CAP SPECIFIC OBJECTIVES

...explained

– Brief No 1

ENSURING VIABLE FARM INCOME

This is part of a series of Briefs summarising the facts and addressing the policy relevance around the 9 proposed specific objectives of the future CAP.

KEY MESSAGES

- ✓ *EU farm income is still significantly below the average income of the economy, despite this gap decreasing as a result of structural change driven by the outflow of labour from agriculture during the last decade.*
- ✓ *The role of CAP subsides is still important in supporting farm income. However, significant differences exist in the role of support among Member States and sectors, while differences are also observed in the assets and liabilities of the farming sector.*
- ✓ *The variation in the distribution of farm support is affected by the farm structure of Member States, and to the extent that this is linked to policy, it can be improved by the CAP (e.g. with capping, redistributive payments, etc.). However, it is also impacted by, and better addressed through an array of national policies beyond the CAP.*
- ✓ *A combination of measures is needed to make sure that farm income support does not freeze, but facilitates structural adjustment in the direction of addressing future challenges. Mechanisms that are as neutral as possible with respect to their impact on opportunity costs for labour, land and capital, combined with the proposed higher flexibility granted to Member States to design the desired distribution of subsidies could improve the targeting of support. A common policy framework and the single market help to minimise potential distortions of competition.*

This brief is based on contributions from Koen Mondelaers, Barthélemy Lanos, Piotr Bajek, Chiara Dellapasqua and Léon Van De Pol.

Agriculture and Rural Development

1. The facts about farm income

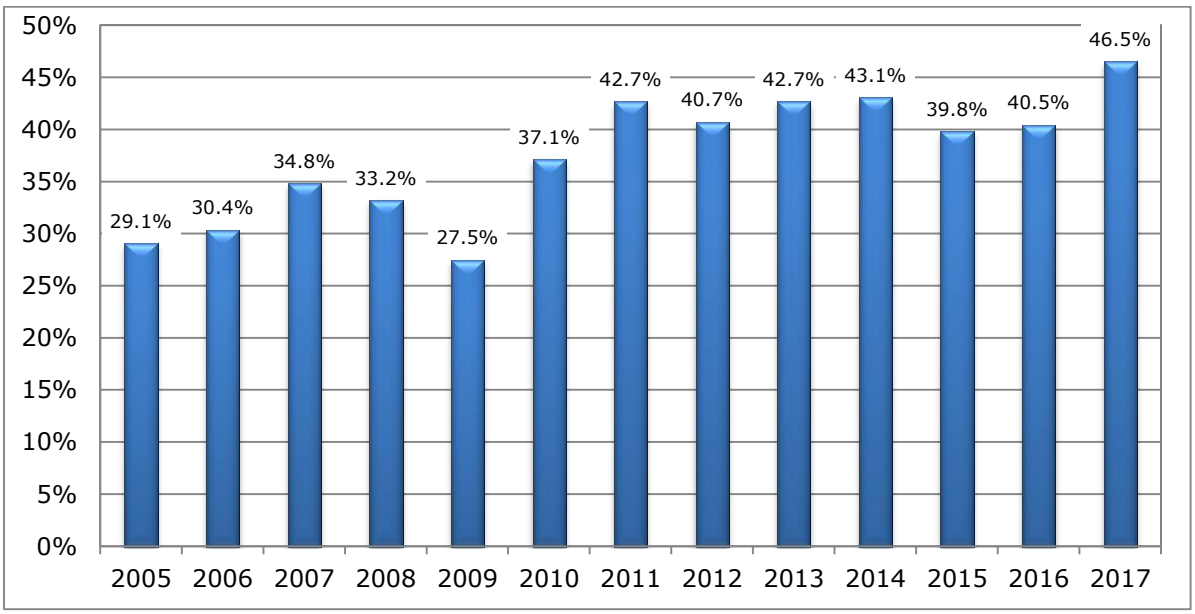
a. Farm income lags behind the rest of the economy

Comparisons between farm and non-farm income are difficult to make and are not straightforward. Yet in general, farm income across the EU, as measured by entrepreneurial income per family work unit, is below the average income in the rest of the economy, as measured by the average wage. Different definitions do not change this fact, which together with productivity increases explains why the agricultural sector is considered less attractive than other sectors and the EU faces a continuing loss of its agricultural workforce. However, the gap between farm incomes and incomes in the rest of the economy is narrowing over time. In 2017, farmers earned on average close to half of what could be gained in other jobs, up from a third a decade ago (Figure 1).

How to compare different types of income?

*In economics, an **opportunity cost** is the profit lost when one alternative is selected over another. Thus the opportunity cost of farm labour is the wage lost when farming rather than a non-farming activity is chosen. Given the fact that modern-day farming includes both low- and high-skilled activities, we opted to compare the entrepreneurial income from farming as the closest proxy to the average wage in the economy.*

Figure 1. Farm income comparison to the average wage, EU-28



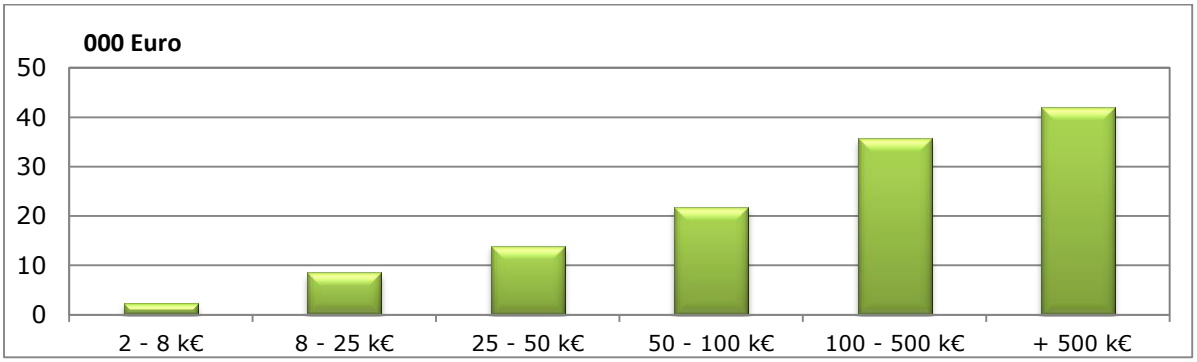
Note: Entrepreneurial income per family work unit is used as a proxy for farm income.
Source: DG Agriculture and Rural Development based on Eurostat data.

