

### TOTAL INCOME OF AGRICULTURAL HOUSEHOLDS : 1995 REPORT

*This Statistics in Focus summarises the main points contained in a report of the same title<sup>1</sup>, which was prepared for Eurostat by Dr B. Hill, Wye College, University of London.*

#### Introduction

The *Total Income of Agricultural Households : 1995 Report* continues the series of publications concerned with the development of statistics that reflect the overall income situation of agricultural households. This income comprises not only the rewards arising from independent activity in agriculture (farming) but also income from other gainful activities, from property, social transfers and other sources. Negative flows such as taxation and social contributions are also considered. Work on the Total Income of Agricultural Households (TIAH) statistics was initiated in 1986.

Since the publication of the first report in 1992, there have been **considerable advances**. For a number of reasons, a second general review of the progress made in the methodology of the TIAH statistics and of the results that have accumulated was considered appropriate:

- The European Union had enlarged, and this new edition includes, for the first time, results for the three countries that joined the European Union in January 1995 (Austria, Finland and Sweden);
- **Improvements in the quality** of the data from several Member States had taken place;
- A number of **studies had been commissioned** on particular aspects of the methodology that cast light on some important issues related to the methodology of the TIAH statistics;
- In 1995 a **new *Manual of Methodology***<sup>2</sup> was published incorporating the extensions and modifications arising since the first version was published in 1990 and in anticipation of some of the changes that would be required to accommodate the 1995 version of the European System of Accounts (that sets the framework for national accounts in the European Union);
- Early in 1996 Eurostat held an **International Seminar on *Income Statistics for the Agricultural Households Sector***.

<sup>1</sup> Eurostat (1996) *Total Income of Agricultural Households : 1995 Report*. Theme 5 Series D. Luxembourg, ISBN: 92-827-5911-3.

<sup>2</sup> Eurostat (1995) *Manual on the Total Income of Agricultural Households (Rev.1)*. Theme 5 Series E. Luxembourg, ISBN: 92-827-5227-5.

The *1995 Report* brings up-to-date the target methodology, reviews on a country-by-country basis the methods actually employed in the Member States and analyses the results. This *Statistics in Focus* summarises the latest methodological framework and findings.

### Methodological framework

#### *Definition of an agricultural household ("narrow" approach)*

An important feature of the TIAH methodology is its definition of an agricultural household. For the purpose of classification, households are allocated to socio-professional groups on the basis of the main source of income of the household's reference person (typically the head of household or the largest contributor to the family budget). This system allows a complete and consistent allocation of households to occupation groups for the purpose of drawing comparisons. Thus an agricultural household is one in which *the main source of income of the household's reference person is from independent activity in agriculture*<sup>3</sup>. Some Member States, that cannot at present use an income criterion, depend on the main declared *occupation* of the reference person. In the context of the TIAH statistics, these definitions of an agricultural household are sometimes labelled "narrow", since they exclude those households which operate a holding but where farming is not the main income of the reference person (see below). Of course, when measuring household income, the incomes of all household members are summed, but these additional incomes are not considered at the classification stage. All Member States (except the Netherlands) now use this reference person system in calculating their TIAH results<sup>4</sup>.

To facilitate comparisons with agricultural households, a harmonised list of other socio-professional groups has been developed, drawn up after reviewing the categories currently used in the data sources from which TIAH results are derived<sup>5</sup>. There appears to be no strong reason why restrictions should be placed *a priori* on the selection of groups with which the incomes of agricultural households may be compared.

#### *Supplementary "broad approach" to defining an agricultural household, and "other agricultural households"*

The prime focus of attention when generating TIAH statistics remains the "narrow" approach to what constitutes an agricultural household. Nevertheless, for some policy purposes it may be desirable to have income results covering all households that derive some income from farming. This was foreseen at the time when development work on TIAH statistics was initiated and provision was made for it, in principle, in the methodology. Under this "broad" approach, an agricultural household is *one in which any household member derives some income from independent activity in agriculture (other than income solely in kind)*. The TIAH Manual allows a degree of flexibility as to the precise ways in which the terms "household" and "income" are interpreted, to reflect national data sources and customs. With the "broad" definition being seen as supplementary to the main methodology, it is not considered as necessary to generate results based on it annually (though Member States may do so if they wish). Occasional estimates are likely to be adequate<sup>6</sup>.

