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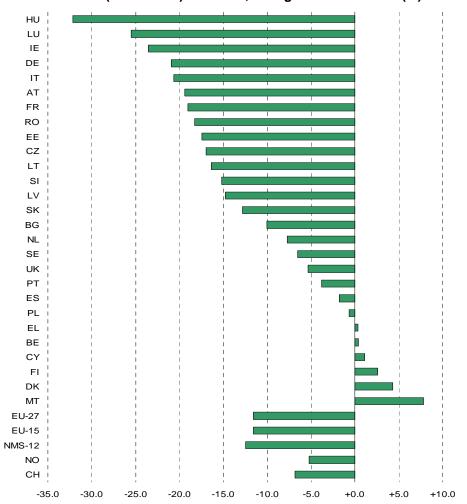


# EU Agricultural Income down 11.6% in 2009

Agricultural income per annual work unit (Indicator A<sup>1</sup>) fell by 11.6% in the EU in 2009, mainly caused by a drop in output prices. The result is based on estimates provided by the Member States in January 2010.

The steep decrease in income followed a decrease of 1.8% in 2008. The fall in agricultural labour input (-24.9%) in EU-27 since 2000 is analysed in a separate section.

Figure 1: Agricultural Income (Indicator A) in the EU, change 2009 over 2008 (%)



Source: Eurostat (aact\_eaa05)

<sup>&</sup>lt;sup>1</sup> Indicator A measures the change in real agricultural factor income (corresponding to the net value added at factor cost) related to the change in total agricultural labour input. Unless otherwise stated, all figures refer to EU-27. All figures relating to changes in prices and values (and therefore also in the income indicators) are expressed in real terms (i.e. they are deflated by means of the implicit price index of GDP). One labour unit = one full-time job. See methodological notes on page 7 for further information.



## Main results and variations among the countries

Indicator A combines the development in net value added at factor cost (factor income) and the development in agricultural labour input. For EU-27, the decrease in factor income in 2009 over 2008 was 13.6% in real terms (compared to -12.2% in nominal terms), while agricultural labour input was down by 2.3%. The results are also posted on the Eurostat website.

The fall in factor income in 2009 was mainly due to a sharp fall (-10.5%) in output value at basic prices, while the value of intermediate consumption fell by 9.2%. The impact on income of a percentage change in output is greater than that of a percentage change in intermediate consumption.

The changes for other items behind the factor income were minor and had only limited impact on the trend in income. Fixed capital consumption fell by 0.2%, while subsidies net of taxes fell by 0.5% in real terms.

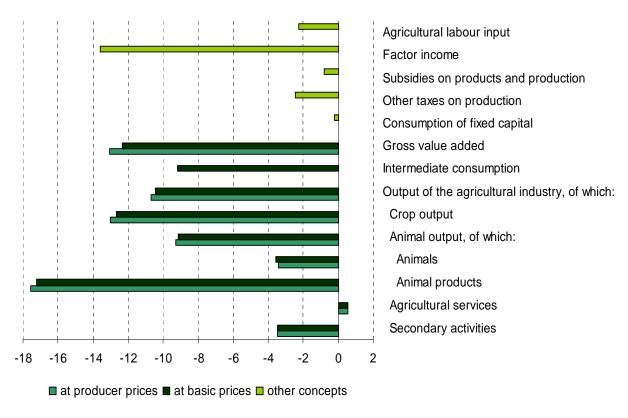
Income per annual work unit decreased in 21 of the 27 Member States. The steepest decrease was in Hungary (-32.2%), followed by Luxembourg

(-25.2%), Ireland (-23.6), Germany (-21.0%), Italy (-20.6%), Austria (-19.4%) and France (-19.0%). Only six countries posted an increase in income: Malta (+7.8%), Denmark (+4.3%), Finland (+2.6%), Cyprus (+1.1%), Belgium (+0.4%) and Greece (+0.3%).

In the EU-15 and the NMS-12 (i.e. the 12 new Member States), the decrease in income per work unit was -11.6% and -12.5% respectively. In Switzerland, the Indicator fell by 6.9%, while in Norway it was down by 5.2%. These two countries provide estimates as members of EFTA (European Free Trade Association).

Compared to the results for 2005 (the reference year used in the database for longer term development) real agricultural income per annual work unit in the European Union has fallen by 0.3% on average. The figures for EU-15 show a decrease of 4.6%, while the figures for NMS-12 show an increase of 9.9%. About 80% of the factor income in the EU-27 is generated in the EU-15.

