EU Agricultural and Farm Economics *Briefs* No 14 |Oct 2016

EU farm economics summary 2013

Contents

This brief summarizes farm economic developments in the European agricultural sector based on 2013 data, the latest available in the Farm Accountancy Data Network (FADN). A more detailed report is available at

https://ec.europa.eu/agriculture/fadn_en

After the sharp decline in farm income in 2009, recovery continued until 2012. In 2013 income decreased by 5.8% to approximately the 2010 level. This decrease was due to higher input costs and a slight decline in the value of agricultural output. The latter is mostly linked to the performance of crop production (-6.2 % per farm in the EU-28) since the total output of livestock and livestock products increased by +4.4% per farm in the EU-28.

However, while most of the Member States reported similar levels of total output figures between 2012 and 2013, significant income differences were observed across European regions and types of farming. From 2012 to 2013, the average FNVA per labour unit (AWU) increased most significantly for dairy farms but only slightly for farms specialised in permanent crops other than wine. The biggest decrease in income per AWU (by 14.7%) was recorded for farms specialised in field crops. The income gap per AWU between the EU-N13 and EU-15 began to narrow again in 2013, after a widening gap in 2012. Nevertheless, the average FNVA/AWU per farm was nearly four times higher in the EU-15 than in the EU-N13.

In 2013, direct payments on average accounted for 33% of FNVA in the EU-28, up from 31% in 2012. This slight increase was due to a marginal decrease in FNVA while direct payments remained nearly stable in 2013.

2013 was the first year for Croatia to report in FADN. The figures showed that Croatian farms differ from each other depending on which part of the country they are. The number of farms is nearly three times more in the continental part of Croatia, while the average farm size is twice as large as in the Adriatic part of the country. Income level per AWU in Croatia is the lowest (EUR 3 870/farm) among the 28 Member States. This can be traced back to the high cost of external factors and to the labour input which is higher than the EU average. The average FNVA per AWU in the continental region (EUR 4 560/farm) is twice as much than in the coastal region (EUR 2 240/farm).

EU Agricultural and Farm Economics Briefs are available at:
http://ec.europa.eu/agriculture/rural-area-economics/briefs/index_en.htm

Agriculture and Rural Development

1. Income developments

The EU-28 average farm net value added (FNVA) decreased by 5.8 % from 2012 to 2013, due mainly to the increase in agricultural input costs (linked mainly to the increased costs of feeding stuffs and crop protection) while output value remained nearly unchanged (-1.3%). FNVA fell back close to the 2010 level, having started to recover from the low point reached in 2009. Average FNVA per annual work unit (FNVA/AWU) decreased by 4.6%, from EUR 19 000 in 2012 to EUR 18 100 in 2013.

This decline was driven by the decrease in FNVA, with labour input remaining nearly stable. It was primarily influenced by a drop in agricultural real prices, which was partly offset by an increase in volumes. Producer prices for crops declined as well in real terms in 2013 as compared to 2012.

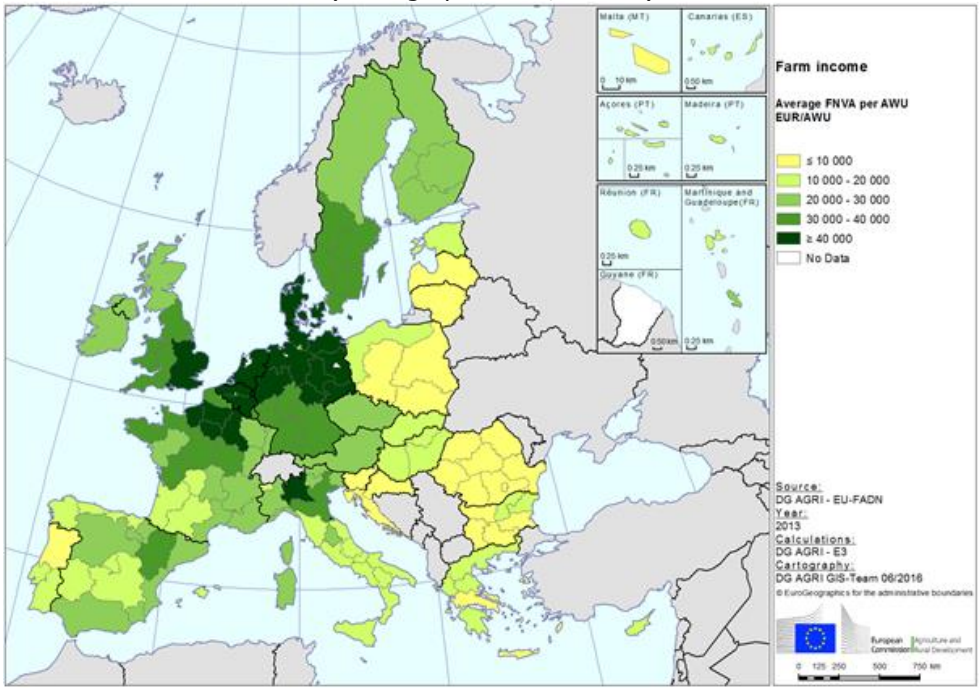
However, the average income decrease masks substantial differences across Member States, regions and types of farming. Holdings in Denmark, north-western Germany and northern France generated the highest FNVA/AWU in 2013. Denmark and the Sachsen-Anhalt region in Germany had the highest average FNVA/AWU in the EU. The regions with low FNVA/AWU (i.e. below EUR 10 000) were mostly situated in the EU-N13. The lowest average FNVA/AWU per farm was recorded in the Jadranska Hrvatska region, in Croatia. Only two regions in the EU-15, namely Norte e Centro (Portugal) and Sterea Ellas-Nissi Egaeou-Kriti (Greece) had an average FNVA/AWU below EUR 10 000.

