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DISTRIBUTIONAL EFFECTS OF AGRICULTURAL SUPPORT IN SELECTED OECD COUNTRIES

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Foreword

This study examines the distributional effects of agricultural policies using OECD structural data and support estimates to compare the distribution of support with that of output and income in OECD countries that have a wide diversity of structures and policy measures. Agricultural policies are evaluated with regard to the operational criteria of equity and targeting, identified by OECD agricultural ministers at their meeting in March 1998.

This report was prepared by Catherine Moreddu of the Directorate for Food, Agriculture and Fisheries. It was declassified by the Committee for Agriculture in November 1999 under the responsibility of the Secretary-General.

TABLE OF CONTENTS

Tables

Figures

Boxes

EXECUTIVE SUMMARY

This study examines the distributional effects of agricultural policies in the mid-1990s. For a selection of OECD countries with a diversity of structures and policy measures, it analyses the distribution of support -- direct payments and market price support -- between farms grouped according to economic size, type of production and region. Comparing the distribution of support with that of output and income, the study evaluates agricultural policies with regard to the operational criteria of equity and targeting, identified by OECD agricultural ministers at their meeting in March 1998.

Two OECD databases were used to carry out the study. The Structural Indicators database contains information on output, direct payments and incomes for particular types of farms grouped into quartiles based on gross sales. Estimations of Market Price Support for a number of commodities are drawn from the Producer Support Estimate database. Various indicators of concentration and dispersion are calculated based on variable averages by farm group.

The analysis shows that the distribution of support is similar to the distribution of output, the largest farms, and hence the most prosperous ones, being the main beneficiaries. In this sense, support is inequitable. However, in most countries, support overall has a slight redistributional effect on income by farm size because its distribution is slightly more equal than output. On the other hand, support tends to increase income disparities between farm types. On average, direct payments are more equally distributed than market price support and output but the difference is small. In all cases, when taking non-agricultural incomes into account, the income difference across farms by size, type and region is reduced.

The fact that support as a whole is concentrated on the largest farms could well reflect a policy objective that seeks to promote large farms. Small farms receive only a small proportion of the total even though they are more dependent on support than large ones. Despite the existence in some countries of payments targeted to smaller farms, their share in total support is too small to influence the overall distribution.

In conclusion, even if support achieves its objectives with regard to income, it does not do so cost effectively or equitably. Thus providing support in order to limit the incidence of low incomes in the sector when the bulk of that support goes to the largest farms, is more expensive than providing income supplements only to those households that really need them. Similarly, in order to reduce income disparities in the sector, measures targeting less favoured farms would be more cost-effective. Moreover, concentrating support on the largest farms does not encourage them to improve performance and hence has a cost in terms of the sector's economic efficiency. Overall, this study suggests that targeted social policies would be much more appropriate as a way of limiting the incidence of low incomes among farm households.

DISTRIBUTIONAL EFFECTS OF AGRICULTURAL SUPPORT IN SELECTED OECD COUNTRIES

1. Introduction

The issue of inequality and distribution is central to government concerns. It relates to household income, household assets and government transfers. In OECD countries, tax and social transfers are often devised in such a way as to alleviate income inequalities, if it is not their main aim. But when it comes to sectoral policies, government transfers are not always aimed primarily at distribution, even if they do have social repercussions. In agriculture, there have been concerns about poverty among farm households, about income inequality compared with other sectors, and about income distribution within the sector. Furthermore, as transfers to agriculture become more visible with the growing use of direct payments, the issue of transfer distribution is becoming the focus of public and political debate, fuelled by the prevailing climate of budgetary constraints and trade-offs.

As part of the Programme of Work 1995-96 on "Policies and adjustment in factors of production at the farm level", a report on the distributional effects of agricultural support was submitted in June 1996 to the Working Party on Agricultural Policies and Markets [AGR/CA/APM(96)12]. Drawing on studies in OECD countries, it set out the various policy approaches to distributional issues, and discussed available information. It concluded that, in most OECD countries, distributional issues were the focus of widespread and growing interest as farm structures became more concentrated and market price support was replaced by direct payments that were transparent and could be targeted. The information available revealed a wide range of situations reflecting different agricultural structures and different levels of commodity support. The pattern observed was that agricultural support was by and large very unequally distributed among farms and farmers and often concentrated on a small number of commodities, in certain regions and on larger farms, thereby accentuating income disparities.

The report found three types of limitations in the studies it examined. The first was data availability, which was highly variable across countries, and data quality, in particular the narrow definitions used for target populations in some countries. The second limitation was that some studies were out of date, and the third was that market price support was often not taken into account. While the OECD cannot address the first of these limitations, a proposal for work to resolve the other two was approved by the Working Party.

The proposal for further analysis approved in 1996 is taken up in this report. The idea is to develop a harmonised framework in which to analyse the distribution of direct payments and market price support, and to compare it with the distribution of output and income in a selection of OECD countries with a wide range of structures and government policies. How well existing policies deliver support to specifically targeted populations or areas will also be analysed. The study is based on the PSE database (Producer Support Estimate, see Box 1) and the OECD structural indicators database. It contributes to the analysis of issues identified by OECD Ministers of Agriculture as priority areas for future work in the Communiqué issued following their 1998 meeting (paragraph 17, point 4): '*identify and analyse existing*

and new policy approaches to address issues related to structural adjustment in the agro-food sector, rural development, farm incomes, farm employment, income risk management, and food security and food safety'. It attempts to see whether agricultural policies meet the operational criteria identified by the Ministers, in particular whether they are targeted and equitable.

Following this introduction, Section 2 of the report examines distributional issues in the context of agricultural policies. The methodology used in the study is then described in Section 3. Section 4 presents the findings of a statistical analysis comparing the distribution of output, support and income between groups of farms, depending on their economic size, farm type, and region. Section 5 contains some concluding remarks on the distribution of support, how equitable it is, particularly in terms of distributional capacity, and on the efficiency of policies at targeting support to populations identified in policy objectives.

2. Distributional issues relating to government support for agriculture

Factors affecting the perception of distributional issues

Visibility

The issue of the distribution of farm support is more crucial the higher the **level of transfers**. For reference, Box 1 presents an estimate of the level of producer support and its composition in the countries that are the focus of this report. While market price support is the dominant form of support in most OECD countries, the share of **budgetary payments** is growing, thereby making transfers more visible. It is easier to question the distribution of budgetary payments because, unlike market price support, there is scope to alter it, particularly by more precise targeting.

By and large, the more glaring the **disparities** in the distribution of support, the greater the criticism. The disparities may stem from differences in the level of support across commodities (see Box 1). Inasmuch as support is tied to output, disparities are also linked to structural factors such as size, specialisation and region. Structural adjustment often tends to widen the size gap between farms, with the development of large specialised units on the one hand and small pluriactive farms on the other, to the detriment of medium-sized holdings. Disparities between farm types are linked to differences in the level of support by commodity, which are determined by agricultural policy. Disparities between regions stem from these factors, i.e. size and specialisation, but also from natural features specific to each region.

Support measures and their distribution may also be called into question when they are seen to have failed to achieve their goal, notably in terms of farm income. In fact, the farm income of a large number of the smallest farms is low in absolute and relative terms. The development of income diversification, in particular from non-agricultural activities, tends to reduce income disparities among farmers and relative to other sectors of the economy. By making households less dependent on farm income and hence on support, it makes the unequal distribution of both less visible.

Box 1. Producer Support Estimate

The **Producer Support Estimate (PSE)** is an indicator of the annual monetary value of gross transfers from consumers and taxpayers to support agricultural producers, measured at farmgate level, arising from policy measures which support agriculture, regardless of their nature, objectives or impacts on farm production or income.

The PSE comprises Market Price Support (MPS) and budgetary payments to producers, classified according to implementation criteria given in the table below. **Market price support** is an indicator of the annual monetary value of gross transfers from consumers and taxpayers to agricultural producers arising from policy measures creating a gap between domestic market prices and border prices for a specific agricultural commodity, measured at farmgate level.

The table below gives the level and breakdown of PSE for a selection of OECD countries examined in this report and for the OECD area as a whole. It highlights differences in the level of support across countries. It also shows that the share of MPS declined in the OECD area between 1986-88 and 1996-98, but it remains the main type of support in most Member countries.

Level and composition of Producer Support Estimate

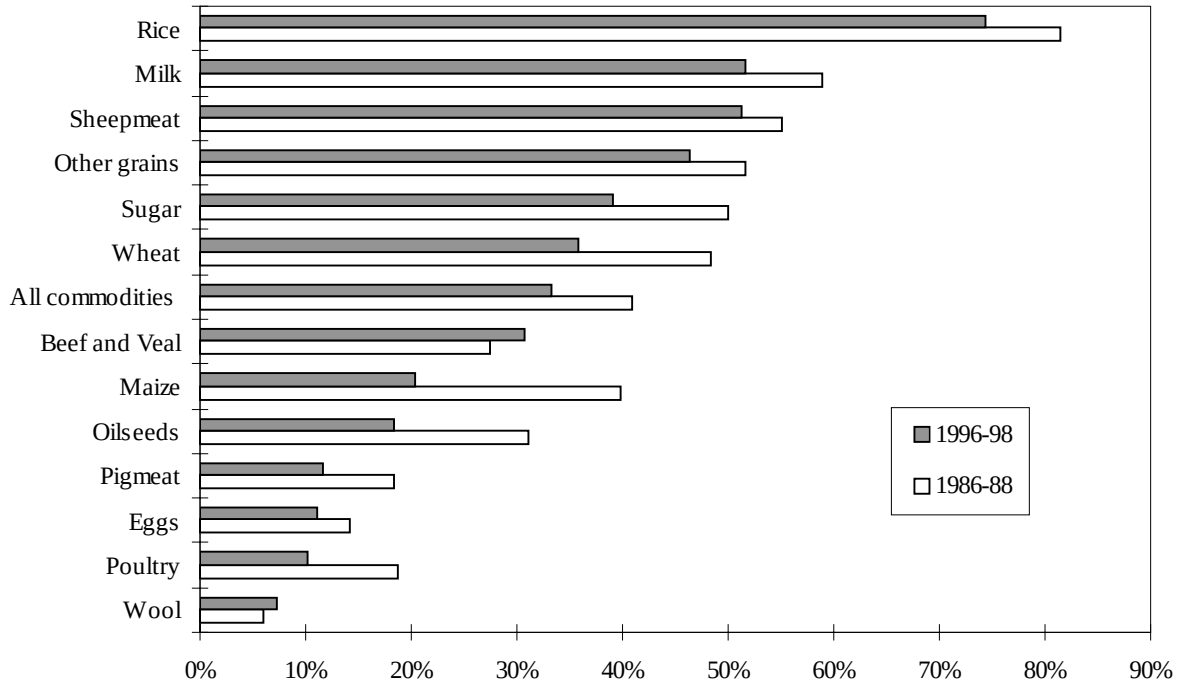
		Percentage PSE	Market price support	Payments based on:						Miscel-laneous payments
				Payments based on output	Area planted / animal numbers	Historical entitlements	Input use	Input constraints	Overall farming income	
			(as a percentage share of the PSE)							
Australia	1986-88	7	55	0	0	0	17	0	22	7
	1996-98	6	54	4	0	0	20	0	16	6
Canada	1986-88	34	49	17	17	0	15	0	0	2
	1996-98	15	55	9	4	11	12	0	9	0
European Union	1986-88	46	84	6	2	0	7	1	0	0
	1996-98	39	52	4	29	1	9	4	0	1
Japan	1986-88	65	90	3	0	0	4	3	0	0
	1996-98	63	92	2	0	0	4	2	0	0
New Zealand	1986-88	11	26	0	0	20	45	0	9	0
	1996-98	1	78	0	0	0	22	0	1	0
Switzerland	1986-88	74	87	1	6	0	2	0	0	3
	1996-98	69	65	1	15	12	3	1	0	3
United States	1986-88	26	47	7	26	0	13	2	2	3
	1996-98	17	50	1	2	19	15	6	3	5
OECD	1986-88	41	77	5	6	0	8	1	1	1
	1996-98	33	67	3	13	4	9	3	1	1

Source: OECD, 1999.

Box 1 (*cont.*). Producer Support Estimate

The figure below gives the Producer Support Estimate for each commodity, as an OECD average. It reveals major disparities in the level of support for staple commodities.

Producer Support Estimate by commodity
(OECD average as % of value of gross farm receipts)



Notes:
Products are ranked according to 1996-98 levels.
For more detail, see Table III.6.
Source: OECD, PSE/CSE database.

Budgetary trade-offs

Direct payments may run up against budgetary constraints. In such a climate, sectors of the economy compete more keenly for resources, as for example agriculture and healthcare. It also becomes more important to justify transfers between economic actors (producers, consumers and taxpayers), as well as the degree of progressiveness of taxes and transfers[1]. Taking from the poor to give to the rich becomes unacceptable. These issues have led to the idea of imposing individual ceilings on payments to farmers. The idea has been put into practice in Canada and the United States for instance, and was recently

1. The issue of the distribution of the benefits of support as opposed to that of levies on consumers and taxpayers has been studied by Josling and Hamway (1972) and more recently by Renwick and Hubbard (1994).

discussed but not adopted by the European Union as part of the reform of its Common Agricultural Policy (Agenda 2000).

In a context of budgetary constraints, concern with ensuring that existing resources are used efficiently also takes on paramount importance and there is a growing need to evaluate policy outcomes in relation to their cost. As a result, steps may be taken to target support to the populations identified in farm policy objectives, for instance low-income households or less favoured regions, so that policies are more cost-effective, while resulting distortions of production and trade are minimal.

Societal choices

The relative importance that society attaches to economic efficiency versus equity affects people's attitude to the distributional impact of government transfers. While a society concerned with equity will try to adjust unequal income distribution by means of government transfers, concern with economic efficiency dictates that small, uncompetitive producers should not receive support. Furthermore, delivering support to large producers who have no need of it runs counter to the notions of both economic efficiency and equity.

Equity: policy objective or operational criteria?

Equity and social justice are philosophical concepts that have been interpreted in many ways, particularly in economic theories. The etymology of the term "equity" reflects an idea of equality and thus equal sharing, whereas social justice may be based on other rules of sharing, defined by society and by the law (Blanchet, 1997). Piketty (1997) maintains that there is a degree of consensus on several fundamentals when it comes to social justice. For instance, if inequalities are due to factors over which the individual has no control, it is fair to take the most efficient steps possible to remedy it and improve the situation of those least endowed with those factors. Politicians differ as to which instruments should be used to improve distribution, since some operate at the structural level, i.e. factor allocation, and market forces, while others are confined to social transfers.

Theoretical debate on the issue of equity often focuses on overall adjustment of income inequalities via redistributive taxation. It may be asked whether the equity criterion can also be applied to specific policies, or should be confined to government transfers as a whole. What does equity mean within a sectoral framework such as agricultural policy, for instance? Is the concept warranted at the sectoral level? Should it apply to the objectives or to the consequences of a policy?

Agricultural policies have multiple objectives, sometimes contradictory. In many countries, the notion of equity is contained, explicitly or implicitly, in some objectives, in particular those related to income. Transferring public funds to the sector to bring incomes into line with incomes in other sectors of the economy is a widespread goal for agricultural policies in OECD countries. This issue has been the focus of an OECD study (1995*a*). The main conclusions of that study are updated and summarised in Box 2. Using support to eliminate income disparities in the sector can be an explicit or implicit goal inasmuch as a minimum income target is set for each farmer. But support is rarely granted on the basis of a farm household's overall income.

When it comes to transfers, paying attention to equity does not mean that the distribution of transfers should be equal among all individuals but that, at best, it should reduce income inequalities and, at worst, not increase them. As indicated in the previous section, equity concerns can also apply to the wider distributional implications of policies on the consumer and taxpayers who finance the support. With market price support, lower income consumers pay a disproportionate share of transfers relative to their

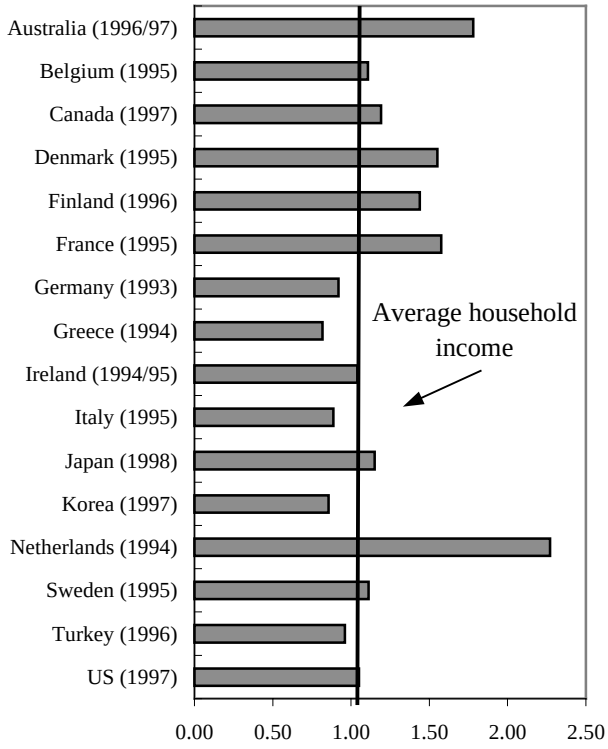
income share. In the case of budgetary transfers, the distribution effects depend on how progressive or regressive the taxation system is.

Finally, whatever the objective of a particular policy instrument or transfer, it may be legitimate to evaluate its impact in terms of equity. In March 1998, OECD ministers of agriculture identified equity as one of the operational criteria for policy measures. The Communiqué of their meeting accordingly recommended that policy measures be equitable, i.e. that they take into account the effects of the distribution of support between sectors, farmers and regions (OECD, 1998*a*). We will therefore try to evaluate current policies against this criterion. However, in doing so, it should be kept in mind that equity is not always an objective of agricultural policy, it is never the only one and is often not the main one.

Box 2. Income parity between agriculture and other sectors

The graph below compares the average total income of agricultural households to that of all households (except for Japan and Korea as indicated in the note to the graph) for the most recent years available. It shows that, in most countries, agricultural households have, on average, an income equal to, or higher than, the income found in the total population or in other sectors, when all income sources are taken into account. The parity objective is thus achieved in many countries.