This trend is not the same in every country of the EU; in some, farm income could even surpass the income in the rest of the economy (as has been continuously the case in CZ and EE since 2008), but in all others, farmers get a lower income than those working in the rest of the economy (and in some cases at a very low level).

b. Diverse agriculture in the EU leads to diverse situations

The ten regions with the highest income per worker in agriculture are located in Belgium, the Netherlands, the northern part of France, Italy and Germany, east of the UK and southern Sweden. This is due to higher labour productivity and specialisation towards intensive and high-value production. Farm income depends on various economic features of a farm, among which size often plays a crucial role. In a large number of Member States, the bigger the farm, the higher the income per worker (Figure 2).

Figure 2: FNVA/AWU by economic size class in the EU-28 (2015)



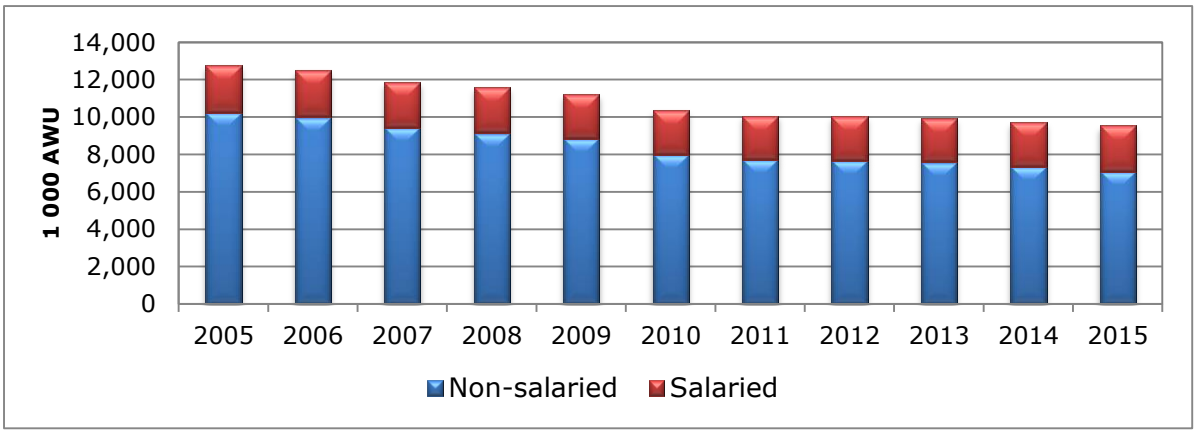
Note: FNVA/AWU is the Farm Net Value Added per Annual Work Unit in the Farm Accountancy Data Network (FADN), the equivalent of Eurostat's factor income per annual work unit.
Source: DG Agriculture and Rural Development FADN.

Commodity-wise, specialised farms in pigs and poultry, wine and horticulture have the highest farm income per worker, while grazing livestock farms and mixed farms have the lowest farm income. Field crops and milk farms are on the average range of farm income, with a declining trend over time.[1]

c. Farm structural change impacts income levels

Structural adjustment on the farm is a major factor affecting farm income. All the more because it usually requires a high investment (in land or capital), from which the economic returns are expected in the medium/long-run. As a concrete example, digitalisation represents both a considerable opportunity and a significant change in terms of monitoring farm activities and reducing input use, and thus variable costs. However, this requires investing in particular equipment and machinery as well as data sensors. Labour outflow from agriculture, whose continuous decline in the EU is depicted in Figure 3, is also affected by, and affects in turn structural changes in the farming sector (similar trends are observed in all economies around the world).

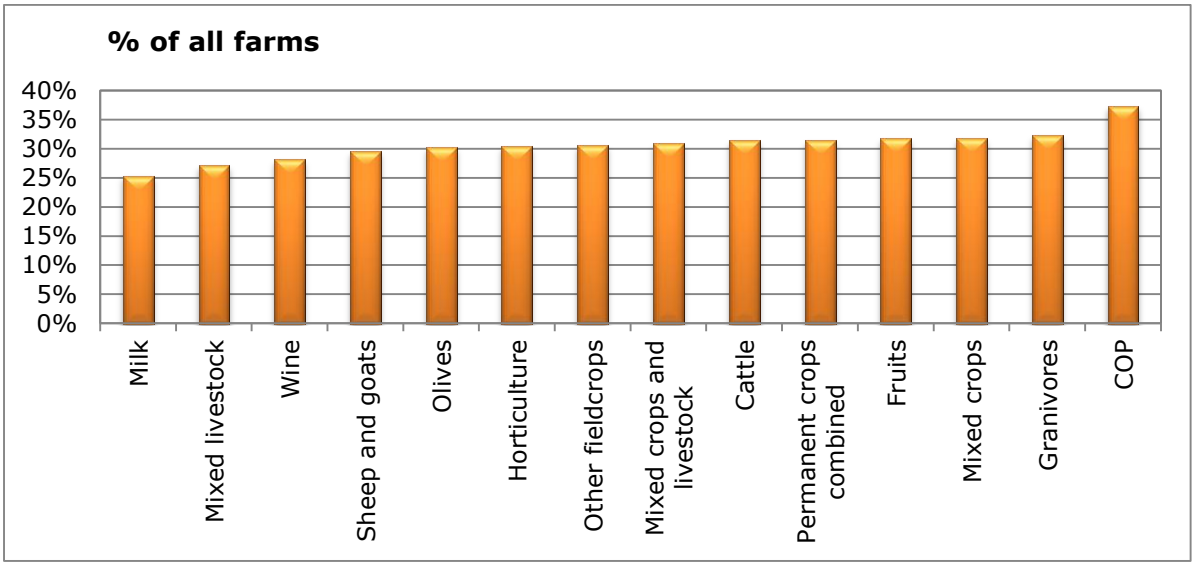
Figure 3: Evolution of agricultural labour input in 000 AWU (EU-28)



Note: AWU is Annual Work Unit.
Source: DG Agriculture and Rural Development, based on Eurostat.

