Review of Agricultural, Food and Environmental Studies (2023) 104:87–99
https://doi.org/10.1007/s41130-023-00192-8

NEWS AND VIEWS

Supporting European farmers' incomes through Common Agricultural Policy direct aids: facts and questions

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Accepted: 14 February 2023 / Published online: 23 March 2023

Abstract

Common Agricultural Policy (CAP) direct aids are playing an essential role in supporting the income of many European farmers. This situation, the result of political choices made during successive reforms of the policy since 1992, raises the question of the appropriateness of the CAP as a means of supporting agricultural income. After a brief review of the contribution of direct payments to farm income in different European member states, we examine the effectiveness of decoupled direct aids, which constitute the bulk of direct payments, in supporting farm income. We raise the question of the legitimacy of the CAP to support farm income given that the measurement of the latter is a complex issue and that many authors consider that the CAP's decoupled payments have no real justification.

Keywords European agriculture · Common Agricultural Policy · Decoupled direct aids · Farm income

Introduction

As part of the Common Agricultural Policy (CAP), European farmers receive budgetary support from European, national, and regional origins. European Union (EU) funds are the main source (approximately 80%). Over the budgetary period 2014–2020, they amounted to €58 billion annually, which represents 37% of the European total budget. The successive reforms of the CAP implemented since 1992 have led to the replacement of price support at the expense of the consumer by direct aids funded by the taxpayer (Bureau & Thoyer, 2014; Butault, 2004; Guyomard et al., 2020a). However, this substitution does not mean that price support is

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zero today, notably because tariff and non-tariff protection remains in place on entry to the EU market (World Trade Organization, 2019; Chatellier et al., 2022).

The distribution of the CAP budget between European member states (MS) depends on several factors (European Commission, 2020), in particular, the size of agricultural land areas and the number of ruminants (because first-pillar direct aids have historically been calculated on the basis of these variables), agricultural specialisation (because some productions were, before decoupling[1] was applied, better supported than others), and agricultural land productivity (because amounts of direct aid per hectare were defined on the basis of historical reference yields, which were often regionalised). Although measures have been gradually adopted to rebalance national budget allocations in favour of the least-endowed MS (the so-called "external convergence" process), differences between countries remain significant (Hanson, 2021). As the leading European agricultural producer (16.8% of the EU's agricultural final production in 2019), France is the largest beneficiary of the CAP budget (16.4%). In 2019, the top 10 MS, which produced 78% of the EU's final production, received 79% of the CAP budget. At the other end of the scale, the lowest 10 MS, which produced 4.8% of the EU's final production, received 6% of the funds.

For many years, the modalities for allocating CAP direct aids have been the subject of heated debates. Some actors consider that the CAP budgetary support still favours the historical MS to the detriment of new entrants from Eastern Europe; others emphasise that direct aids do not sufficiently target the protection of the environment or job creation; still others point out that direct aids favour the largest farms in terms of land area although they are already the most productive and profitable. Although the decoupling of a large proportion of direct aids has made the CAP more compatible with WTO rules, this has not mitigated the criticisms mentioned above.

In this general context, our article examines the links between budgetary support and agricultural income. More specifically, we seek to shed light on the three following points: firstly, the dependence of agricultural income on budgetary support, in particular, decoupled direct aids, for different MS; secondly, the relative effectiveness of different income support instruments; and thirdly, the legitimacy of the explicit inclusion of an agricultural income support objective in the CAP.

CAP direct aids and agricultural income: some key figures

To measure the share of direct aids in European farmers' income, we used the Farm Accountancy Data Network (FADN).[2]

[1] A public policy measure or set of measures is said to be decoupled when there is no link between granting conditions and the production of specific commodities with thus no effect on quantities produced, consumed, and traded. This lack of a link is theoretical since decoupled direct aids can have impacts on production levels through an insurance and wealth effect, by modifying investment decisions, etc. (OECD, 2001).