Total income of agricultural households as a proportion of the average income of other households



Notes: In most countries, the total income of agricultural households is compared to the average income of all households except in Japan (workers' household income) and in Korea (urban household income). The definition of farm households and the incomes taken into account vary by country (See sources). A broad definition of a farm household is used in Canada, Denmark, Finland, Japan, Korea and United States while a narrow definition is used in other countries. In Australia, agricultural data cover only broadacre industries.

Source: OECD (1995*a*); OECD (1998*c*), Figure 14; Eurostat (1998*), Income of the Agricultural Households Sector, 1997 Report,* Luxembourg.

Are policies targeted?

In terms of distribution, the policy measures recommended by OECD Ministers of Agriculture in their Communiqué should be not only equitable but also targeted to specific populations and outcomes, as defined by agricultural policy objectives. One of the populations most commonly intended as the target of farm policies, explicitly or implicitly, is **low-income households** but in OECD countries, the bulk of support is not targeted and is linked to output or input levels. As an OECD study of farm household income has shown, problems stemming from income deficiencies are generally localised and therefore warrant specific measures (OECD, 1995*a*).

Agricultural policy also purports to target **less favoured areas** using specific rural development and structural adjustment policies. The resources allocated to these policies are on the increase in most OECD countries, but in all cases remain relatively modest and well below market price support (OECD, 1998*b*).

With regard to **farm structures**, there are specific policies to slow down or accelerate structural adjustment. However, the impact of the dominant policies linked to output levels or input use such as market price support is ambiguous (Tweeten, 1993). Large farms receive much of the benefit from such support, which, by making them wealthier, may foster concentration. However, a high level of support also enables small farms to remain in the sector, even if their share of support is relatively small. Support devised to redress income inequalities would have an even greater tendency to maintain low-income, low-output producers in the sector .

From the Producer Support Estimate (PSE), it is clear that some **commodities** are encouraged with higher levels of support than others, although this is not always an explicit agricultural policy objective (see Box 1).

Finally, other forms of support targeted at environmental goals or the provision of non-market services are developing, but the budgetary resources allocated to them are still low.

This section attempts to clarify how distributional issues are addressed within the framework of agricultural policies. The following sections of this report aim to provide some information on the distributional impact of agricultural policies.

3. Methodology

This section begins with a description of the databases used to analyse the distribution of output, support and income among farms grouped by size, type of farming and region. It then explains the calculations required to identify market price support by farm group, and describes the various statistical indicators used to analyse distribution. It is worth noting that, when comparing support (market price support plus direct payments) with output or income, it is assumed that all support is fully transferred to producers as additional income, whereas in reality part of the support, which varies with the type of measure, goes towards the purchase of inputs and makes the transfer less efficient with regard to income[2].

2. This issue has been addressed in "Transfer Efficiency of Agricultural Price Support" (OECD, 1995*c)*. This study concludes that, at the margin, less than two-thirds, perhaps as little as one-fourth, of what consumers and taxpayers pay out in price support to farmers translates into additional net farm income. As one important parameter affecting transfer efficiency is the elasticity of farm supplied resources used in the production of supported commodities, payments not linked to production may be a considerably more

Data used

An analysis of distributional issues requires structural data on farm holdings. These have been collected by the Secretariat as part of the **Structural indicators project**, details of which can be found in AGR/CA/APM(96)10 (OECD, 1996*b*). The structural indicators describe the physical characteristics of farms (land use, livestock numbers) and contain financial information on farms and farm households (accounts and balance sheets), as well as demographic information on farm households (age of farm operator).

The structural indicators database covers all of the European Union countries individually and as a group, Australia, Canada, Japan, New Zealand, Switzerland and the United States. The number of years covered varies across countries, ranging from over 20 for Denmark to a single year for Switzerland, and farm-type definitions are specific to each country. The most recent years in the OECD base range from 1994 to 1996. They accordingly reflect the policies prevailing at those dates.

Data sources and sample characteristics are described briefly in Annex 1. They are drawn from farm surveys or samples based on tax data. The data used here are extrapolated to the whole of the population represented, with the exception of Japan, Switzerland and New Zealand, where only the sample average is available.

To rank farms by economic size in ascending order, they are grouped in quartiles according to gross farm sales. The quartiles are calculated from individual data, which required co-operation from Member countries. This option was chosen because the use of a relative classification system allows inflation to be ignored when making comparisons over time. Classifying by economic size also facilitates intersectoral comparison. Further explanations are given in OECD (1996*b*).

International comparison is difficult since the farm populations represented differ across countries. To obtain the broadest possible picture of the farming sector, we have retained individual country definitions. The country definitions are briefly set out in Annex 1 but further details on the subject can be found in an OECD review of farm household incomes [OECD/GD(95)97] (OECD, 1995*b*). To define farm holdings, a minimum acreage and/or turnover, which may be more or less restrictive, and in some cases an upper limit is generally applied. Time devoted to farming or the income derived from farming compared with other sources of income may also constrain the definition of a farm operator. Canada, Denmark, Finland, Japan and the United States use a broad farm definition. The FADN (Farm Accountancy Data Network), which contains harmonised data for all EU countries, is confined to holdings where farming is the main source of income, i.e. where over half of the household income is derived from farming or where the operator devotes over half of his time to farming. The test-farms in the Swiss survey are even more markedly narrowly defined.

While many countries have information on farms, fewer have corresponding information on farm households. The database on structural indicators contains data on the off-farm income of farm households in Australia, Japan, the United States, Denmark and the Netherlands. While the RICA network does not cover total farm household income, surveys in some Member countries do.

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effective means of providing support to farmers, although not costless when administrative and taxation costs are taken into account.

The variables from the structural indicators database to be studied from the standpoint of distribution are output value, direct payments to farmers[3], net operating income[4], farm income and total household income, where available (a list of country definitions of these variables is given in Annex 1).

Studying the distribution of overall producer support involves estimating market price support in each of the farm groups and adding it to direct payments as contained in the structural database. This means taking the sales value of each commodity combined with the information in the **PSE database** (Producer Support Estimate). This database contains, for the European Union and for every other OECD Member country, the estimated market price support for a common list of commodities, namely wheat, maize, barley, sorghum, rice, oilseed rape, soybean, sunflower, sugar, milk, beef, pigmeat, poultry, eggs, sheepmeat and wool. The methodology used to calculate PSEs is described in Volume II of the OECD's annual report "Agricultural Policies in OECD Countries: Monitoring and Evaluation" (OECD, 1999).

Calculating market price support

The PSE database is used to calculate the ratio (Ri) of market price support (MPSi)[5] to output value (VTi) for each common commodity i (1). Average ratios are calculated for commodity groups and for all the common commodities. For each quartile or farm group, an appropriate ratio is applied to the sales value of each commodity or group of commodities identified in the structural database (VVxi) (2). For commodities that are not on the common list, the average ratio for all common commodities is used. As when calculating total transfers, the rate of market price support for other commodities is therefore assumed to be the average rate for the common commodities[6]. Market price support for each farm group (MPSQx) is therefore the sum of price support for each commodity (MPSQxi) (3).

For each common commodity or group of commodities i = 1 to n,

(1) $R_i = MPS_i / VT_i$

For each group x and for the farm average,

(2) $MPSQx_i = R_i \,.\, VVx_i$

(3) MPSQx = SUM(MPSQxi) for i = 1 to n

3. These are the direct payments contained in the structural indicators database. They correspond to payments actually made to farmers and recorded in farm accounts. The entire study is based on these payments, rather than the payments in the PSE database. The payments in the structural indicators database are usually presented as aggregates and it is impossible to distinguish the categories used in the PSE database.

4. Net operating income is farm income before depreciation.

5 . The market price support on domestically produced coarse grains and oilseeds used as animal feed (excess feed cost) is not deducted from the market price support for livestock products.

6. The margin of error when evaluating market price support in this hypothesis depends on the proportion of common commodities in the group's average output. At the June 1999 meeting of the Working Party on Agricultural Policies and Markets, it was decided that, in countries where common commodities account for less than 70 per cent of the value of agricultural production, market price support will be calculated for additional commodities in order to improve the estimate of market price support in the PSE but these calculations are not yet available.

Indicators

Using the **average value** of each population group (quartile, farm type or region) for the variables given above, some simple indicators were calculated. They are defined in Box 3, which also contains the terminology used to describe the distribution of the variables in the text, based on these indicators.

Box 3. Indicators and terminology used to describe the distribution of variables

In the following text, we have endeavoured to use consistent terminology depending on the indicator described. These indicators are given in the background tables in Annex 2

The contribution of the group to the population as a whole is obtained by multiplying the variable average by the number of farms in the group, divided by the total value of the variable for the whole population. In the text, the contribution of the last quartile to the total value of the relevant indicator is used as a measure of **concentration**. Concentration can also be illustrated by Lorenz curves or Gini coefficients.

A **Lorenz** (or concentration) **curve** represents the cumulative proportion of a variable as a function of the proportion of the population contributing to (accounting for) this variable. Axes vary between 0 and 1 and the equality line is the first diagonal. The distance between the Lorenz curve for the variable and the equality line indicates the **degree of inequality of distribution** for the variable. The further the distance, the more concentrated the variable and the more unequal the distribution.

This distance can be measured by **Gini coefficients**[7]. These are twice the area between the Lorenz curve and the first diagonal. The greater the inequality, the higher the coefficient. When based on individual data, it ranges from 0 to 1. When based on group averages, as here, it is undervalued, especially since there are very few groups. The Gini coefficients used in this study and based on quartiles should therefore be viewed only in relative terms, between variables for the same country.

In this study, various **ratios** are used to compare group averages, relative to each other or to the total average. In particular, the range between the first and the last quartiles, i.e. the difference between the averages for the last and first quartiles, as a ratio of the average for the population as a whole is used to measure **dispersion**. **Disparity** is used more generally to describe gaps in the average level of the variable in various groups.

The share of farm income in total income, where computable, measures **household dependency on farming**. Direct payments and total support (direct payments plus market price support) are then compared with total receipts, gross operating income and farm income to give an indication of the farm group's **degree of dependency on support**.

7 . $$Ig = \frac{\sum_i \sum_j | x_i - x_j |}{2n(n-1)x_m}$$ for i = 1 to n and j = 1 to n

where x_i et x_j are the average of group i and group j respectively, and
x_m is the average of the whole population.

4. Findings on the comparative distribution of output, support and income

As indicated in Section III, the list of available countries and years is not comprehensive, and we have accordingly opted to illustrate the wide range of situations found in OECD countries with representative examples. First, the averages of variables and indicators by quartile based on the economic size of farms ranked in ascending order are given for all the available countries and for the most recent year covered by the structural indicators database (Annex Tables A1, A2, A3, A4)[8]. Trends in the distribution of output, support and income by quartiles are then shown for four countries, namely Denmark, Finland, Japan and New Zealand, from 1979 onwards, the first year for which PSEs are available, or from 1985 and up to the mid-1990s (Annex Tables A5, A6, A7, A8). The differences in distribution between farm types are illustrated by Canada, Denmark and the European Union, for 1995 (Annex Tables A9, A10, A11). Finally, the example of Denmark and Switzerland for 1995 illustrates the disparities between regions or geographical areas (Annex Tables A12, A13).

Distribution of output, support and income by farm size

As stated in the section on methodology, the definition of the farm population covered by the structural data is more or less broad depending on the country. This is reflected in the share of farm income in total income, where available, and in income dispersion. The broader the definition used for farms (Canada, Denmark, Japan, United States), the smaller the share of farm income in total income and the greater the income farm dispersion. In particular, negative farm incomes in the first quartile occur only when coverage is broad (Canada, Denmark, United States). Similarly, a narrow definition reduces the dispersion of output: in countries using a narrow definition, the ratio of average output in the fourth quartile to that in the first is in general less than 10, while in broad definition countries, it ranges between 20 and 90 (Annex Table A3). The most extreme case of a narrowly defined population is Switzerland, where this ratio is less than 3 and the share of farm income in the total is over 75 per cent in every quartile (Annex Tables A1 and A3).

Concentration can be characterised by the share of the last quartile, i.e. the top 25 per cent of farms in terms of gross sales, in the total value of the variables under review. Depending on the country, this share ranges from 40 to 75 per cent in the case of output. The share of market price support received by the last quartile ranges from 43 to 79 per cent. In some cases this is higher than its contribution to output value and in some cases lower, depending on specialisation and the level of support for each commodity. The percentage of direct payments received by this group ranges from 26 to 65 per cent. It is always lower than the group's contribution to output, but to a relatively minor extent. The maximum gap -- 19 percentage points -- is observed in the United States, followed by the European Union where the gap is 15 percentage points. This reflects the fact that most direct payments paid to producers in OECD countries are still tied to output levels and/or input use. The fact that output value includes direct payments should not substantially affect the scale of the difference since the share of direct payments in output value does not exceed 16 per cent, except in Finland. An analysis of the distribution of the various types of direct payment is presented below, by farm type and by region.

The effect of support on income concentration can be judged from the share of support received by the last quartile compared with its contribution to output (Table 1). When support is more concentrated than output, income concentration is accentuated. This is the case in Canada and Switzerland. Support is more concentrated than output in Canada because the last quartile contains most of the country's dairy

8. In the OECD structural database, the most recent years range from 1994 to 1996 depending on the country. Thus, the support analysed here in terms of distribution corresponds to the policies implemented during those years.

output, with milk receiving some 90 per cent of total market price support. The last quartile thus receives a higher share of total net operating income than its share of output. Switzerland is a case apart: in spite of some decoupled direct payments (Annex Table A13) and the equal distribution of total direct payments between quartiles, total support has practically the same distribution as output since total payments account for only a small share of support (23 per cent on average) and the last quartile covers a relatively high proportion of intensive farms (poultry and eggs) which received a higher rate of market price support and a somewhat lower rate of direct payments in 1995. Yet income is less concentrated than output, owing to the distribution of costs by specialisation and, in particular, the high proportion of intensive farms in the last quartile.

In all the other countries, support is a little less concentrated that output and thus attenuates income concentration to a very slight extent. In Denmark, however, income is more concentrated than output, indicating that large farms account for a lower share of production costs owing to their production mix. In the United States, the concentration of farm income cannot be calculated as the three bottom quartiles have, on average, negative farm incomes, reflecting the broad definition of a farm household used.

Table 1. Comparative concentration of output, support and net operating income in the last quartile

Country	(+)	Variables ranked in descending order of concentration in the last quartile (1) as a share of all farms (%)		(-)
Australia	NOI (62)	Output (58)	Support (51)	
Canada	NOI (73)	Support (71)	Output (70)	
Denmark	NOI (73)	Output (71)	Support (64)	
European Union	Output (72)	Support (68)	NOI (63)	
Finland	Output (60)	NOI (58)	Support (57)	
Japan	Output (70)	NOI (69)	Support (68)	
Netherlands	Output (57)	NOI (56)	Support (46)	
Switzerland	Support (39.5)	Output (39.3)	NOI (34)	
United States	NOI (n.c.)	Output (90)	Support (88)	

NOI: Net operating income; n.c.: not computable.
Support is equal to market price support plus direct payments.
1. The last quartile covers the top 25 per cent of farms in terms of gross sales.
Source: Annex Table A2.

These findings are confirmed by a **dispersion** indicator that measures the range between the fourth and the first quartiles compared with the average for all farms (Table 2) and by the Gini coefficients (Table 3).

Data permitting, the inclusion of off-farm income clearly reduces income disparities between farm households to the point of virtually eliminating them in Japan and reducing to less than 2 the ratio of the average for the last quartile to the average for all farms in every case (Annex Table A3).

Table 2. Comparison of the range between quartiles for output, support and net operating income

Country	(+)	Variables ranked in descending order of the ratio (Q4-Q1)/All (1)	(-)
Australia	NOI (2.4)	Output (2.1)	Support (1.7)
Canada	NOI (3.0)	Support (2.8)	Output (2.6)
Denmark	NOI (2.9)	Output (2.8)	Support (2.4)
European Union	Output (2.7)	Support (2.6)	NOI (2.4)
Finland	Output (2.3)	NOI (2.2)	Support (2.1)
Japan	NOI (2.69)	Output (2.66)	Support (2.56)
Netherlands	Output (2.04)	NOI (1.97)	Support (1.5)
Switzerland	Support (1.00)	Output (0.99)	NOI (0.65)
United States	NOI (4.8)	Output (3.6)	Support (2.3)

NOI: Net operating income.
Support is equal to market price support plus direct payments.
1. Quartiles are ranked in ascending order of turnover. Q1 is the average for the first quartile, Q4 the average for the last quartile and All is the average for all farms.
Source: Annex Table A3.

The share of support in the value of output and income shows the farmer's **degree of dependency** on support, and varies a great deal across countries and also across quartiles. For the first quartile, only the share of support in output value is considered since farm income is very low, if not negative. By and large, the share of support in output value declines with economic size, indicating that the

smallest farms account for a small share of total support but are more dependent on it than large holdings (Graph 1). There are exceptions, however. In Switzerland, for instance, the average share of support in output value is similar in the first and last quartiles, and for all farms, since the last quartile covers holdings specialised in the types of farming that receive more support than others. In Canada, the share of support increases with ascending quartiles, since the last quartile covers most dairy farms, which receive more support than other types of farming in the form of market price support.

Table 3. Gini Coefficients

	Australia	Canada	Denmark	European Union	Finland	Japan	Netherlands [a]	New Zealand [b]	Switzerland	United States
Year	1996/97	1996	1996/97	1995	1996	1994	1996	1996/97	1995	1996
Gross output [1]	0.55	0.67	0.74	0.72	0.61	0.70	0.50	0.41	0.27	0.91
Direct payments (DP) [2]	n.c.	0.59	0.55	0.56	0.54	0.66	0.10	n.c.	0.03	0.61
Market price support (MPS) [3]	0.47	0.84	0.75	0.74	0.68	0.67	0.39	0.41	0.34	0.98
Total support (MPS + DP)	0.49	0.74	0.67	0.68	0.58	0.67	0.38	0.41	0.27	0.84
Net operating income [4]	0.63	0.79	0.79	0.63	0.61	0.71	0.48	n.c.	0.18	n.c.
Farm income [5]	n.c.	0.86	0.84	0.61	0.62	0.78	0.58	0.48	0.17	n.c.
Total income [6]	0.44	n.c.	0.33	n.c.	n.c.	0.07	0.41	n.c.	0.13	0.15

n.c.: not computable.

a. Direct payments in the Dutch database exclude area payments for fodder crops. If they were taken into account, the figure for the average of all farms would be about 3 times higher.