By subtraction it is also possible to throw light on the income situation of those households that satisfy the "broad" definition but fall outside the "narrow" definition. These "agricultural" households are ones, therefore, where there is some income from farming but where farming is not the main source of income of the household's reference person (from now on these households are termed "other agricultural households"). Their characteristics are particularly pertinent to any attempt to restrict the coverage of policy measures to those households that are mainly engaged in farming.

<sup>3</sup> Where possible the group of agricultural (farmer) households should not include forestry or fishery households.

<sup>4</sup> In the Netherlands classification is based on the income composition of the entire household, but the socio-economic characteristics of households with agricultural holdings means that this departure from the harmonised methodology is of little significance, though the extent of this will be monitored regularly.

<sup>5</sup> The principle categories are (a) employers and own-account workers (main income of reference person from independent activity) subdivided into (i) farmers (ii) others; (b) employees (main income of reference person from dependent activity); (c) others; (d) all households except farmers; (e) all households. Provision is made for a subdivision of (a)(ii), (b) and (c) according to the occupation or type of income received.

<sup>6</sup> Results generated under the "broad" approach should be interpreted with caution; in some Member States (for example, Greece) it is felt by the national statistical authority that the familial structure makes income figures calculated on this "broad" basis of limited value for casting light on the income situation of the agricultural community.

### *Definition of income*

The primary income definition used in TIAH statistics is *net disposable income*, expressed as an aggregate for the entire households sector or subdivisions of it (agricultural households, other socio-professional groups) and per unit (per household, per household member and per consumer unit). It covers income from all sources (including farming, other independent and dependent activities, property income, social and other transfers) and is calculated after the deduction of current taxes on income and wealth, social contributions and other outward transfers. It corresponds to the definition used in the Distribution of Income Account for the households sector within the European System of Accounts (ESA). Member States are required to provide information on each component leading to disposable income. For some analytical purposes, total income (before deductions) is taken, such as when describing the relative contribution to the total coming from farming and from other activities.

## **Main results**

### *Availability of results*

TIAH results are available for all Member States of EUR 15, although countries differ widely in the number of years covered and the degree of disaggregation. At one extreme is Germany, where annual figures based on the TIAH "narrow" definition of an agricultural household are contained in the TIAH database, broken down into socio-professional groups of which agricultural households form one, for the period 1972-93. In addition, German figures using the "broad" definition are calculated for a single year (1983). At the other extreme are countries for which only a single year is currently represented (Ireland (1987) and Luxembourg (1989)) or a larger number where comparable figures for non-agricultural households are not broken down in detail. Among the three Member States that joined the European Union in 1995, results for Finland have already been calculated and partial estimates made for Austria and Sweden. There is a commitment by Member States to expand the number of years for which statistics are available, to apply universally the "minimum" list of socio-professional groups, thereby enabling a more detailed comparison of the incomes of agricultural households, and to make other improvements in the methodology and quality of results.<sup>7</sup>

### *Findings*

Results on a country-by-country basis are presented in the TIAH 1995 Report. These detailed results and caveats will not be repeated here. Nevertheless, there are some preliminary general findings that are of direct importance to decision-making under the CAP and other European Union policies, a summary which is given in the Box below. Some are based on results from all Member States while others depend on the greater quantity of information available in a minority but which, nevertheless, are likely to be found throughout the European Union.

This *Statistics in Focus* enlarges on only five of the possible areas of analysis - the implications of applying the TIAH definition of what constitutes an agricultural household on the numbers of households covered, the composition of the total income of these agricultural households (concentrating on figures for a single year), the relative stability of the income from farming and total income over time, and comparisons of average disposable income between agricultural households and the entire households sector. Finally, attention is given to the income situation of "other agricultural households".