[2] The FADN is a sample of around 80,000 European farms representing a population of 4.2 million units accounting for almost 95% of European agricultural production. The sample does not include the smallest structures that are below a minimum economic size threshold set at the level of each MS.

Over the period 2016–2019, European farms each received an average of €12,400 of direct aids per year (Table 1). This average masks wide disparities between MS, ranging from a minimum of €3200 in Romania to a maximum of €39,700 in Denmark. Generally, direct aid amounts per holding were significantly lower in eastern and southern MS than in western European countries. Direct aids by agricultural work unit (AWU) were equal to €8100 on average, again with a high variability between countries according to a hierarchy that is not different from that established based on amounts received per holding. Direct aids per hectare of utilised agricultural area (UAA) were equal to €360, this time with a significantly different hierarchies between countries (from €248 in the UK and €235 in Romania to €467 in the Netherlands and €672 in Greece). At the EU-28 level, direct aids represented on average 16% of agricultural output and 58% of farm income (before tax). The share of direct aids in income varied greatly between countries, from 21% in the Netherlands to 102% in the UK.

The inter-country variability is compounded by a disparity between farms according to their production type (Table 2). The share of direct aids in farm income was very low for horticultural (6% at the UE-28 level over the period 2016-2019), wine-growing (12%), and pig and poultry farms (20%): the budgetary support allocated to these specialisations is not linked to their main productions but to other commodities that are produced jointly (crops and livestock) and/or to measures of the CAP's second pillar. The share of direct aids in farm income reached 47% for olive farms, 56% for dairy farms, and 82% for sheep and goat farms. This share was even higher, above 100%, for farms specialising in cereals, oilseeds and protein crops (112%) and farms specialising in beef and veal production (127%). For a given production sector, the amount of direct aids received per farm and per working unit increases with the economic dimension of the holding. To illustrate this point, EU-28 farms of farming types 15 (farms specialising in cereals, oilseeds, and protein crops) and 45 (farms specialising in cows' milk) were divided into six economic size categories based on the standard gross production indicator (Table 3). On annual average over the period 2016–2019, the 9500 very large European farms specialising in cereals, oilseeds, and protein crops (more than €500,000 of standard gross production) received €240,500 of direct aids compared to €17,800 for all farms of this farming type and €2300 for the 196,600 units of the smallest size category. Differences were smaller when direct aids were measured by work unit because the largest farms were also the ones that employed the most labour: direct aids per AWU increased from €2500 to €22,300 between the two extreme categories of farm size. The same observations can be made for dairy farms even if the differences between size categories were less significant.

Over the period 2016–2019, first-pillar decoupled direct aids represented 64% of total direct aids allocated to European farms. This rate varies according to farming type notably because cattle farms were also the main beneficiaries of coupled direct aids and direct payments granted to farms located in less-favoured areas. This rate was thus 80% for farms specialising in cereals, oilseeds, and protein crops compared to 58% for farms specialising in cows' milk and 54% for farms specialising in beef production.

To summarise, direct aids and notably decoupled direct aids play a major role in supporting the income of numerous European farmers. This raises two questions. Firstly, are decoupled direct aids the most effective instrument for supporting farm income? Secondly, is it legitimate to support farmers' income by means of a sectoral policy such as the CAP?

Table 1 Direct aids granted to European agricultural holdings in several EU member states (annual average over the period 2016–2019, in € and in %)*

Countries	% of EU-28 agricultural output	Number of farms (FADN)	Total amounts of direct aids				
			Per farm	Per Agricultural work unit (AWU)	Per hectare of utilised agricultural area (UAA)	In % of agricultural output	In % of farm income**
France	17.3%	295,300	29,600	14,900	336	15%	83%
Germany	13.0%	179,900	37,200	16,700	409	14%	86%
Italy	12.9%	560,400	9500	7200	448	13%	28%
Spain	11.7%	435,500	12,200	7400	262	15%	35%
UK	6.6%	100,700	39,100	18,000	248	15%	102%
The Netherlands	6.4%	46,700	18,200	6300	467	3%	21%
Poland	5.9%	738,100	6200	3900	313	20%	66%
Romania	3.8%	806,400	3200	2600	235	19%	45%
Greece	2.7%	336,000	6600	6300	672	30%	62%
Denmark	2.6%	26,000	39,700	20,800	357	9%	*
Ireland	2.0%	93,300	18,500	16,300	387	25%	72%
Hungary	1.9%	110,700	16,400	11,000	367	22%	76%
Belgium	1.9%	28,400	22,000	10,700	430	8%	34%
EU-28	100.0%	4,320,700	12,400	8100	360	16%	58%