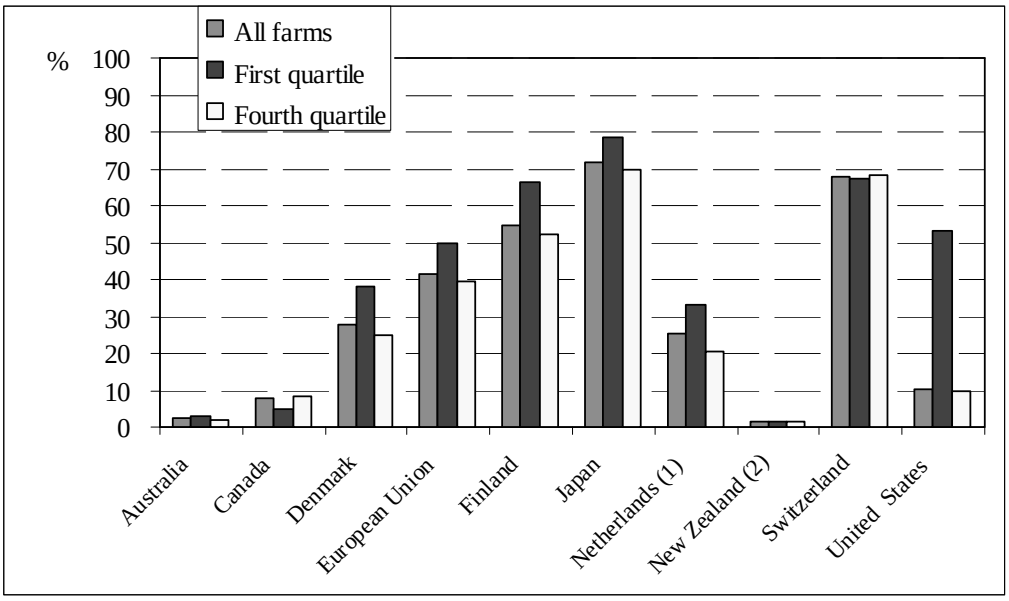
b. Calculated from deciles.

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and, in some countries, on-farm use.
2. Direct payments are budgetary transfers to farmers from agricultural policy. In the case of the European Union, subsidies for intermediate consumption are included.
3. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
4. Difference between farm cash receipts and farm operating expenses.
5. Difference between gross output and all expenses, including depreciation.
6. Sum of farm income plus off-farm income except in the case of Australia where it is the sum of net operating income plus off-farm income

Source: OECD Structural database.

The share of support in farm income or net operating income is high in most countries, with the exception of Australia and New Zealand. In the European Union as a whole, and in Finland, Japan and Switzerland, it exceeds 100 per cent, even in the last quartile. In a static computation such as that used for PSEs, this would indicate that, without support, the income of the top 25 per cent farms in terms of size would, on average, be negative. It is of course highly unrealistic to assume that there would be no adjustment if support were eliminated, but a simulation of income minus support would involve modelling how each farm group would adjust to a policy shift and is beyond the scope of this paper. In addition, as indicated in the section on methodology, the reasoning used here, as in the PSE computation, is based on the hypothesis that farmers receive the full amount of the support. Yet, in reality, the transfer efficiency of government measures is rarely 100 per cent (OECD, 1995*c*).

Graph 1. Share of support in gross output



Support is equal to market price support plus direct payments.
1. Direct payments in the Dutch database exclude area payments for fodder crops. If they were taken into account, the figure for all farms would be about 3 times higher.
2. Quartiles calculated from deciles, using a simple weighted average.
Source: Table A4 of Annex 2.

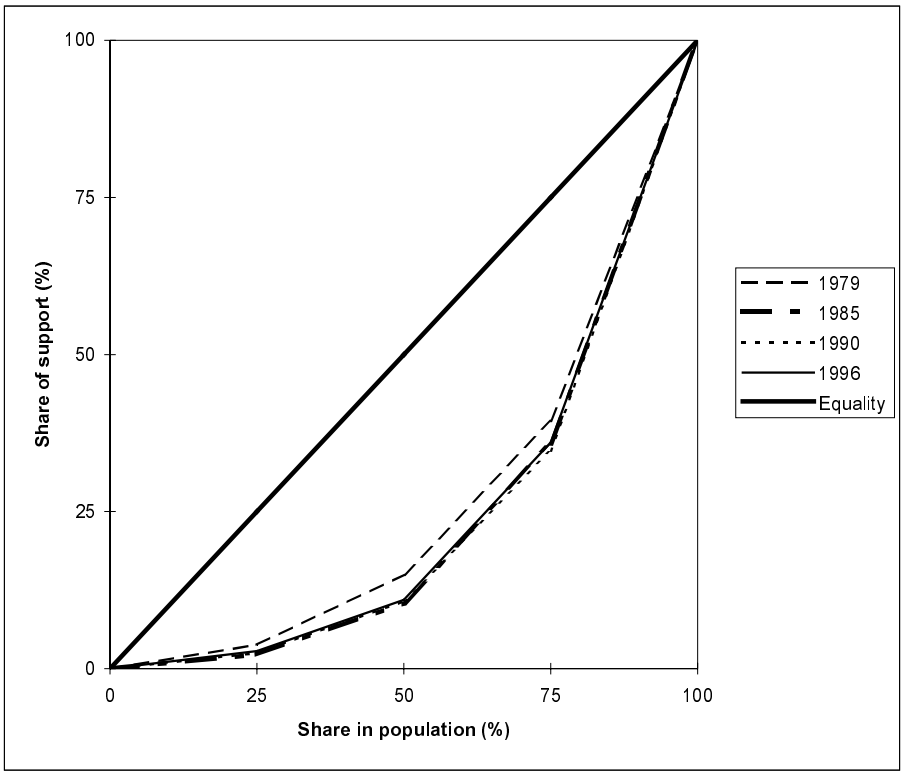
Trends in this distribution

For some countries that have supplied consistent structural data over a longer period, we have been able to compare trends over time in the distribution of farm support. To illustrate those trends, we have used not only the indicators mentioned previously and presented in Annex Tables A5, A6, A7 and A8, but also Lorenz curves.

In the case of **Denmark**, the distribution of support became slightly more unequal from 1979 to 1985, possibly because payments increased in the "general subsidies" category[9] which are highly concentrated on the largest farms, and because the increase in market price support for pigmeat over that period made the distribution of this type of measure more unequal (Graph 2). This is because pig farms are concentrated more in the last quartile. Later, the distribution of support remained unchanged, although direct payments grew as a share of total support (41 per cent in 1996). After 1992 the distribution of direct payments under the Common Agricultural Policy, measured by the ratio of the average of the fourth quartile to the average of the total population, became more equal than before, but the unequal distribution of market price support became slightly more marked (Annex Table A7). On average then, the 1992 CAP reform does not appear to have had a significant impact on the distribution of support. Overall, between 1979 and 1996 output and income became more concentrated, as did support (Annex Table A6). Farm income as a share of total farm household income fell markedly on average across all farms but remained practically stable for the last quartile average.

9. Payments classed in Denmark under the heading "general subsidies" and in the European RICA network as "other production subsidies" include subsidies for forestry and farm-based tourism, environmental and afforestation programmes, and structural aid.

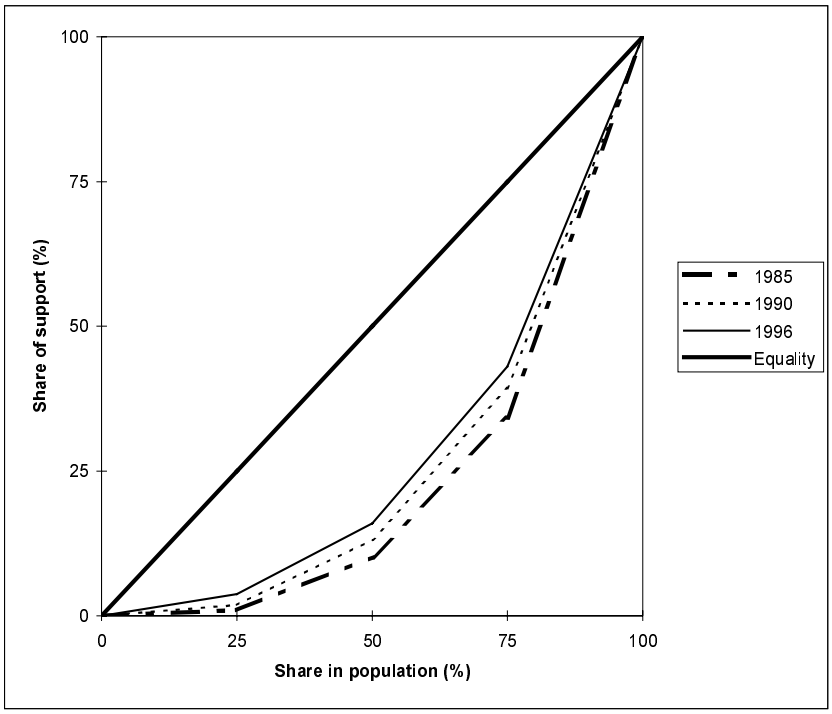
Graph 2. Evolution of the concentration of support in Denmark



Source: Table A6 of Annex 2.

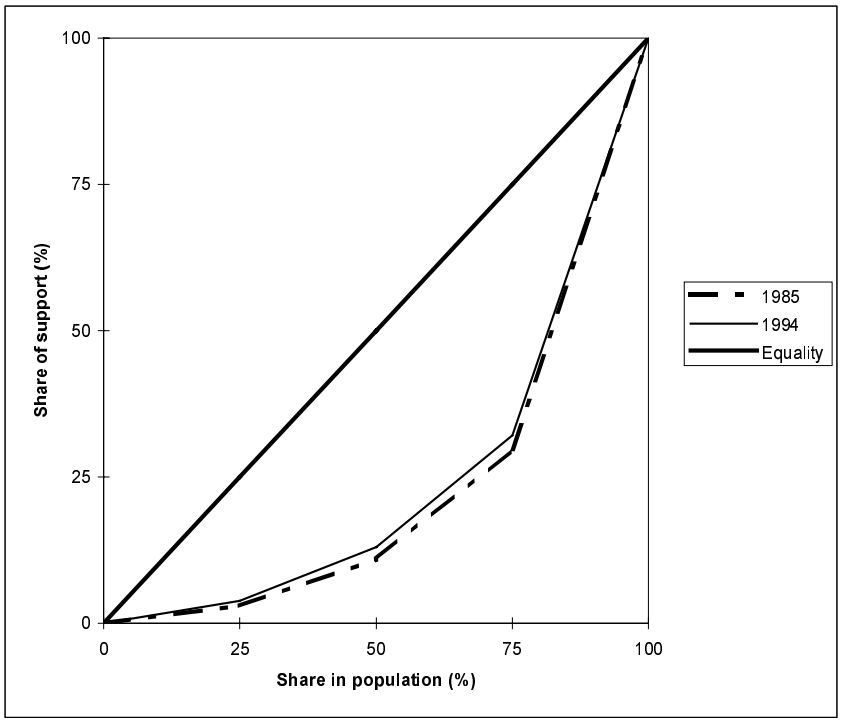
In **Finland**, the period covers accession to the European Union in 1995 and adoption of the Common Agricultural Policy. This appears to have made the distribution of support more equal although the trend was already visible and even more pronounced from 1985 to 1990 than from 1990 to 1996 (Graph 3). This is because, with a ratio of the average of the fourth quartile to the average of the total population of 1.6 in 1985, direct payments in Finland prior to EU accession were far more equally distributed than market price support (ratio of 2.7). Furthermore, direct payments rose, as a share of total support, from 5 to 11 per cent between 1985 and 1990 and distribution became more equal. After 1995, direct payments accounted for over two-thirds of support but they were only slightly *more* dispersed than market price support (as shown in Annex Table A7, the ratio of the average of the fourth quartile to the average of the total population was 2.2 for direct payments and 2.5 for market price support). The distribution of support in **Japan** became slightly more equal from 1985 to 1994 (Graph 4), although output and income became a little more concentrated. These developments do not appear to indicate a trend.

Graph 3. Evolution of the concentration of support in Finland



Source: Table A6 of Annex 2.

Graph 4. Evolution of the concentration of support in Japan

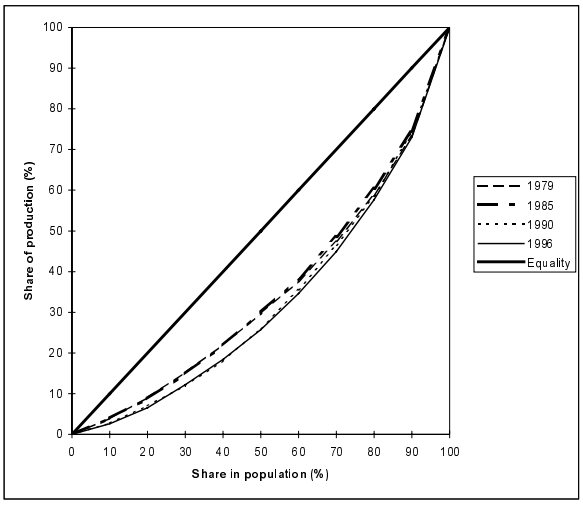


Source: Table A6 of Annex 2.

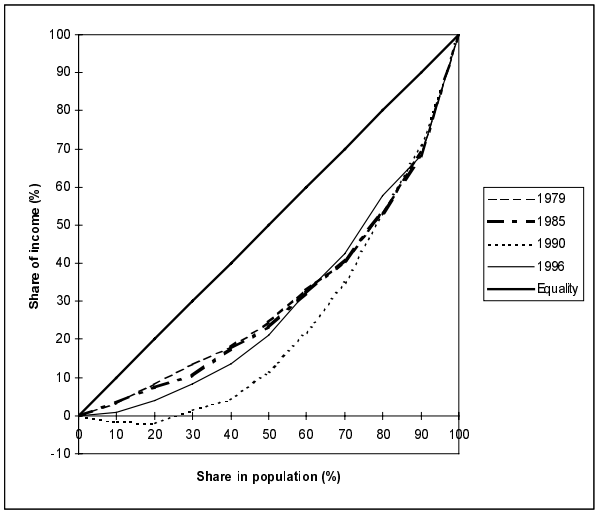
New Zealand undertook reform in 1984, resulting in a very low level of support for agriculture from 1987 onwards. Graph 5 shows that the dispersion of output and income increased between 1985 and 1990. The decline in income, which occurred during that period, seems to have affected small and medium farms more than larger holdings. Between 1996 and 1996 the distribution of income was narrower (Annex Table A7). Overall, during the period 1979 to 1996, there is evidence that both large and small farms accounted for a diminishing share of income, in spite of a slight rise in output on the larger holdings (Annex Tables A5 and A6).

Graph 5. Evolution of the concentration of production and income in New Zealand

Production



Income



Source: Table A6 of Annex 2.

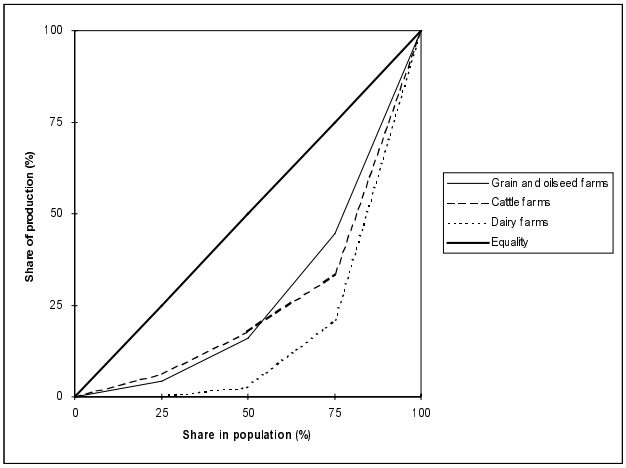
Disparities between farm types

Owing to differences in farm size and levels of commodity support, there are disparities between farm types in terms of the distribution of support and income. We have examined these in relation to three countries, namely Canada, Denmark and the European Union, for 1995. For each country, we first examined the distribution of output, support and income within each farm type. We then compared farm types one with another using the average of variables for each farm type. In fact, in the case of Canada and Denmark, the distribution of a variable can not be compared across farm types as farms of each type are classified in the quartiles calculated for the whole population.

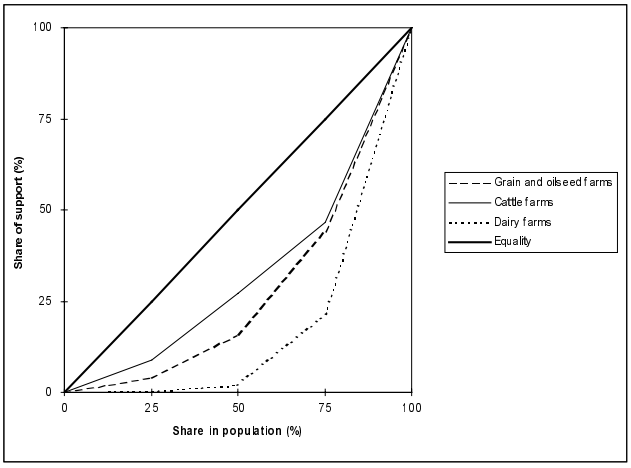
For **Canada**, we identified three categories of farms, namely arable (grain and oilseed), cattle and dairy (see definitions in Annex 1). They account respectively for 43, 26 and 10 per cent of all Canadian farms (Table 5). Graph 6 shows that output and support are distributed more equally in arable farms than in cattle and especially dairy farms. While the concentration and distribution of support closely resemble those of output in arable and dairy farming, support is markedly less concentrated than output in cattle farming (Table 4). In this case, the result is that income distribution is more equal.

Graph 6. Concentration of production and support in Canada for various farm types, 1995

Production



Support



Source: Table A9 of annex 2.

In order to illustrate the comparison between farm types, Table 5 shows the average of each variable for each farm type as a percentage of the average of all farms. In Canada, the average value of gross output in arable farms is 70 per cent of the average output of all farms and arable farms receive on average only one-third of the average level of support received by all farms. On the other hand, their income is slightly higher than average. With regard to output value, cattle farms are about the average but in terms of support they receive only 21 per cent of the average for all farms and their net operating income is just over one-third of the average income for all farms. Conversely, output value on dairy farms is one-third higher than average and they receive over two and a half times more direct payments (even if these account for only 15 per cent of total support for dairy farms), almost eight times more market price support and six times more support than average. Consequently their net operating income is double the average for all farms. This shows the high rate of support received by the dairy sector in Canada compared with other types of farming.