### *Numbers of agricultural households*

The number of households that satisfy the TIAH definition of an agricultural household is much smaller, in most countries, than the number of holdings shown in the Farm Structure Survey. For the European Union as a whole, the number of agricultural households is less than half the number of holdings (38% for EUR 12 in 1987). In some countries (notably Italy, Spain and Portugal) the number of agricultural households is particularly low in relation to the number of holdings, implying that on two-thirds or more of holdings there are no households whose reference person (head) has farming as the main income source (or occupation). However, the correspondence between holding and household is not exact; while some holdings have no agricultural household, on others (typically large holdings) there may be more than one agricultural household.

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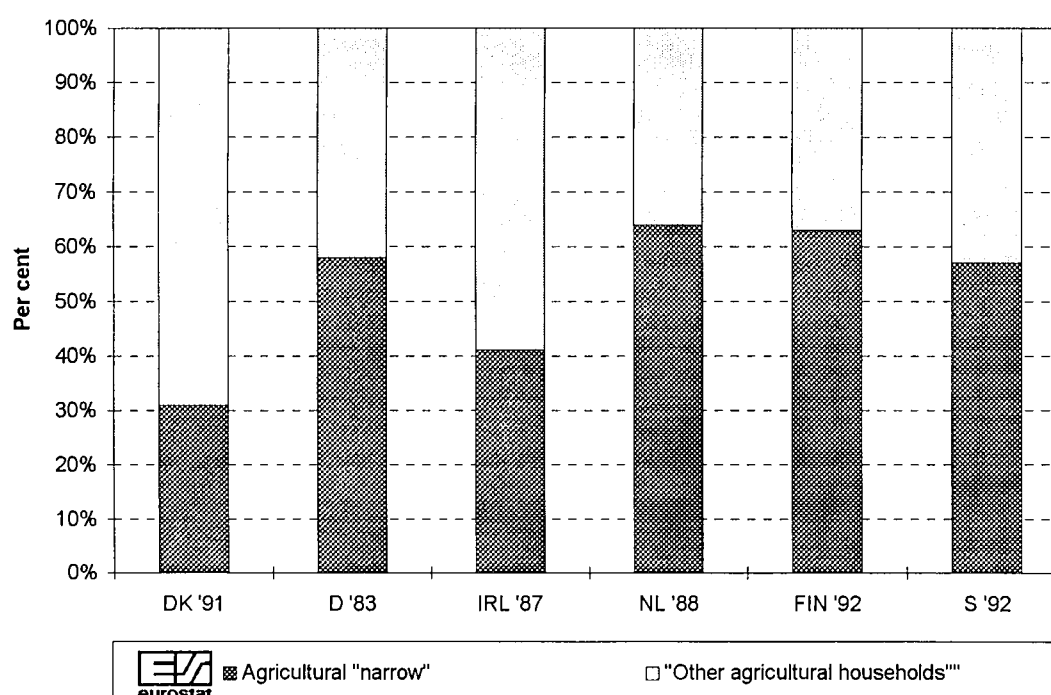
<sup>7</sup> In addition to the results coming from Member States using the agreed methodology, Eurostat has commissioned some studies to explore the implications of adopting alternative definitions of agricultural households, of income averaging etc. from selected Member States with suitable basic data.

### Preliminary general TIAH findings

- (a) The number of agricultural households (where the main income of the reference person comes from farming) is substantially smaller than the number of households where there is some income from farming, and generally smaller than the number of agricultural holdings.
- (b) Where data exist over time, absolute numbers of agricultural households have been falling, in some instances very rapidly.
- (c) On average, households with an agricultural holding but where farming is **not** the main income source of the reference person appear to derive little income from farming; their average disposable income can be greater or smaller than incomes of agricultural households, depending on the country in question.
- (d) Agricultural households ("narrowly" defined) in all countries are recipients of substantial amounts of income from outside agriculture. Though typically about a half to two thirds of the total comes from farming, there are large differences between Member States and some between years.
- (e) The total income of agricultural households is more stable than their income from farming alone. Non-agricultural income (taken together) is less variable from year to year than is farming income. Disposable income seems to be less stable than total income, but the relationship between the two depends on a variety of factors, including the way that taxation is levied.
- (f) Countries differ in the share of income taken from agricultural households in taxation and other deductions, so the same average total income figure can imply different levels of disposable income in different Member States.
- (g) Agricultural households have average disposable incomes per household that are typically close to or higher than the all-households average. The relative position is eroded or reversed when income per household member or per consumer unit is examined.