On average, farms specialised in granivores, field crops, wine, milk and horticulture had the highest FNVA/AWU, while the FNVA/AWU of farms specialised in other permanent crops, grazing livestock (other than milk) and mixed activities remained below the EU-28 average. In 2013, FNVA/AWU increased for dairy farms but only insignificantly for farms specialised in other permanent crops. All other types of farming such as farms specialised in field crops, granivores, wine, mixed farming and horticulture recorded lower income than in 2012. The significant income increase for dairy farms from 2012 to 2013 was mainly due to higher milk prices, an increase in the European dairy herd and a higher average yield per dairy cow.

Looking at the distribution of FNVA/AWU in the EU-N13, the average income per worker in these countries remained significantly below the EU-15 level. In the EU-N13, average FNVA/AWU stood at around EUR 7 600, but was under EUR 3 200 in more than 50 % of farms (median income). Looking at the 2004-2013 period and taking into account the changes in the composition of the EU groups, a convergence in nominal farm income can be observed between EU-15 and the two other groups of Member States who joined to the EU in 2004 (EU-N10) and 2007 (EU-N2). While in 2004, FNVA per AWU of EU-N10 was 23% of EU-15's income per AWU, the same was 34% in 2013. In case of EU-N2, FNVA per AWU was 9% of EU-15's FNVA per AWU in 2007, while it has increased to 23% of EU-15's income per labour unit.

FNVA per AWU by FADN region in 2013

(average per farm, in EUR)



An alternative measure of agricultural income is the **remuneration of family labour**, as a high proportion of work in the agricultural sector is carried out by family members. This is expressed per family work unit (FWU) and is calculated by deducting from FNVA the costs of wages, rent and interest paid, as well as the opportunity costs of own land and capital.

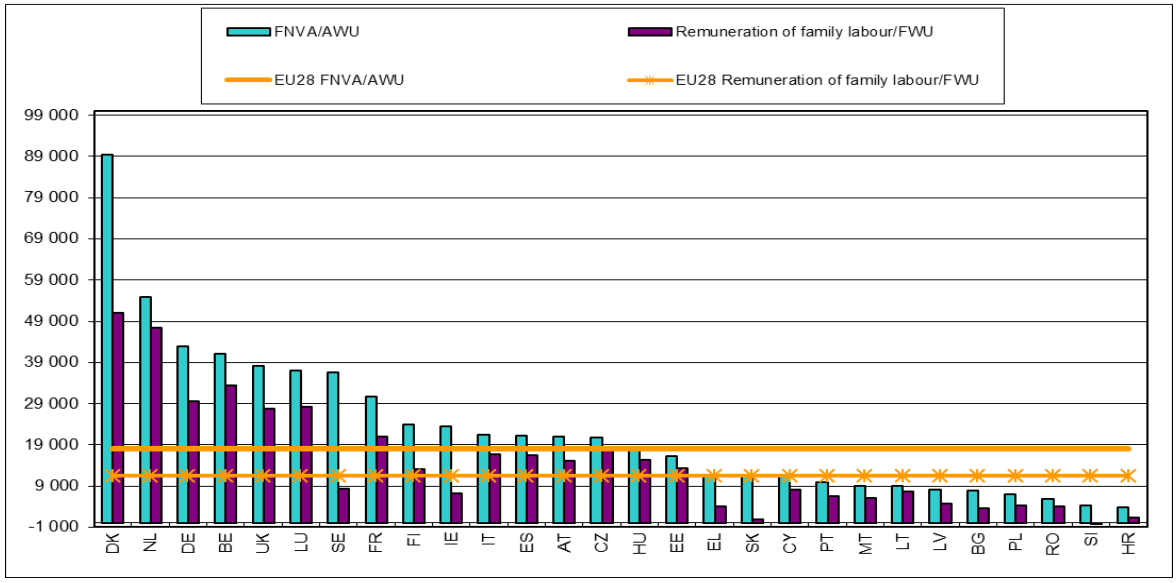
At EU-28 level, the average remuneration of family labour per FWU stood at EUR 11 400 in 2013. It represented a decrease of 11% compared to 2012.