This table presents statistical data for the top 13 European MS in terms of agricultural output. These 13 MS were ranked in descending order of their contribution to the EU-28 total agricultural output (column 1 of Table 1). (*) Information not relevant in the case of Denmark (because the average farm income was negative in this country). (**) When the rate was higher than 100%, this means that farm expenditure was higher than its revenue, including direct aids. Without the benefit of the latter, profitability would be negative

Source: European Commission, DG AGRI, EU FADN 2016–2019; INRAE processing, SMART research unit

Direct aids include here direct aids from the CAP's first pillar (decoupled direct aids, coupled direct aids, young farmers aids, etc.) and second pillar (climate and agri-environmental measures, aids to farms located in less-favoured areas, investment aids, etc.). While first-pillar measures are fully funded by the European budget, those of the second pillar are co-financed by national and regional authorities

Table 2 Direct aids granted to European agricultural holdings according to farming type (annual average over the period 2016–2019, in € and in %)

Specialisation	Number of farms	Total amounts of direct aids				
		Per farm	Per agricultural work unit (AWU)	Per hectare of utilised agricultural area (UAA)	In % of agricultural output	In % of farm income
(15) COP*	700,200	17,800	13,900	266	27%	112%
(16) Other field crops	460,300	13,700	9400	375	19%	65%
(20) Horticulture	142,400	3000	900	453	1%	6%
(35) Wine	230,400	4500	2600	297	5%	12%
(36) Orchards fruits	263,200	5300	3100	471	10%	25%
(37) Olives	171,700	7800	7400	554	27%	47%
(38) Permanent crops	97,200	5200	4500	441	17%	35%
(45) Cow milk	501,800	18,500	10,300	444	14%	56%
(48) Sheep and goats	339,800	13,700	9800	296	33%	82%
(49) Cattle	367,800	22,500	16,900	410	36%	127%
(50) Granivores	116,500	16,100	6700	402	4%	20%
(60) Mixed crops	187,600	6700	4500	344	15%	45%
(70) Mixed livestock	140,700	8500	5800	353	12%	67%
(80) Mixed crops and livestock	601,200	11,000	7500	349	21%	104%
All FADN farms (EU-28)	4,320,700	12,400	8100	360	16%	58%

(*) *COP*,cereals, oilseeds and protein crops

Source: European Commission, DG AGRI, EU FADN 2016–2019; INRAE processing, SMART research unit

Table 3 Direct aids granted to European agricultural holdings for two farming types (type 15 of farms specialising in cereals, oilseeds, and protein crops and type 45 of farms specialising in cows' milk) according to the farm size measured by the standard gross production (annual average over the period 2016–2019, in €)

	Number of farms	Total amounts of direct aids				
		Per farm	Per agricultural work unit (AWU)	Per hectare of utilised agricultural area (UAA)	In % of agricultural output	In % of farm income
Farming type n°15—farms specialising in cereals, oilseeds, and protein crops						
€2000 to €8000	196,500	2300	2500	267	39%	146%
€8000 to €25,000	222,800	6600	7200	291	40%	96%
€25,000 to €50,000	93,600	13,900	12,900	299	34%	112%
€50,000 to €100,000	86,000	23,800	18,600	280	30%	104%
€100,000 to €500,000	91,700	52,900	24,900	258	25%	111%
More than €500,000	9500	240,500	22,300	239	22%	136%
All farms	700,200	17,800	13,900	266	27%	112%
Farming type n°45—farms specialising in cows' milk						
€2000 to €8000	122,700	1200	1100	289	19%	47%
€8000 to €25,000	82,500	4800	3400	410	31%	66%
€25,000 to €50,000	62,000	10,100	6200	504	28%	64%
€50,000 to €100,000	71,700	16,600	9900	506	22%	57%
€100,000 to €500,000	140,600	32,300	15,800	434	13%	53%
More than €500,000	22,300	98,400	16,900	439	10%	63%
All farms	501,800	18,500	10,300	444	14%	56%