A preferable approach is to compare the numbers of households that satisfy the "narrow" definition with those of households where at least one member has **some** income from farming (that is, the "broad" definition). This also reveals the numerical importance of households that are outside the former definition but inside the latter, the "other agricultural households". Only six countries can provide such information at present (Denmark, Germany, Ireland, the Netherlands, Finland and Sweden); numbers of households are presented in Graph 1. Caution should be exercised because the figures relate only to single years.

**Graph 1** Numbers of agricultural households (TIAH "narrow" definition) and "other agricultural households" as a percentage of the total number of households with some income from independent agricultural activity (TIAH "broad" definition)



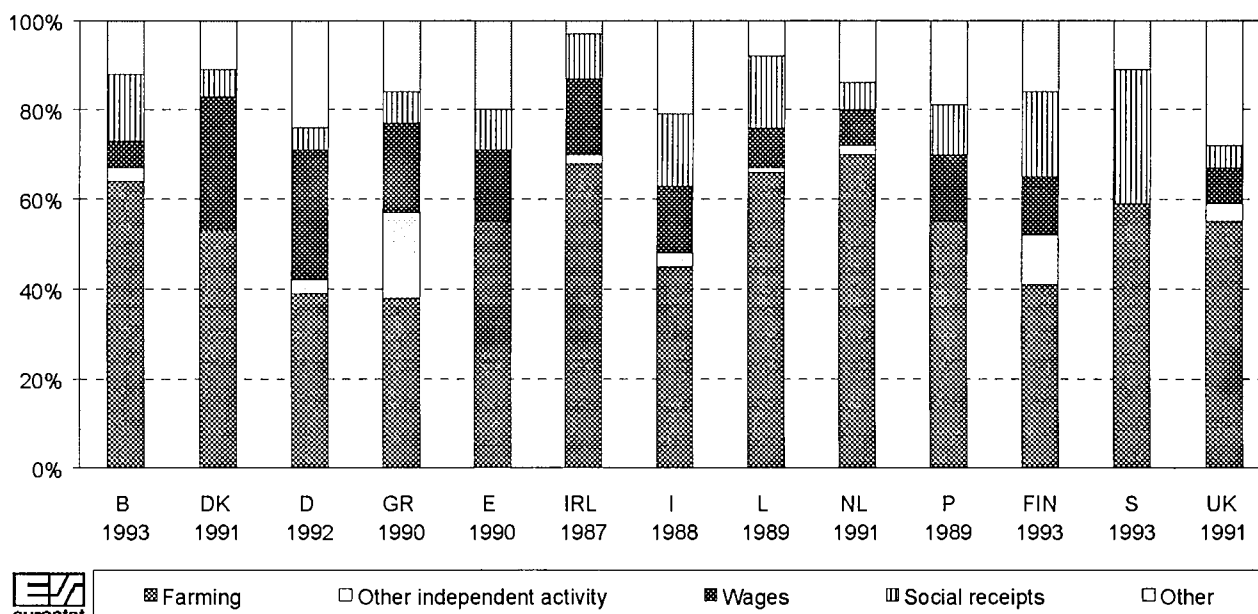
In Denmark and Ireland less than half of the households with some income from farming satisfied the TIAH "narrow" definition of an agricultural household (31% and 41% respectively) and even in countries where the percentages were highest (the Netherlands and Finland) less than two-thirds of those covered by the "broad" definition were included. It is clear, then, that numbers of households where farming is the main income source of the reference person cannot be deduced simply and directly from the numbers of holdings nor from the number of households with some self-employment income in agriculture. The income situation of households that fall inside and outside the "narrow" definition will be returned to later.