A smaller workforce in farming implies that agricultural income is shared amongst fewer people, thus raising the amount per person, although not symmetrically in all sectors as their income volatility varies (Figure 4, more on volatility in Section 3).

Figure 4: Farms with annual income drop above 30% (average of 2007-15)



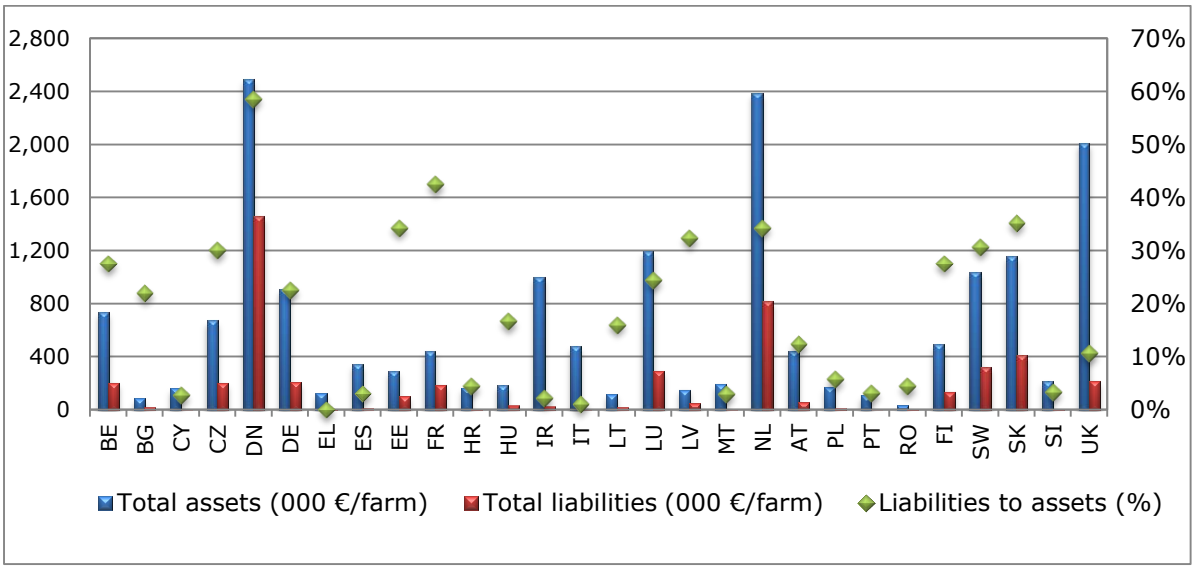
Note: Share of total farms per farm type, EU-28.
Source: DG Agriculture and Rural Development, based on FADN.

d. Assets and liabilities are associated with resilience

To assess farm economic viability, information on the value of on-farm assets (such as owned land or machinery, buildings etc.) is essential. Across the EU, farmers own around half of the land and rent the rest, thus turning land into their biggest asset. (This average, however, masks huge differences among Member States which are, amongst other factors, affected by national policies on taxation, land markets, legislation on inheritance, or pension schemes).

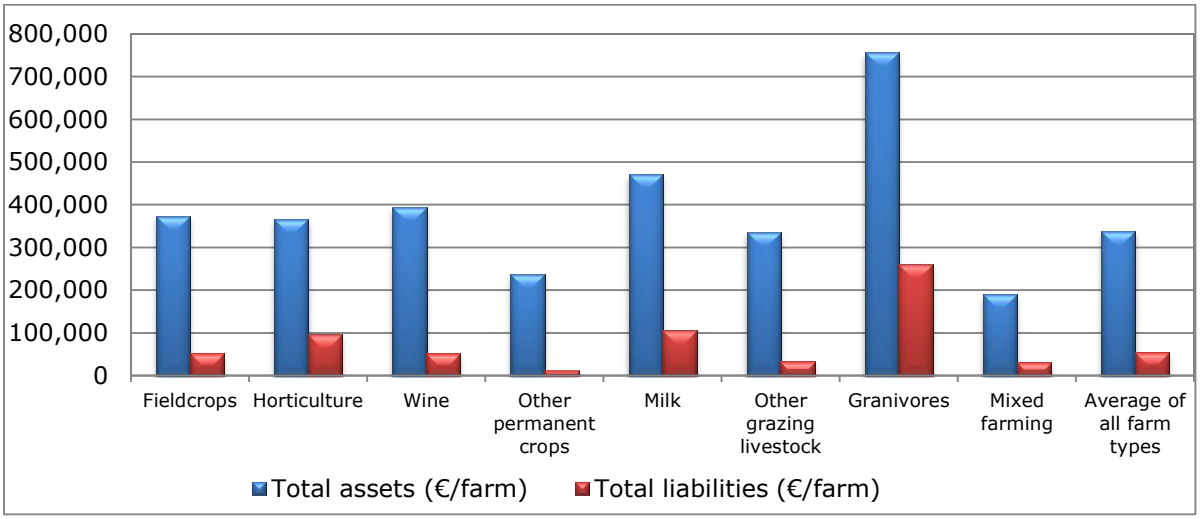
The total asset volume is thus an important factor to take into account when assessing the level of income in the sector. The ratio between the value of assets and debts can therefore provide a valuable indicator to assess the overall resilience of a farm in case of a drop in short-term farm revenue, either due to low production, low prices or high costs. The ratio is diverse across the EU Member States (farms in DK, FR, SK and EE have the highest ratio while farms in EL, IT and IE have a lower share) and farm sectors (Figures 5 and 6).

Figure 5: Assets and liabilities in EU farming 2015 by MS (000 euro/farm)



Source: DG Agriculture and Rural Development, based on FADN.

Figure 6: Assets and liabilities in EU farming 2015 by farm type (Euro/farm)



Source: DG Agriculture and Rural Development, based on FADN.

Indeed, farm income level can be highly dependent on the costs of production, including the costs of labour. From 2000 to 2017, intermediate consumption and wages accounted for respectively 58 % and 10 % (on average) of the total agricultural output across the EU.