Table 4. Comparison of the range between quartiles for output, support and net operating income in selected farm types, 1995

Type of farm	(+)	Variables ranked in descending order of the ratio (Q4-Q1)/All (1)		(-)
Canada (2)				
Arable	NOI (2.58)	Support (2.55)	Output (2.52)	
Cattle	NOI (5.7)	Output (4.5)	Support (3.5)	
Dairy	Support (1.29)	Output (1.25)	NOI (1.24)	
Denmark (2)				
Crops	NOI (6.3)	Output (5.3)	Support (5.0)	
Cattle	NOI (2.10)	Output (1.94)	Support (1.93)	
Intensive livestock	NOI (1.64)	Output (1.58)	Support (1.53)	
European Union (2)				
Field crops	Output (2.8)	Support (2.7)	NOI (2.6)	
Cattle	Output (2.1)	Support (1.9)	NOI (1.9)	
Dairy	Output (1.9)	Support (1.8)	NOI (1.6)	
Intensive livestock	Output (2.1)	NOI (2.0)	Support (1.8)	

NOI: Net operating income.
Support is equal to market price support plus direct payments.
1. Quartiles are ranked in ascending order of gross sales. Q1 is the average of the first quartile, Q4 the average of the last quartile and All is the average of all farms.
2. For Canada and Denmark, farm types are grouped in the same quartiles as all farms whereas for the European Union, specific quartiles have been calculated for each type of farm.
Source: Tables A9, A10 and A11 in Annex 2.

Table 5. Comparison between averages for selected farm types and for all farms in Canada, Denmark and the European Union, 1995

	Canada (b)			Denmark (b)			European Union (b)			
Average of each farm type as a percentage of the average of all farms (a)	**Grain and oilseed farms**	**Cattle farms**	**Dairy farms**	**Crop farms**	**Cattle farms**	**Pig farms**	**Field crop farms**	**Cattle farms**	**Dairy farms**	**Pig and poultry farms**
Number of farms	43	26	10	49	32	18	31	12	14	14
Gross output [1]	70	101	136	49	113	214	82	82	157	369
Direct payments (DP)	80	52	267	88	90	149	125	148	107	120
- Production subsidies for crops	n.d.	n.d.	n.d.	97	73	154	181	33	62	111
. Compensatory payments	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	198	34	68	117
. Set aside premiums	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	213	19	38	109
- Production subsidies for livestock	n.d.	n.d.	n.d.	42	225	38	35	427	112	138
- Other production subsidies	n.d.	n.d.	n.d.	36	155	177	55	180	254	125
- Subsidies for intermediate consumption	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	92	35	189	184
- Subsidies on investments	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	60	224	194	102
Market price support (MPS) [2]	6	4	797	39	187	110	58	89	234	170
Total support (MPS + DP)	31	21	613	54	157	122	79	108	194	155
Net operating income [3]	105	37	206	55	112	199	89	90	153	235
Farm income [4]	112	24	217	53	113	204	89	97	149	231
Total income [5]	n.a.	n.a.	n.a.	87	97	142	n.a.	n.a.	n.a.	n.a.

n.a.: Not available.

a. 100*Qi/Q where Qi is the average of farm type i and Q is the average of all farms

b. For Canada and Denmark, farm types are classified in the same quartiles as all farms while in the European Union, specific quartiles were calculated for each farm type.

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and on-farm use.

2. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.

3. Difference between farm cash receipts and farm operating expenses.

4. Difference between gross output and all expenses, including depreciation.

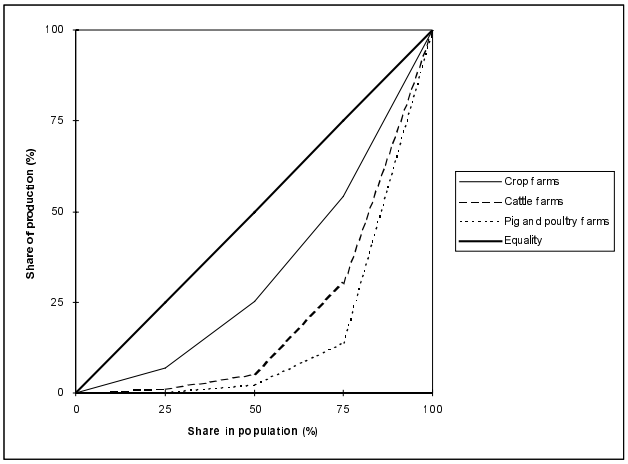
5. Sum of farm income plus off-farm income.

Source: Tables A9, A10, A11 of Annex 2.

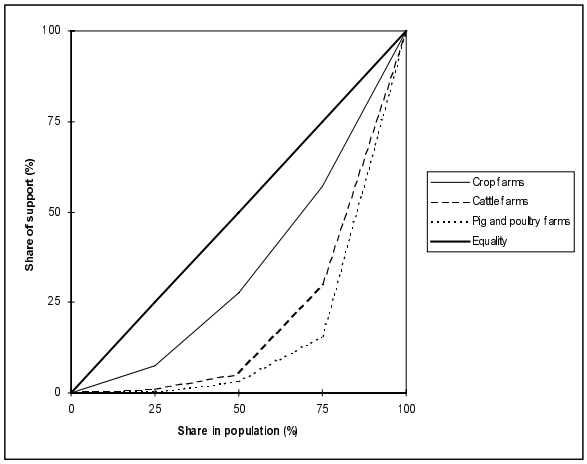
For **Denmark**, farms have been divided into three categories: farms specialising in crops (arable and horticultural) which account for almost one-half of all holdings; those specialising in extensive livestock (dairy, beef cattle, sheep and horses) which account for about one-third of farms; and intensive livestock farms covering the remainder, mainly pigs and poultry but also mixed farming (see definitions in Annex 1). Graph 7 shows that farms specialising in crops display the most equal distribution of output and support of all three categories, and intensive livestock farms the most unequal distribution.

Graph 7. **Concentration of production and support in Denmark for various farm types, 1995**

Production



Support



Source: Table A10 of Annex 2

The difference between the averages for the last and first quartiles compared with the average for all farms shows that, for all three farm types, support is slightly more equally distributed than output but that in livestock farms the difference is minute. This is confirmed when we look at the contribution of each quartile to the value of output and support. Yet the share of direct payments is often high compared to market price support, more so on crop than on extensive livestock farms, and the payments are more equally distributed than output (Annex Table A10). For all farm types, the share of direct payments in total support decreases as farm size increases, reflecting the fact that such payments are distributed more equally than market price support. But the degree of equality varies with the type of payment and the type of farm. Overall, support brings only a slight improvement in income distribution.

In the case of Denmark, different types of payments are identified: payments for crop farming comprise area payments and set-aside premiums; payments for livestock comprise premiums for suckler cows, young bovine cattle and bull calves; other production subsidies comprise payments for forestry and farm-based tourism, environmental and afforestation programmes, and structural aid. Across all farm types and quartiles, production subsidies for crops are much larger than other payments. Their distribution is therefore similar to that of total payments, or vice versa. By comparison, payments for livestock production are very low, and their distribution markedly more equal than that of payments for crop production. Other production subsidies are also relatively low except in the last quartile of livestock farms. Here their distribution is more unequal than the average for such farms, whereas for crop farms it is relatively equal.

Comparing the average for each farm type with the average for all farms, intensive livestock farms have double the income and double the output, whereas extensive livestock farms are just above the average. Crop farms, however, average about half of the output of all farms and half of their income. These

inequalities between farm types diminish when off-farm income is taken into account, but intensive livestock farms still have significantly higher incomes than the other two farm types.

In terms of support, extensive livestock farms receive more than average, be it market price support or direct payments. Intensive livestock farms also receive more market price support than average and more direct payments, in particular for crops. In fact, although much lower than for other livestock categories, market price support for poultry and pigs was higher than usual in 1995[10]. In addition, farm types in Denmark are not very precisely defined and, for example, the intensive livestock farm category covers mixed farms and those that combine intensive livestock farming with cereal growing (See Annex 1 for a more precise definition of farm types). This explains why they receive on average more production subsidies for crops than the average for all farms. For all categories of support, crop farms are below the farm average. This shows that support widens the income gap between crop farms and intensive livestock farms.

For the **European Union**, four farm types were examined: field crop farms, cattle farms, dairy farms and intensive pig/poultry farms (see definitions in Annex 1). They cover respectively 31, 12, 14 and 14 per cent of EU farms (Table 5). As Graph 8 shows, output and support are markedly more concentrated in field crop farms than in the various types of livestock farm, among which there is a very similar distribution profile.

In all the farm types, the distribution of support is slightly more equal than that of output and therefore has a positive but small effect on income distribution. Nonetheless, the dispersion of support, measured by the range between the averages for the last and first quartiles compared with the average for all farms, is quite similar to that of output, the greatest gap (0.3 percentage points) being for intensive livestock farms (Table 4).

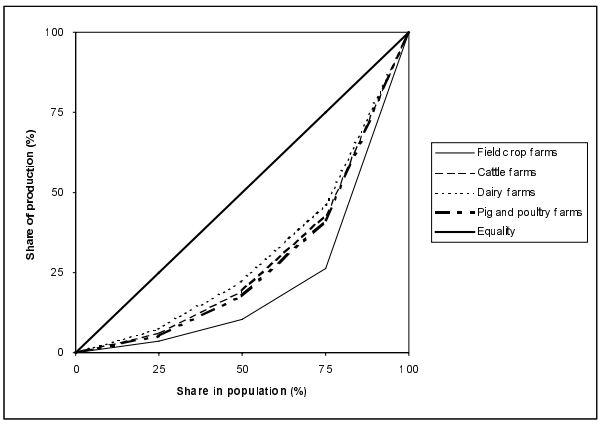
Using Lorenz curves, the concentration of various types of direct payment were compared with that of total direct payments and of market price support. In the case of field crop farms, Graph 9 shows that the distribution of total direct payments is virtually identical to that of market price support but that some types of payments such as set-aside premiums and production subsidies for livestock are more unequally distributed.

For cattle farms, production subsidies for livestock, which account for some two-thirds of total payments, are the most equally distributed (Graph 9). This is consistent with the fact that for most of these headage-based payments there is a ceiling on the eligible number of animals per farm. However, the distribution of compensatory payments for crops is more unequal than that of market price support (Graph 9).

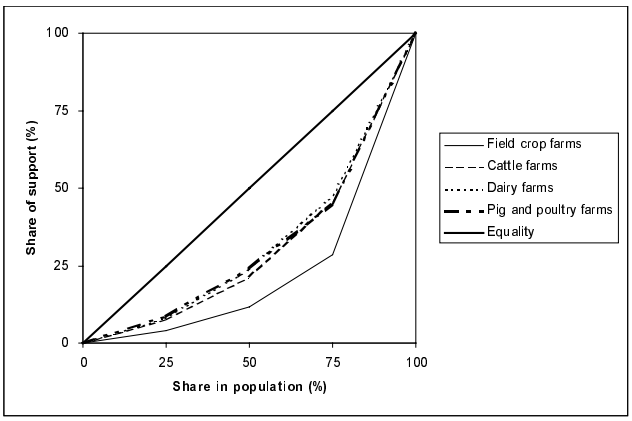
10 . It should also be noted that the market price support on domestically produced coarse grains and oilseeds used as animal feed (excess feed cost) is not deducted from the market price support for livestock products.

Graph 8. Concentration of production and support in the European Union for various farm types, 1995

Production



Support



Source: Table A11 of Annex 2.

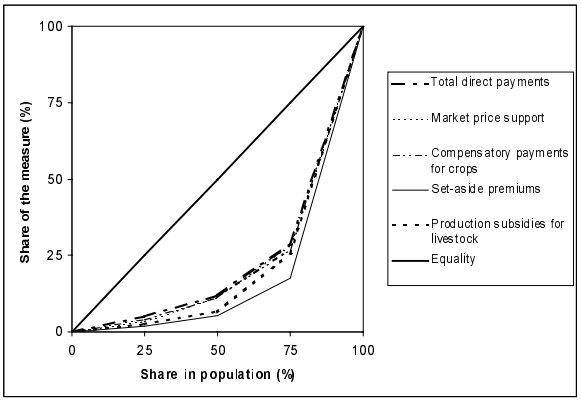
On dairy farms, production subsidies for livestock, accounting for around one-quarter of total payments, are distributed equally (Graph 9). Finally, on intensive livestock farms it is total direct payments that are equally distributed across the group whereas production subsidies for livestock, which average one-quarter of total payments, are above the equality curve (Graph 9), which means that smaller farms receive a percentage of these payments higher than their proportion in the total population.

When considering the average of each farm type, the share of direct payments in total support is highest for field crop farms owing to the importance of area payments (Annex Table A11). Dairy farms and intensive livestock farms receive more direct payments than the farm average. In particular, they receive relatively high amounts in production subsidies for crops. This reflects the fact that farm types are not very narrowly defined. Direct payments account for the lowest share of total support since these farms receive even more market price support than the farm average and the other farm types (Table 5). In the case of intensive livestock farms, the relatively high level of market price support is specific to the year examined although it should be noted that it would be lower if the market price support on domestically produced coarse grains and oilseeds used as animal feed (excess feed cost) was deducted. Overall, dairy farms receive twice the average support, and intensive livestock farms one and a half times the average. While cattle farms receive a little more than average support, field crop farms receive markedly less (80 per cent).

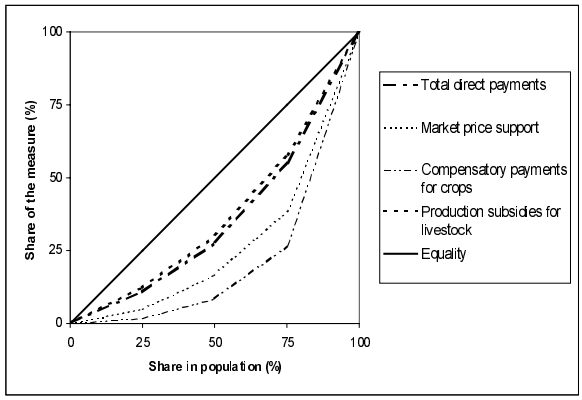
With regard to net operating income, field crop farms and cattle farms are on a par at 90 per cent of the average for all farms. Conversely, the net operating income for dairy farms is 50 per cent higher than average, and intensive livestock farms have twice the average income for all farms. Of all four farm types, field crop farms can thus be said to receive the least support and it does not bring their income up to the average. Cattle farms receive slightly more support, but it does not bring their income up to average either. As for dairy farms, support allows them to have an average income higher than that of all farms. Finally, intensive livestock farmers receive substantial support that supplements what is, in fact, the highest income, excluding support, of all four farm types.

Graph 9. Concentration of different types of support in the European Union for various types of farms, 1995

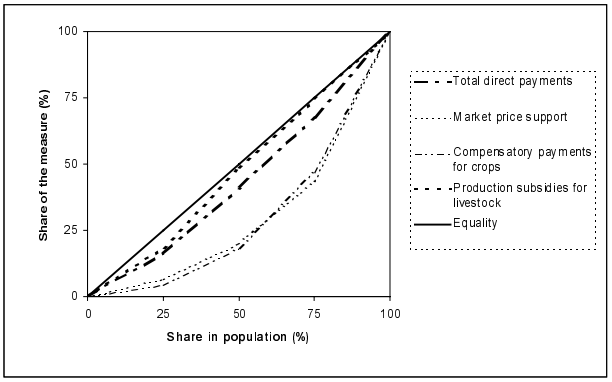
In field crop farms



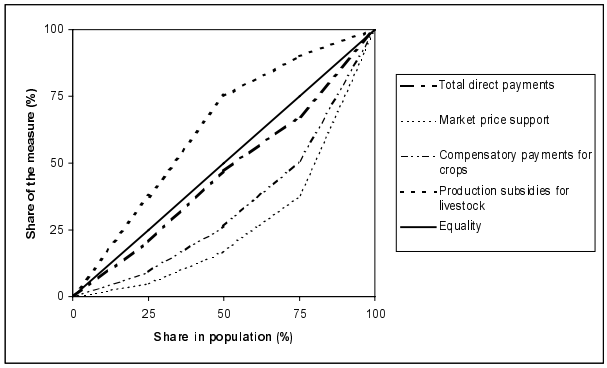
Cattle farms



Dairy farms



Pig and poultry farms



Source: Table A11 of Annex 2.

Disparities between regions or geographical areas

Although the structural indicator database does not generally contain regional information, Swiss farms are grouped by area, i.e. lowland or upland, since some direct payment schemes are based on altitude. For Denmark, regional averages for the variables used in this study are published annually by the Ministry of Agriculture and Fisheries (1996). These two examples have been included to illustrate the problem of regional disparities. These stem from regional differences in the economic size of farms, type of farming and rate of support for each commodity.

In **Switzerland**, Table 6 shows that lowland farms are wealthier and upland farms less wealthy than the test-farm average, be it for farm income or total income. Because the distribution of support is the same as for output, lowland farms receive 10 per cent more market price support than average and only 4 per cent more total support. This is because upland farms receive more direct payments than lowland ones, some direct payments being directly targeted to them, in particular payments for difficult production conditions, which average 20 per cent of direct payments and 4.5 per cent of total support for all farms. Ecological payments go more to lowland farms but do not offset the impact of payments for difficult

production conditions. Lowland farms therefore appear to receive more support overall, although the small amount of direct payments targeted to upland areas does to some extent reduce the inequality.

Table 6. Comparison between lowland and upland areas in Switzerland

Average for farms in each area as a % of the average for all farms (1)	Lowland areas	Upland areas
Gross output	107	74
Direct payments (DP)	90	123
Complementary payments	100	100
Ecological payments	125	75
Payments for difficult conditions	33	250
Payments to guide production	100	100
Market price support (MPS)	110	63
Total support (MPS+DP)	104	76
Net operating income	108	81
Farm income	111	79
Total income	107	84

1. 100*Qi/Q where Qi is the average for farms in area i and Q is the average for all Swiss farms.
Source: Table A13 of Annex 2.