In 2013 Denmark retained its top ranking from the previous year with the highest remuneration of family labour per FWU (EUR 50 900), followed by the Netherlands (EUR 47 400) and Belgium (EUR 33 400).

The gap between FNVA/AWU and remuneration of family labour/FWU is the widest in Denmark, Sweden and Ireland. Reasons for this are the high cost of land (46% of all own opportunity costs) and interest paid (42% of total external factors) by Danish farmers and the high amount of rent paid by Irish farmers (45% of total external factors). The average income per farm in 2013 in Slovenia (EUR -185) did not cover the remuneration of family labour.

FNVA per AWU and remuneration of family labour per FWU, by Member State in 2013

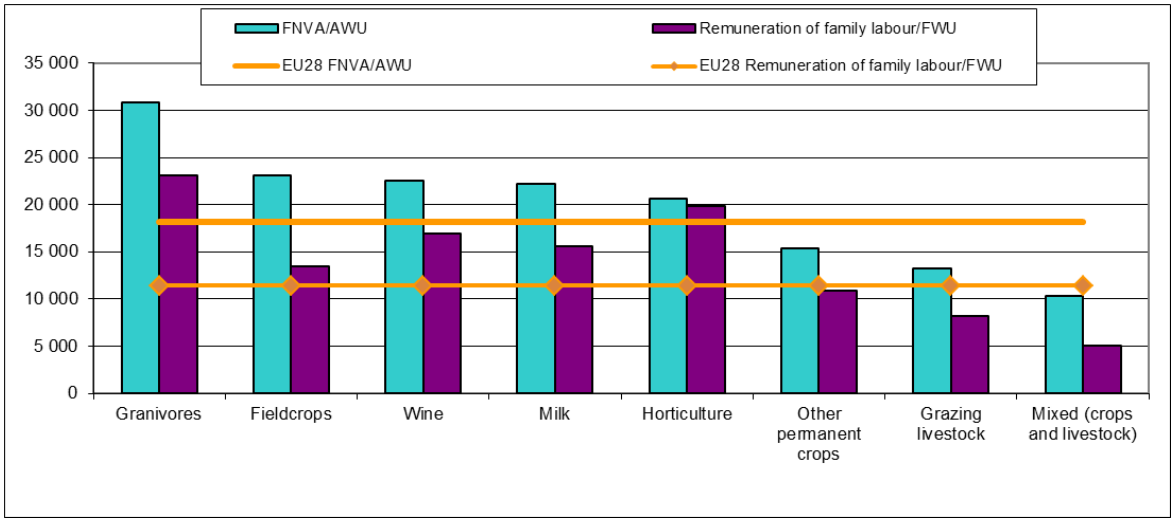
(in EUR)



Source: DG AGRI EU-FADN

FNVA per AWU and remuneration of family labour per FWU by type of farming in 2013

(in EUR)



