91	1994/95	1990/91
Spain	30.5	8.1	0.6	1.0	15.3	14.4	114.6	92.7
Galicia	6.7	5.2	0.1	0.4	19.6	23.6	87.0	81.2
Asturias	16.5	10.1	0.5	0.9	22.2	23.5	93.8	85.7
Cantabria	16.3	8.5	0.5	1.1	10.3	12.6	105.6	94.9
Pais Vasco	19.6	6.2	0.9	1.6	16.9	17.3	101.8	87.3
Navarra	33.7	9.6	0.9	1.9	20.5	19.6	112.3	88.1
La Rioja	8.3	3.8	0.3	0.7	9.7	12.2	98.3	90.9
Aragón	85.9	17.7	1.5	2.3	50.5	36.0	133.9	79.4
Comunidad de Madrid	26.8	10.7	0.7	1.4	25.2	26.2	100.9	83.1
Castilla y León	55.8	11.5	0.7	2.0	27.1	27.7	128.0	81.8
Castilla-la Mancha	87.7	12.0	1.0	1.3	34.4	21.0	152.3	89.7
Extremadura	53.0	12.5	0.3	0.9	14.7	10.0	138.0	101.6
Cataluña	14.9	5.8	0.5	1.0	17.5	19.6	96.9	85.2
Comunidad Valenciana	5.0	2.9	0.7	0.5	5.5	5.8	98.9	96.5
Baleares	17.6	6.2	0.4	0.5	20.2	18.5	97.0	87.3
Andalucía	29.5	8.5	0.6	0.7	7.8	7.0	121.1	100.7
Murcia	12.1	1.7	0.4	0.4	4.6	4.8	107.1	96.4
Ceuta y Melilla (ES)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Canarias (ES)	34.0	0.6	0.3	0.2	3.0	3.0	130.7	97.3

Source: our calculations - Eurostat data

The distribution of subsidies has to be linked to the composition of regional FAP and combined with the impact of the reform of the CAP in 1992. Many of the heavily subsidised regions are specialised in cereals and, to a lesser extent beef; some of them record an increase in both production. On the other side, the share

of subsidies in regional GVamp is generally lower in those regions mainly specialised in the production of wine, fresh vegetables and fresh fruits (La Rioja, Andalucía, Comunidad Valenciana and Murcia).

In Spain agricultural income per labour unit have been increasing up to EU average levels, with a clear trend to overcome EU average levels.

Anyway, if we do not take into account the subsidies, that is to say if we consider GVamp per AWU, then agricultural incomes per AWU are clearly below the EU average in many Spanish regions. By introducing subsidies we can see that the picture changes significantly, with some Spanish regions (Navarra, Castilla y León, Canarias, Aragón, La Rioja, Comunidad de Madrid, Andalucía, Extremadura, Castilla La Mancha), recording a real net value added at factor cost per AWU above the EU average (maps 3.2 and 3.3).

### **3.7. France**

From 1991/92 to 1997/98, in France the real net value added at factor cost has decreased by 2%, a level of variation which is one of the lowest in the EU. Furthermore, as the focus of agricultural support moved to direct compensatory payments, the importance of subsidies within the account increased as subsidies rose markedly as percentage of domestic GVamp, from 9,4% for 1991/92 to 32,7% for 1997/98 (table 3.3.1).

Agricultural production in France is diverse. Over time, cereals, cattle and milk production have declined, whilst positive trends have been recorded for poultry, pigs, fresh vegetables and wine.

In particular, the introduction of milk quotas and, later, land set aside have led to lower output volumes of milk and cereals. However, the reduction in the rate of set-aside has contributed to the strong rise in cereals output in the last few years.

It is to remark that those regions, significantly subsidised after the 1992 reform, have recorded the lowest percentage variations in terms of real net value added at factor cost, from 1990/91 to 1996/97. In these regions, the variation has been slightly negative, if not positive. Limited falls have been recorded in Haute-Normandie, -1,84%, Centre, -4,5%, Midi-Pyrénées, -2,1%, Auvergne, -4,7%, and Poitou-Charentes, -0,2%. Positive developments concern Île de France, + 1,2%, Picardie, +4,3% Bourgogne, +7,3%, and Lorraine, +1,8% (table 3.7.1).

As for Aquitaine, we record an increase of 25,5% in agricultural incomes; this has been observed mainly by virtue of market factors accounted for the wine sector.

Agricultural incomes declined also in Limousin, a region in which subsidies are higher than the regional GVamp.

**Table 3.7.1: Net value added at factor cost within France [1985 constant prices; 1986/87 - 1990/91 - 1996/97]**

	ECU mio [1996/97]	Shares in total EU net VAFC [1996/97]	% changes		
			1996/97 - 1990/91	1990/91 - 1986/87	1996/97 - 1986/87
France	16423.48	22.03	-6.70	-5.60	-11.93
Île de France	342.63	0.46	1.24	-30.83	-29.97
Champagne-Ardenne	1129.46	1.52	-29.66	21.20	-14.74
Picardie	825.92	1.11	4.32	-10.54	-6.68
Haute-Normandie	393.66	0.53	-1.84	-12.04	-13.66
Centre	1001.30	1.34	-4.56	-22.32	-25.87
Basse-Normandie	602.50	0.81	-19.40	-4.00	-22.62
Bourgogne	972.07	1.30	7.36	-7.22	-0.39
Nord - Pas-de-Calais	552.33	0.74	-12.50	-4.08	-16.07
Lorraine	396.20	0.53	1.85	-8.26	-6.56
Alsace	318.57	0.43	-2.67	-0.33	-2.99
Franche-Comté	266.67	0.36	-5.14	6.12	0.67
Pays de la Loire	1561.17	2.09	-9.07	-7.48	-15.87
Bretagne	1392.59	1.87	-12.06	7.63	-5.35
Poitou-Charentes	721.63	0.97	-0.24	-9.77	-9.99
Aquitaine	1598.99	2.15	25.44	-15.29	6.27
Midi-Pyrénées	988.52	1.33	-2.12	-13.36	-15.20
Limousin	181.85	0.24	-18.40	-6.53	-23.72
Rhône-Alpes	1055.35	1.42	-9.77	1.93	-8.03
Auvergne	470.47	0.63	-4.73	-1.69	-6.34
Languedoc-Roussillon	820.23	1.10	-14.25	-5.17	-18.68
Provence-Alpes-Côte d'Azur	776.29	1.04	-14.66	-6.13	-19.89
Corse	55.06	0.07	-26.36	-0.95	-27.06