2. The facts about farm income support

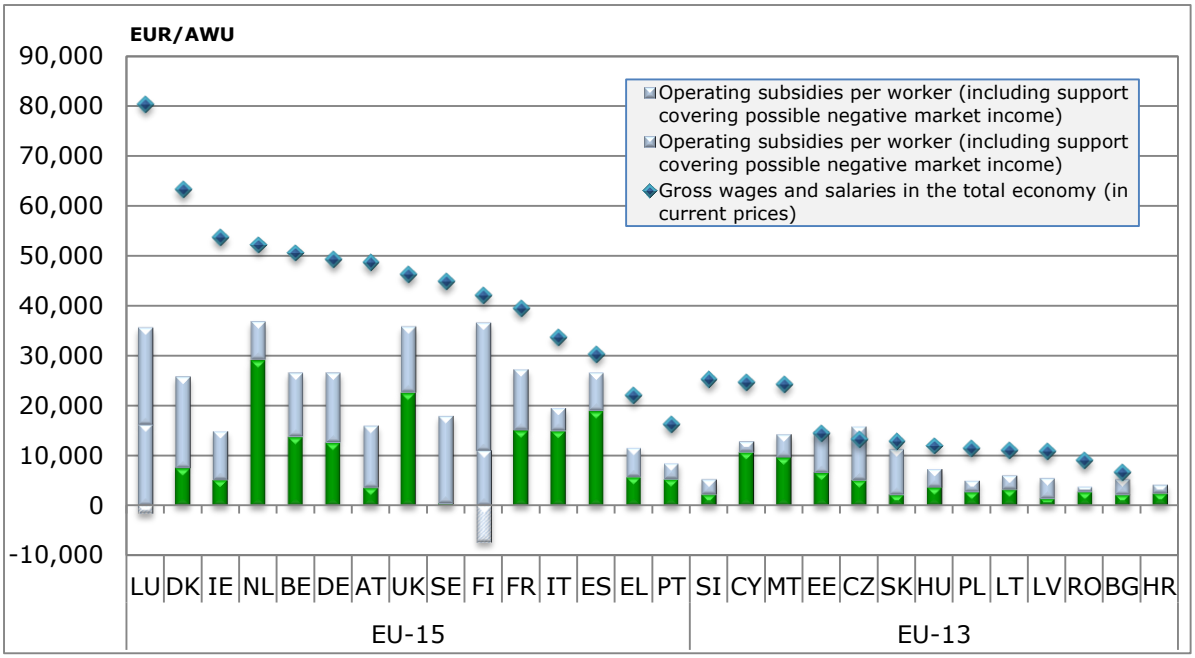
Article 39 of the Treaty on the Functioning of the European Union that states that an objective of the CAP should be to *ensure a fair standard of living for the agricultural community, in particular by increasing the individual earnings of persons engaged in agriculture,* which is the basis for policy measures aiming at farm supporting income. However, this does not, and should not, stop debate about its necessity.

a. Is there a need for income support?

Agreement on this perennial farm policy question is not unanimous. Yet in repeated opinion polls, the majority of EU citizens seem to be in agreement with Article 39 of the Treaty, in particular with the need to increase the individual earnings both farmers, agricultural employees or others engaged in agriculture, as well as to share the understanding that such support is essential since farm income is generally lower compared to the rest of the economy.

On average in the EU, income support accounts for 12 % of the farm turnover and about a third of farm incomes across the EU, but this plays a bigger role in specific sectors (e.g. grazing livestock) or in sectors in which a crisis has occurred (Figure 7).

Figure 7: Agricultural income, average wage and share of income support



Source: DG AGRI based on DG AGRI and Eurostat data, 2011-2013.
Average CAP support equals operating subsidies per worker, including support covering possible negative market income.
Average farmer income (without CAP support) equals the entrepreneurial income plus wages (divided by AWU) minus the operating subsidies of the farm.
Note: CAP support does not include investment support; average farmer income without CAP support in LU and FI was negative over the period considered (and is hatched in the graph).

b. How to best support farm income?

Farmers are providing agricultural goods but also public goods related to the environment, biodiversity, climate and landscape features. Although they benefit all EU citizens, these goods are not remunerated by the market. The successive reforms of the CAP after 1992 provided income support initially through direct payments coupled to production factors (area, livestock heads), and later mainly with decoupled and non-product specific support. Only a small part of coupled support remained to help address difficulties that are specific to a particular sector, production type or farming method.

However, due to its potentially distortive nature on agricultural markets and its hampering effect on productivity gains, its use has been limited to certain sectors and to strict budgetary ceilings. Other ways to support farm income rather than de/coupled income support, for instance through countercyclical payments such as those in the US, have not been developed (for reasons that will be discussed in Part 3).

c. How fair is the distribution of income support?

While the role of direct payments in stabilising farm income is recognised, less agreement is found when the focus is on the distribution of this support, with the fact that 20% of the farmers receive 80% of payments continuing to generate heated debate. The uneven distribution of support raises concerns about economic efficiency and social equity in the public debate that need to be addressed, while placed in perspective.

How to define "fairness" in the distribution of support?

The notion of fairness links to equity, a solution that is ethically just and reasonable. In terms of agricultural income support, equity includes ensuring a link with the extent of the agricultural activity while taking into account economies of scale and the varying needs across EU territories. By some, this is considered fair when an EU-flat rate is provided, for others a basic level of income support per hectare to all farmers in the EU should take into account differences in the opportunity costs of land and labour, not just across, but also within Member States.

The level of support varies greatly among Member States, sectors, and farm sizes, and it also varies greatly within Member States. This is not new; even in the past, the same level of a product-based high price support implied very different levels of implicit support since yields, domestic prices and the use of public stock measures differed greatly. It is important to add nuance and depth to the debate to better understand the full picture.