Source: DG AGRI EU-FADN

2. Role of direct payments

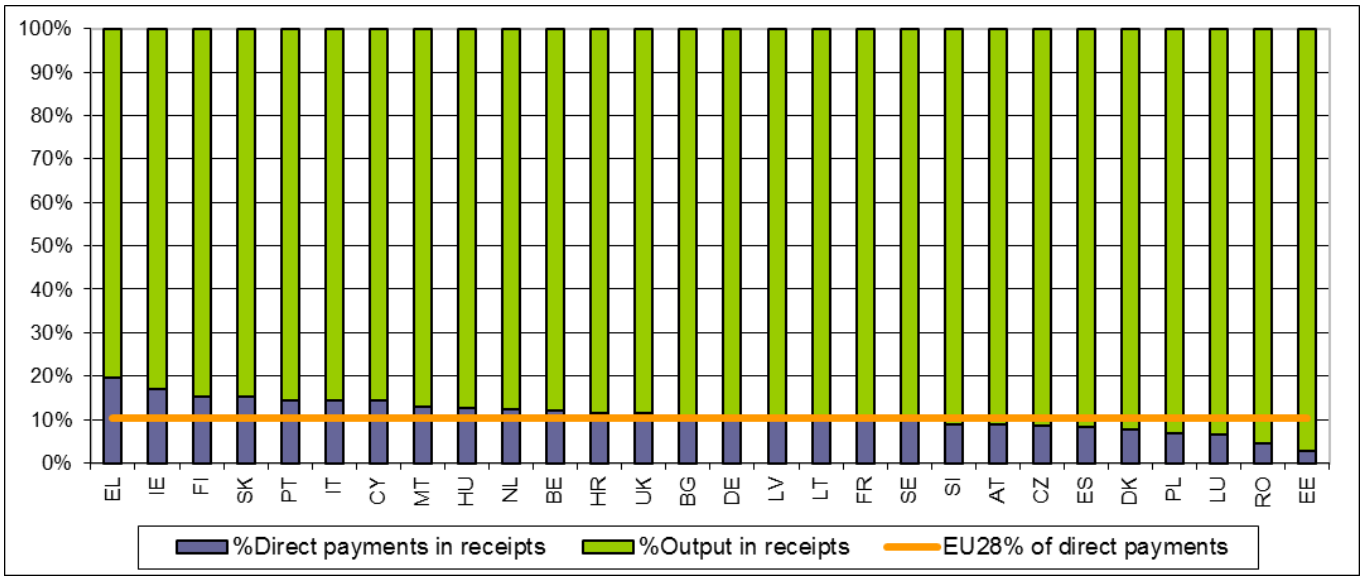
The average amount of direct payments received per holding in 2013 was EUR 8 360. The proportion of direct payments to total receipt (output plus net current and investment subsidies) in the EU-28 stood at 10.3%. This proportion varies among Member States. The total receipts of Irish, Greek and Slovakian farms are proportionately most dependent on subsidies (which represent 15-20% of their total receipts). The high proportion of direct payments can attributed to the extensive farming practice in these countries with relative large areas of land and lower added value. This does not necessarily mean that the production is not efficient in terms of capital invested or per labour unit for instance, only that the added value is low in comparison to the direct support. Finally, direct payments account for the lowest proportion of total receipts in the Netherlands (close to 2.8%), where sectors with a lower proportion of direct payments to total receipts, such as horticulture (higher value-added crops) and pig and poultry production (more intensive livestock farming), are a significant part of total agricultural output.

The role of direct payments play in sustaining farm income becomes even more apparent when we look at them in relation to FNVA. Consequently, if all other factors remain equal, changes in direct payments have a much greater impact on FNVA than on total farm receipts.

In 2013, direct payments on average accounted for nearly 33% of FNVA in the EU-28, up from 31% in 2012. This slight increase was due to a marginal decrease in FNVA while direct payments remained nearly stable in 2013. The proportion of direct payments to FNVA was highest in Finland (79%), followed by Slovenia (77%), Slovakia (69%) and Latvia (57%). By contrast, direct payments accounted for only 10% of FNVA in the Netherlands, which showed that the country was more focused on its highly profitable and less subsidised sectors, such as horticulture and pig and poultry production.

The proportion of direct payments to FNVA also fluctuates markedly depending on the type of farming. In particular, direct payments represent a substantial part of FNVA for grazing livestock, mixed and field crop farms due to the average farm size of these and the historical orientations of the CAP. Grazing and mixed farms recorded below-average FNVA, while field crop farms had the highest average amounts of direct payments in 2013, which resulted in the highest proportion of direct payments to FNVA in these types of farming. On the other hand, direct payments play only a limited role in sustaining income within the wine and horticulture sectors, with incomes above the EU average FNVA in 2013.