Source: our calculations - Eurostat data

At regional level, the major positive developments in subsidies have been occurred for Limousin, from 49,1% in regional GVAmP for 1990/91 to 171,1% in 1996/97, for Auvergne, from 25,9% to 73,4%, for Centre, from 4,9% to 69.1%, for Midi-Pyrénée, from 16,1% to 65%, for Poitou-Charentes, from 9,6% to 64.7%, for Lorraine, from 6,7% to 58.1%, for Haute-Normandie, from 5,4% to 46.6%, and for Bourgogne, from 7,4% to 42.9% (table 3.7.2).

**Table 3.7.2: France. Evolution of the major income components: shares in regional Gross Value added at Market Prices (GVAMP=100) [1996/97 - 1990/91]**

	subsidies		taxes		depreciation		net VAFc	
	1996/97	1990/91	1996/97	1990/91	1996/97	1990/91	1996/97	1990/91
France	33.7	7.7	5.3	6.1	21.2	16.7	107.2	84.9
Île de France	46.6	1.1	5.5	12.0	25.3	16.8	115.8	72.3
Champagne-Ardenne	28.8	1.6	3.4	5.4	18.7	10.7	106.7	85.4
Picardie	35.2	2.6	6.4	12.0	20.7	15.9	108.1	74.7
Haute-Normandie	46.6	5.4	7.1	9.9	23.4	17.6	116.0	77.9
Centre	69.1	4.9	5.3	9.6	31.5	18.5	132.3	76.9
Basse-Normandie	30.4	7.9	5.5	4.1	21.4	16.6	103.6	87.2
Bourgogne	42.9	7.4	3.3	5.1	20.4	16.4	119.2	85.9
Nord - Pas-de-Calais	27.2	3.7	6.1	8.7	20.7	16.4	100.4	78.6
Lorraine	58.1	6.7	5.5	7.7	32.6	22.0	120.0	77.0
Alsace	20.2	3.0	5.0	7.0	20.2	17.4	95.0	78.6
Franche-Comté	33.3	8.7	6.1	6.3	23.1	17.5	104.2	84.9
Pays de la Loire	25.7	8.3	3.8	2.7	15.8	13.6	106.1	92.0
Bretagne	17.9	5.8	4.7	4.0	21.3	18.3	91.9	83.4
Poitou-Charentes	64.7	9.6	7.4	8.2	31.9	22.0	125.3	79.5
Aquitaine	18.5	6.5	3.5	4.7	14.4	16.1	100.5	85.7
Midi-Pyrénées	65.0	16.1	9.5	7.3	29.9	21.9	125.6	87.0
Limousin	171.7	49.1	17.9	5.4	66.2	32.4	187.6	111.3
Rhône-Alpes	21.4	7.1	5.2	4.4	17.6	14.8	98.6	87.9
Auvergne	73.4	25.9	9.3	6.6	32.9	24.4	131.2	94.9
Languedoc-Roussillon	16.9	15.8	6.9	6.5	15.4	14.2	94.7	95.0
Provence-Alpes-Côte d'Azur	10.6	5.7	4.2	3.1	15.8	14.8	90.7	87.8
Corse	52.8	30.2	3.7	3.2	21.2	6.9	128.0	120.0

Source: our calculations - Eurostat data

Subsidies have increased a little in those regions where beef, oilseeds and cereals production do not have a high share in regional FAP (Appendix 3.A). This is the case of Bretagne, which is hugely specialised in animal production; it is worth to note that this region is the first producer of poultry in EU and the second for pig production, only behind Denmark. The second poultry producer in EU is Pays de la Loire, which is another region in which subsidies have not been increased as high as in other french regions. Aquitaine, Languedoc-Roussillon and Provence-Alpes-Côte d'Azur record also low increases; in these regions, regional agriculture is based mainly on wine and fresh vegetables and fruits.

Turning to agricultural incomes per labour unit, we note that real net value added at factor cost per AWU has been higher than the EU average for all the french regions. The illustration does not change if we consider the GVAMP per AWU (map 3.3); the only exception concerns Limousin, since the GVAMP per AWU is only 73,5, having the EU average as reference (EU15=100). Only by introducing subsidies agricultural incomes in Limousin can exceed the EU average levels (maps 3.2).

Furthermore, it is to note that the highest levels of income per labour unit are reported for Central and Northern France. By looking at both maps on agricultural incomes per AWU, it emerges that the highest levels of agricultural incomes per AWU are concentrated within an area which includes Central and Northern France, Belgium, Southern England, Central and North-Western Germany, and Lombardia. This area also concentrates most of the EU FAP and, not surprisingly, corresponds to the centre of the business in the European Union, with regions and countries having the highest levels of per capita GDP.

### **3.8. Ireland**

As regards Ireland, we shall not consider any subterritorial level, since disaggregation for Irish regions are still in hands. We shall illustrate our findings by considering the country as a whole.

From the period 1986/87 to 1997/98, the net value added at factor cost in Ireland has grown by 3,3%; the same indicator declined at about -1,5% from 1991/92 to 1997/98 (table 3.3.1).

Subsidies to Irish agriculture have leapt more than seven fold since the country joined the European Community (EC, 1999).