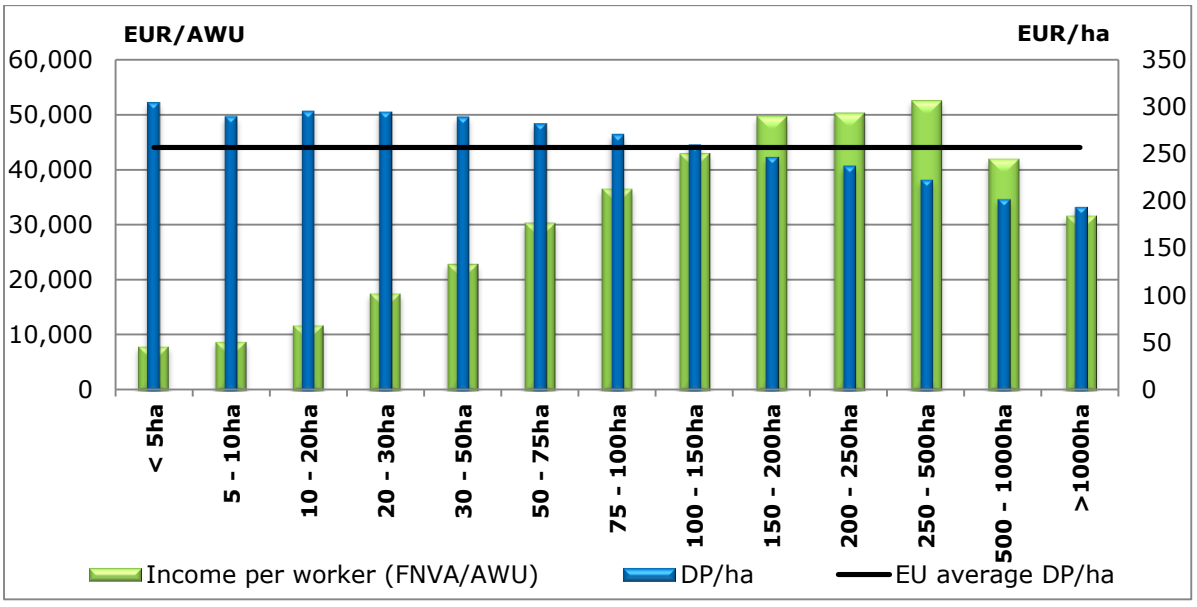
What was new after the 2003 reform of the CAP was the transparency in income support. Direct payments, introduced in 1992, are a transfer-efficient, simple and transparent policy tool which since their introduction has been providing a steady income stream, benefiting farmers directly, providing them with a longer term perspective, and providing consumers with lower prices.

This transparency of direct support made the 80/20 ratio evident, which was rather implicit beforehand in the price support policy. Moreover, it highlighted the fact that the concentration of agricultural income support is driven by the concentration of land, as the majority of direct payments are area-based payments granted per eligible hectare of land.

When comparing income and farm size, it is worth keeping in mind that the economic and the area size of farms do not directly correlate, as different types of farming have very different area/income relationships.

Nonetheless, it is worth noting that the average direct payment per hectare steadily decreases as the average farm size increases (Figure 8). On the other hand, farm income per annual work unit increases up to a certain farm size level, reaching its maximum at the 250-500 ha category, but declines rapidly after this farm size level.

Figure 8: Income and direct payment by farm size (in hectares of UAA)

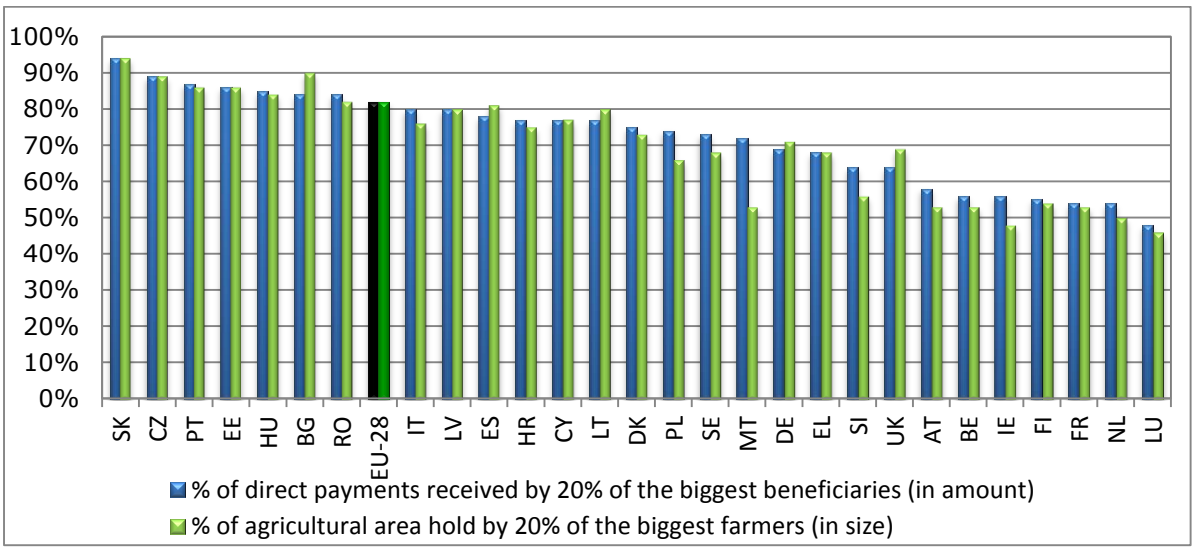


Note: UAA is the utilised Agricultural Area.
Source: FADN DG AGRI based on 2012 prices and structures to estimate 2019 income; and CATS data for claim year 2016 for the average direct payment per hectare by farm size.

The distribution of payments also varies greatly between Member States, with income support and land more concentrated in Eastern European countries (SK, CZ, EE, LV, LT, HU, BG and RO), this stems from a history of large state farms on the one hand, and/or the fragmentation of the agricultural sector with many small farms on the other hand.

Land and payments are less concentrated in Western and Southern European countries. In general, the distribution of land mirrors the distribution of payments in most Member States, but there are a few cases where differences are evident (Figure 9). Land rental prices across the EU are widely differentiated depending on the Member States, as their evolution is interlinked with policies in place in the MS (taxation). Moreover, land prices can very much differ as the quality of land affects productivity, and therefore the expected returns for landowners, which to a large degree are reflected in land rentals.