Proportion of direct payments in relation to the total receipts by Member State in 2013
(average per farm in EUR)



Source: DG AGRI EU-FADN

3. Characteristics of farms represented by FADN

The structure of European farms covered by FADN varies markedly in several ways:

Asset value The average farm size in terms of asset value was highest in Denmark and in the Netherlands (EUR 2 520 000 and EUR 2 290 000, respectively). This reflects the very high values for land (average rent paid per hectare) and the importance of sectors which typically need considerable investment (such as milk, granivores and horticulture). In contrast, farms in Romania had the lowest total asset value (below EUR 40 000) due to low land prices, small farm sizes and less capital-intensive types of farming. Bulgaria doubled the asset value of its farms from 2007 to 2013. The value of land in Romania and Bulgaria remains well below the EU-28 average. Land value (based on the closing valuation of land) in the Netherlands was 35 times higher than in Romania.

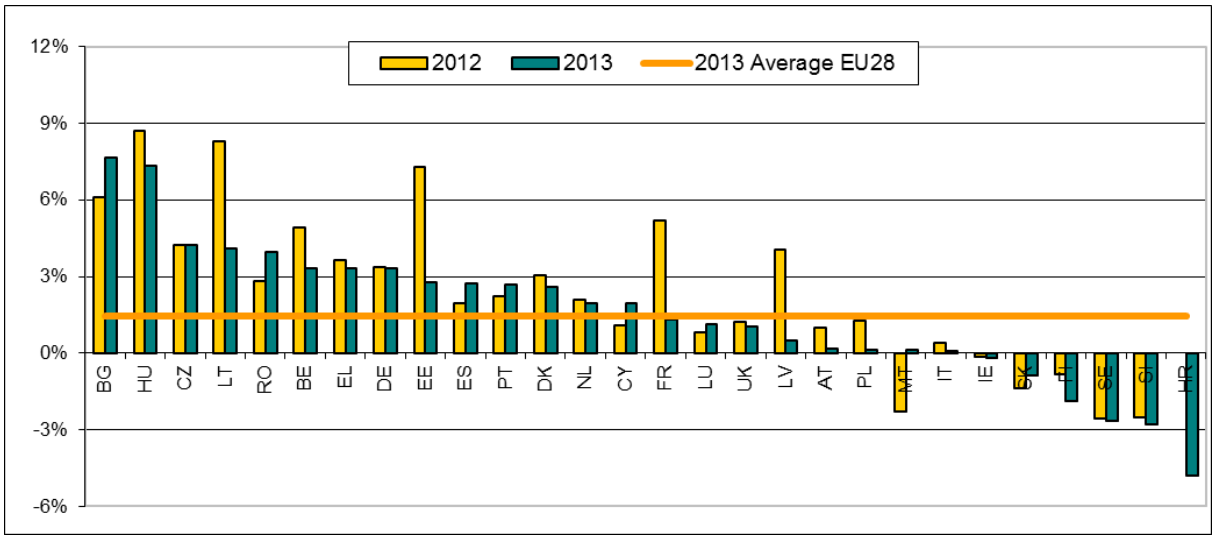
Return on assets (ROA) measures the effectiveness of a company's assets in generating revenue. It is defined as the ratio of net income over total assets, where the net income is defined as the sum of FNVA and investment subsidies minus wage costs, rent paid and the opportunity costs of own labour.

The ROA of an average farm in the EU-28 in 2013 was 2.0%. This was similar to 2012 and up from 1.8% in 2010 and 0.4% in 2009. Holdings in Bulgaria, Hungary and the Czech Republic had the highest ROAs, mainly due to the relatively low levels of opportunity costs of own labour (except for the Czech Republic) and fixed asset values (such as land and quotas). In 2013, six Member States registered a negative ROA, with the lowest value was recorded in Croatia (-4.8%). In 2013, Slovenia, Sweden, Finland, Slovakia and Ireland had the lowest ROAs in the EU.

Granivore, horticulture, dairy farms and field crop farms had ROAs above 2.0%, but this figure dropped below 1.5% for wine and other permanent crops holdings. Farms specialised in grazing livestock and mixed crop and livestock farms had a negative ROA, which shows that they invested substantial capital into their production while simultaneously receiving little income ROA fluctuated across EU groups and also over time for each group. It decreased drastically for all countries in 2007-09 (except Bulgaria and Romania) and from 2010 started to recover for all EU groups, albeit with varying intensity. This result could be linked to the slight decrease in production volumes (especially in case of sheep meat), partly due to the decrease in livestock numbers (beef sector) and producer prices for some animal products (sheep meat). In 2013 the percentage of net income relative to farms' total resources in the EU-N13 fell again to the 2010 level (1.6%), since asset value increased while net income started to decrease again from 2011. In relative terms, the highest ROA among all EU groups was recorded in 2004 in the EU-N13, which actually masks the fact that in absolute terms both net income and asset value were lower than in 2013; only their ratio was high compared to other years and EU groups.