In **Denmark**, farms on the islands have the same average farm income as those on the mainland but their total income is greater because the off-farm wages of the operator and his household are higher (Annex Table A12). However, they receive slightly lower direct payments and far lower market price support, as they specialise more in crops than livestock, and both dairy and cattle farmers benefit from more protection via market price support.

When calculating the ratio of the maximum to the minimum group averages for each variable, we find that the disparity in farm income between the wealthiest and poorest regions does not exceed 1.7 and that the ratio drops to 1.3 when all income sources are taken into account (Table 7). Market price support is the variable that is less widely spread across the regions, with a ratio of 3.1. Disparities between farm types, as measured by this ratio, are greater but do not exceed 5 for output and market price support, and drop to 1.6 for total income. On the other hand, gaps between quartiles are considerable for output value (ratio of 34) or market price support (ratio of 60). As the average farm income for the first quartile of farms is negative, the ratio between farm incomes in the last and first quartiles is not computable. The ratio of maximum to minimum total income is 3. These figures should be considered as a way of ranking the differences between economic size, farm type and region rather than an exact measurement, since they are based on group averages and so depend on the precision with which the groups have been defined.

Table 7. Comparison of disparities between regions, farm sizes and farm types in Denmark

Ratio of the maximum to the minimum: average for each group	Farm size	Farm type	Region
Gross output	34	4.4	1.9
Direct payments (DP)	11	1.7	1.6
Market price support (MPS)	60	4.8	3.1
Total support (MPS+DP)	23	2.9	2.2
Net operating income	n.c.	3.6	1.6
Farm income	n.c.	3.8	1.7
Total income	3	1.6	1.3

n.c.: not computable.
Source: Tables A1, A5 and A12 of Annex 2.

5. Conclusions

Despite some limitations stemming from the use of aggregated data, the foregoing analysis does yield some overall conclusions on the distribution of support in the countries reviewed, the distribution capacity of government measures and how effectively policies target support in the case of specific objectives identifying particular populations.

Like much of the Secretariat's earlier work on agricultural policy, this paper illustrates the importance of having clearly defined targets and reliable data to measure outcomes. Assessing policies in relation to equity and targeting is difficult both because these criteria are not necessarily explicit in the definition of the objectives and indeed may be inherently in contradiction with them but also because data collected do not always allow a detailed appraisal of policies. For instance, specific measures are not always identified and off-farm income is not always taken into account, thus impeding a correct assessment of the income problems facing farm households.

Moreover, working with aggregated data means that dispersion indicators independent of the groups examined cannot be calculated. Nonetheless, although the differences in variables between groups are not accurate in absolute terms, their ranking does yield relevant conclusions, which are confirmed by the concentration measures. In any case, to evaluate how well policies target specific criteria, we would need to have individual data or data aggregated according to those particular criteria.

When interpreting the findings of our analysis, it needs to be borne in mind that the distribution of support and its distributional impact on incomes depends not only on the type of government measure employed and in particular on the effect on output, but also on the production mix of the farms in the groups and the level of support for each commodity. This is particularly marked in the case of Canada, where the distribution of support by classes of farm size is more unequal than the distribution of output, since dairy units are among the largest farms and milk receives by far the greatest support. By examining the size distribution of more specialised farms, the effect of differentiated support by commodity would be

lessened and the link between a specific support measure and output would be more clearly identified, but that has not been done in this paper.

The main conclusions from the foregoing analysis can be grouped as follows:

Distribution of output, support and income

- In all categories, the distribution of market price support is very similar to that of output, despite some differences due to differences in product mix of farms.
- On average, direct payments are more equally distributed than market price support and output, but the difference is modest. This reflects the continuing strong link between most direct payments and output or factors of production. There are some targeted payments whose distribution is inversely related to size, but they are minimal set against support as a whole.
- Taken overall, in most cases, support is slightly more equally distributed across farm size than output.
- On the basis of the examples considered, differences in output, support and income across regions are less than those across farm types or size classes. This finding might be qualified in larger countries, but it is reasonable to think that the largest differences would continue to be between size classes.
- Over the last ten years, the distribution of output, support and income in the countries reviewed shows little change: it has become slightly more unequal in Denmark and New Zealand, and a little more equal in Finland and Japan.

Equity

- Because the distribution of support is close to that of output, the largest farms, and hence the most prosperous ones, are the main beneficiaries. In this sense, support is inequitable. At the same time, support overall in most countries has a slight redistributional effect on income by farm size because, as mentioned above, its distribution is slightly more equal than output.
- Support tends to increase income disparities between farm types, but no general conclusion can be drawn from this research on the distributional effect of support on income disparities across regions.
- Small farms are more dependent on support than large ones, even though they receive only a small proportion of total support.
- Taking off-farm income into account lessens the income differences across farms by size, type and region.

Targeting

- Negative farm incomes for the group average are found only among the smallest farms in countries with broad definitions of a farm, in other words where farm income represents only a small portion of total income.

- The Swiss example shows that, despite the existence of some targeted payments for less favoured regions, the structure of farms means that farms in those areas receive less support overall than farms elsewhere.
- Support as a whole is concentrated on the largest farms. This could well reflect a policy objective in some countries that seek to promote large farms.
- In many countries, support is targeted to specific commodities deemed important for reasons of food security, environmental protection or rural development, but this study does not cast light on these points.
- In some countries, there are transfers specifically targeted to the provision of environmental services but they could not be identified in this study and in any case, we know from the PSE database that their share in the total value of support is very small.

To sum up, if we accept, as did the Agriculture Ministers of OECD countries in their Communiqué (OECD, 1998*a*), that equity is an operational criterion for farm policies, the present analysis shows that support as a whole, and market price support in particular, does not meet this criterion since it is concentrated on the largest and most prosperous farms. For the years covered by the analysis, the same applies to most direct payments. Reforms were subsequently introduced or decided, in the United States and the European Union (agenda 2000) for instance, and, although, a priori, there is little in the terms of the new measures that suggests their distribution would be significantly different, it would be of interest to review the new situation when data become available.

Agricultural policies reflect different types of income objectives. The most important is to achieve parity of income between the farm sector and the rest of the economy. An OECD report has shown that, when overall household income was considered, this objective was achieved in most OECD countries (OECD, 1995*a*). This conclusion has been confirmed in further updates (OECD, 1998*c*; Box 2). The second objective is to resolve the problem of low incomes in farming. This point is not directly addressed by the present research, but the problem is not widespread since it is not observed in the averages of the groups considered when the entire income of farm households is taken into account and in the upper quartiles even on the basis of farm income only. The third and last potential objective is reducing income disparities within the farm sector. In most of the cases examined, current support has only a slight effect on disparities between farms of different sizes, and tends to accentuate the disparities between farm types.

When support achieves its objectives, in particular with respect to incomes, it does not do so with optimum efficiency. Providing support the bulk of which goes to the largest farms in order to limit the incidence of low incomes in the sector is more expensive than providing income supplements only to those households that really need them. Similarly, in order to reduce income disparities in the sector, measures targeting less favoured farms would be more cost-effective. Moreover, concentrating support on the largest farms does not encourage them to improve performance and hence has a cost in terms of the sector's economic efficiency. Given the results of agricultural policies with regard to income, in relation to their cost, adopting targeted social policies would seem more appropriate.

Other aspects of farm household income will be covered by the Directorate's work in the programme for 1999-2000, under point 4 *'Policy approaches and instruments to address multifunctionality and to facilitate structural adjustment'*. One project is to examine the incidence and causes of low farm household income and to assess the effectiveness of farm policy in resolving this problem. Another project will examine and evaluate approaches to income risk management. Last, an overall report will evaluate the implementation of direct payments in terms of the common objectives, principles for action and operational characteristics formulated at the 1998 Ministerial meeting, drawing extensively on the findings of work by the Directorate, in particular the present paper, the projects just mentioned and work on

multifunctionality, employment, on the classification of agri-environmental policies and on criteria for agri-environmental measures that are minimally distorting for production and trade.

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ANNEX 1. DEFINITION AND SOURCES

A description of surveys and a detailed definition of variables can be found in OECD (1995), *A Review of Farm Household Incomes in OECD Countries* [OCDE/GD(95)97].

Australia

Source: ABARE, Australian agricultural and grazing industries survey and Australian dairy industry survey.

Coverage: The first survey includes farms engaged mainly in growing cereal grains, coarse grains, oilseeds and/or pulses; farms engaged mainly in running sheep or beef cattle and growing cereal grains, coarse grains, oilseeds and/or pulses; farms engaged mainly in running sheep; farms engaged mainly in running beef cattle and farms engaged mainly in running both sheep and beef cattle. The second survey includes farms engaged mainly in dairying. Both surveys cover establishments with an estimated value of agricultural production of A$ 22 500 or more at the time of the 1996 census.

Sample: The sample consists of 1 600 farms representing 2 per cent of the population. Sample weights are calculated so that sample estimates of numbers of farms, area of crops and number of livestock in various geographic regions and industries correspond as closely as possible to known Australian Bureau of Statistics data (Agricultural Census). A greater proportion of large, as opposed to small, farms is sampled.

Definitions:

Gross output: Total cash receipts.

Direct payments: Not available.

Net operating income (=Farm cash income): Total cash receipts - total cash costs (expenditures for material and services and for hired labour).

Farm income: Not available.

Off-farm income: Wages off farm + other business income + investment + social transfers.

Total income: Farm cash income + off-farm income.

Canada

Source: Agriculture and Agri-Food Canada, Taxation data.

Coverage: The data include only farms with total revenue of C$2 000 or more.

Sample: The sample represents about 235 000 farms.

Definitions:

Gross output (=Gross farm income for tax purpose): Gross farm receipts [Crop receipts + livestock receipts + program payments + other farm receipts (custom work + rental income + insurance proceeds + other products)] + quota sale + inventory adjustments.

Direct payments: Program payments.

Total expenses for tax purpose: Total farm operating expenses + land improvements + inventory adjustments.

Net operating income: Gross farm receipts + program payments - operating expenses.

Farm income: Gross farm income for tax purpose - total expenses for tax purpose.

Off-farm income: Not available from this source.

Definition of farm types:

> **Grain and oilseed farms:** Grain and oilseed farms are those having gross agricultural revenue of more than 50 per cent from the sale of wheat, small grains, oilseeds, grain corn, dry field peas and beans, and field crop combinations.
>
> **Cattle farms:** Cattle farms are those on which more than 50 per cent of the gross agricultural revenue is derived from the sale of cattle.
>
> **Dairy farms:** Dairy farms are those on which more than 50 per cent of the gross agricultural revenue is derived from the sale of dairy products -- milk and cream for example. This category includes farms with 40 per cent or more of gross agricultural revenue derived from the sale of dairy products and 10 per cent or more of the agricultural revenue from raising and selling dairy cattle.

Denmark

Source: Statens Jordbrugs-og Fiskeriokonomiske Institut, Landbrugsregnskabsstatistik (Agricultural Account Statistics).

Coverage: All farms which according to the agricultural and horticultural census by the Danish Statistical Office have a standard gross margin from agricultural production of 50 per cent or more of the total standard gross margin originating from agricultural and horticultural production and which have a total cultivated area, excluding woods and gardens, of 5 ha or more. The population may, however, include holdings of less than 5 ha if their economic size is 4 ESU or more.

Sample: The total sample consists of approximately 2 000 farms representing 3 per cent of the whole population. The rate of sampling varies according to groups.

Definitions:

Gross output: Revenue from sales of agricultural commodities and services to other farms + change in stocks + direct payments.

Direct payments: Subsidies for plant production + subsidies for livestock production + general subsidies.

Net operating income: Gross profit from agriculture + depreciation.

Farm income (=Gross profit from agriculture): Gross output - costs of production.

Off-farm income: Profit from dwelling + gross profit from non-agricultural enterprises + farmer's wages + other family members' wages + pension and maintenance allowance + interest income + child allowance.

Total income: Farm income + off-farm income.

Definition of farm types:

Crop farms:

1. ***Cereals, rapeseeds, protein crops and set-aside:*** More than 2/3 of the total SGM (Standard Gross Margin) from cereals, rapeseeds, protein crops and set aside with subsidies.

2. ***Mixed cropping:*** More than 2/3 of the total SGM from cropping, but not more than 2/3 from cereals, rapeseeds, peas and fallow.

3. ***Cropping + horticulture:*** More than 1/3 of the total SGM from cropping, and more than 1/3 from horticulture or orchard + nursery. Also holdings with more than 1/3 of the total SGM from horticulture or orchard + nursery; no other production contributes more than 1/3 of the total SGM.

4. ***Mixed farming, cropping:*** More than 1/3 and not more than 2/3 of the total SGM from cropping; no other single production contributes more than 1/3 of the total SGM.

Cattle farms:

5. ***Dairy cattle:*** More than 2/3 of the total SGM from dairy cattle, and more than 2/3 of the dairy cattle's SGM from milk cows.

6. ***Cattle, breeding/fattening:*** More than 2/3 of the total SGM from cattle, but not more than 1/10 from milk cows.

7. ***Mixed cattle:*** More than 2/3 of the total SGM from cattle, and more than 1/10 from milk cows; excluding holdings in type 5.

8. ***Cattle/sheep/horses:*** More than 2/3 of the total SGM from cattle + sheep + horses, but not more than 2/3 from cattle.

9. ***Mixed farming, dairy cattle:*** Not more than 2/3 of the total SGM from cattle + sheep + horses, but more than 1/3 from dairy cattle, and more than 2/3 of the dairy cattle's SGM from milk cows; no other single production contribute more than 1/3 of the total SGM.

10. ***Mixed farming, cattle/sheep/horses:*** More than 1/3 and not more than 2/3 of the total SGM from cattle + sheep + horses; excluding holdings in type 9; no other production contribute more than 1/3 of the total SGM.

11. ***Dairy cattle + cropping:*** More than 1/3 of the total SGM from dairy cattle, and more than 1/3 from cropping; more than 2/3 of the dairy cattle's SGM from milk cows.

12. ***Cropping + cattle/sheep/horses:*** More than 1/3 of the total SGM from cropping, and more than 1/3 from cattle + sheep + horses; excluding holdings in type 11.

Pig and poultry farms:

13. ***Pigs:*** More than 2/3 of the total SGM from pigs.

14. ***Pigs/poultry:*** More than 2/3 of the total SGM from pigs + poultry, but not more than 2/3 from pigs.

15. ***Pigs/poultry + cattle/sheep/horses:*** More than 1/3 of the total SGM from pigs + poultry, and more than 1/3 from cattle + sheep + horses. Also holdings with more than 1/3 and not more than 2/3 of the total SGM from pigs + poultry; no other production contribute more than 1/3 of the total SGM.

16. ***Pigs/poultry +cropping:*** More than 1/3 of the SGM from pigs + poultry, and more than 1/3 from cropping.

17. ***Mixed farming:*** Types not included above.

European Union

Source: Commission of the European Communities, Farm Accountancy Data Network (FADN) database.

Coverage: The coverage rates and minimum size limits by country are given in Table A. In many countries, only main occupation farms are covered. The exact definition varies according to countries but, in general, they are farms with more than half of the household income derived from agriculture or farms with heads of household spending more than half their time working on the farm.

Sample: The sample consists of 57 000 farms representing 1.6 per cent of the population. Weights applied to sampled farms to extrapolate the total population are equal to their share in the total population in the group they represent. Groups are defined by region, specialisation and size.

Definitions:

Gross output: Receipts from sales of agricultural products + direct payments + other output.

Direct payments: Subsidies for crop production (compensatory payments + set-aside premiums + other) + subsidies for livestock production (for dairying, other cattle, sheep and goat, other) + other subsidies + subsidies for intermediate consumption.

Net operating income: Farm income + depreciation.

Farm income: Gross output - (intermediate consumption + depreciation + wages, rent and interest paid).

Off-farm income: Not available.

Definition of farm types:

Field crop farms:

Specialist cereals: More than 2/3 of the total SGM (Standard Gross Margin) from cereals.

General field cropping: More than 2/3 of the total SGM from general crops; cereals, oilseeds, pulses and fallow land subject to set-aside incentive schemes with no economic use no more than 2/3 of the total SGM.

Mixed cropping: More than 1/3 and not more than 2/3 of the total SGM from cropping; no other single production contributes more than 1/3 of the total SGM.

Cattle farms:

Specialist cattle - rearing and fattening: More than 2/3 of the total SGM from cattle, but not more than 1/10 from milk cows.

Specialist cattle - dairying, rearing and fattening combined: More than 2/3 of the total SGM from cattle and more than 1/10 from milk cows; excluding specialist dairying (see below).

Sheep, goats and other grazing livestock: More than 2/3 of the total SGM from cattle, sheep and horses, but not more than 2/3 from cattle.

Dairy farms:

Specialist dairying: More than 2/3 of the total SGM from dairy cattle and more than 2/3 of the dairy cattle's SGM from milk cows.

Pig and poultry farms:

Specialist granivores: More than 2/3 of the total SGM from pigs and poultry.

Table A. Coverage and sample in 1995 EU FADN

Country	Minimum size (ESU)	Coverage rate of SGM (%)	Number of farms
Germany	8	95	5 300
France	8	96	6 100
Italy	2	94	18 000
Belgium	12	96	1 000
Luxembourg	8	96	1 000
Netherlands	16	97	1 500
Denmark	4	100	2 000
Ireland	2	99	1 300
United Kingdom	8	98	2 500
Greece	2	95	7 200
Spain	2	95	10 100
Portugal	1	95	3 000
Austria	8	--	2 000
Finland	8	--	1 000
Sweden	8	--	600
European Union	--	96	62 000

ESU: Economic Size Unit.
SGM: Standard Gross Margin.
Source: French Ministry of Agriculture, SCEES.

Finland

Source: The Business and Income Statistics of Farming. Taxation data.

Coverage: From 1993, forestry is no longer included. Holdings with two hectares or more of arable land under cultivation and which are subject to taxation under the income tax legislation on agriculture.

Sample: The Farm Register is used as the sampling frame. The sample consists of more than 10 000 farms representing around 12 per cent of the farming population. The sample design is based on stratified simple random sampling.

Definitions:

Gross output: Receipts from animal and crop production + direct payments + rents of the means of production + other agricultural income + own consumption.

Direct payments: CAP payments + LFA allowance + environmental payments + other payments.

Net operating income: Farm income + depreciation.

Agricultural income: Gross returns from agriculture - total costs of production.

Off-farm income: Not available.

Japan

Source: MAFF, *Agricultural Yearbook*, Farm Household Economy Survey.