After the reform of the 1992, the level of subsidies has risen in absolute and relative terms, passing from 19,8% of national GVAmP in 1991/92 to 62,6% of national GVAmP for 1997/98 (table 3.3.2).

The share of subsidies in GVAmP has increased either because GVAmP has declined or because subsidies have been rising.

By considering that the combined values of cattle and milk production have alone accounted for about two thirds of the value of agricultural production in Ireland, we can deduce that the increase in subsidies is mainly due to the criterion of “extensification” used to select direct aids in the cattle sector. In fact, thanks also to the criteria adopted to fix the limits of the premiums<sup>4</sup>, Ireland receive 20% of expenditure devoted to the cattle sector from EU against a share in EU total cattle FAP equal to 6%.

Total agricultural expenditure in Ireland comes mainly from the EU, being national expenditure only about 5% of total expenditure. Except the 1995 new Member States, Ireland is the country with highest ratio of agricultural expenditure in agriculture net value added at factor cost.

As we have seen in chapter 1 (graph 1.2), agricultural income per labour unit in Ireland are still below the EU average but with a positive trend to close this gap.

### **3.9. Italy**

As concerns Italy, Eurostat database contains data on Gross Value Added at Factor Cost, but not data on depreciation at regional level. Therefore, it is not possible to calculate the NVA<sub>fc</sub>. We will use FADN data as already done for Greece.

In Italy, the real net value added at factor cost has decreased by 24,2% from 1991/92 to 1997/98 (table 3.3.1), whereas income per labour unit has remained relatively constant.

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<sup>4</sup> We refer to new young male bovine animal premiums, suckler cow premiums and ewe premiums introduced as part of the 1992 Reform of the CAP.

Agricultural production is mainly concentrated in Lombardia, one of the main agricultural producer within EU, Veneto, Emilia-Romagna, Toscana, Campania, Puglia and Sicilia (table 3.9.1).

**Table 3.9.1: Net value added at factor cost within Italy  
[1985 constant prices; 1990/91-1996/97]**

	ECU mio [1996/97]	Shares in total EU net VAFC [1996/97]	% changes [1996/97 - 1990/91]
Italy	9923.2	17.0	-10.1
Valle d'Aosta	17.4	0.0	-66.4
Piemonte	736.1	1.3	-5.6
Lombardia	1245.1	2.1	-0.2
Trentino	80.6	0.1	-22.7
Alto-Adige	170.9	0.3	-8.2
Veneto	849.1	1.5	-10.1
Friuli-Venezia Giulia	190.5	0.3	-19.1
Liguria	212.2	0.4	-27.0
Emilia-Romagna	1107.9	1.9	-5.9
Toscana	606.4	1.0	-14.5
Marche	182.6	0.3	-9.9
Umbria	150.5	0.3	-24.5
Lazio	278.6	0.5	-37.5
Abruzzo	268.7	0.5	3.4
Molise	61.0	0.1	-30.8
Campania	625.2	1.1	-12.7
Calabria	547.9	0.9	13.6
Puglia	1027.9	1.8	2.0
Basilicata	180.4	0.3	-17.0
Sicilia	1024.3	1.8	-15.8
Sardegna	360.1	0.6	-20.0

Source: our elaborations - FADN data

In southern regions agriculture is relatively more important in terms of employment and production. Agricultural incomes per labour unit are recorded below the EU average for nearly all the southern regions and for some northern regions (maps 3.2 and 3.3). An interesting aspect relative to agricultural incomes per AWU in Italy is that they are nearer the EU average if evaluated through GVamp per AWU rather than in terms of net value added at factor cost per AWU. We can think that this change is due to an adverse distribution of subsidies in comparison to the other European countries. On the other hand, by looking at the importance of subsidies in total agricultural revenue, we can see that the distribution is pro-cohesion since it is concentrated in the poorest and mountainous areas (Southern Italy, Umbria and Valle d'Aosta) (map 3.1).

The importance of subsidies in GVamp has increased for Italy as a whole: from 12,2% for 1991/92 to 19,1% in 1997/98 (table 3.3.2). The rise in subsidies has not been as high as in other countries since the sectors interested by the 1992 reform are not very important in the composition of the Italian final agricultural production. Italy is predominantly a crop-growing country, livestock breeding being relatively small. The main crop products are fresh vegetables, fruit, wine and cereals. Furthermore, the particular structure of Italian farms, characterised by small dimensions, do not favour Italian farmers in terms of distribution of payments allocated through the EAGGF Guarantee section after 1992 (paragraph 5.4).

Italian regions where the increase of subsidies as percentage of regional GVAMP has been more significant are: Friuli-Venezia Giulia, Umbria, Molise, Basilicata and Calabria (table 3.9.2).

**Table 3.9.2: Italy. Evolution of subsidies and taxes as shares in regional Gross Value Added at Market Prices (GVAMP=100) [1995/96 - 1990/91]**

	subsidies		taxes	
	1995/96	1990/91	1995/96	1990/91
Italy	16.6	11.4	1.6	1.4
Piemonte	15.0	7.9	1.4	1.3
Valle d'Aosta	42.0	46.3	2.1	1.9
Liguria	2.2	3.9	1.4	1.3
Lombardia	11.3	5.4	1.3	1.2
Trentino-Alto Adige	7.6	8.6	1.5	1.1
Veneto	15.1	8.7	1.4	1.2
Friuli-Venezia Giulia	21.5	7.0	1.4	1.3
Emilia-Romagna	11.2	8.3	1.4	1.2
Toscana	26.0	18.4	1.7	1.5
Umbria	42.9	26.8	1.6	1.3
Marche	18.9	10.6	1.6	1.4
Lazio	14.9	11.1	1.7	1.3
Abruzzo	15.5	9.8	1.5	1.3
Molise	34.2	16.0	1.7	1.4
Campania	19.2	17.4	2.1	1.5
Puglia	18.5	13.3	1.6	1.4
Basilicata	44.1	22.8	2.2	1.7
Calabria	23.4	9.6	1.9	2.0
Sicilia	12.7	13.0	1.8	1.5
Sardegna	29.7	25.1	1.8	1.4

Source: our calculations - Eurostat data

### 3.10. Luxembourg

In Luxembourg, the level of income generated from agriculture has been declining strongly, precisely by 26,6% between 1986/87 and 1997/98. The decrease has been slower in the 90s, when the net value added at factor cost has decreased by 7,1% from 1991/92 to 1997/98 (table 3.3.1).