Return on assets by Member State in 2012-2013

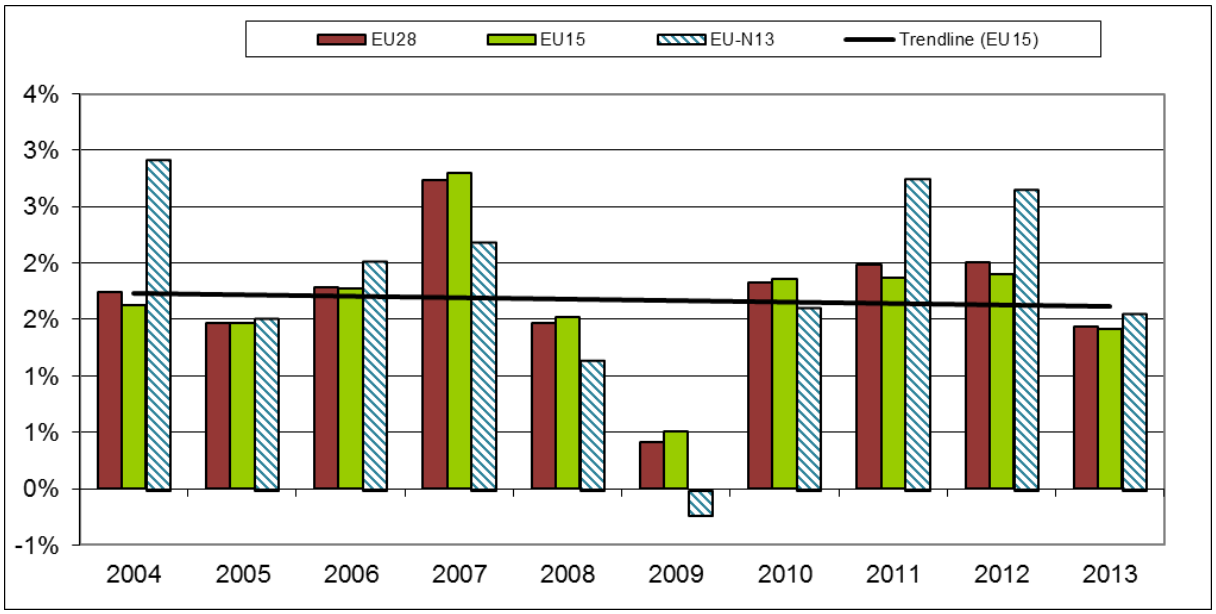
(average per farm in EUR)



Source: DG AGRI EU-FADN

Development of the ROA by EU group

(average per farm in EUR)