Coverage: Commercial farms only. A commercial farm is a farm household with 0.3 ha or more, or with a smaller area but with sales of agricultural products exceeding 500 000 yen.

Sample: The number of households in the 1994 sample is 10 000 representing 0.35 per cent of the population (2.8 million farms). The same rate of sampling is applied to each group by region, farm type and size.

Definitions:

Gross output: Farm receipts + subsidies on production + trust farm work + other.

Direct payments: Subsidies on production (diversion payments not included).

Net operating income: Agricultural income + depreciation.

Agricultural income: Gross output - total agricultural expenditure.

Off-farm income: Total receipts from non-agricultural independent activities - total non-agricultural expenditure + wages and salaries + rents and interests + social transfers.

Total income: Agricultural income + off-farm income + annuity, present, gifts, etc. (including other subsidies such as direct payments in diversion schemes).

Netherlands

Source: LEI, Dutch FADN.

Coverage: Main occupation farms. 75 per cent of all farms and 94 per cent of total production are represented.

Sample: Panel of more than 1 500 farms representing about 83 000 farms.

Definitions:

Gross output: Farm receipts + direct payments.

Direct payments: Subsidies (area payments for fodder crops are not included).

Net operating income: Farm receipts - cash costs (for farms with an off-farm income).

Farm income: Gross output - farm expenses - general expenses (for all farms).

Off-farm income: Off-farm wages + income from investments + insurance claims + social transfers

Total income: Farm income + off-farm income.

New Zealand

Source: Meat and Wool Economic Service of New Zealand, Hill Country Sheep and Beef Farm Structure Survey.

Coverage: New Zealand sheep and beef farms.

Sample: 172 farms.

Definitions:

Gross output: Gross farm revenue.

Direct payments: Negligible in most years, zero in 1995.

Net operating income: Not available.

Farm income (=Farm profit before tax): Gross farm revenue - total farm expenditure.

Off-farm income: Not available.

Switzerland

Source: Station fédérale de recherches en économie et technologie agricole (1997), *Rapport principal 1995 sur les exploitations-témoins*, Tänikon.

Coverage: Full-time farms fulfilling specific criteria concerning minimum size (0.25 ha or more, 1 UGB or more), maximum size (less than 50 ha), maximum share of non-agricultural income in total income depending on size, and minimum labour input. In addition, one member of the farm household must have followed an agricultural training programme. According to the 1990 Census, these farms represented 27 per cent of the total, i.e. 29 500.

Sample: The survey contains 3 419 test-farms representing 11 per cent of the farming population. The share of farms surveyed among the total number of test-farms varies according to region, farm type and size.

Definitions:

Gross output: Total value of all products and services during the accounting year.

Directs payments: Complementary payments + ecological payments + payments for difficult production conditions + payments to guide production.

Farm income: Gross output – current costs.

Off-farm income: All non-agricultural income of holder's family except inheritance, donations, gifts, and insurance capital benefits.

Total income: Farm income + off-farm income.

United States

Source: USDA, ERS, Agricultural Resource Management Study (ARMS), Phase 3.

Coverage: Operators associated with farm businesses representing agricultural production in the United States (excluding Hawaii and Alaska). A farm is defined as an establishment that sold or normally would have sold at least US$1 000 of agricultural products during the year. The farm operator is the person who runs the farm, making most of the day-to-day decisions about operating the farm.

Sample: The 1996 ARMS, Phase 3 is a multiple frame survey consisting of a list frame of known farm operations and a complimentary area frame to insure complete coverage of the target population. The list frame is stratified by farm size and type. The area frame consists of land segments stratified by land use characteristics. All farm operations within selected land segments are contacted for the survey. Simple random sampling is used to select sample farms within the individual strata. Each sample farm is assigned a weight reflecting its coverage of farms with similar characteristics in the farm population. The 1996 sample included 7 316 farm operations representing a population of about 2 million farms.

Definitions:

Gross output (=Gross farm cash income): Crop receipts + livestock receipts + government payments + other farm-related income (which includes the fee for service income from production contracts).

Direct payments: Government payments.

Net operating income (=Net cash farm income): Gross farm cash income - cash expenses.

Farm income: Farm business related income to the farm operator and the operator's household.

Off-farm income (=Household income from off-farm sources): Off-farm business income + off-farm wages and salaries + interests and dividends + social transfers + other.

Total income: Farm income + off-farm income.

ANNEX 2. BACKGROUND TABLES

Table A1. Distribution of income components by quartiles based on gross sales, in selected OECD countries

(Average per farm)

	Australia	Canada	Denmark	European Union	Finland	Japan	Netherlands [a]	New Zealand [b]	Switzerland	United States
Year	1996/97	1996	1996/97	1995	1996	1994	1996	1996/97	1995	1996
Unit	'000 A$	'000 C$	'000 DKr	'000 ECU	'000 Mk	'000 Yen	'000 Gld	'000 NZ$	'000 SF	'000 US$
All farms										
Number of farms in the population	84,505	234,365	61,578	3,603,188	91,894	n.a.	82,674	n.a.	n.a.	2,025,386
Number of farms in the sample	1,720	n.a.	2,015	57,183	10,788	10,000	n.a.	172	3,419	n.a.
Gross output [1]	204	159	819	59	237	4,025	466	173	200	77
Direct payments (DP) [2]	n.a.	5	94	8	93	74	3	0	31	3
Market price support (MPS) [3]	5	8	134	17	37	2,814	115	2	104	5
Total support (MPS + DP)	5	13	228	25	130	2,888	118	2	136	8
Net operating income [4]	48	24	335	24	102	2,167	139	n.a.	83	15
Farm income [5]	n.a.	12	247	17	78	1,593	72	46	56	8
Total income [6]	65	n.a.	527	n.a.	n.a.	7,094	99	n.a.	67	50
Share of agricultural income in total income (%)	73	n.c.	47	n.c.	n.c.	22	73	n.c.	84	16
First quartile (based on gross sales)										
Number of farms represented [7]	22,116	58,600	15,344	900,226	22,968	2,499	20,714	44	855	512,539
Gross output [1]	51	23	68	7	29	566	112	53	115	3
Direct payments (DP) [2]	n.a.	1	20	2	18	9	3	0	30	2
Market price support (MPS) [3]	1	0	6	2	1	435	34	1	48	0
Total support (MPS + DP)	1	1	26	3	19	444	37	1	78	2
Net operating income [4]	4	-1	-1	4	10	165	35	n.a.	58	-4
Farm income [5]	n.a.	-2	-16	3	6	21	8	11	40	-3
Total income [6]	26	n.a.	328	n.a.	n.a.	6,321	40	n.a.	52	49
Share of agricultural income in total income (%)	15	n.c.	-5	n.c.	n.c.	0	20	n.c.	76	-6
Fourth quartile (based on gross sales)										
Number of farms represented [7]	20,881	58,595	15,404	900,813	22,989	2,500	20,673	42	855	506,429
Gross output [1]	479	444	2,339	170	567	11,283	1,064	346	314	276
Direct payments (DP) [2]	n.a.	12	216	18	205	191	3	0	34	8
Market price support (MPS) [3]	10	24	367	49	91	7,655	216	5	180	19
Total support (MPS + DP)	10	36	583	67	296	7,847	219	5	214	28
Net operating income [4]	119	70	982	60	237	5,998	308	n.a.	112	66
Farm income [5]	n.a.	37	750	41	182	4,685	182	95	74	42
Total income [6]	136	n.a.	990	n.a.	n.a.	8,147	208	n.a.	83	77
Share of agricultural income in total income (%)	87	n.c.	76	n.c.	n.c.	58	87	n.c.	90	55

n.a.: not available; n.c.: not computable.

a. Direct payments in the Dutch database exclude area payments for fodder crops. If they were taken into account, the figure for the average of all farms would be about 3 times higher.

b. Quartiles calculated from deciles, using a simple weighted average.

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and, in some countries, on-farm use.
2. Direct payments are budgetary transfers to farmers from agricultural policy. In the case of the European Union, subsidies for intermediate consumption are included.
3. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
4. Difference between farm cash receipts and farm operating expenses.
5. Difference between gross output and all expenses, including depreciation. For the US, it is the farm business related income to the farm operator amd the operator's household.
6. Sum of farm income plus off-farm income except in the case of Australia where it is the sum of net operating income plus off-farm income
7. Either population or sample.

Source: OECD Structural database.

Table A2. Contribution of the first and fourth quartiles to the total of farms, in selected OECD countries

(Percentage)

	Australia	Canada	Denmark	European Union	Finland	Japan	Netherlands [a]	New Zealand [b]	Switzerland	United States
Year	1996/97	1996	1996/97	1995	1996	1994	1996	1996/97	1995	1996
First quartile (based on gross sales)										
Number of farms represented [7]	26	25	25	25	25	25	25	26	25	25
Gross output [1]	7	4	2	3	3	4	6	8	14	1
Direct payments (DP) [2]	n.c.	5	5	6	5	3	27	n.c.	24	14
Market price support (MPS) [3]	8	0	1	3	1	4	7	9	11	0
Total support (MPS + DP)	8	2	3	4	4	4	8	9	14	5
Net operating income [4]	2	-1	0	4	2	2	6	n.c.	17	n.c.
Farm income [5]	n.c.	-4	-2	4	2	0	3	6	18	n.c.
Total income [6]	10	n.c.	16	n.c.	n.c.	22	10	n.c.	20	25
Fourth quartile (based on gross sales)										
Number of farms represented [7]	25	25	25	25	25	25	25	24	25	25
Gross output [1]	58	70	71	72	60	70	57	49	39	90
Direct payments (DP) [2]	n.c.	60	58	57	55	65	26	n.c.	27	71
Market price support (MPS) [3]	51	79	68	73	62	68	47	49	43	97
Total support (MPS + DP)	51	71	64	68	57	68	46	49	39	88
Net operating income [4]	62	73	73	63	58	69	56	n.c.	34	n.c.
Farm income [5]	n.c.	75	76	61	58	74	63	50	33	n.c.
Total income [6]	52	n.c.	47	n.c.	n.c.	29	53	n.c.	31	38

n.c.: not computable.

a. Direct payments in the Dutch database exclude area payments for fodder crops. If they were taken into account, the figure for the average of all farms would be about 3 times higher.

b. Quartiles calculated from deciles, using a simple weighted average.

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and, in some countries, on-farm use.
2. Direct payments are budgetary transfers to farmers from agricultural policy. In the case of the European Union, subsidies for intermediate consumption are included.
3. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
4. Difference between farm cash receipts and farm operating expenses.
5. Difference between gross output and all expenses, including depreciation. For the US, it is the farm business related income to the farm operator amd the operator's household.
6. Sum of farm income plus off-farm income except in the case of Australia where it is the sum of net operating income plus off-farm income
7. Either population or sample.

Source: Annex Table A1.

Table A3. Indicators between quartiles based on gross sales, in selected OECD countries

(Ratio)

	Australia	Canada	Denmark	European Union	Finland	Japan	Netherlands [a]	New Zealand [b]	Switzerland	United States
Year	1996/97	1996	1996/97	1995	1996	1994	1996	1996/97	1995	1996
Ratio fourth to first quartile (Q4/Q1)										
Gross output [1]	9.4	19.0	34.4	24.3	19.5	19.9	9.5	6.6	2.7	89.3
Direct payments (DP) [2]	n.c.	12.4	10.9	9.8	11.3	22.2	1.0	n.c.	1.1	5.2
Market price support (MPS) [3]	6.5	208.7	60.0	29.1	70.2	17.6	6.3	5.4	3.8	8,882.0
Total support (MPS + DP)	6.5	33.0	22.5	19.2	15.3	17.7	5.9	5.4	2.7	17.1
Net operating income [4]	30.7	-97.3	-1,077.2	15.7	23.7	36.4	8.7	n.c.	1.9	-18.0
Farm income [5]	n.c.	-18.9	-46.6	15.8	31.5	219.9	22.6	8.4	1.9	-13.9
Total income [6]	5.3	n.c.	3.0	n.c.	n.c.	1.3	5.2	n.c.	1.6	1.6
Ratio first quartile to all farms (Q1/ALL)										
Gross output [1]	0.25	0.15	0.08	0.12	0.12	0.14	0.24	0.30	0.58	0.04
Direct payments (DP) [2]	n.c.	0.19	0.21	0.23	0.19	0.12	1.07	n.c.	0.96	0.55
Market price support (MPS) [3]	0.32	0.02	0.05	0.10	0.04	0.15	0.30	0.37	0.46	0.00
Total support (MPS + DP)	0.32	0.09	0.11	0.14	0.15	0.15	0.31	0.37	0.57	0.21
Net operating income [4]	0.08	-0.03	0.00	0.16	0.10	0.08	0.26	n.c.	0.70	-0.25
Farm income [5]	n.c.	-0.16	-0.07	0.15	0.07	0.01	0.11	0.24	0.71	-0.38
Total income [6]	0.40	n.c.	0.62	n.c.	n.c.	0.89	0.40	n.c.	0.79	0.97
Ratio fourth quartile to all farms (Q4/ALL)										
Gross output [1]	2.4	2.8	2.9	2.9	2.4	2.8	2.3	2.0	1.6	3.6
Direct payments (DP) [2]	n.c.	2.4	2.3	2.3	2.2	2.6	1.0	n.c.	1.1	2.9
Market price support (MPS) [3]	2.1	3.2	2.7	2.9	2.5	2.7	1.9	2.0	1.7	3.9
Total support (MPS + DP)	2.1	2.9	2.6	2.7	2.3	2.7	1.9	2.0	1.6	3.5
Net operating income [4]	2.5	2.9	2.9	2.5	2.3	2.8	2.2	n.c.	1.3	4.5
Farm income [5]	n.c.	3.0	3.0	2.4	2.3	2.9	2.5	2.0	1.3	5.3
Total income [6]	2.1	n.c.	1.9	n.c.	n.c.	1.1	2.1	n.c.	1.2	1.5
Ratio gap between the fourth and the first quartiles to all farms (Q4-Q1)/ALL										
Gross output [1]	2.1	2.6	2.8	2.7	2.3	2.66	2.04	1.7	0.99	3.6
Direct payments (DP) [2]	n.c.	2.2	2.1	2.0	2.0	2.47	-0.03	n.c.	0.12	2.3
Market price support (MPS) [3]	1.7	3.2	2.7	2.8	2.4	2.57	1.58	1.6	1.27	3.9
Total support (MPS + DP)	1.7	2.8	2.4	2.6	2.1	2.56	1.54	1.6	1.00	3.3
Net operating income [4]	2.4	3.0	2.9	2.4	2.2	2.69	1.97	n.c.	0.65	4.8
Farm income [5]	n.c.	3.2	3.1	2.3	2.3	2.9	2.4	1.8	0.6	5.7
Total income [6]	1.7	n.c.	1.3	n.c.	n.c.	0.3	1.7	n.c.	0.5	0.5

n.c.: not computable.

a. Direct payments in the Dutch database exclude area payments for fodder crops. If they were taken into account, the figure for the average of all farms would be about 3 times higher.

b. Quartiles calculated from deciles, using a simple weighted average.

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and, in some countries, on-farm use.
2. Direct payments are budgetary transfers to farmers from agricultural policy. In the case of the European Union, subsidies for intermediate consumption are included.
3. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
4. Difference between farm cash receipts and farm operating expenses.
5. Difference between gross output and all expenses, including depreciation. For the US, it is the farm business related income to the farm operator amd the operator's household.
6. Sum of farm income plus off-farm income except in the case of Australia where it is the sum of net operating income plus off-farm income

Source: Annex Table A1.

Table A4. Share of support in income components by quartiles, in selected OECD countries

(Percentage)

	Australia	Canada	Denmark	European Union	Finland	Japan	Netherlands [a]	New Zealand [b]	Switzerland	United States
Year	1996/97	1996	1996/97	1995	1996	1994	1996	1996/97	1995	1996
All farms										
Share of direct payments:										
- in total support	n.c.	40	41	31	72	3	2	0	23	37
- in gross output	n.c.	3	11	13	39	2	1	0	16	4
- in net operating income	n.c.	21	28	33	91	3	2	n.c.	37	20
- in farm income	n.c.	42	38	46	118	5	4	0	56	n.c.
Share of total support:										
- in gross output	2	8	28	42	55	72	25	1	68	10
- in net operating income	10	53	68	104	128	133	85	n.c.	163	54
- in farm income	n.c.	103	92	148	166	181	164	5	242	n.c.
First quartile (based on gross sales)										
Share of direct payments:										
- in total support	n.c.	90	76	51	93	2	8	0	39	100
- in gross output	n.c.	4	29	26	62	2	3	0	26	52
- in net operating income	n.c.	-135	-2,170	47	180	5	9	n.c.	52	-44
- in farm income	n.c.	-50	-123	69	312	40	38	0	75	n.c.
Share of total support:										
- in gross output	3	5	38	50	66	78	33	2	67	53
- in net operating income	38	-151	-2,842	91	193	269	105	n.c.	134	-44
- in farm income	n.c.	-56	-161	135	334	2,085	461	8	195	n.c.
Fourth quartile (based on gross sales)										
Share of direct payments:										
- in total support	n.c.	34	37	26	69	2	1	0	16	30
- in gross output	n.c.	3	9	10	36	2	0	0	11	3
- in net operating income	n.c.	17	22	29	86	3	1	n.c.	30	13
- in farm income	n.c.	33	29	43	112	4	2	0	46	n.c.
Share of total support:										
- in gross output	2	8	25	39	52	70	21	1	68	10
- in net operating income	8	51	59	111	125	131	71	n.c.	191	42
- in farm income	n.c.	98	78	164	162	167	121	5	288	n.c.

n.c.: not computable.

See notes to Table A1 for a definition of variables.

a. Direct payments in the Dutch database exclude area payments for fodder crops. If they were taken into account, the figure for the average of all farms would be about 3 times higher.

b. Quartiles calculated from deciles, using a simple weighted average.

Source: Annex Table A1.