In countries where TIAH results are available for a run of years, it is clear that the number of agricultural households ("narrow" definition) has been in decline. In Germany the fall was from 349,000 households in 1984 to 267,000 in 1992 (- 23%) against an overall rise (+12%) in the total number of private households. In France agricultural household numbers fell even faster, with a drop of more than a quarter (-27%) in the seven-year period 1984-90 against a background of a 7% increase in the total number of households. In Belgium the fall in agricultural household numbers between 1987 and 1993 was 19% against a rise of 5% in general numbers. In Portugal the drop in agricultural household numbers between 1980 and 1989 was 37%. Interpretations of income movements over time must recognise that the agricultural households group is not of a constant composition but is changing and contracting.<sup>8</sup>

### Composition of income

Any consideration of income results must, at this stage, bear in mind that full harmonisation in the methodology has not yet been achieved among Member States and that gaps in the data exist. Results should therefore be regarded as indicative and, in the case of some countries, experimental. Nevertheless they show that, in all countries, agricultural households ("narrow" definition) are recipients of substantial amounts of income from outside agriculture. Typically only about a half to two-thirds of the households' total income comes from farming, though there are substantial differences between Member States (see Graph 2).

**Graph 2** Composition of total personal income of agricultural households by source (selected Member States). Per cent.



In the years shown, countries in which less than half of the total household income came from farming included Germany, Greece, Italy and Finland. At the other end of the spectrum, with more than two thirds coming from farming but still with a substantial minority of their income coming from other sources, were Belgium, Spain, Ireland, Luxembourg and the Netherlands. It follows that the overall income situation of agricultural households cannot be described satisfactorily by taking only income from farming. It should be borne in mind that households where farming is not the main income source of the household's reference person (or, in some Member States, the main occupation of the reference person) have already been excluded from these statistics.

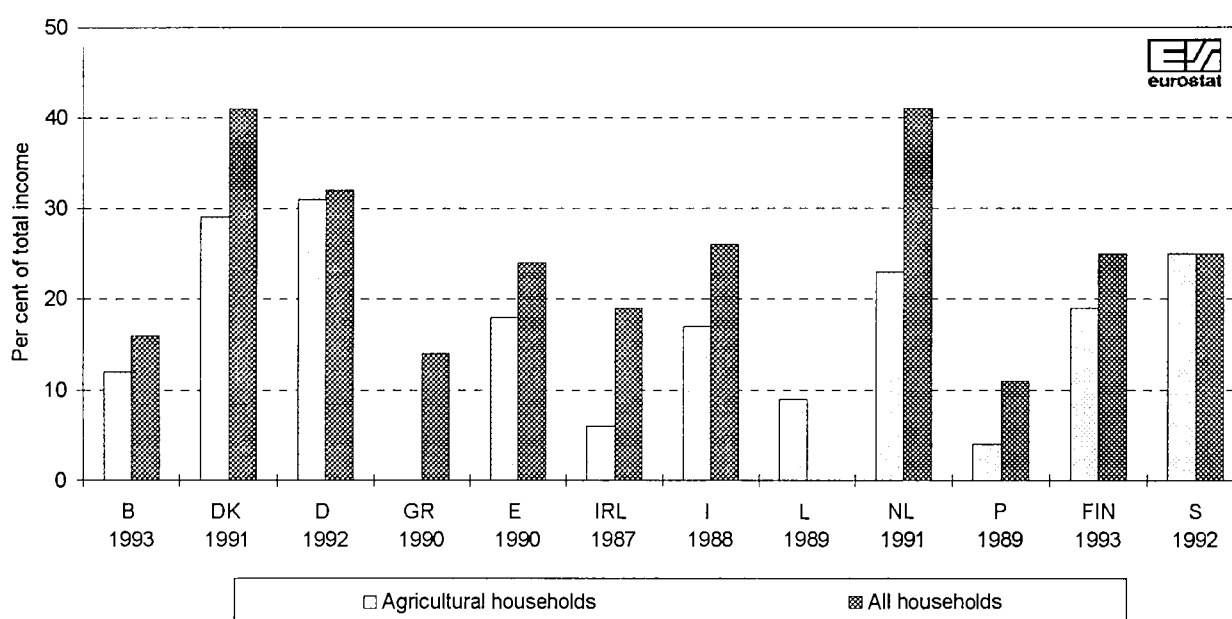
<sup>8</sup> Over the same periods the declines in the total labour input to agriculture (measured in Annual Work Units) were Germany -26%, France -20%, Belgium -16% and Portugal -30%.