Source: European Commission, DG AGRI, EU FADN 2016–2019; INRAE processing, SMART research unit

Are decoupled direct aids an effective instrument for supporting farm income?

Within the theoretical framework of public economics (Laffont, 1988; Salanié, 2000; Varian, 1992), supporting farm income in any given country corresponds to an additional redistributive constraint in the national welfare maximisation programme. The attainment of this objective must therefore be sought by using the instrument (or set of instruments) that have minimal (if possible zero) distortionary effects on the allocation of resources (the factors of production). This means that the country should use the instruments that are as close as possible to lump-sum transfers of the theory.

From this perspective, theory and simulation research developed by the OECD (Dewbre & Short, 2002; Dewbre et al., 2001) shows that direct aids per hectare are more effective than aids coupled to the product or a guaranteed producer price, both of which are themselves more effective than direct aids based on a variable input such as mineral fertilisers. Moreover, direct aids based on hectares in a historical reference period are more effective than direct aid based on hectares in the current period. Supporting agricultural income through decoupled direct aids that are disconnected from production choices and levels is thus justified because this instrument maximises the transfer made to farmers (OECD, 2001) and minimises the distorting effects on trade, which allows their classification in the Green Box of measures authorised without limit at the WTO (Gohin et al., 1999; Guyomard et al., 2007).

Of course, the comparison is only valid for the instruments considered and within the analytical framework used, which assumes, notably, that there is pure and perfect competition in all markets (no economic actor can influence prices through the exercise of market power), that there are no uncertainties, and that expectations are rational (actors make the best use of all available information to make their predictions). Furthermore, the analytical framework of these studies measures farm income by the remuneration of the land factor under the assumption that the latter is the only input owned by farmers. It is therefore not possible to use this analytical frame to consider the question of the ultimate beneficiary of the transfer, i.e. the issues concerning its distribution between the owners of labour, land, and capital factors.

In practice, decoupled direct aids can have effects on transfer efficiency, production, and trade via four main transmission channels (OECD, 2001):

- in an uncertain world, they can have an impact on production choices and levels for reasons related to producers' attitudes to risk (via, for example, an insurance effect due to reduced income variability);
- through an income effect, they can influence the labour supply-and-demand decisions of farm households;
- they can influence the farmer's investment decisions by allowing easier and increased access to credit at better rates, by increasing equity and reducing debt;
- lastly, producers can anticipate that the historical basis on which the aids are based may be revalued upwards in the future.

These different effects also exist when income support is granted in the form of product-linked aids, production guaranteed prices, or aids based on variable inputs. This raises the question of orders of magnitude of the effects according to the instrument, a question that can only be addressed on an empirical case-by-case basis. From the studies already conducted on these points, it should be noted that the distortionary effects listed above are likely to be moderate, with the possible exception of the insurance effect (Andersson, 2004), as long as the support is granted in a decoupled form. Nevertheless, there are still too few studies that, similar to the one developed by Hennessy (1998), break down the impacts of different income support policy instruments into their various components.

Should a sectoral policy such as the CAP include a farm income support objective?

Answering this question first requires having a clear picture of farm incomes, farm household incomes, and living standards compared to those of other socio-professional categories. It then raises the question of supporting farm income through a sectoral policy such the CAP, more specifically through decoupled direct aids.