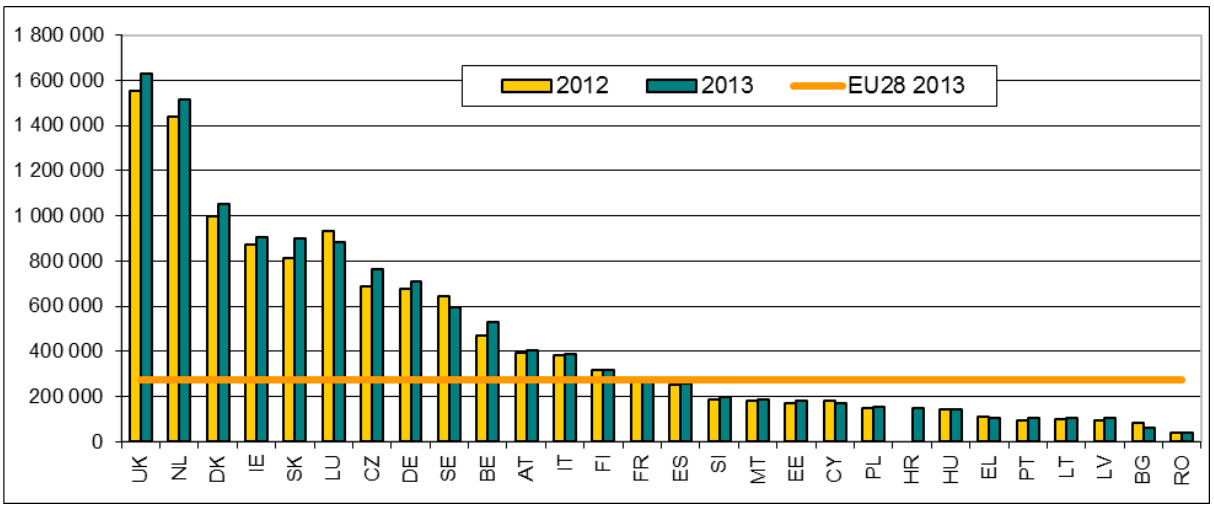


Source: DG AGRI EU-FADN

Farm net worth is defined as the difference between total assets and total liabilities at the end of the accounting year. In 2013, the average farm net worth stood at approximately EUR 272 900 in the EU-28 (+2% compared to 2012). The average net worth per agricultural holding was highest in the UK (EUR 1 554 000), the Netherlands (EUR 1 437 100) and Denmark (EUR 995 600) (Figure 3.6). This shows the importance of the granivore and milk sectors, which are characterised by above-average net worth values per farm (Figure 3.7). Farms in Romania (EUR 39 000) and Bulgaria (EUR 61 400) had the lowest values.

Farm net worth by EU group and Member State in 2012 and 2013

(average per farm in EUR)

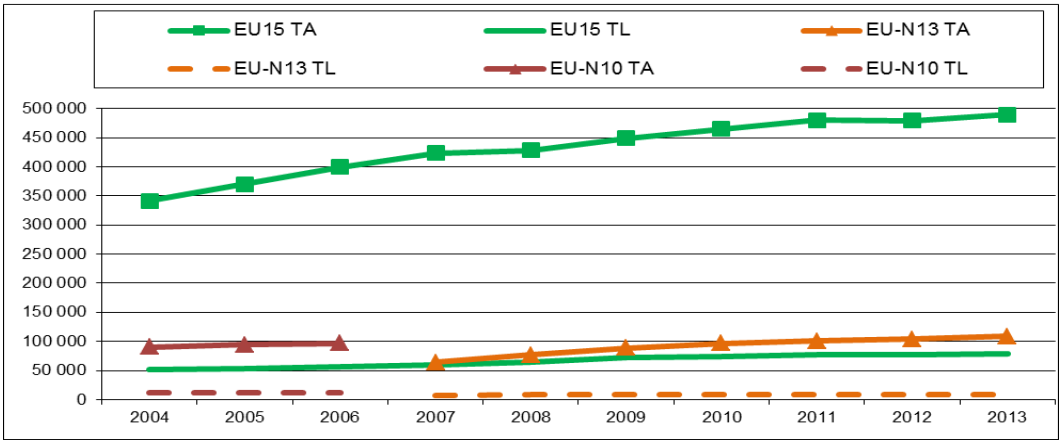


Source: DG AGRI EU-FADN

Liabilities. In the EU-27, total liabilities on average account for a small proportion of a farm's funding sources. While the 2004 and 2007 enlargements have affected the average level of total liabilities per farm, the impact has been substantially smaller than on total assets per farm. In line with the general trend for total asset values, total liabilities have also increased. In the EU-15, the average value of total liabilities increased by 51% in the 2004-2013 period, while in the EU-N13 it decreased by 22%, what however reflected mainly a changing composition of this country grouping. In the new Member States total liabilities were higher until 2009 and then subsequently, stagnating until 2013. It should be noted that since 2007 three new countries joined the EU – Bulgaria, Romania and Croatia. In the surveyed farm population of these countries liabilities were very low and at the same time especially in Romania the weight of farms were high influencing significantly the level of liabilities in EU-N13. Without these three new Member States the total liabilities would have increased by 51% for EU-N10 from 2004 to 2013. Consequently this decreasing tendency in total liabilities for EU-N13 is influenced by including the 3 new Member States to those 10 that joined in 2004 to the EU. In the EU-28, average liabilities per agricultural holding rose to EUR 47 900 in 2013, up from EUR 47 700 in the previous year. Both the total amount and composition of liabilities show wide variations across Member States. In absolute terms, the Danish and Dutch farms had, on average, the highest total liabilities within the EU. In contrast, total liabilities per farm remained very low in many Mediterranean Member States, which may reflect difficulties farmers have in accessing credit markets in these countries. However, these very low observed levels could also have resulted from different accounting practices, where liabilities are typically included in farmers' private rather than farm accounts. In relative terms, agricultural holdings relied mostly on medium- and long-term loans, which represented more than 90 % of total liabilities in Belgium, Croatia, Italy, Slovenia, Cyprus, Denmark and Finland. Short-term loans to finance agricultural activities were prevalent in Hungary (63%), Portugal and Slovakia (60% each) and Lithuania (56%).