Figure 2: Main components of agricultural income in EU, change 2009 over 2008 (%)



Source: Eurostat (aact\_eaa04 and aact\_ali02)

### Driving factors behind the trend in income in 2009

The overall decrease of 11.6% in agricultural income per labour unit in 2009 compared to 2008 is due to the combined effect of a number of changes in both agricultural production and prices.

Figure 2 shows the development for the main components of income. Changes in output are shown both as producer prices and as basic prices. The direct subsidies related to products are included in the basic prices. Subsidies of this kind accounted for about 2% of the total output value in basic prices in 2009, whereas the share before the CAP-reform in 2003 was around 8%. The reform introduced a switch in the types of agricultural subsidies.

For output, the 10.5% decrease in value in basic prices since 2009 is due almost exclusively to lower prices (-9.7%), while the fall in volume was only 0.9%.

In the case of intermediate consumption the decrease in value (-9.2%) was due to a combination of falling prices (-6.7%) and lower volume (-2.7%).

Owing to the trends in output and intermediate consumption, gross value added in agriculture in 2009 fell by 12.3% in basic prices. The gross value added is about 40% of the output value as an EU-average.

Subsidies remained almost unchanged in 2009 compared to 2008. Direct subsidies accounted for 44% of factor income in 2009 while the figure was 39% in 2008

Labour input fell in 2009 by 2.3%, which was in keeping with the trend from previous years. This issue is described in more detail later.

## A closer look at output

The value (in basic prices) for crop output, which accounts for slightly over 50% of total output, fell by 12.7%, while animal output, which accounts for about 40 % of total output, fell by 9.1%. Agricultural services recorded a slight increase (+0.5%) in output value, while secondary activities decreased by 3.5%.

The main explanation of the decrease for crops is a steep fall (-30.3%) in the value of cereals, which is due in part to lower volume (-5.7%), but mainly to lower producer prices (-27.1%). Oilseed also saw a steep decrease (-24.8%) in prices. Other crop product groups showed less dramatic price changes. However, producer prices for olive oil fell by 16.3% and prices for fruit were down by 15.9%. Plants and flowers were the only product group in which prices went up (+1.5%).

Decreasing values for total crop output values were recorded for all countries except Cyprus, where the increase was estimated at 1.3%. Regarding producer prices, Malta (+10.2%) and Norway (+4.9%) recorded higher figures, while the remaining 27 countries posted decreases in producer prices, most significantly in Lithuania (-25.4%), Romania (-24.6%) and Latvia (-22.4%), compared to the EU-average of -12.8%.

The decrease in the value of animal output value (-9.3%) – like the development for crops – was also a consequence of lower producer prices (-8.3%), while volume was down by 1%. Milk, which makes up about 30% of the total animal output, suffered the most dramatic fall in prices

(-20.6%), while volume fell by only 0.5% between 2008 and 2009. For eggs, values increased by 3.1% and prices by 3.5%; volume was down by 0.4%.

Table 1: Output, changes 2009 over 2008, (%) 1)

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	Volume	Prices
Output, total	- 0.6	- 10.2
Cereals	- 5.7	- 27.1
Oilseeds	+ 10.8	- 24.8
Sugar beet	+ 7.7	- 0.6
Fresh vegetables	+ 2.9	- 4.7
Plants and flowers	- 2.8	+ 1.5
Potatoes	+ 2.1	- 10.0
Fruits	+ 4.0	- 15.9
Wine	+ 0.9	- 5.1
Olive oil	- 9.3	- 16.3
Crop output, total	- 0.3	- 12.8
Cattle	- 3.0	- 1.2
Pigs	+ 0.0	- 3.8
Sheep and goats	- 5.1	+ 9.5
Poultry	- 0.0	- 3.3
Milk	- 0.5	- 20.6
Eggs	- 0.4	+ 3.5
Animal output, total	- 1.0	- 8.3
Agricultural services	+ 0.2	+ 0.3
Secondary activities	- 1.2	- 2.3

<sup>&</sup>lt;sup>1</sup> Producer prices

Source: Eurostat (aact\_eaa04)

The value of animals (meat and livestock) in basic prices fell by 3.6%. The main reason was the slightly lower producer prices for the three main categories: pigs (-3.8%), poultry (-3.3%) and cattle (-1.2%). While the volume for cattle went down by 3.0%, the volume for pigs and poultry remained more or less stable. For sheep and goats, prices increased by 9.5%, while volume was down by 5.1%.

25 out of 29 countries recorded lower values (producer prices) for animal output in 2009, the steepest falls being in Lithuania (-22.9%), Slovakia (-22.9%) and Ireland (-17.7%). Only Romania (+10.3), United Kingdom (+1.1%), Cyprus (+1.1%) and Poland (+0.5%) showed higher output values in real terms than the previous year.