Agriculture in Luxembourg is dominated by milk and cattle production, which account for about 70% of Luxembourg FAP, with pig and wine production contributing another 17%.

The percentage ratio of subsidies to GVAMP has increased from 28,7% in 1990/91 to 45.5% for 1997/98 (table 3.3.2). This positive trend is both for the absolute increase in subsidies and for a steep fall in GVAMP.

Average income from agricultural activity per labour unit has risen mainly because of the significant fall in the volume of agricultural labour (just under – 4% a year from 1980/82 to 1996/98). The share of national agricultural expenditure in total agriculture expenditure is very high, nearly 60%, but this share tends to diminish over time.

The declining trend of national expenditure in total agriculture expenditure is common to all the EU Member states, but Netherlands (graph 3.1).

Agricultural incomes per labour unit are above the EU average in Luxembourg although the gap is lower since the beginning of the 90s.

By using the EU average as reference (EU15=100), GVAmP per AWU has been 154.3 for 1996, whereas real net value added per AWU raises up to 164.5 per AWU (maps 3.2 and 3.3).

### **3.11. Netherlands**

The latest year for which we have data on Netherlands regions is the 1993. Agricultural economic accounts provided by Eurostat do not cover the period 1994/98; even FADN provides data which are not disaggregated at regional level. Therefore, ex-post analysis about the effects of the 1992 reform in Netherlands regions needs the availability of more recent data.

We can only attempt to come out with some considerations, by taking into account both the latest results at national level and also how the situation has evolved in other countries.

Netherlands agriculture is characterised by two peculiarities:

- Netherlands is the only EU country for which national expenditure tends to increase in relation to total expenditure allocated to dutch agricultural operators (graph 3.1). We would dare to say that dutch farmers will have an advantageous position whether the CAP will be “re-nationalised”;
- the level of taxes paid by dutch farmers exceeds the level of subsidies allocated to them (the exception for 1997 has been because of the support provided to pig farmers in the midst of the swine fever outbreak). This is quite unusual if we consider that agriculture is the most subsidised sector in all the other european countries. By consequence, the ratio of the net value added at facto cost to GVAmP is among the lowest in the EU (table.3.3.2)

Moreover, two positive elements characterise the dutch agriculture:

- agricultural incomes per labour unit in Netherlands are reaching those recorded in the other sectors of the national economy;
- the annual decline of agricultural labour unit has been the slowest in the EU (-0.6% compared to about -4% for the EU as a whole). It is to be remarked the growth in the volume of non-family labour (+2.2% per year on average from 1980/82 to 1996/98), indicates that increasingly specialised and contracted expertise are required in dutch agriculture (EC, 1999).

Agricultural net value added at factor cost in real 1985 values has declined by 22% from 1986/87 to 1997/98 (table 3.3.1).

The presence of net subsidies (subsidies minus taxes) in GVAmP has increased from -2,9% to 5.4% from 1991/92 to 1997/98. This has been occurred since the intervention in 1997 for the swine fever. However, net subsidies tend to increase even if we deduct from them this one off measure; this situation is on account of

1992 CAP developments as well as of the rise in national agricultural expenditure.

The most important dutch products are milk, pigs, fresh vegetables, flowers, nursery plants and cattle. However, animal production is losing positions in FAP, diminishing from about 67% at the the start of the 80s to 51% at the end of the 90s; only pig production increased during the 90s. It is particularly indicative the development of fresh vegetables, flowers and ornamental plants, and nursery plants.

These products receive no direct payments from EU and their growth has been sustained by a corresponding growth in horticultural trade.

As conclusion, it seems to us that dutch agriculture is clearly more market oriented than that of other areas, dutch farmers participate to the national yield of taxation and are less dependent on subsidies provided by a central Institution.

### **3.12. Austria**

As concerns Austria, we have no data on the composition of the final agricultural production at regional level, while data on the major components of income at regional level are available since 1994 (for Gross Value added at Market Prices and for subsidies).

On the other hand, FADN data are available only for Austria as a whole.

Austria joined the European Union along with Finland and Sweden in 1995. The implementation of the CAP brought about sharp price reductions for Austrian farmers, for which degressive compensatory payments have been established for a fixed period (EC, 1999).

In Austria, like in Finland and Luxembourg, the level of national agricultural expenditure is higher than expenditure distributed through EAGGF funds. In 1998, the national agricultural expenditure was 65,9% of the agricultural net value added at factor cost, the proportion of EU expenditure in NVA<sub>fc</sub> was 52,9%. Therefore, the aggregate importance of total agricultural expenditure in net value added at factor cost was the highest among the EU countries: 118,8%. Finland ranked at the second place with 114%, followed by Sweden with 113,1% (table 3.12.1).

In particular, the share of subsidies in GV<sub>amp</sub> grew from 16,9% in 1991/92 to about 81,6% in 1997/98 (table 3.3.2). The most subsidised region in agriculture is Burgenland, which is an objective 1 region; in Burgenland, subsidies covered 137,5% of the regional GV<sub>amp</sub> for the period 1995/96 (table 3.12.2) For Burgeland and Salzburg, we note the most remarkable increases of the share of subsidies in regional GV<sub>amp</sub>: about 60 points from 1993/94 to 1995/96. However, Salzburg is the second region in Austria in terms of per capita GDP, 121 against 167 for Wien region (EU15=100). By oversimplifying, we could say that the new agricultural regime, that is to say the CAP plus national policy, is acting in a pro-cohesion way in the case of Burgenland (poor areas => high importance of subsidies), whilst the contrary has to be said for Salzburg.