Measuring farmer and farm household incomes and living standards

With regard to measuring agricultural income, the statistical tools currently available are clearly inadequate. In 2016, the European Court of Auditors (ECA) considered that "there are no representative data on the disposable income of agricultural households which would facilitate the evaluation of the achievement of the Treaty's objective of ensuring a fair standard of living for farmers. Nor is there a reliable system for comparing farm incomes with those of other sectors of the economy, and thus justifying EU support for farmers' incomes" (ECA, 2016). In its response, the European Commission (EC) acknowledged the measurement problem by underlining that "individual indicators and tools have strengths and weaknesses, but the system as a whole offers the best possible balance between the need for information on the one hand, and the administrative constraints and related costs on the other". However, the EC refuted the conclusion that the effectiveness of the CAP with regard to the farm income support objective could not be assessed on the basis of income from agricultural activity alone, noting that data on income from agricultural activity were representative and that it was appropriate to use these data to assess the performance of the CAP measures to support farmers' incomes.

At this stage, it is worth establishing some more precise definitions. Two perennial sources can be used to measure agricultural incomes: the Economic Accounts for Agriculture (EAA) at the macroeconomic level and the FADN at the microeconomic level (ECA, 2016; Hill & Dylan-Bradley, 2015).

The EAA allows the income of the primary production factors labour, capital, and land to be calculated. The so-called *agricultural business income* is derived from the *primary production factor income* by subtracting the remuneration paid

to employees, rent on land, and the balance between interest payable and receivable. This agricultural business income can be used to pay for the factors of production owned by the farm itself (work of family members, owned capital, and owned land). Both indicators include all forms of budgetary support whether of European, national, and/or regional origin. This inclusion limits their relevance when it comes to assessing the macroeconomic effectiveness of the CAP alone with regard to the objective of agricultural income support. In relation to AWUs (total for the *primary production factor income*, self-employed for the *farm business income*), the two indicators are used to compare farm incomes with those of other socio-professional categories. This comparison poses difficulties notably because of the uncertainties involved in measuring agricultural working hours (Bureau, 2018). Finally, the EAA do not take account of the income of agricultural households from activities that are not strictly agricultural, whether they use the farm's resources or they are undertaken outside of it. As a result, the EAA do not enable an assessment to be made of agricultural households' disposable income and living standards.

The same is true for FADN (European Commission, 2021). The microeconomic indicators constructed from this information source suffer from shortcomings inherent in the population covered by the sample (with notably the exclusion of the smallest structures), in the construction of the indicators, and in the scope of the activities taken into account. Thus, comparing the distribution of farm incomes based on gross farm value added (the difference between the value of production including aids and intermediate consumption) or net farm value added (the gross farm value added less depreciation) means not taking into account land rents or loan interests. Furthermore, other incomes from activities related to agriculture are imperfectly reported, unrepresentative, and not comparable between MS (ECA, 2016). In short, the FADN cannot provide comprehensive and robust information on farm household disposable incomes and living standards (Piet et al., 2020).

More generally, the question of the wealth (or poverty) of farmers relative to other socio-professional categories is challenging to investigate for three main reasons. Firstly, farm income calculated over a year says nothing (whichever indicator is used) about the process of capital accumulation that takes place within the farm enterprise and whose future beneficiary is the farmer (Bourdieu et al., 2014; Enjolras and Sanfilippo, 2019). Secondly, agricultural land, which often forms a significant part of the accumulated capital mentioned above, is increasing in value in most MS (Loughrey et al., 2019). Thirdly, farm households often benefit from advantages that are not included in the various income indicators even though they contribute to improved living standards. These advantages include access to low-cost food through self-consumption, low housing costs, and the imputation of certain expenses to the farm. In contrast, in addition to the possible isolation experienced, farmers' standards of living can be negatively affected by difficult access to public (education, health, etc.) and private (internet, cultural, leisure, etc.) services.