Table A5. Evolution of the distribution of income components by quartiles based on gross sales, in selected OECD countries

(Average per farm represented)

	Denmark				Finland			Japan		New Zealand [a]			
Year	1979/80	1985/86	1990/91	1996/97	1985	1990	1996	1985	1994	1979/80	1984/85	1989/90	1996/97
Unit	'000 DKr				'000 Mk			'000 Yen		'000 NZ$			
All farms													
Number of farms in the population	104,294	88,773	76,390	61,578	158,627	121,032	91,894	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Number of farms in the sample	1,920	1,924	1,960	2,015	15,558	14,774	10,788	10,000	10,000	129	147	168	172
Gross output [1]	310	557	648	819	143	233	237	2,897	4,025	83	132	142	173
Direct payments (DP) [2]	5	11	13	94	4	18	93	43	74	1	5	1	0
Market price support (MPS) [3]	111	167	245	134	71	144	37	1,822	2,814	3	5	2	2
Total support (MPS + DP)	116	178	258	228	75	162	130	1,864	2,888	3	10	3	2
Net operating income [4]	106	712	248	335	63	111	102	1,639	2,167	n.a.	n.a.	n.a.	n.a.
Farm income [5]	86	155	176	247	45	84	78	1,066	1,593	31	41	34	46
Total income [6]	142	273	369	527	n.a.	n.a.	n.a.	5,503	7,094	n.a.	n.a.	n.a.	n.a.
Share of agricultural income in total income (%)	61	57	48	47	n.c.	n.c.	n.c.	19	22	n.c.	n.c.	n.c.	n.c.
First quartile (based on gross sales)													
Number of farms represented [7]	25,978	22,177	19,059	15,344	39,653	30,239	22,968	2,496	2,499	34	38	43	44
Gross output [1]	54	71	69	68	8	18	29	307	566	39	61	53	53
Direct payments (DP) [2]	1	1	2	20	1	6	18	2	9	0	2	0	0
Market price support (MPS) [3]	17	15	23	6	2	6	1	221	435	1	2	1	1
Total support (MPS + DP)	18	16	26	26	3	12	19	223	444	1	4	1	1
Net operating income [4]	9	7	-3	-1	3	9	10	145	165	n.a.	n.a.	n.a.	n.a.
Farm income [5]	5	-7	-17	-16	2	6	6	1	21	13	14	0	11
Total income [6]	83	152	229	328	n.a.	n.a.	n.a.	5,491	6,321	n.a.	n.a.	n.a.	n.a.
Share of agricultural income in total income (%)	6	-5	-7	-5	n.c.	n.c.	n.a.	0	0	n.c.	n.c.	n.c.	n.c.
Fourth quartile (based on gross sales)													
Number of farms represented [7]	26,096	22,208	19,113	15,404	39,664	30,271	22,989	2,501	2,500	32	36	41	42
Gross output [1]	752	1,435	1,720	2,339	374	576	567	7,964	11,283	163	248	271	346
Direct payments (DP) [2]	14	32	32	216	5	25	205	127	191	1	9	4	0
Market price support (MPS) [3]	268	424	642	367	191	368	91	5,111	7,655	5	9	1	5
Total support (MPS + DP)	282	457	675	583	196	393	296	5,238	7,847	6	18	5	5
Net operating income [4]	254	551	687	982	158	257	237	4,177	5,998	n.a.	n.a.	n.a.	n.a.
Farm income [5]	205	417	514	750	111	192	182	2,864	4,685	69	89	73	95
Total income [6]	259	528	679	990	n.a.	n.a.	n.a.	5,344	8,147	n.a.	n.a.	n.a.	n.a.
Share of agricultural income in total income (%)	79	79	76	76	n.c.	n.c.	n.a.	54	58	n.c.	n.c.	n.c.	n.c.

n.a.: not available; n.c.: not computable.

a. Quartiles calculated from deciles, using a simple weighted average.

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and, in some countries, on-farm use.
2. Direct payments are budgetary transfers to farmers from agricultural policy.
3. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
4. Difference between farm cash receipts and farm operating expenses.
5. Difference between gross output and all expenses, including depreciation.
6. Sum of farm income plus off-farm income.
7. Either population or sample.

Source: OECD Structural database.

Table A6. Evolution of the contribution of the first and fourth quartiles to all farms, in selected OECD countries

(Percentage)

	Denmark				Finland			Japan		New Zealand [a]			
Year	1979/80	1985/86	1990/91	1996/97	1985	1990	1996	1985	1994	1979/80	1984/85	1989/90	1996/97
First quartile (based on gross sales)													
Number of farms represented [7]	25	25	25	25	25	25	25	25	25	26	26	26	26
Gross output [1]	4	3	3	2	1	2	3	3	4	12	12	9	8
Direct payments (DP) [2]	3	1	5	5	6	9	5	1	3	12	12	9	n.c.
Market price support (MPS) [3]	4	2	2	1	1	1	1	3	4	12	12	9	9
Total support (MPS + DP)	4	2	3	3	1	2	4	3	4	12	12	9	9
Net operating income [4]	2	0	0	0	1	2	2	2	2	n.c.	n.c.	n.c.	n.c.
Farm income [5]	1	-1	-2	-2	1	2	2	0	0	11	9	0	6
Total income [6]	15	14	15	16	n.c.	n.c.	n.c.	25	22	n.c.	n.c.	n.c.	n.c.
Fourth quartile (based on gross sales)													
Number of farms represented [7]	25	25	25	25	25	25	25	25	25	24	24	24	24
Gross output [1]	61	64	66	71	65	62	60	69	70	48	45	47	49
Direct payments (DP) [2]	67	74	62	58	39	34	55	74	65	48	45	139	n.c.
Market price support (MPS) [3]	60	63	65	68	67	64	62	70	68	48	45	16	49
Total support (MPS + DP)	61	64	65	64	66	61	57	70	68	48	45	47	49
Net operating income [4]	60	19	69	73	63	58	58	64	69	n.c.	n.c.	n.c.	n.c.
Farm income [5]	60	67	73	76	62	57	58	67	74	54	53	53	50
Total income [6]	46	48	46	47	n.c.	n.c.	n.c.	24	29	n.c.	n.c.	n.c.	n.c.

n.c.: not computable.

a. Quartiles calculated from deciles, using a simple weighted average.

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and, in some countries, on-farm use.
2. Direct payments are budgetary transfers to farmers from agricultural policy.
3. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
4. Difference between farm cash receipts and farm operating expenses.
5. Difference between gross output and all expenses, including depreciation.
6. Sum of farm income plus off-farm income.
7. Either population or sample.

Source: Annex Table A5.

Table A7. Evolution of indicators of dispersion between quartiles based on gross sales, in selected OECD countries

(Ratio)

Year	1979/80	1985/86	1990/91	1996/97	1985	1990	1996	1985	1994	1979/80	1984/85	1989/90	1996/97
Ratio fourth to first quartile (Q4/Q1)													
Gross output [1]	14.0	20.3	25.0	34.4	49.5	32.1	19.5	25.9	19.9	4.2	4.1	5.2	6.6
Direct payments (DP) [2]	26.2	51.1	13.1	10.9	6.6	3.9	11.3	63.5	22.2	4.2	4.1	15.4	n.c.
Market price support (MPS) [3]	15.4	27.4	27.4	60.0	92.9	65.7	70.2	23.2	17.6	4.2	4.1	1.7	5.4
Total support (MPS + DP)	15.8	28.3	26.0	22.5	68.2	32.6	15.3	23.5	17.7	4.2	4.1	5.2	5.4
Net operating income [4]	29.1	75.2	-228.3	-1,077.2	58.6	28.4	23.7	28.9	36.4	n.c.	n.c.	n.c.	n.c.
Farm income [5]	41.1	-58.1	-30.3	-46.6	67.8	30.4	31.5	2,386.5	219.9	5.3	6.2	-247.6	8.4
Total income [6]	3.1	3.5	3.0	3.0	n.c	n.c	n.c	1.0	1.3	n.c.	n.c.	n.c.	n.c.
Ratio first quartile to all farms (Q1/ALL)													
Gross output [1]	0.17	0.13	0.11	0.08	0.05	0.08	0.12	0.11	0.14	0.47	0.46	0.37	0.30
Direct payments (DP) [2]	0.10	0.06	0.19	0.21	0.24	0.36	0.19	0.05	0.12	0.47	0.46	0.37	n.c.
Market price support (MPS) [3]	0.16	0.09	0.10	0.05	0.03	0.04	0.04	0.12	0.15	0.47	0.46	0.37	0.37
Total support (MPS + DP)	0.15	0.09	0.10	0.11	0.04	0.07	0.15	0.12	0.15	0.47	0.46	0.37	0.37
Net operating income [4]	0.08	0.01	-0.01	0.00	0.04	0.08	0.10	0.09	0.08	n.c.	n.c.	n.c.	n.c.
Farm income [5]	0.06	-0.05	-0.10	-0.07	0.04	0.08	0.07	0.00	0.01	0.42	0.35	-0.01	0.24
Total income [6]	0.59	0.56	0.62	0.62	n.c.	n.c.	n.c.	1.00	0.89	n.c.	n.c.	n.c.	n.c.
Ratio fourth quartile to all farms (Q4/ALL)													
Gross output [1]	2.4	2.6	2.7	2.9	2.6	2.5	2.4	2.7	2.8	2.0	1.9	1.9	2.0
Direct payments (DP) [2]	2.7	3.0	2.5	2.3	1.6	1.4	2.2	3.0	2.6	2.0	1.9	5.7	n.c.
Market price support (MPS) [3]	2.4	2.5	2.6	2.7	2.7	2.6	2.5	2.8	2.7	2.0	1.9	0.6	2.0
Total support (MPS + DP)	2.4	2.6	2.6	2.6	2.6	2.4	2.3	2.8	2.7	2.0	1.9	1.9	2.0
Net operating income [4]	2.4	0.8	2.8	2.9	2.5	2.3	2.3	2.5	2.8	n.c.	n.c.	n.c.	n.c.
Farm income [5]	2.4	2.7	2.9	3.0	2.5	2.3	2.3	2.7	2.9	2.2	2.2	2.2	2.0
Total income [6]	1.8	1.9	1.8	1.9	n.c.	n.c.	n.c.	1.0	1.1	n.c.	n.c.	n.c.	n.c.

n.c.: not computable.

a. Quartiles calculated from deciles, using a simple weighted average.

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and, in some countries, on-farm use.
2. Direct payments are budgetary transfers to farmers from agricultural policy.
3. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
4. Difference between farm cash receipts and farm operating expenses.
5. Difference between gross output and all expenses, including depreciation.
6. Sum of farm income plus off-farm income.

Source: Annex Table A5.

Table A8. Evolution of the share of support in income components by quartiles, in selected OECD countries

(Percentage)

	Denmark				Finland			Japan		New Zealand [a]			
Year	1979/80	1985/86	1990/91	1996/97	1985	1990	1996	1985	1994	1979/80	1984/85	1989/90	1996/97
All farms													
Share of direct payments:													
- in total support	5	6	5	41	5	11	72	2	3	17	51	25	0
- in gross output	2	2	2	11	2	8	39	1	2	1	4	0	0
- in net operating income	5	2	5	28	6	16	91	3	3	n.c.	n.c.	n.c.	n.c.
- in farm income	6	7	7	38	8	21	118	4	5	2	12	2	0
Share of total support:													
- in gross output	38	32	40	28	52	69	55	64	72	4	7	2	1
- in net operating income	109	25	104	68	119	145	128	114	133	n.c.	n.c.	n.c.	n.c.
- in farm income	135	115	147	92	167	192	166	175	181	10	23	8	5
First quartile (based on gross sales)													
Share of direct payments:													
- in total support	3	4	10	76	29	54	93	1	2	17	51	25	0
- in gross output	1	1	4	29	11	36	62	1	2	1	4	0	0
- in net operating income	6	9	-82	-2,170	31	71	180	1	5	n.c.	n.c.	n.c.	n.c.
- in farm income	11	-9	-15	-123	51	102	312	167	40	2	16	-80	0
Share of total support:													
- in gross output	33	23	38	38	38	67	66	73	78	4	7	2	2
- in net operating income	205	220	-861	-2,842	107	133	193	154	269	n.c.	n.c.	n.c.	n.c.
- in farm income	360	-224	-153	-161	176	190	334	18,547	2,085	11	31	-320	8
Fourth quartile (based on gross sales)													
Share of direct payments:													
- in total support	5	7	5	37	3	6	69	2	2	17	51	75	0
- in gross output	2	2	2	9	1	4	36	2	2	1	4	1	0
- in net operating income	6	6	5	22	3	10	86	3	3	n.c.	n.c.	n.c.	n.c.
- in farm income	7	8	6	29	5	13	112	4	4	1	10	5	0
Share of total support:													
- in gross output	38	32	39	25	52	68	52	66	70	4	7	2	1
- in net operating income	111	83	98	59	124	153	125	125	131	n.c.	n.c.	n.c.	n.c.
- in farm income	138	109	131	78	177	204	162	183	167	9	20	7	5

n.c.: not computable.

See notes to Table A5 for a definition of variables.

a. Quartiles calculated from deciles, using a simple weighted average.

Source: Annex Table A5.

Table A9. Canada: Distribution of income components for selected farm types, 1995/96

Farm type [a]		Grain and oilseed farms					Cattle farms					Dairy farms					All farms
Quartiles		1	2	3	4	**All**	1	2	3	4	**All**	1	2	3	4	**All**	**All**
Number of farms in population		23,130	27,585	29,685	20,745	101,145	21,380	18,550	12,085	8,720	60,735	605	1,870	7,835	13,475	23,785	**236,420**
Average per farm represented																	
Gross output [1]	'000 C$	20	45	103	287	**106**	27	58	121	712	**154**	29	56	116	288	**207**	**152**
Direct payments (DP) [2]	'000 C$	1	2	3	9	**3**	1	1	2	8	**2**	1	3	8	15	**11**	**4**
Market price support (MPS) [3]	'000 C$	0	0	0	2	**0**	0	0	0	2	**0**	6	14	36	90	**64**	**8**
Total support (MPS + DP)	'000 C$	1	2	4	11	**4**	1	2	2	9	**3**	8	18	44	105	**76**	**12**
Net operating income [4]	'000 C$	4	10	25	67	**25**	-3	3	12	46	**9**	6	12	30	66	**49**	**24**
Farm income [5]	'000 C$	2	6	14	36	**14**	-5	-1	4	29	**3**	13	9	18	34	**26**	**12**
Contribution to the total of farms																	
Number of farms	%	23	27	29	21	**100**	35	31	20	14	**100**	3	8	33	57	**100**	**100**
Gross output [1]	%	4	12	29	55	**100**	6	12	16	67	**100**	0	2	18	79	**100**	**100**
Direct payments (DP) [2]	%	4	12	29	54	**100**	10	20	20	50	**100**	0	2	23	74	**100**	**100**
Market price support (MPS) [3]	%	3	8	22	67	**100**	2	7	13	78	**100**	0	2	18	80	**100**	**100**
Total support (MPS + DP)	%	4	12	28	56	**100**	9	18	19	53	**100**	0	2	19	79	**100**	**100**
Net operating income [4]	%	3	11	30	56	**100**	-13	9	28	76	**100**	0	2	20	78	**100**	**100**
Farm income [5]	%	3	12	31	54	**100**	-55	-14	28	142	**100**	1	3	23	73	**100**	**100**
Shares																	
Share of direct payments:																	
- in total support	%	90	92	91	86	**88**	97	95	92	82	**87**	19	18	18	14	**15**	**35**
- in gross output	%	3	3	3	3	**3**	2	2	2	1	**1**	5	6	7	5	**6**	**3**
- in net operating income	%	17	15	13	13	**14**	-19	55	19	17	**25**	24	27	27	22	**24**	**18**
- in farm income	%	32	26	24	25	**25**	-14	-109	57	27	**77**	11	34	45	44	**43**	**35**
Share of total support:																	
- in gross output	%	3	4	4	4	**4**	2	3	2	1	**2**	27	32	38	36	**37**	**8**
- in net operating income	%	19	16	15	16	**16**	-20	58	20	20	**29**	127	149	148	158	**156**	**52**
- in farm income	%	35	29	27	30	**29**	-14	-115	62	33	**88**	60	187	245	308	**287**	**102**

a. See Annex 1 for a definition of farm types.

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and on-farm use.
2. Program payments plus milk subsidy.
3. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
4. Difference between farm cash receipts and farm operating expenses.
5. Difference between gross output and all expenses, including depreciation.

Source: OECD Structural database.

Table A10. Denmark: Distribution of income components for selected farm types, 1995

Quartiles		1	2	3	4	**All**	1	2	3	4	**All**	1	2	3	4	**All**	**All**
Number of farms in population		12,239	11,237	6,416	2,705	**32,597**	3,841	3,442	6,575	7,453	**21,311**	358	1,831	3,543	6,354	**12,086**	**65,993**
Average per farm represented																	
Gross output [1]	'000 DKr	67	195	540	2,023	**366**	56	203	679	1,684	**841**	87	225	630	2,613	**1,595**	**745**
Direct payments (DP)	'000 DKr	19	54	116	335	**76**	13	41	56	149	**78**	13	31	69	198	**130**	**87**
- Subsidies for plant production	'000 DKr	19	48	107	320	**71**	6	21	40	105	**53**	13	29	61	171	**112**	**73**
- Subsidies for livestock production	'000 DKr	0	2	4	5	**2**	7	14	9	15	**12**	0	2	2	2	**2**	**5**
- General subsidies on output	'000 DKr	0	4	4	10	**3**	0	6	7	30	**13**	1	0	7	25	**15**	**9**
Market price support (MPS) [2]	'000 DKr	11	34	111	443	**74**	17	67	293	719	**356**	10	32	76	345	**209**	**190**
Total support (MPS + DP)	'000 DKr	30	88	226	778	**151**	30	108	349	868	**434**	24	63	146	543	**338**	**277**
Net operating income [3]	'000 DKr	3	72	272	1,040	**166**	-20	59	290	682	**334**	6	58	239	981	**595**	**299**
Farm income [4]	'000 DKr	-12	42	198	815	**117**	-34	28	224	512	**247**	-8	29	176	744	**447**	**219**
Total income [5]	'000 DKr	305	338	453	1,178	**418**	360	297	368	686	**466**	161	333	414	966	**685**	**482**
Share of agricultural income in total income	%	-4	12	44	69	**28**	-9	10	61	75	**53**	-5	9	43	77	**65**	**45**
Contribution to the total of farms																	
Number of farms	%	38	34	20	8	**100**	18	16	31	35	**100**	3	15	29	53	**100**	**100**
Gross output [1]	%	7	18	29	46	**100**	1	4	25	70	**100**	0	2	12	86	**100**	**100**
Direct payments (DP)	%	10	24	30	36	**100**	3	8	22	66	**100**	0	4	16	80	**100**	**100**
- Subsidies for plant production	%	10	23	30	37	**100**	2	6	23	69	**100**	0	4	16	80	**100**	**100**
- Subsidies for livestock production	%	8	31	40	21	**100**	10	20	25	45	**100**	0	12	25	62	**100**	**100**
- General subsidies on output	%	5	43	26	26	**100**	1	7	15	77	**100**	0	0	13	86	**100**	**100**
Market price support (MPS) [2]	%	5	16	29	49	**100**	1	3	25	71	**100**	0	2	11	87	**100**	**100**
Total support (MPS + DP)	%	7	20	30	43	**100**	1	4	25	70	**100**	0	3	13	84	**100**	**100**
Net operating income [3]	%	1	15	32	52	**100**	-1	3	27	71	**100**	0	1	12	87	**100**	**100**
Farm income [4]	%	-4	12	33	58	**100**	-2	2	28	73	**100**	0	1	12	88	**100**	**100**
Total income [5]	%	27	28	21	23	**100**	14	10	24	51	**100**	1	7	18	74	**100**	**100**
Shares																	
Share of direct payments:																	
- in total support	%	65	61	51	43	**51**	43	38	16	17	**18**	56	50	48	36	**38**	**31**
- in gross output	%	29	27	21	17	**21**	23	20	8	9	**9**	15	14	11	8	**8**	**12**
- in net operating income	%	726	74	42	32	**46**	-64	70	19	22	**23**	221	54	29	20	**22**	**29**
- in farm income	%	-169	128	58	41	**65**	-38	144	25	29	**32**	-175	110	39	27	**29**	**40**
Share of total support:																	
- in gross output	%	45	45	42	38	**41**	54	53	51	52	**52**	27	28	23	21	**21**	**37**
- in net operating income	%	1,122	122	83	75	**91**	-150	185	120	127	**130**	393	109	61	55	**57**	**93**
- in farm income	%	-261	209	114	95	**129**	-89	380	156	170	**176**	-312	221	83	73	**76**	**126**

a. See Annex 1 for a definition of farm types.