**Table 3.12.1**  
**Ratio of agricultural expenditure to agricultural**  
**net value added at factor cost by Member State**

	EU expenditure	National expenditure	Total expenditure
Belgium	46.7	13.3	60.0
Denmark	45.3	7.0	52.3
Germany	48.6	18.6	67.1
Greece	34.7	1.7	36.3
Spain	29.1	5.8	34.9
France	36.8	8.7	45.4
Ireland	64.8	4.0	68.8
Italy	22.3	8.2	30.4
Luxembourg	20.0	34.0	54.1
Netherlands	24.2	9.0	33.2
Austria	52.9	65.9	118.8
Portugal	28.3	12.5	40.8
Finland	31.1	83.0	114.0
Sweden	84.3	28.8	113.1
UK	60.6	18.8	79.4

Source: *our elaborations -*  
*DG Agri data (agr. exp.) and Eurostat data (net VAFC)*

The importance of subsidies in the composition of agricultural income is one of the highest in the EU: only Finland's regions and Limousin show higher shares (map 3.1). Agricultural net value added at factor cost, in real 1985 values, has decreased from 1991/92 to 1997/98 by 33,1% (table 3.3.1). This fall has been accentuated by the fall in prices recorded for 1995 following the application of the CAP (EC, 1999).

The share of the value of animal production in the value of FAP has been 65,3% in 1996/98; the main products are cattle, milk and pigs. Only the production of pigs has increased its share over years. This upward trend in pig production is common to most european countries. Among crop output, the principal products are fresh fruit, grape must and wine, and cereals. The first two products have increased of importance in the national FAP, whereas cereals production is actually about 5% of FAP. In 1980/82 cereals output accounted for 8,5% of FAP.

Income from agricultural activity per AWU rose distinctly because of the sharp reduction in the volume of total agricultural labour: an average of -3.9% from the beginning of the 80s, with particular strong declines in the years 1992 and 1996 (EC, 1999).

**Table 3.12.2: Austria. Importance of subsidies in**  
**Gross Value Added at Market Prices (GVAMP=100)**  
**[1995/96 - 1994/95 - 1993/94]**

	1995/96	1994/95	1993/94
Austria	86.9	73.8	44.9
Burgenland	137.5	107.2	73.1
Niederösterreich	103.2	87.1	52.4
Wien	14.1	16.3	8.2
Kärnten	83.9	71.7	46.6
Steiermark	56.4	53.3	34.5
Oberösterreich	83.8	68.9	39.9
Salzburg	108.9	84.2	46.1
Tirol	94.8	76.7	49.1
Vorarlberg	105.7	86.2	53.4

Source: *our calculations - Eurostat data*

Agricultural income per labour unit is below the EU average if calculated as GVamp per AWU; as for the ratio of net value added at factor cost to AWU, elaborations on FADN data show that Austria has agricultural income per labour unit above the EU average<sup>5</sup> (maps 3.2 and 3.3)

### 3.13. Portugal

The measure of real net value added at factor cost has declined by 21,5% from the period 1986/87 to 1997/98 (table 3.3.1). The declining trend has been slower in the first years following the accession in the EU (1986); from 1986/87 to 1991/92 agricultural real net VAFC has decreased only by 4,7%. Therefore, for Portugal, we record a significant slope of 17,6% from 1991/92 to 1997/98 (table 3.3.1). Considering the same interval, other countries which suffer of consistent falls in the real NVAfc are Belgium, Germany, Italy, the three 1995 Member States, Netherlands and UK. Interestingly, we have to associate the fall in the national agricultural incomes to the redistribution of benefits and losses brought about by the application of the CAP. In the previous section, all the above mentioned countries generally lose from the CAP.

In Portugal, only two regions have seen their agricultural value added increasing after the accession: Lisboa e Vale do Tejo and Alentejo, the real net VAfc has increased by 18.8% for Lisboa and by 18.6% for Alentejo from 1986/87 to 1996/97. Major declines have been observed for Norte and Centro, respectively – 29.8% and –22% (table 3.13.1).

**Table 3.13.1: Net value added at factor cost within Portugal [1985 constant prices; 1986/87 - 1990/91 - 1996/97]**

	ECU mio [1996/97]	Shares in total EU net VAFC [1996/97]	% changes		
			1996/97 - 1990/91	1990/91 - 1986/87	1996/97 - 1986/87
Portugal	1705.7	2.3	-13.1	5.5	-8.3
Norte	378.5	0.5	-34.9	7.7	-29.9
Centro (P)	320.7	0.4	-25.1	3.6	-22.3
Lisboa e Vale do Tejo	426.2	0.6	1.4	16.9	18.6
Alentejo	367.2	0.5	16.7	1.8	18.8
Algarve	76.5	0.1	-7.6	-2.5	-9.9
Açores (PT)	105.7	0.1	12.7	-12.9	-1.8
Madeira (PT)	30.8	0.0	-26.1	-10.0	-33.5

Source: our calculations - Eurostat data

The peculiar characteristic of Portugal is that the top region in terms of importance in national net value added at factor cost, Lisboa, is also that region where agricultural employment reaches the lowest level in total regional employment: 5,3%. Lisboa e Vale do Tejo is also the richest portuguese region, recording a per capita GDP which is 11 points below the EU average (table1.3).

Significantly, the share of subsidies in regional GVamp is higher in poorer regions, characterised also by larger share of agricultural employment. By the way, even for these regions, the share of subsidies in regional GVamp is

<sup>5</sup> However, by using Eurostat data, we have seen in graph 1.2 that the real net VAFC per AWU for Austria is below the EU average.

generally below the values recorded for many other european countries and regions (table 3.13.2).