The second most important source of income of agricultural households is usually wages or social receipts, although in the United Kingdom (1991) it is property income. Income from other forms of independent (self-employed) activity, such as operating other (non-agricultural) businesses, is generally unimportant, though there may be some under-representation because data sources (such as taxation statistics) may not reflect the extent to which other activities are carried out within the framework of what is primarily a farm business.

Countries also differ in the amounts of household income taken in taxation and other deductions, so that the same average total income figure can imply different levels of disposable income in different Member States. At one extreme are Denmark and Germany, where more than a quarter is taken, and at the other Portugal and Greece, with less than 5 per cent (see Graph 3). These differences reflect national policies on taxation for which there may be a counter-provision of goods and services in the form of social benefits. Consequently the net effect on consumption is impossible to assess without more detailed information.

A consistent finding is that the proportion of total income taken by current taxes and social contributions (together) is lower (often much lower) among agricultural households than among households in general in each country. Among the 12 Member States for which TIAH statistics on this issue are available, the only exception is Sweden, but even here agricultural households pay no more than the all-households average. Again, no firm conclusions can be drawn about the relative burden of taxation in the absence of much more information on the levels and distribution of income and details of the tax regimes applied to income from self-employment in general and agriculture in particular vis-à-vis income from employment and other sources.

**Graph 3** Percentage of total income taken by taxation and social contributions, agricultural households and all households (selected Member States).



### *Stability of income*

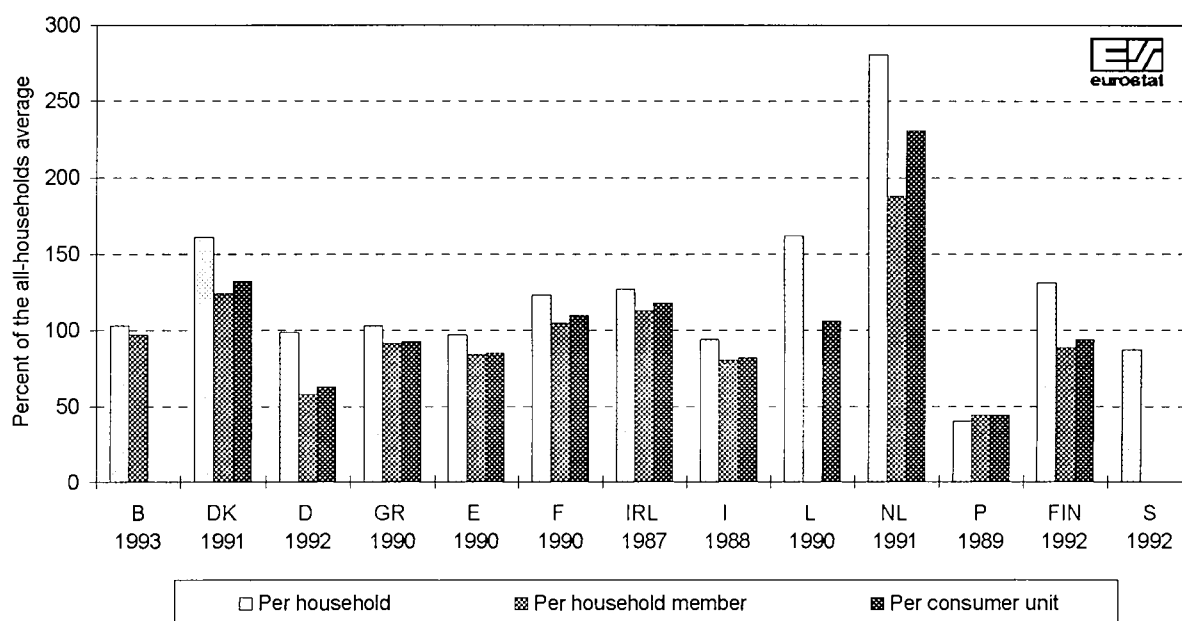
There is evidence from several countries that total household income is more stable than the income from farming alone. Non-agricultural income (taken all together) is less variable from year to year than is farming income (though this is not a necessary condition for total income to be more stable). Disposable income seems to be less stable than total income; there are a variety of factors for this, including the way that taxation is levied. The main conclusion is that annual changes in agricultural income should not be taken to imply a similar movement in the incomes that agricultural households have at their disposal.

