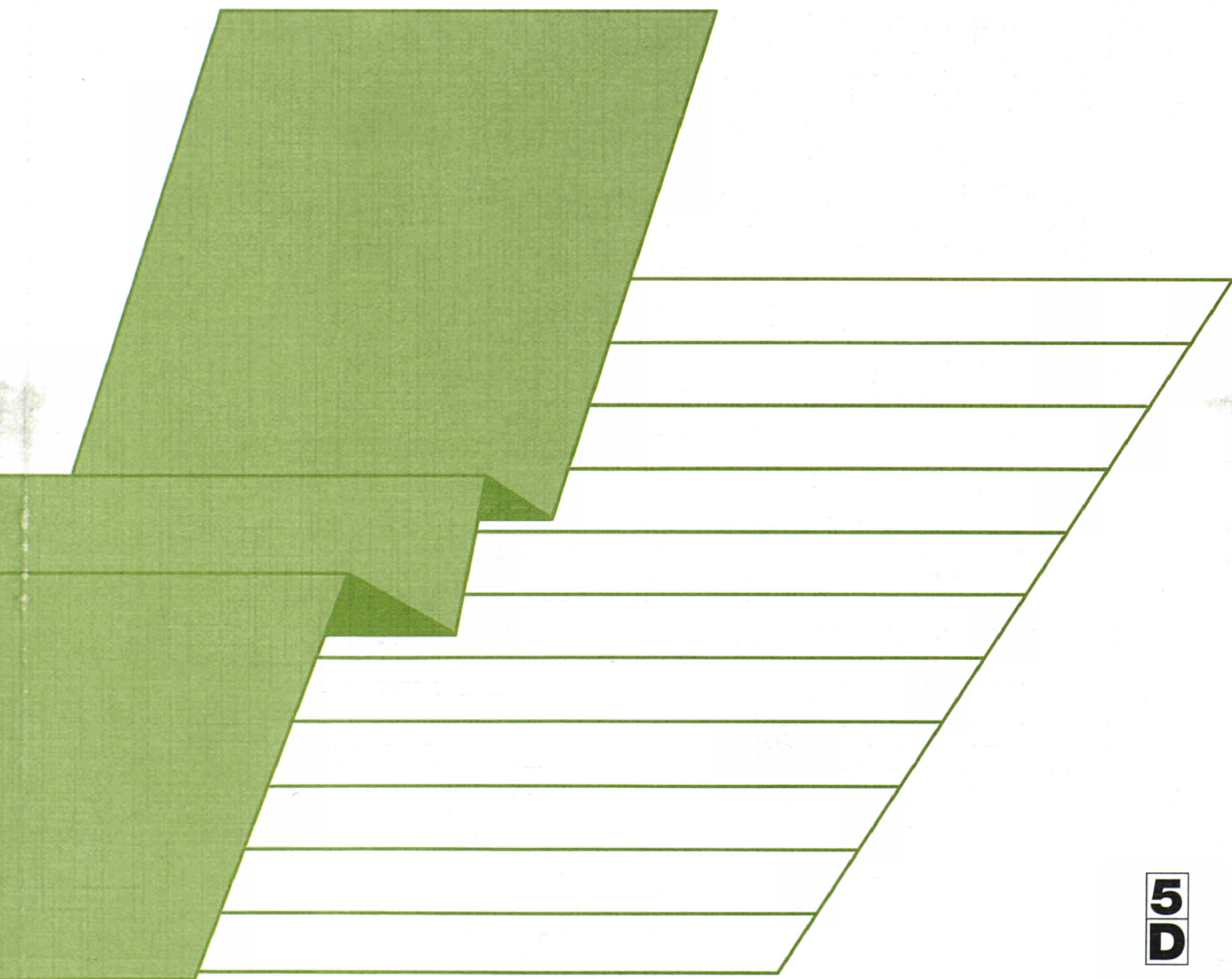


GESAMTEINKOMMEN LANDWIRTSCHAFTLICHER HAUSHALTE

BERICHT 1995



STATISTISCHES AMT DER EUROPÄISCHEN GEMEINSCHAFTEN
STATISTICAL OFFICE OF THE EUROPEAN COMMUNITIES
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Y. Franchet
Directeur général

Total income of agricultural households 1995 report

This report has been prepared for Eurostat by
Dr Berkeley Hill, Wye College, University of London

December 1995

Theme
Agriculture, forestry and fisheries
Series
Studies and research



Cataloguing data can be found at the end of this publication

1996
1996

1996

1996
1996

Luxembourg: Office for Official Publications of the European Communities, 1996

ISBN 92-827-5911-3

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Printed in Belgium

Printed on non-chlorine bleached paper

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PART ONE - GENERAL REPORT

Chapter 1: INTRODUCTION

The TIAH statistics present an aggregate picture of the overall income situation of agricultural households, covering income from all sources (not just from farming) and deductions such as taxation and social contributions. They have been developed to provide policy-makers with information additional to that coming from the longer-established official indicators of the income from agricultural activity. Originated within the framework of national accounts, the TIAH statistics aim to monitor the changing levels and composition of the income of agricultural households and to compare their income situations with those of other socio-professional groups.