**Table 3.13.2: Portugal. Evolution of the major income components: shares in regional Gross Value Added at Market Prices (GVAMP=100) [1996/97 - 1990/91]**

	subsidies		taxes		depreciation		net VAFC	
	1996/97	1990/91	1996/97	1990/91	1996/97	1990/91	1996/97	1990/91
Portugal	20.3	7.1	1.5	1.3	6.3	6.3	112.5	99.6
Norte	17.7	5.4	1.4	1.0	9.4	5.3	107.0	99.1
Centro (P)	18.2	6.4	1.7	1.3	7.7	7.3	108.7	97.8
Lisboa e Vale do Tejo	8.7	5.0	1.6	1.5	4.9	7.8	102.2	95.7
Alentejo	53.9	18.2	1.6	1.4	4.7	6.2	147.6	110.6
Algarve	4.0	5.8	1.2	1.1	4.6	6.0	98.2	98.6
Açores (PT)	16.2	0.9	1.1	1.1	2.3	3.1	112.8	96.6
Madeira (PT)	9.4	3.9	1.1	1.0	4.1	3.0	104.2	99.9

Source: our calculations - Eurostat data

Wine, fresh fruit and fresh vegetables are the three most important crop products, accounting for a little under a third of the total value of agricultural production in Portugal. These crops are mostly cultivated in the richest portuguese regions, like Lisboa e Vale do Tejo, Algarve. Pigs production is also increasing in Portugal; it is effectuated in the same rich regions but also in Centro and Alentejo (Appendix 3.A).

Milk and cattle production occupy higher shares of regional FAP in Açores, Norte and Alentejo. Cereals, milk and cattle production account respectively for by 4.9%, 12.8% and 6.6% of national FAP for the period 1996/97. Furthermore, Portugal is net importer of these items; therefore, total agricultural support (provided either in form of price support or direct subsidies) for Portugal is not as significant as for other countries (see also chapter 2).

Agriculture incomes per AWU are below the EU average for all the portuguese regions (maps 3.2 and 3.3). Indeed, Portugal is the country with the lowest level of agricultural income per labour unit in Europe; the gap seems to decrease but at a very slow rate.

### 3.14. Finland

In Finland, agricultural net value at factor cost at 1985 constant values decreased by 38,6% from 1986/87 to 1997/98. Within this period, there have been two distinct phases. From 1986/87 to 1991/92, the level of NVAfc decreased by 11,8%; from 1991/92 to 1996/97 the indicator declined by 30,4% (table 3.3.1).

This fall has been occurred also in view of the drop in producer price levels in 1995, when Finland joined the EU: 41,1% of decline in real terms in 1995 with respect to the levels in 1994 (EC, 1999).

The most important regions in terms of agricultural production are, in decreasing order, Etelä-Suomi, Väli-Suomi, Etelä-Suomi and Pohjois-Suomi. The regions with lowest share in national agricultural absolute incomes are Uusimaa (suuralue) and Åland (table 3.14.1); these regions are the richest ones in Finland, recording levels of per capite GDP equal to 130 for Uusimaa, that is to say 30 points above the EU average(EU15=100), and 119 for Åland. The other finnish regions have per capita GDP below the EU average.

**Table 3.14.1: Net value added at factor cost within Finland [1985 constant prices; 1986/87 - 1990/91 - 1995/96]**

	ECU mio [1995/96]	Shares in total EU net VAFC [1995/96]	% changes		
			1995/96 - 1990/91	1990/91 - 1986/87	1995/96 - 1986/87
Finland	1411.6	1.9	-33.7	11.2	-26.2
Manner-Suomi	1398.8	1.9	-33.9	11.0	-26.6
Itä-Suomi	233.7	0.3	-38.5	19.3	-26.6
Väli-Suomi	427.0	0.6	-10.5	-6.9	-16.7
Pohjois-Suomi	195.1	0.3	-28.6	12.5	-19.6
Uusimaa (suuralue)	70.4	0.1	-55.3	24.3	-44.4
Etelä-Suomi	472.5	0.6	-42.9	17.4	-32.9
Åland	12.8	0.0	1.8	63.4	66.3

Source: our calculations - Eurostat data

In 1997/98, the share of national agricultural expenditure in total expenditure for Finnish agricultural operators has been the highest in the EU (graph 3.1). Indeed, the level of aid to Finnish agriculture was already very high in 1993/94, with subsidies accounting for almost 55% of GVAMP, but it grew sharply in 1995 (+90% in real terms) by way of compensation for the lower prices upon the accession. For the period 1994/95, subsidies share in GVAMP increased at 111.5% of national GVAMP; for 1995/96 and 1997/98, this share overcame 200%, being about 250% (table 3.14.2). This is also due to a decrease in GVAMP.

**Table 3.14.2: Finland. Evolution of the major income components: shares in regional Gross Value Added at Market Prices (GVAMP=100) [various years]**

	subsidies			tax		deprec		net VAFC	
	1995/96	1994/95	1993/94	1995/96	1990/91	1995/96	1990/91	1995/96	1990/91
Finland	249.1	111.5	55.7	0.7	2.7	79.5	39.8	268.9	108.0
Manner-Suomi	249.8	111.4	55.9	0.7	2.7	79.2	39.8	269.9	108.2
Åland	181.3	123.6	33.6	0.0	0.0	102.3	39.8	179.0	85.5

Source: our calculations - Eurostat data

As for the composition of the support, we have to remark that “under the Accession Treaty, the European Union and the Finnish Government agreed to an agro-environmental support package on the basis of a fifty-fifty finance arrangement. In 1995, this support accounted for almost one-quarter of the increase in subsidies, with a further quarter being provided under joint Less-Favoured Area Schemes, another quarter under CAP-reform subsidies and the rest coming from a special Finnish Government agricultural support package” (EC, 1999).