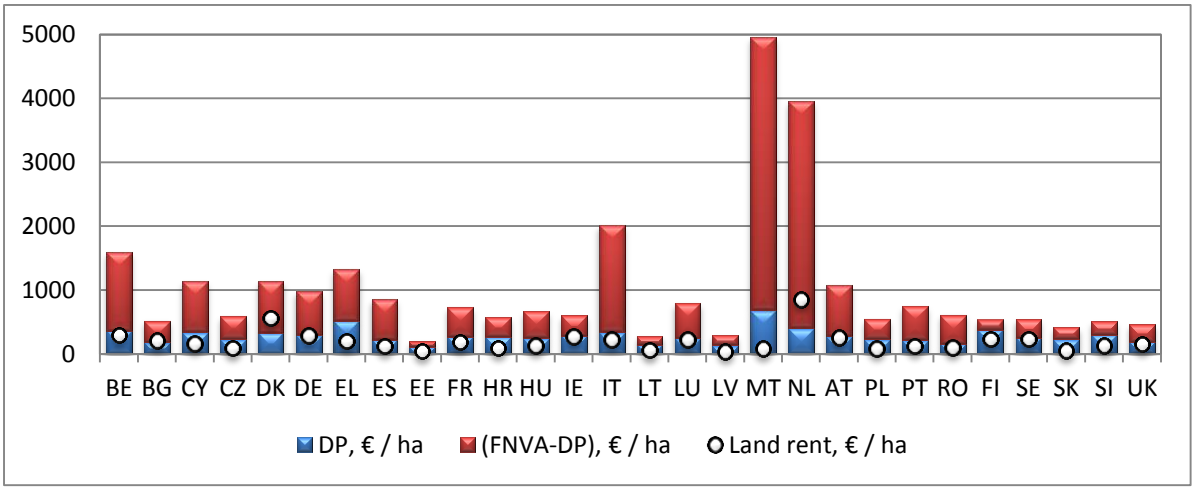
Figure 9: Distribution of land and direct payments by MS in 2015



Source: CATS data – DG AGRI.

Figure 10 (below) shows that the CAP direct payments help to cover the rental cost of land in a large number of MS. According to a World Bank study, CAP subsidies can have very mixed impacts on land prices, but are quite moderate in MS where land prices are already high.

Figure 10: Farm income, direct payments and rents



Source: DG AGRI, Farm Accountancy Data Network (FADN).

d. Is there scope for improvement in the distribution of income support?

Both the Communication on the Future of Food and Farming[2] and the proposal for a new Multi-annual Financial Framework[3] call for a more balanced distribution of support, and the Impact Assessment (IA) accompanying the Commission proposal for the CAP after 2020 assessed ways to reach it.[4]

Based on quantitative and qualitative analysis, different options were tested in the IA with different mechanisms to reduce direct payments for larger farms and different ways to redistribute income support to smaller and medium-sized farms.

A number of important lessons in achieving a fairer distribution can be drawn from the IA. Firstly, capping (i.e. cutting all direct payments a farmer receives above a certain amount) can address concerns about the high level of support received by few large beneficiaries. Capping can also enhance the efficiency of support as the needs for income support reduce with size due to economies of scale. However, correcting for salaries paid, since large farms often provide a large number of jobs, would limit the scope of improvement in the distribution of support.

Secondly, the introduction of capping with the objective to create savings could go against cohesion and convergence as the burden is placed on only a few MS. The most effective way to achieve a reduction in the concentration of support is to reduce payments with farm size (degressivity) and introduce a redistributive payment (a higher rate of support per hectare for the first hectares of farms).

Targeting support on small and medium-sized farms and areas with natural constraints can help keep more jobs on farms and in farming activity across the whole territory, hence strengthening the socio-economic fabric of rural areas. However, redistributing direct payments to farms and regions with lower productivity will lead to a reduction of EU competitiveness, while it enhances the protection of the environment.

e. What impact from farm income support?

Up until recently, analysis of the impact of farm income support was done with model work that assumed (among other scenarios) the abolition of the CAP to estimate its impact. The latest in a series of such studies has confirmed previous conclusions that the biggest impact of the CAP is not on production levels, but on rendering the pattern of structural adjustment in agriculture smoother, the regional distribution of production more balanced, and the environmental pressure lower (Scenar2030)[5].

The study also showed that farm income could decrease by more than 17 % if CAP payments were to be removed, with the strongest impact on sectors with farm income highly dependent on subsidies.

The design of income support tools was also found to impact certain policy objectives differently. For example, decoupled payments modulated by size could target small and medium size farms; at the same time they target more intensive farms with less land and higher added-value product, which might need less support than mixed extensive farms.[6]

A recent World Bank study demonstrated the positive role of the CAP (especially decoupled support) on jobs, growth and poverty reduction in rural areas.[7] In a nutshell, the World Bank argues that in Member States where agriculture is still associated with poverty, income support in agriculture is still needed to alleviate poverty in those regions. By contrast, in MS where agriculture is not still associated with poverty and income levels are already high, support to modernisation and productivity gains should be the next target and therefore foster investments.

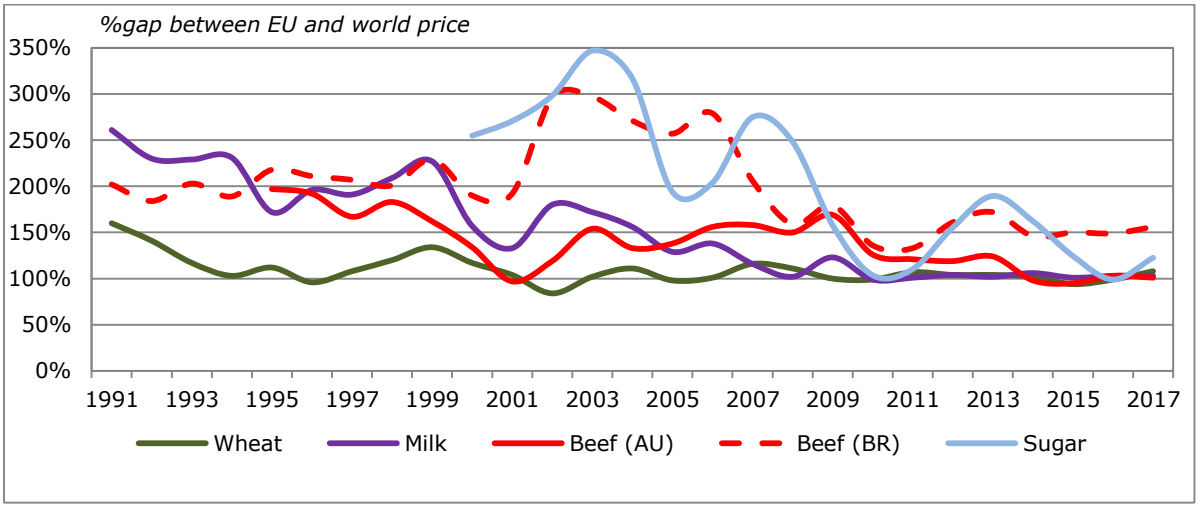
As we have seen, investment aid in agriculture is a key element. Helping farmers to secure investments would help them secure decent revenue for the short-term as it would not entail investing their incomes and in the long run to ensure productivity gains. According to a recent study from fi-compass, the total financial gap in agriculture (total amount required minus the amount borrowed) ranges between EUR 7 to 18 billion (data in 2013).[8]

3. The challenges around income volatility

a. Has farm income turned more volatile in the EU?