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and on-farm use.
2. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
3. Difference between farm cash receipts and farm operating expenses.
4. Difference between gross output and all expenses, including depreciation.
5. Sum of farm income plus off-farm income.

Source: OECD Structural database.

Table A11. European Union: Distribution of income components for selected farm types, 1995

Farm type [a]		Field crop farms					Cattle farms				
Quartiles		1	2	3	4	**All**	1	2	3	4	**All**
Number of farms in population (thousands)		281	281	281	281	**1,124**	107	107	107	107	**428**
Average per farm represented											
Gross output [1]	ECU	6,615	13,735	30,706	142,536	**48,399**	12,205	24,964	46,118	111,170	**48,618**
Direct payments (DP)	ECU	1,894	2,760	6,481	27,508	**9,661**	5,028	7,530	12,815	20,461	**11,459**
Production subsidies for crops	ECU	1,400	2,472	5,302	23,525	**8,175**	124	451	1,263	4,164	**1,501**
Compensatory payments	ECU	1,046	1,925	4,200	19,302	**6,619**	85	296	825	3,333	**1,135**
Set aside premiums	ECU	80	134	481	3,288	**996**	0	12	33	319	**91**
Production subsidies for livestock	ECU	58	100	468	1,807	**608**	3,590	5,263	8,222	12,365	**7,361**
Other production subsidies	ECU	188	172	590	1,462	**603**	784	1,389	2,707	3,061	**1,986**
Subsidies on intermediate consumption	ECU	15	5	45	423	**122**	3	13	43	127	**47**
Subsidies on investments	ECU	233	12	76	282	**151**	524	413	579	745	**565**
Market price support (MPS) [2]	ECU	1,367	3,113	6,638	28,283	**9,850**	2,999	7,017	13,170	37,160	**15,088**
Total support (MPS + DP)	ECU	3,261	5,873	13,119	55,791	**19,511**	8,027	14,547	25,985	57,621	**26,547**
Net operating income [3]	ECU	3,345	7,820	15,872	57,316	**21,088**	5,649	12,277	22,246	45,753	**21,483**
Farm income [4]	ECU	2,118	5,820	11,923	39,494	**14,838**	4,298	9,664	17,035	33,613	**16,154**
Contribution to the total of farms											
Number of farms	%	25	25	25	25	**100**	25	25	25	25	**100**
Gross output [1]	%	3	7	16	74	**100**	6	13	24	57	**100**
Direct payments (DP)	%	5	7	17	71	**100**	11	16	28	45	**100**
Production subsidies for crops	%	4	8	16	72	**100**	2	8	21	69	**100**
Compensatory payments	%	4	7	16	73	**100**	2	7	18	73	**100**
Set aside premiums	%	2	3	12	83	**100**	0	3	9	88	**100**
Production subsidies for livestock	%	2	4	19	74	**100**	12	18	28	42	**100**
Other production subsidies	%	8	7	24	61	**100**	10	17	34	39	**100**
Subsidies on intermediate consumption	%	3	1	9	87	**100**	2	7	23	68	**100**
Subsidies on investments	%	39	2	13	47	**100**	23	18	26	33	**100**
Market price support (MPS) [2]	%	3	8	17	72	**100**	5	12	22	62	**100**
Total support (MPS + DP)	%	4	8	17	71	**100**	8	14	24	54	**100**
Net operating income [3]	%	4	9	19	68	**100**	7	14	26	53	**100**
Farm income [4]	%	4	10	20	67	**100**	7	15	26	52	**100**
Shares											
Share of direct payments:											
- in total support	%	58	47	49	49	**50**	63	52	49	36	**43**
- in gross output	%	29	20	21	19	**20**	41	30	28	18	**24**
- in net operating income	%	57	35	41	48	**46**	89	61	58	45	**53**
- in farm income	%	89	47	54	70	**65**	117	78	75	61	**71**
Share of total support:											
- in gross output	%	49	43	43	39	**40**	66	58	56	52	**55**
- in net operating income	%	97	75	83	97	**93**	142	118	117	126	**124**
- in farm income	%	154	101	110	141	**131**	187	151	153	171	**164**

n.c.: not computable.

a. See Annex 1 for a definition of farm types.

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments and other receipts.
2. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
3. Farm income plus depreciation.
4. Difference between gross output and all expenses, including depreciation.

Source: OECD Structural database.

Table A11. European Union: Distribution of income components for selected farm types, 1995

(cont.)

Farm type [a]		Dairy farms					Pig and poultry farms					All farms
Quartiles		1	2	3	4	**All**	1	2	3	4	**All**	**All**
Number of farms in population (thousands)		123	123	123	123	**491**	123	123	123	123	**491**	**3,603**
Average per farm represented												
Gross output [1]	ECU	27,751	55,359	88,551	200,447	**93,037**	45,745	111,400	202,499	514,515	**218,584**	**59,272**
Direct payments (DP)	ECU	5,366	8,191	8,819	10,679	**8,264**	7,685	9,805	7,606	12,090	**9,297**	**7,739**
Production subsidies for crops	ECU	769	1,883	3,024	5,480	**2,789**	2,390	4,066	4,506	9,195	**5,040**	**4,525**
Compensatory payments	ECU	395	1,256	2,572	4,841	**2,266**	1,474	2,678	3,810	7,758	**3,931**	**3,349**
Set aside premiums	ECU	11	38	139	525	**179**	146	257	388	1,235	**507**	**467**
Production subsidies for livestock	ECU	1,418	2,300	2,029	1,982	**1,932**	3,585	3,560	1,439	952	**2,384**	**1,725**
Other production subsidies	ECU	2,367	3,392	3,099	2,353	**2,803**	1,593	1,867	1,100	929	**1,372**	**1,102**
Subsidies on intermediate consumption	ECU	89	206	287	426	**252**	55	178	331	417	**245**	**133**
Subsidies on investments	ECU	723	410	380	439	**488**	62	133	231	597	**256**	**252**
Market price support (MPS) [2]	ECU	10,302	21,576	37,243	89,801	**39,735**	5,820	13,600	24,314	71,750	**28,877**	**16,952**
Total support (MPS + DP)	ECU	15,668	29,767	46,062	100,480	**47,999**	13,505	23,405	31,920	83,840	**38,174**	**24,691**
Net operating income [3]	ECU	12,963	24,631	36,248	71,875	**36,433**	13,632	32,884	52,536	125,032	**56,032**	**23,794**
Farm income [4]	ECU	9,222	17,222	24,689	48,196	**24,835**	8,136	21,400	35,898	88,926	**38,598**	**16,715**
Contribution to the total of farms												
Number of farms	%	25	25	25	25	**100**	25	25	25	25	**100**	**100**
Gross output [1]	%	7	15	24	54	**100**	5	13	23	59	**100**	**100**
Direct payments (DP)	%	16	25	27	32	**100**	21	26	20	33	**100**	**100**
Production subsidies for crops	%	7	17	27	49	**100**	12	20	22	46	**100**	**100**
Compensatory payments	%	4	14	28	53	**100**	9	17	24	49	**100**	**100**
Set aside premiums	%	2	5	19	73	**100**	7	13	19	61	**100**	**100**
Production subsidies for livestock	%	18	30	26	26	**100**	38	37	15	10	**100**	**100**
Other production subsidies	%	21	30	28	21	**100**	29	34	20	17	**100**	**100**
Subsidies on intermediate consumption	%	9	20	28	42	**100**	6	18	34	43	**100**	**100**
Subsidies on investments	%	37	21	19	22	**100**	6	13	23	58	**100**	**100**
Market price support (MPS) [2]	%	6	14	23	57	**100**	5	12	21	62	**100**	**100**
Total support (MPS + DP)	%	8	16	24	52	**100**	9	15	21	55	**100**	**100**
Net operating income [3]	%	9	17	25	49	**100**	6	15	23	56	**100**	**100**
Farm income [4]	%	9	17	25	49	**100**	5	14	23	58	**100**	**100**
Shares												
Share of direct payments:												
- in total support	%	34	28	19	11	**17**	57	42	24	14	**24**	**31**
- in gross output	%	19	15	10	5	**9**	17	9	4	2	**4**	**13**
- in net operating income	%	41	33	24	15	**23**	56	30	14	10	**17**	**33**
- in farm income	%	58	48	36	22	**33**	94	46	21	14	**24**	**46**
Share of total support:												
- in gross output	%	56	54	52	50	**52**	30	21	16	16	**17**	**42**
- in net operating income	%	121	121	127	140	**132**	99	71	61	67	**68**	**104**
- in farm income	%	170	173	187	208	**193**	166	109	89	94	**99**	**148**

Table A12. Denmark: Distribution of income components by region, 1995/96

Regions		The Islands					Jutland								Denmark
Counties		Capital+ Bornholm	Vest Sjaelland	Stortr/om	Fyn	The Islands	S/onderjyl-land	Ribe	Vejle	Ringk/obing	Århus	Viborg	Nordjylland	Jutland	
Number of farms in the population		4,133	5,152	4,567	5,536	19,388	5,512	4,894	4,874	6,966	7,158	7,684	9,516	46,604	65,992
Average per farm represented															
Gross output [1]	'000 DKr	516	580	806	791	680	972	760	752	884	648	656	763	769	745
Direct payments (DP) [2]	'000 DKr	87	69	93	86	83	109	77	89	98	88	68	92	89	87
Market price support (MPS) [3]	'000 DKr	82	107	142	169	128	257	249	169	218	130	170	194	195	190
Total support (MPS + DP)	'000 DKr	169	176	234	255	211	365	326	258	317	219	238	286	283	277
Net operating income [4]	'000 DKr	223	240	386	319	293	382	304	290	363	264	252	279	301	299
Farm income [5]	'000 DKr	161	180	301	241	222	281	218	206	267	192	183	198	218	219
Total income [6] before interest	1000 DKr	485	442	544	482	487	511	464	440	489	437	428	432	454	466
Share of agricultural income in total income	%	33	41	55	50	46	55	47	47	55	44	43	46	48	47
Contribution to the total of farms															
Number of farms	%	6	8	7	8	29	8	7	7	11	11	12	14	71	100
Gross output [1]	%	4	6	7	9	27	11	8	7	13	9	10	15	73	100
Direct payments (DP) [2]	%	6	6	7	8	28	10	7	8	12	11	9	15	72	100
Market price support (MPS) [3]	%	3	4	5	7	20	11	10	7	12	7	10	15	72	100
Total support (MPS + DP)	%	4	5	6	8	22	11	9	7	12	9	10	15	72	100
Net operating income [4]	%	5	6	9	9	29	11	8	7	13	10	10	13	71	100
Farm income [5]	%	5	6	9	9	30	11	7	7	13	10	10	13	70	100
Total income [6] before interest	%	7	7	8	9	31	9	7	7	11	10	11	13	69	100
Share of the region in the average of all farms															
Gross output [1]	%	69	78	108	106	91	131	102	101	119	87	88	102	103	100
Direct payments (DP) [2]	%	100	79	107	99	96	125	88	102	113	102	78	106	102	100
Market price support (MPS) [3]	%	43	56	75	89	67	135	131	89	115	69	90	102	103	100
Total support (MPS + DP)	%	61	64	85	92	76	132	118	93	114	79	86	104	102	100
Net operating income [4]	%	75	80	129	107	98	128	102	97	121	88	84	93	101	100
Farm income [5]	%	73	82	137	110	101	128	100	94	122	88	84	90	99	100
Total income [6] before interest	%	104	95	117	103	104	110	99	94	105	94	92	93	97	100

1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and on-farm use.
2. Direct payments the sum of subsidies for plant production, subsidies for livestock production and general subsidies on output.
3. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
4. Difference between farm cash receipts and farm operating expenses.
5. Difference between gross output and all expenses, including depreciation.
6. Sum of farm income plus off-farm income.

Source: Landbrugs-og Fiskeministeriet, *Landbrugs-regnskabsstatistik 1995/96* , Serie A nr.80, Copenhagen.

Table A13. Switzerland: Distribution of income components by area, 1995

Areas [a]		Switzerland					Plain area					Mountain area				
Quartiles	Unité	1	2	3	4	**All**	1	2	3	4	**All**	1	2	3	4	**All**
Number of farms		855	854	855	855	**3,419**	248	477	598	535	**1,858**	575	339	170	61	**1,145**
Average per farm																
Gross output [1]	'000 SF	115	161	209	314	**200**	125	163	211	302	**213**	111	158	200	279	**147**
Direct payments (DP)	'000 SF	30	30	31	34	**31**	20	24	28	36	**28**	34	39	43	49	**38**
Complementary	'000 SF	13	14	15	17	**15**	11	13	15	18	**15**	13	16	19	21	**15**
Ecological	'000 SF	4	7	9	12	**8**	5	7	10	14	**10**	3	6	9	11	**6**
Difficult production conditions	'000 SF	11	7	4	2	**6**	2	2	1	1	**2**	15	15	13	13	**15**
Orientation of production	'000 SF	2	2	2	3	**2**	1	1	2	3	**2**	3	2	2	3	**2**
Market price support (MPS) [2]	'000 SF	48	79	111	180	**104**	60	84	113	168	**114**	42	71	99	149	**65**
Total support (DP+MPS)	'000 SF	78	109	141	214	**136**	80	108	141	204	**142**	77	110	142	198	**103**
Net operating income [3]	'000 SF	58	74	89	112	**83**	61	77	92	114	**90**	57	71	81	100	**67**
Farm income [4]	'000 SF	40	50	60	74	**56**	43	53	64	76	**62**	39	46	52	63	**44**
Total income [5]	'000 SF	52	61	70	83	**67**	55	64	73	85	**72**	52	58	62	72	**56**
Share of agricultural income in total income	%	76	82	85	90	**84**	78	83	87	90	**86**	75	79	83	88	**79**
Contribution to the total of farms																
Number of farms	%	25	25	25	25	**100**	13	26	32	29	**100**	50	30	15	5	**100**
Gross output [1]	%	14	20	26	39	**100**	8	20	32	41	**100**	38	32	20	10	**100**
Direct payments (DP)	%	24	24	24	27	**100**	9	22	32	37	**100**	45	31	17	7	**100**
Complementary	%	21	24	26	28	**100**	10	23	32	35	**100**	43	31	18	7	**100**
Ecological	%	12	21	29	38	**100**	7	19	32	42	**100**	31	34	25	11	**100**
Difficult production conditions	%	46	30	16	9	**100**	19	30	31	20	**100**	52	30	13	5	**100**
Orientation of production	%	26	21	21	31	**100**	9	19	31	41	**100**	56	26	11	7	**100**
Market price support (MPS) [2]	%	11	19	27	43	**100**	7	19	32	42	**100**	33	32	23	12	**100**
Total support (DP+MPS)	%	14	20	26	39	**100**	7	19	32	41	**100**	37	32	21	10	**100**
Net operating income [3]	%	18	22	27	33	**100**	9	22	33	35	**100**	44	31	17	8	**100**
Farm income [4]	%	17	22	27	34	**100**	9	22	33	36	**100**	43	31	18	8	**100**
Total income [5]	%	20	23	26	31	**100**	10	23	33	34	**100**	46	31	16	7	**100**
Shares																
Share of direct payments:																
- in total support	%	39	28	22	16	**23**	25	22	20	18	**20**	45	36	30	25	**37**
- in gross output	%	26	19	15	11	**16**	16	15	13	12	**13**	31	25	21	17	**26**
- in farm income	%	75	60	51	46	**56**	46	44	44	47	**45**	88	86	83	77	**86**
Share of total support:																
- in gross output	%	67	68	68	68	**68**	64	66	67	67	**67**	69	70	71	71	**70**
- in farm income	%	195	218	235	288	**242**	186	202	221	267	**230**	197	240	274	313	**232**

a. Mountainous areas are defined acccording to climate, means of communication and relief.
1. Gross output is the sum of receipts from sales of crop and livestock products, direct payments, receipts from agricultural activities off the farm and on-farm use.
2. Market price support is calculated by applying the ratio of market price support to the value of production to receipts of each commodity for which an individual market price support is calculated in the PSE database and by applying an average ratio of all PSE commodities to remaining receipts.
3. Difference between farm cash receipts and farm operating expenses.
4. Difference between gross output and all expenses, including depreciation.
5. Sum of farm income plus off-farm income.

Source: OECD Structural database.