The part of subsidies concerning the CAP reform is mainly destined to the animal sector since this accounts for slightly more than 70% of the value of final agricultural output; the principal products are pigs, cattle and milk. The main crop products are, in decreasing order, cereals, fresh vegetables and flowers. From 1990/91 to 1996/97, the share of milk, fresh vegetables and flowers has increased, whereas those of cattle and cereals have decreased. Contrary to the trends observed in other countries, the share of pigs in national FAP decreased slightly by 13.5% for 1990/91 to 10.7% in 1996/97 (Appendix 3.A).

Since the real net value added at factor cost has declined, the increase in the levels of agricultural income per AWU is entirely due to the sharp reduction in the volume of total labour (by -4.5% on average from 1980/82 to 1996/98).

In 1996, incomes per labour unit in Finland were above the EU average for some Finnish regions, also thanks to the huge presence of subsidies (maps 3.2 and 3.3).

### 3.15. Sweden

As for Finland and Austria, in Sweden the most important policy measure has been the phased reduction in the high support level prevailing in the country since 1995. This was counterbalanced with direct compensatory payments and national subsidies; however, the share of national expenditure in total expenditure is much lower in Sweden than in Finland and, above all, Finland (graph 3.1).

Like for the majority of the European countries, in Sweden the real net value added at factor cost in agriculture has decreased from 1986/87 to 1996/97, exactly by 49,7%, with a slight increase in the subperiod from 1986/87 to 1996/97 (table 3.15.1). In the 90s, the negative variation is very significant, with a fall of 50,1% from 1990/91 to 1996/97.

Sydsverige is the most important region in terms of real net value added at factor cost, 198,9 mio ECU at 1985 values for the period 1996/97; the least important region is Stockholm, with a level of 12,1 mio ECU at 1985 prices (table 3.15.1). In general, the top two regions in terms of real net value added at factor cost, Sydsverige and Östra Mellansverige, have the lowest level of per capita GDP, but not the highest shares of agricultural employment.

**Table 3.15.1: Net value added at factor cost within Sweden [1985 constant prices; 1986/87 - 1991/92 - 1997/98]**

	ECU mio [1996/97]	Shares in total EU net VAFC [1996/97]	% changes		
			1996/97 - 1990/91	1990/91 - 1986/87	1996/97 - 1986/87
Sweden	568.5	0.8	-50.1	0.7	-49.7
Stockholm	12.1	0.0	-58.6	n.a	n.a
Östra Mellansverige	70.6	0.1	-70.4	n.a	n.a
Sydsverige	198.9	0.3	-44.0	n.a	n.a
Norra Mellansverige	34.5	0.0	-39.0	n.a	n.a
Mellersta Norrland	34.6	0.0	-11.0	n.a	n.a
Övre Norrland	48.2	0.1	-6.4	n.a	n.a

n.a. not available

Source: our calculations - Eurostat data

The percentage variation of the real net value added at factor cost seems lower in those regions strongly specialised in cattle and milk production, that is to say Mellersta Norrland, where the indicator has decreased just by 11% from 1990/91 to 1996/97, and Övre Norrland, where the percentage variation has been at only 6,4%. Contrary to what happened for many EU regions, in Sweden income stability has been lower in those regions specialised in cereals production: Stockholm and Östra Mellansverige.

Since the period 1990/91, subsidies increased in absolute and relative terms, accounting for about 83% in national GVAMP, for the period 1997/98 (table 3.3.1). This rise is due to the Sweden's own agricultural reforms in the early 90s and to the EU subsidies following the accession. Ranking in decreasing order the share of subsidies in regional GVAMP for 1996/97, we record the following values: Östra Mellansverige, where subsidies were 163,6% of regional GVAMP, Norra Mellansverige; with a share of 156,2%, Mellersta Norrland, with 148,2%, Övre Norrland, 118,1%, Stockholm, with 93%, and finally Sydsverige with 35,5% (table 3.15.2).

As for Sydsverige, this low share is also the result of the low shares of the 1992 reformed sectors in the regional final agricultural production (Appendix 3.A).

**Table 3.15.2: Sweden. Evolution of the major income components: shares in regional Gross Value Added at Market Prices (GVAMP=100) [various years]**

	subsidies			taxes		depreciation		net VAFC	
	1996/97	1995/96	1993/94	1996/97	1990/91	1996/97	1990/91	1996/97	1990/91
Sweden	80.62	66.23	31.76	4.81	5.10	80.70	48.24	95.10	82.03
Stockholm	92.99	74.26	30.05	4.52	5.08	104.07	58.90	84.39	81.66
Östra Mellansverige	163.57	104.30	41.19	10.16	6.67	159.14	58.06	94.27	85.09
Sydsverige	35.46	30.91	17.91	3.38	4.44	42.63	31.36	89.45	82.25
Norra Mellansverige	156.17	117.70	46.26	6.56	6.33	133.88	75.70	115.74	76.34
Mellersta Norrland	148.21	114.36	47.50	2.12	2.10	73.13	49.05	172.96	93.24
Övre Norrland	118.11	94.93	39.42	2.32	2.92	59.68	45.99	156.11	88.18

Source: our calculations - Eurostat data

One of the most dynamic sector in Sweden, and also in other EU countries like Netherlands, is flowers and fresh vegetables. The shares of these items have been increasing in national FAP, passing from 2,4% in 1980/82 to 3,8% in 1996/98 for fresh vegetables, and from 3,5% to 4,4% for flowers. In particular, the competitiveness in the fresh vegetables sector has been strengthened by a specific programme, in the context of the reform of national agricultural policy at the beginning of the 90s.

Agricultural incomes per AWU in Sweden are actually in a declining phase, with levels below the EU average. This fall is mainly due to significant price declines for principal agricultural products and despite a considerable rise in the level of subsidies.