## Intermediate consumption

In 2009, the value of intermediate consumption fell by 9.2% in real terms due to a combination of lower prices (-6.7%) and lower volume (-2.7%). However, compared to the output, the trend in intermediate consumption is assumed to be more difficult for the Member States to estimate at this early stage.

As for the components of intermediate consumption, values for the majority of items in this area are falling, most importantly for goods such as feedingstuffs (-16.7%), energy (-14.5%) and fertilizers (-11.5%). For components where services (such as maintenance) are an important factor, there are only small changes to be found.

Changes in prices are the main reason behind the changes in values for feedingstuffs and energy, the prices of which fell by 15.1% and 12.3% respectively. The price of fertilizers increased by 3.7% in 2009, while the volume went down by 14.7% and hence a fall in the value of fertilizers. The increase of up to 40.3% in prices for fertilizers

in 2008 most probably caused the decrease in volume in 2009.

Table 2: Input, changes 2009 over 2008, (%) 1)

	Volume	Prices
Intermediate consumption	- 2.7	- 6.7
Of which:		
Energy	- 2.5	- 12.3
Fertilizers	- 14.7	+ 3.7
Feedingstuff	- 1.9	- 15.1

<sup>&</sup>lt;sup>1</sup> Basic prices.

Source: Eurostat (aact\_eaa04)

28 out of 29 countries shows lower real values for intermediate consumption in 2009 than in 2008, with the most significant falls being seen in Slovakia (-18.3%) and Spain (-17.7%). Only Norway posted an increase in value (+2.1%). As regards volume, increases are expected in only four countries - Luxembourg (+1.4%), Poland (+1.1%), United Kingdom (+1.0%) and Finland (+0.3%).

## A long term perspective – focus on agricultural labour input

Results for agricultural income are measured in terms of the trend in real income per annual work unit (AWU). From year to year there have been small decreases in labour input, but these have rarely been the main driving factor behind the short term changes in Indicator A. However, over a longer period, the development in agricultural labour input constitutes one of the major changes. Detailed data can be found on the Eurostat website.

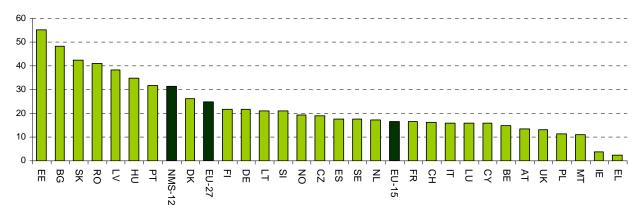
Agricultural labour in the EU has decreased by 24.9% since 2000 which, in terms of AWU, represents a drop of 3.7 million from 14.9 million AWU in 2000 to 11.2 million AWU in EU-27 in 2009. Because many farmers and farm workers are only employed part-time in agriculture, the number of people actually working in agriculture is greater than the number of annual work units.

Measured as a percentage of the total active population in the EU, agricultural labour input in AWU accounted for 4.7% in 2009<sup>1</sup> compared to 6.7% in 2000. In EU-15 the respective percentages in 2009 were 2.8 as against 3.8 in 2000, although the shares – and the changes – in the 12 New Member States were much higher.

In 2009 agricultural labour input represented 12.1% in NMS-12 as a percentage of active population, while the percentage in 2000 was 17.3%, signifying that the fall in agricultural labour input on average in the 12 new Member States is equivalent to more than 5 per cent of the active population. It should be noted that these countries entered EU and the Common Agricultural Policy after 2000.

<sup>&</sup>lt;sup>1</sup> The percentages for 2009 are compiled using active population in 2008 (latest available data) as reference.

Figure 3: Agricultural labour input in annual work units, decrease from 2000 to 2009 (%)



Source: Eurostat (aact\_ali01)

The rates of decrease in agricultural labour input in the individual countries range from 2.6% in Greece to 55% in Estonia, where labour input has more than halved in less than 10 years. Generally speaking, the decrease is lowest in the EU-15 countries, with Poland (-11.3%) being an exception. In Portugal, on the other hand, the decrease of 31.6% shows a similar trend to the average decrease in labour input for NMS-12 (-31.3%).

Despite the steep falls recorded in the new Member States, agricultural labour input in these countries in 2009 accounted for a little over half (51.7%) of EU-27 agricultural labour input.