EU agriculture is more open and closely linked to global market developments today than at any other time in the history of the CAP; the alignment of EU with world prices demonstrates this (Figure 11).

Figure 11. Ratio between EU and world prices (% gap)



Source: World Bank.

This opening offers opportunities, but also increases exposure to price volatility. This is coupled with more risks stemming from climate change, with the increase in the frequency and intensity of extreme weather events and the consequent increased exposure to sanitary and phytosanitary risks leading to further vulnerability of production.

The combination of increased price and production risks inevitably increases pressure on farm income. In this context, we observe not only the emergence of different types of risks – linked to price, production and income – but also very diverse risk profiles for farmers across EU regions. The different profile of farm income volatility was already mentioned in section 1c.

What is so specific about volatility in agriculture?

All commodity markets have the tendency to rise or fall sharply within a short period of time. Agricultural markets are no exception to this volatility, as they are affected both by normal, price-related, as well as more unpredictable weather-related events. However while agricultural markets are not necessarily more volatile in statistical terms, they seem to be more sensitive to it; the uncertainty that volatility generates in markets characterized by the discontinuity between daily food consumption and annual food (crop) production may partly explain why.

Significant differences also exist among member States. Up to 20% of farmers experience income declines greater than 30% in comparison to the previous year, with the highest number of farms suffering from income losses above 30% found in Italy, Poland, Spain and Greece. A high proportion is also found in Cyprus, Slovenia, Malta and Latvia.

Large unfavourable fluctuations in prices and output can result in cash-flow constraints (or liquidity problems). Uncertainty regarding expected income, together with low profitability, can also lead to underinvestment, determining a loss of competitiveness and innovation in the long-term.

b. How to address income volatility?

With income support as one of its main objectives, the CAP should provide for an adequate framework for managing risks linked to income volatility, whether this stems from price or production risks, or their combined effect. Such a framework should combine EU-level support with Member States' tools and private sector instruments, with the ultimate objective of enhancing the resilience of the farming sector in the long-term, while empowering farmers to risk-proof their businesses.

Most of these challenges are not new, and most of the solutions are already available – but the future CAP proposal provides the member states with a flexible mix of solutions. It is therefore worth stating the experience acquired so far from various measures aimed at addressing income volatility and briefly assessing their impact.

c. The role of decoupled payments

Even if this was not their initial objective, decoupled direct payments act as an annual, stable cushion against income variability. This cushion is, however, very different for different types of farming. For farms specialising in cereals, oilseeds and protein crops, both income level and income volatility are high, with decoupled payments representing about half of their income. In other field crops and in dairy, the pattern is similar, but with lower levels of income, share of support in income and variability. Cattle farms have a low income, but depend heavily (at almost 90%) on support for their income. Sheep and goats farms have very low income, with roughly half coming from subsidies.

A recent study concludes, based on a case study, that from the farmers' perspective, direct payments were the most favourable measure to enhance incomes. While from society's perspective, an Income Stabilisation Tool (IST) and crop insurance were the most efficient tools in terms of increasing income in the worst years and decreasing variability, respectively.[9]

However, public support can crowd out the development of private risk management tools. Insured farmers tend to use less risk-reducing inputs and have less incentive to apply more resilient business systems. Another recent study concludes that for the design of agricultural risk management strategies, the interactions between direct payments and targeted risk management instruments will need to be carefully considered.[10]

Some have also argued that the EU should learn from the US experience and apply similar measures in the CAP as the US does with its farm policy. It is therefore necessary to address briefly why, in the both previous and the most recent IA, this approach has not been favoured.

d. The pro-cyclical effect of counter-cyclical payments

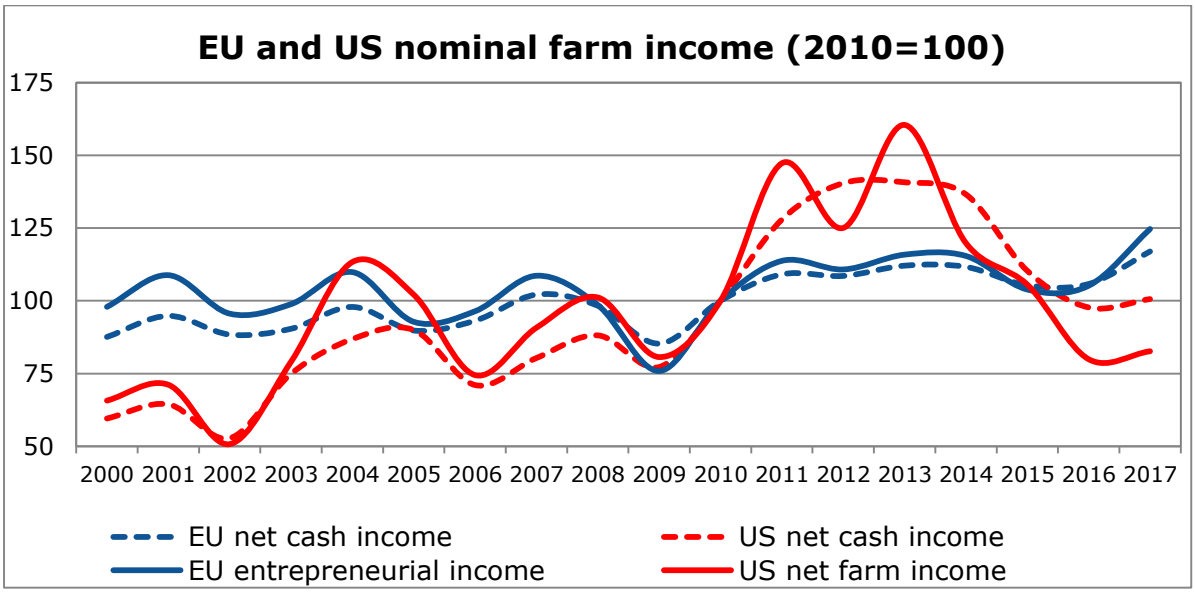
Within the debate on the CAP, the system of countercyclical payments is sometimes considered more adequate compared to the EU system with direct payments complemented by risk management schemes. The last US Farm Bill marked the abandonment by US farm policies of the experiment with decoupled support. The latter was introduced in 1996, but by 1998, "extra" payments had already assumed the role of correcting whatever signal markets were sending to the US farmer. Although countercyclical payments were already introduced in the 2002 Farm Bill, the 2014 Farm Bill led to the suppression of fixed payments while keeping countercyclical payments and strengthening various insurance schemes.