However, if we evaluate incomes per AWU in terms of net value added at factor cost per AWU, there are some swedish areas, with levels above the EU average; in particular, we refer to Slattbygdsland, whose boundaries are defined in FADN regions classifications.

### 3.16. UK

As concerns UK, statistical databases present discontinuities and definitions of regional statistical boundaries for UK are still in process.

Having a look at Eurostat database, the most recent data refer to 1995, whilst we have no data for four british NUTS 1 regions: North East, North West (including Merseyside), South East and Eastern.

Developments in the real net value added at factor cost in England are different from those observed for the other EU countries. In fact, from the period 1986/87

to 1990/91 the indicator in UK has decreased while it is increased in the rest of EU; opposite patterns have been observed in the 90s with real net value added at factor cost increasing in UK and decreasing all over the EU. However, it has to be noted that considerable declines in the real NVA<sub>fc</sub> for 1997 and 1998 led to very low level of agricultural incomes per labour unit. An important influence on this recent downward pressure on incomes has been the revelation of a possible BSE/CJD link (EU, 1999).

One main reason of the different trajectory of the absolute value of real NVA<sub>fc</sub> between UK and the other EU countries can be found in monetary factors and in how the timing of these factors has impacted on the 1992 reform: *“One of the aims of the 1992 reform was to make support for agricultural sector more transparent by reducing prices for agricultural products and replacing this with direct compensatory payments. Following coincidental ejection from the Exchange Rate Mechanism; however, sterling devalued. As a result, prices for many agricultural products in the UK remained unchanged in sterling terms rather than declining because of the devaluation of the agricultural conversion rate (“green rate”). In addition, the compensatory subsidies planned as a direct counterbalance to price reductions were also higher in national currency terms. In the last two years, however; sterling has strengthened in value back towards its pre-ERM ejection levels. As sterling strengthened against the then ECU, prices for UK agricultural products were forced lower in order to compete on markets and EU subsidy payments were not as high as they otherwise might have been”*(EC, 1999).

From 1990/91 to 1994/95, the real NVA<sub>fc</sub> has declined only for Wales and East Midlands, respectively by 2,3% and 7,4% (table 3.16.1), whilst the most significant increase have been recorded for South West, where the indicator has increased by 40,3%. Consistent positive variations have also been occurred for Scotland, 20%, West Midlands, 11,6%, Northern Ireland, 21,4%, and Yorkshire, 6,8% (table 3.16.1).

**Table 3.16.1: Net value added at factor cost within UK [1985 constant prices; 1986/87-1990/91-1994/95]**

	ECU mio [1994/95]	Shares in total EU net VAFC [1994/95]	% changes		
			1994/95 - 1990/91	1990/91 - 1986/87	1994/95 - 1986/87
United Kingdom	5954.5	8.1	3.4	-4.8	-1.6
North East	n.a.	n.a.	n.a.	n.a.	n.a.
North West	n.a.	n.a.	n.a.	n.a.	n.a.
Yorkshire	539.2	0.7	6.8	-10.1	-4.0
East Midlands	651.2	0.9	-7.4	-2.7	-10.0
West Midlands	540.4	0.7	11.6	-0.5	11.0
Eastern	n.a.	n.a.	n.a.	n.a.	n.a.
London	n.a.	n.a.	n.a.	n.a.	n.a.
South East	n.a.	n.a.	n.a.	n.a.	n.a.
South West	858.3	1.2	40.3	-1.6	38.0
Wales	297.7	0.4	-2.3	-9.5	-11.6
Scotland	671.7	0.9	20.0	-9.8	8.3
Northern Ireland	324.6	0.4	21.4	2.9	24.9

Source: our calculations - Eurostat data

Indeed, the level of subsidies has grown significantly for many british regions; from 1990/91 to 1994/95, the share of subsidies in regional GV<sub>amp</sub> has

increased by 40,3% to about 76,4% for Wales, from 20,7% to nearly 50% for Scotland, from 7,5% to 32,7% for East Midlands; the lowest increase have been recorded for South West, from 15,4% to 26,1% (table 3.16.2).

The increase of subsidies corresponds with a decline of real net value added at factor cost for Wales and East Midlands; whilst some of the UK regions with relatively low rise of subsidies, like West Midlands, South West, Northern Ireland, have recorded higher increase of absolute agricultural income.

**Table 3.16.2: UK. Evolution of the major income components: shares in regional Gross Value Added at Market Prices (GVAMP=100) [1994/95 - 1990/91]**

	subsidies		taxes		depreciation		net VAFC	
	1994/95	1990/91	1994/95	1990/91	1994/95	1990/91	1994/95	1990/91
United Kingdom	33.0	13.1	1.1	3.2	27.0	28.1	105.0	81.8
North East	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
North West	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Yorkshire	30.3	10.4	1.0	3.6	25.8	27.3	103.5	79.4
East Midlands	32.7	7.5	1.0	3.3	24.1	23.0	107.6	81.1
West Midlands	26.8	13.7	1.1	3.2	23.3	28.7	102.4	81.7
Eastern	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
London	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South East	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
South West	26.1	15.4	1.3	4.2	23.4	32.9	101.4	78.4
Wales	76.4	40.3	n.a.	1.1	50.4	42.5	n.a.	96.7
Scotland	49.6	20.7	n.a.	3.5	32.9	38.4	n.a.	78.9
Northern Ireland	34.6	23.6	2.7	3.6	38.9	43.9	93.1	76.2

Source: our calculations - Eurostat data

In UK, agricultural incomes per labour unit are above the EU average for nearly all the British regions, but the highest values recorded in England, in particular in Southern England, which is also the richest part of the country (maps 3.2 and 3.3). However, there is a long term trend to narrow the disparity between UK and EU agricultural incomes per labour unit.