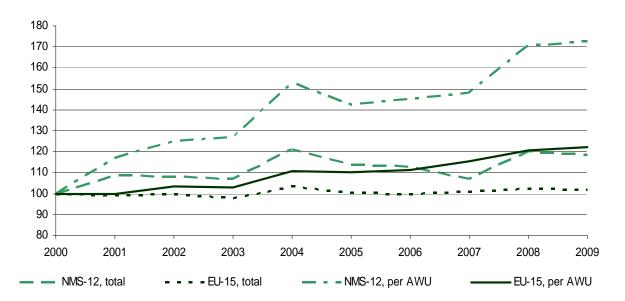
The figures for agricultural labour input are recorded in the Economic Accounts for Agriculture as *Non-salaried labour input* and *Salaried labour input*, respectively. Since 2000, non-salaried labour input, which represents the largest share in almost all countries (except the Czech Republic and Slovakia), fell by 28.3% in the EU-27, while the salaried portion decreased only by 9.6%.

## Agricultural production and labour input

The volume of agricultural production in the EU has remained fairly stable since 2000 according to the indices compiled from the accounts data at constant agricultural prices. The figures show a 4%

higher production volume in 2009 than in 2000. As the labour input over the same period decreased by 24.9%, the volume produced per annual work unit has improved significantly.

Figure 4: Production volume, total and per annual work unit, indices (2000=100)



Source: Eurostat (aact\_eaa01, aact\_eaa04 and aact\_ali01)

The EU-15 and the NMS-12 have shown different trends in terms of the volume of output, with a volume for EU-15 that is very stable and a volume for NMS-12 that is growing over time. For NMS-12 the volume has increased by 15% since 2000, based on the average of the indices for 2007-2009.

The differences between the two groups of countries become even clearer when one measures the development in volume per AWU. With this indicator, the EU-15 shows an increase of slightly less than 20% since 2000 - while the increase for

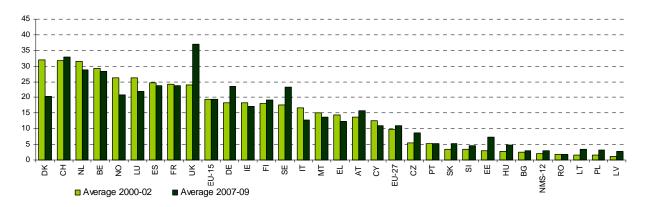
NMS-12 is well over 60% since 2000 according to the average indices for 2007-09.

However, the level of output volume produced per annual work unit is still very different between the two groups of EU Member States. As an average for 2007-09 the output in constant agricultural prices (2005 prices) per AWU was 6.4 times higher in the EU-15 than in the NMS-12. Different agricultural products and somewhat lower prices in NMS-12 can explain only a small part of this huge difference in level.

## Factor income over labour input

Agricultural labour input has a significant impact on the main indicator (Indicator A) for the Economic Accounts for Agriculture, as the indicator monitors the trend in the real factor income per annual work unit. Figures are available on the Eurostat website.

Figure 5: Real factor income per annual work unit (EUR 1000)



Source: Eurostat (aact\_eaa01, aact\_eaa04 and aact\_ali01)

The figure 5 shows factor income in real values (2005 Euro) divided by the agricultural labour input on average for the years 2000-02 and 2007-09, respectively. The results 2000-02 range from over EUR 30 000 per AWU (Denmark, Switzerland and Netherlands) to slightly over EUR 1 000 per AWU (Latvia). The EU-15 countries plus Cyprus, Malta, Norway and Switzerland, but excluding Portugal, show results above the EU-27 average, while all the new Member States from Eastern and Central Europe are below the average, along with Portugal.

The difference between EU-15 and NMS-12 has been smaller since 2000. For 2000-02 the average real factor income per AWU was 9.5 times higher in EU-15 than in NMS-12. As regards the averages for 2007-09 the result in EU-15 was only 6.4 times higher than in NMS-12. The difference for 2007-09 is higher than can be accounted for by the difference in purchasing power.

The smaller difference is mainly due to a significant rise in the factor income per AWU in the new Member States. In the NMS-12 the real factor income per annual work unit rose from around EUR 2 000 per AWU in 2000-02 to around EUR 3 000 per AWU in 2007-09. On average EU-15 showed no significant changes since 2000-02, but the variation among the countries is very high.

This overall increase in factor income per unit of labour input is to a large extent due to the decrease in labour income. If the labour input had remained the same, the EU-15 results would have decreased significantly and the result for NMS-12 would have shown an increase slightly over 10%.