Have counter-cyclical payments really worked in the US? The answer depends on the point of view. From the perspective of public policy, a system based on risk-based payments does not sufficiently transmit market signals to farmers, as downward price pressure is cushioned, removing the incentive to adapt production to changing demand, which can lead to overproduction, often on environmentally sensitive lands.

Moreover, it has been calculated that, between 2000 and 2013, for every dollar of subsidy going to the farmer, the US programme spent 44 cents on overhead costs, almost all of which went to insurance companies. However the most important test is with respect to the declared objective of countercyclical payments – they were meant to cost less and protect farm income more, but did exactly the opposite.

As Figure 12 illustrates, despite the countercyclical payments, US farm net income has been more volatile compared to EU farm net income during a period where both EU and US agriculture faced the same world market environment.

Figure 12. EU and US farm income developments



Source: DG AGRI, based on Eurostat and USDA data.

What explains this? Maybe the term "counter-cyclical" is a misnomer after all. In macroeconomic policy, an increase in the central interest rate when inflation is high cools the economy, countering the economic cycle; so does an increase in public spending when unemployment is high.

However, in agricultural markets, delaying the transmission of the market signal especially for crops (the bulk of US support goes to crops) implies a one-year delay in a production decision that would be really counter-cyclical – to reduce production when prices are low. Instead, counter-cyclical payments cover the price decline with public money, thus removing the need for immediate production adjustment and leading to a pro-cyclical response.

Could this work in the EU? In order to evaluate their potential, analysis was conducted, on the assumption that a number of US programmes from the Farm Bill 2014 were adopted in the EU. This analysis focused solely on maize, barley and soft wheat, finding that whilst using high reference prices, payments in the worst-case scenario would exceed 15 billion € for the three crops combined.

Therefore, an additional conclusion is that a system based on risk-based payments creates significant budget uncertainty and presents a real danger for budget overshoot, depending on the chosen reference prices in relation to market developments.

e. What about risk management?

Currently the uptake of risk management tools is rather low, partly because farmers count on direct payments to buffer income changes. For example, risk management tools are less developed in the livestock sector than for crops. Crop futures are well functioning and available to both farmers and insurers to cover/hedge their risks, thus the wider availability of insurance products (which can also be supported with EU funds).

By contrast, in the dairy sector, the volume traded on futures is still small (though increasing) and an Income Stabilisation Tool (IST) could be of interest to farmers to protect themselves against market uncertainty. In other sectors, where the main challenge is the income level (beef and sheep for example), direct payments (including coupled support) can be best suited to support farmers.

Based on FADN data, between 2007 and 2015, on average annually 30% of farmers had a 20% or larger drop in sector income compared to the three previous years and 25% of EU farmers had a 30% drop in gross farm income (see again Figure 4). Should an income stabilisation tool be available to all farmers, an EU budget of between 13 and 15 billion EUR annually would have been necessary to compensate farmers.

In the future, it is proposed that Member States are given the possibility to set up the IST for specific sectors, in the framework of their strategic plan. This provides an opportunity to target sectors occasionally facing significant income drops and for which other risk management tools are less available (for example, risk management tools are less developed in the livestock sector than for crops). Crop futures are well functioning and available to both farmers and insurers to cover/hedge their risks, thus the wider availability of insurance products (which can also be supported with EU funds). By contrast, in the dairy sector, the volume traded on futures is still small (though increasing) and an IST could be of interest to farmers to protect themselves against market uncertainty. In other sectors, where the first issue is income level (beef and sheep for example), direct payments (including coupled support) can suit best income support to farmers.

Endnotes

[1] For more details, see the Statistical Annex accompanying the Impact Assessment of the future CAP proposal, https://ec.europa.eu/agriculture/statistics/facts-and-figures_en

[2] https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap_en

[3] https://ec.europa.eu/commission/publications/factsheets-long-term-budget-proposals_en

[4] Impact assessment for "CAP towards 2020" (2018). https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018SC0301&from=EN

[5] Scenar 2030 – Pathways for the European agriculture and food sector beyond 2020 (2017). https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/scenar-2030-pathways-european-agriculture-and-food-sector-beyond-2020

[6] Impact assessment for "CAP towards 2020" (2018), idem.

[7] Thinking CAP. Supporting agricultural jobs and incomes in the EU. (2017). http://pubdocs.worldbank.org/en/369851513586667729/Thinking-CAP-World-Bank-Report-on-the-EU.pdf

[8] Financial gap in the EU agricultural sector (2017), https://www.fi-compass.eu/sites/default/files/publications/Financial%20gap%20in%20__the%20EU%20agricultural%20sector.pdf

[9] Garrido et al. (2016), State of play of Risk Management tools implemented by the Member States during the period 2014-2020: national and European Framework, http://www.europarl.europa.eu/RegData/etudes/STUD/2016/573415/IPOL_STU(2016)573415_EN.pdf

[10] Ecorys and WUR (2017), Study on risk management in EU agriculture https://ec.europa.eu/agriculture/external-studies/2017-risk-management-eu-agriculture_en

For more information

https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/future-cap_en#objectives

https://ec.europa.eu/agriculture/statistics/factsheets_en

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