### *Comparisons of the income of agricultural households with the all-households average*

Agricultural households appear to compare favourably with the rest of society in terms of their average disposable incomes (comparisons are not possible for every Member State). Their incomes are typically **close to** or **higher** than the all-households average, with the exception of Portugal where incomes are far lower. The relative position is eroded or reversed when income per household member or per consumer unit is examined (Graph 4). Nevertheless, on all three measures (per household, per household member and per

consumer unit) agricultural households had incomes above the national averages in Denmark, France, Ireland, Luxembourg and (most notably) the Netherlands. Despite this, in most countries where a detailed comparison is possible, agricultural households tended to have lower disposable incomes per household than did households headed by other self-employed reference persons (Denmark, Germany, Spain, France, Italy, Portugal, Finland, Sweden). In the Netherlands (1988-91) it appears from the statistics that agricultural households were a particularly high-income group, and in Finland (1992) and Luxembourg (1985, 1990) their average incomes per household in the years in question were also above those of other self-employed categories.

**Graph 4** Average disposable income of agricultural households relative to the all-household average. Selected Member States.



In investigating whether there is a low income problem, other factors need to be taken into account, including the distribution of incomes around the group mean. It should also be recalled that, despite the stabilizing influence of income from sources other than farming, the relative position of agricultural households can be subject to quite large variations from year to year, so caution must be exercised when considering the results for single years.

In Germany, for which information extends over two decades, the relative disposable income situation of agricultural households seems to have been deteriorating over time. The average disposable income of an agricultural household was above the all-households average in all years from 1972 until 1991, but with a gap that was narrowing. In 1992, their income dipped below the all-households average. In France, a similar decline from 1970 is suggested (though there have been changes in methodology that dictate caution when drawing conclusions). However, in the comparable series from 1984 there was a strong recovery in the relative income position of agricultural households in the last two years for which results are available (1989 and 1990) to a level 23% above the national average, very similar to the position indicated in 1970. These, and other findings, are documented in *Total Income of Agricultural Households: 1995 Report*.

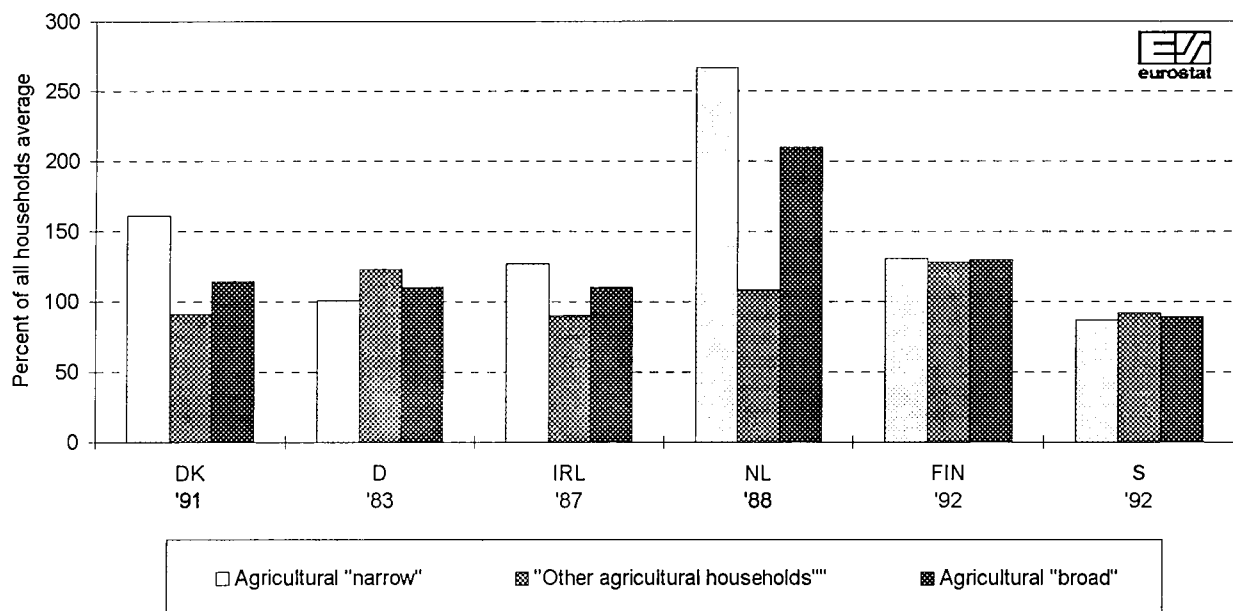
#### *Income situation of "other agricultural households"*