# ESSENTIAL INFORMATION – METHODOLOGICAL NOTES

#### Symbols & country abbreviations

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"-" not applicable, real zero or zero by default

BE: Belgium, BG: Bulgaria, CZ: Czech Republic, DK: Denmark, DE: Germany, EE: Estonia, IE: Ireland, EL: Greece, ES: Spain, FR: France, IT: Italy, CY: Cyprus, LV: Latvia, LT: Lithuania, LU: Luxembourg, HU: Hungary, MT: Malta, NL: Netherlands, AT: Austria, PL: Poland, PT: Portugal, RO: Romania, SI: Slovenia, SK: Slovakia, FI: Finland, SE: Sweden, UK: United Kingdom; CH: Switzerland LI: Liechtenstein; NO: Norway.

EU-15: Belgium, Denmark, Germany, Ireland, Greece, Spain, France, Italy, Luxembourg, Netherlands, Austria, Portugal, Finland, Sweden and United Kingdom.

NMS-12: Bulgaria, Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Romania, Slovenia and Slovakia

#### Concepts and definitions

The estimates for the Economic Accounts for Agriculture (EAA) published in this Statistics in Focus are provisional. The compiling is based on information available until the end of January 2010. The data is uploaded on Eurostat databases.

The results have been compiled by the national authorities in the Member States of the European Union and in Norway and Switzerland, in accordance with the methodology of the EAA (which is close to the methodology of the national accounts, ESA95, but incorporates a number of changes to take account of the special features of the agricultural economy). More information can be found in the metadata for the EAA, available at Eurostat website.

#### **Technical notes:**

- 1. The data measured **in real terms** are obtained by deflating the corresponding nominal data with the implicit price index of gross domestic product (GDP) at market prices.
- 2. The **aggregates** measured in real terms for the **European Union as a whole** are obtained by first deflating the nominal values (at current prices) recorded in the various Member States, by applying the implicit price index of GDP of the country concerned, and then converting them into euro (at 2005 exchange rates for long-term analysis and at those of the year 2008 for the short-term analysis). The results for the European Union are then obtained by adding up the real values. Based on these aggregates in real terms the developments for the European Union are then calculated, which means that an 'EU deflator' is never explicitly used.
- 3. In order to take account of part-time and seasonal work, agricultural labour or changes therein are

measured in annual work units (AWU). One AWU corresponds to the input, measured in working time, of one person engaged in agricultural activities in an agricultural unit on a full-time basis over an entire year.

#### What is agricultural income?

The income indicators relate to the income generated by agricultural activities (as well as inseparable non-agricultural, secondary activities) over a given accounting period, even though in certain cases the corresponding revenues will not be received until a later date. The result does not, therefore, constitute the income effectively received in the course of the accounting period itself. Moreover, the indicators calculated are not indicators of total income or of the disposable income of farming households; in addition to their purely agricultural income, households often receive income from other sources (non-agricultural activities, salaries, social benefits, income from property). In other words, agricultural income must not be regarded as the income of agricultural households.

In the present context, emphasis is placed on the Indicator A of agricultural income. Its development is presented as indices based on previous year figures for short term development and on 2005 for medium or long term. The indicator is defined as follows:

## Indicator A: Index of the real income of factors in agriculture, per annual work unit

This indicator corresponds to the real (i.e. deflated) net value added at factor cost of agriculture, per total annual work unit. Net value added at factor cost is calculated by subtracting from the value of agricultural output at basic prices the value of intermediate consumption, the consumption of fixed capital, and adding the value of the (other) subsidies less taxes on production.

#### Other indicators

Two other indicators for agricultural income are also calculated: **Indicator B**: Index of real net agricultural entrepreneurial income, per unpaid annual work unit and **Indicator C**: Net entrepreneurial income of agriculture.

#### Changes in recording of subsidies

Implementation of the Single Farm Payment (SFP) in the framework of the recent CAP started in several Member States in 2005. Only limited comparisons of output values at basic prices, values of subsidies and value added between Member States and time periods can be made for 2004-2007. The implementation of the SFP results in a drop in basic price output values and an increase in other subsidies on production, while values at producer prices and the Income indicator A are not affected by this change. Indicator B and C are neither.

#### **FURTHER READING**

Regulation (EC) No 138/2004 of the European Parliament and of the Council on the Economic Accounts for Agriculture in the Community (OJ L33, 5.2.2004).

## **Further information**

Eurostat Website: http://ec.europa.eu/eurostat

Data on "Agriculture statistics"

http://epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/data/database

Select "Economic accounts for agriculture"

More information about "Agriculture statistics"

http://epp.eurostat.ec.europa.eu/portal/page/portal/agriculture/introduction

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