The accumulation of assets, particularly professional assets, is significant in agriculture (for an illustration in the French case, see Bessière et al., 2011). This accumulation is a delayed income that responds to the two motivations of precaution (to hedge against the risk of fluctuating current incomes) and foresight (to offset low

future pensions). In France, the 2018 wealth survey showed that the median gross wealth of a farm household was 613,700 euros, an amount that was more than 3.7 times higher than the median gross wealth of the French population (163,100 euros). As with current income, this average figure masks disparities among farmers: it was over €1.79 million for the 10% of farmers with the highest incomes but less than €152,300 for the 10% with the lowest incomes (INSEE, 2021).

The conclusion is therefore striking: there is an urgent need to develop, at both EU and MS levels, a statistical system that will make it possible to assess the reality of agricultural households' income, living standards, and assets.

Should CAP decoupled direct aids be maintained?

In addition to the shortcomings of the statistical methods used and the difficulties in assessing and comparing farm households' income and living standards, the explicit objective of supporting income from agricultural activity is challenged by three main arguments (Saint-Paul, 2007). Firstly, there is no economic justification for redistributing income to households based on their sector of activity rather than on their standard of living. Secondly, low-income farmers must benefit from collective solidarity as poor people, not as farmers. Some authors go even further by stressing that this redistribution must be implemented at MS level so as to take into account local specificities. Thus, according to Thibault and Cherbonnier (2015), "there is no reason for this to be done through a European budget". Lastly, some question the very existence of the CAP given the urgency of other European issues that may be considered of greater importance.

Despite the limitations of statistical tools and the questions raised above, it nevertheless appears that the income from the agricultural activity of a large number of European farms depends on CAP budgetary support, more specifically on decoupled direct aids. This dependence implies that the reorientation of these aids towards objectives other than agricultural income support alone can only be implemented in a progressive and programmed manner. There is, however, the risk that, reform after reform, the defence of acquired advantages leads to maintaining the status quo and weakening the agro-ecological transition process of European agriculture by lowering its ambition and increasing its duration. The history of 30 years of CAP reforms is a reminder of this. The future CAP that will apply from January 2023 is no exception (Guyomard, 2021; Guyomard et al., 2020b).

European authorities and national governments must therefore show real political courage. It has been demonstrated that international pressure has been able to act as a catalyst, through the Uruguay Round multilateral agricultural negotiations, to initiate the process of bringing European and world prices closer together. Today, this process is almost complete. To date, the environmental and health issues to be resolved, as relayed by society, have not been sufficient to be the catalyst for significant changes in the CAP in order for it to be genuinely focussed on the agro-ecological transition of agricultural and agri-food systems and, in this context, on correcting market failures that are numerous in agriculture and providing public goods linked to environmental protection and public health concerns (Guyomard et al., 2020b).

A reorientation such as this does not mean that the income of the lowest-income farming households should not be supported. This could take the form of a minimum income covering basic needs, the level of which should be set at national or even regional levels. If it is not possible to rely sufficiently on collective solidarity in all MS, this reduction in agricultural poverty could be an explicit objective of the CAP. In spite of methodological limitations that mean that it is not possible to speak of causalities but only of correlations, a World Bank study suggests a positive link between the CAP on the one hand and poverty reduction and the creation of more highly-paid agricultural jobs on the other. However, there remain significant differences between MS depending on their position in the process of the structural transformation of their economies (World Bank, 2017). In addition to granting a minimum income in the agricultural sector, the World Bank study suggests that it is important to differentiate the relative importance of the CAP objectives and the instruments targeted at economic and social objectives depending on MS characteristics and specificities. In the lowest-income countries and regions of the EU, priority must be given to establishing the basic conditions without which there can be no prosperous agricultural sector (transport and storage infrastructure, market creation and structuring, development of producer organisations, effective advice, etc.). In all MS, this targeting can be extended to new forms of agriculture, which can be grouped together under the unifying term of agro-ecological agriculture, and to renewed forms of processing, marketing, and distributing agricultural products (on-farm processing and sales, short food supply chains, etc.). In all these situations, there is a pressing need to correct market failures and to increase agriculture's provision of public goods.

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