The main focus of attention in the TIAH statistics is the households that satisfy the TIAH "narrow" definition of an agricultural household. However, the numerical importance of "other agricultural households" (which derive some income from farming but where farming is not the main source of income of the household's reference person), referred to above, requires that their income characteristics be noted. These are based on the few countries that can supply data.

First, the relative income situation of "other agricultural households" varies between countries (see Graph 5). In Denmark, Ireland and the Netherlands, "other agricultural households" had average disposable incomes substantially lower than those of households that satisfy the TIAH "narrow" definition of an agricultural household. In the first two countries they also appeared to be a relatively low-income group in

terms of the national all-households average, though the reasons for low incomes are probably different<sup>9</sup>. In the Netherlands they were above the all-households average. However, "other agricultural households" appeared to be a relatively high income group in Germany, with an average disposable income per household that was not only larger than that of agricultural households defined in the "narrow" way but that was also substantially above the all-households average. In Finland and Sweden there was little difference between the groups on a per household basis. Such diversity should prevent any quick assumptions being made about the relative results from using the alternative approaches and points to the need for both "narrow" and "broad" results to be available from each Member State. The differing social, economic and agricultural structures seem likely to require countries to be considered individually, at least until more comprehensive information is available.

**Graph 5 Average income per household of three types of agricultural household: TIAH "narrow" definition, TIAH "broad" definition, and "other agricultural households". Selected Member States.**



Second, despite this diversity, a characteristic shared by all the countries from which evidence is available so far is that only a small proportion of the total income of these "other agricultural households" comes from farming. In Germany only 5% of their income came from farming, in Ireland 14%, in the Netherlands 8% and in Finland 9%. In Denmark these households had no positive income, once interest payments had been met.

Third, compared with their numerical importance among all households that received some income from independent activity in agriculture, "other agricultural households" were responsible for a much lower share of the aggregate income derived from farming: Germany (1983), 42% of numbers, 5% of farming income; Ireland (1987), 59% of numbers, 19% of farming income; Netherlands (1988) 40% of numbers, 5% of agricultural operating surplus; Finland (1992), 37% of numbers, 11% of farming income. In Denmark they were not associated with a positive post-interest income; though they generated 43% of the aggregate farming income before interest charges were deducted, they faced higher levels of interest per household than agricultural households that satisfied the "narrow" definition.

The accumulating evidence suggests, therefore, that "other agricultural households" are little dependent on farming for their incomes overall, so that movements in farming income are likely to have only a very minor impact on their livelihoods. Only a small proportion of the total income from derived from operating farming businesses accrues to them. These findings, if supported in other Member States, are of obvious importance to the way in which these households are viewed within the context of the CAP.

<sup>9</sup> In Ireland the "other agricultural households" group seems to contain large numbers of households where welfare transfers are the main income source. In Denmark, a characteristic of these "other agricultural households" is that their head of household (and/or spouse) must work off the farm to help meet the interest payments on loans taken to finance inter-generational land transfers.