Long-term developments in the value of assets (TA) and total liabilities (TL)

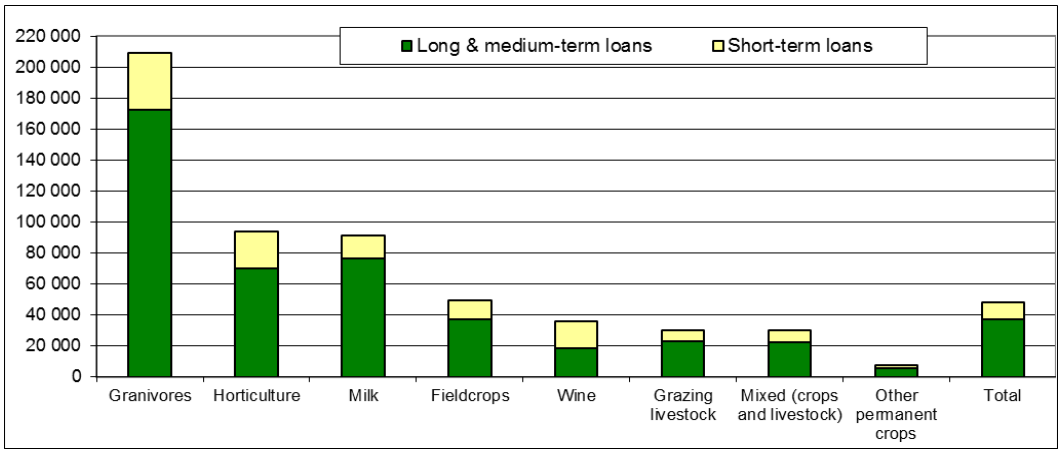
(average per farm in EUR)



Source: DG AGRI EU-FADN

Composition of liabilities per farm by Member State in 2012

(average per farm in EUR)



Source: DG AGRI EU-FADN

Methodological notes

Measuring farm income

For the purpose of this brief, the income of agricultural holdings is measured using farm net value added and the remuneration of family labour.

Farm net value added (FNVA) is equal to gross farm income minus costs of depreciation. It is used to remunerate the fixed factors of production (labour, land and capital), whether they are external or family factors. As a result, agricultural holdings can be compared regardless of the family/non-family nature of the factors of production used.
FNVA = output + Pillar I and Pillar II payments + any national subsidies + VAT balance - intermediate consumption - farm taxes (income taxes are not included) - depreciation.
The value is calculated per annual work unit (AWU) in order to take into account the differences in the scale of farms and to obtain a better measure of the productivity of the agricultural workforce.

Remuneration of family labour: In the agricultural sector, the bulk of the workforce consists of family members who do not receive a salary but have to be remunerated from the farms' income. As the FNVA is required to finance not only family labour but all fixed production factors, another way of estimating income (the remuneration of family labour) is calculated as follows:
Remuneration of family labour = FNVA + balance of investment subsidies and taxes – total external factors – opportunity costs of own land – opportunity costs of own capital.
The value is calculated per family work unit (FWU). Only farms that use unpaid labour (which in most cases means family members) are included in the calculation.

The **Farm Accountancy Data Network (FADN)** is a European system of sample surveys that are run each year to collect structural and accountancy data of farms. Its aim is to monitor the income and business activities of agricultural holdings and to evaluate the impacts of the common agricultural policy (CAP).

The scope of the FADN survey covers only farms whose size exceeds a minimum threshold. It thus represents the largest possible proportion of agricultural output, agricultural area and farm labour of holdings run with a market orientation. The sample for 2013 consisted of approximately 86 800 holdings in the EU-28, which represent nearly 5.0 million of the 10.8 million farms included in the FSS 2013, i.e. (46%).

The rules applied aim to provide representative data for three criteria: region, economic size and type of farming. The FADN is the only harmonised source of micro-economic data, which means that the accounting principles are the same in all Member States.

The most recent FADN data available for this report are for the 2013 accounting year, due to the time needed for data collection, control and processing.

For further information see: http://ec.europa.eu/agriculture/ricaprod/index.cfm

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http://ec.europa.eu/agriculture/rural-area-economics/index_en.htm