1.1 The context of this Report

1.1 This *Total Income of Agricultural Households: 1995 Report* continues a 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 also have to be considered, such as taxation and social contributions. Since the publication of the first report in 1992 some events have occurred that make this an opportune time to undertake a second general review of the progress made in the methodology of the Total Income of Agricultural Households (TIAH) statistics and of the results that have accumulated since work was initiated in 1986:

- The European Union has been enlarged, and this edition includes, for the first time, results for the three countries that joined the European Union in January 1995 (Austria, Finland and Sweden);
- Improvements have taken place in the quality of the data from several Member States that impact on the results;
- A number of studies have 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 is being published which incorporates extensions and modifications that have arisen since the first version was published in 1990 and that anticipates some of the changes that will 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 is intending to hold an International Seminar on *Income Statistics for the Agricultural Households Sector*.

1.2 Background to the TIAH statistics, including guidelines and objectives

1.2.1 It is becoming increasingly important to have available harmonized information on the income situation of agricultural households in Member States for the purpose of guiding agricultural policies and other policies in the European Union. Central to the Common Agricultural Policy (CAP) is the objective of ensuring a fair standard of living for the agricultural community, reflecting Article 39 of the Treaty of Rome. Though alternatives are possible, the conventional way to approach this issue has been through the measurement and monitoring of farmers' incomes.

1.2.2 With the success of the CAP in achieving, even over-achieving, most of its other aims, the concern with incomes has come to dominate agricultural policy-making. Reforms of the CAP to make farming more subject to market conditions have been accompanied by the introduction of new forms of assistance. Some measures have been introduced for social reasons, some for environmental reasons, and some are to mitigate the impact of reductions in product prices which for so long have been supported by CAP commodity regimes. Examples include pre-pensions, the encouragement of farm diversification, payments for extensification and for the provision of environmental services. Though few if any are completely neutral with respect to agricultural output, they are far less distorting than the market interventions which they are intended partly to replace.

1.2.3 As CAP reform proceeds it is to be expected that the activities of farmers and their families will

broaden to include forms of enterprise which are not strictly agricultural, as defined by the conventional industrial classification. These include the results of diversification (such as tourism, food processing and other small and medium enterprises). The greater amount of spending committed to the European Union's Structural Funds for the support of rural areas since 1988 can be expected to increase the diversity of economic activities taking place there, with implications for the income and employment patterns of farmers and their families. Already about one third of farmers in the European Union have some other gainful activity, typically off the farm, and pluriactivity is likely to be found on a rising proportion of holdings. In addition to earnings from gainful occupations, members of agricultural households may have income from property and, as citizens, are likely to be in receipt of welfare transfers and other payments.

- 1.2.4 An income measure which aims to be a proxy for the standard of living of the agricultural community, though clearly not an exact one, will need to cover income from all sources, not just that from farming activity. It will focus on the household or family unit rather than the farmer (agricultural holder) alone. And because not all the income is available to be spent, due allowance has to be made for taxation, social contributions and other transfers. The name given to the residual income is (Net) Disposable Income, and this forms a widely accepted concept for assessing the income situation of households.
- 1.2.5 Anticipating the emerging need for additional income information, Eurostat proposed the Total Income of Agricultural Households (TIAH) project in 1985. This was supported by the European Community's Agricultural Statistics Committee (ASC). The intention was that statistics on farmers' aggregate disposable income should be developed which could eventually stand alongside existing indicators relating to the income of the agricultural branch of the economy in each Member State (calculated by Eurostat and described later), thereby enhancing the range of information available to policy decision-makers. Though summary statistics on disposable income cannot, of course, reveal the distribution of incomes among agricultural households, estimates at Member State level were seen as representing a necessary and important advance in knowledge. However, such measures of aggregate disposable income marked a substantial departure in thinking from that usually adopted within the CAP and, indeed, within most national agricultural policies. Consequently the information systems in most Member States were not capable of enabling estimates to be made. It was recognised that substantial effort would be required to achieve results on a comparable basis for each country, and that this would take several years.
- 1.2.6 The ASC gave some general guidelines which subsequently have proved very important. These were that: the definition of agricultural households used in the TIAH statistics should be in line with the methodology of the European System of Integrated Economic Accounts (ESA), the Community's national accounting system to which all Member States subscribe; the coverage should be restricted to the households of holders (i.e. farmers, and not households of hired workers); and that provision should be made for comparison with non-agricultural occupation groups. The Working Party on the Economic Accounts for Agriculture was requested to look into the technical problems of the project; this it has continued to do, making regular reports back to the ASC.
- 1.2.7 A first main task was to *collect and collate information which already existed* in Member States on the total income situation of agricultural households and on the data sources which might be used to estimate aggregate disposable income. The alternative methods by which estimates might be constructed were also to be explored; these were expected to vary between countries according to the available data sources. The outcome of this first task was summarized in Eurostat's first report on the TIAH project, published in 1988. This report systematically listed and analysed all relevant information known to national statistical authorities. Two Member States (Germany and France) were found to already publish estimates of disposable income for agricultural households (and for other socio-professional groups) as part of their system of national accounts. The Netherlands had an experimental calculation for a single year. Other countries varied widely in the basic data which might be used for such a calculation.
- 1.2.8 The second main task was to *develop an agreed methodology* by which harmonized statistics could be generated for each Member State. After much discussion of details within the Working Party, the first edition of this methodology was published in 1990. One vital step in this process was the clarification of the aims of the TIAH project. In the Manual of Methodology the specific objectives are set out; these are reproduced in Figure 1.1
- 1.2.9 The main features of the harmonized methodology are outlined in Chapter 2. It consists of a set of

target definitions and procedures to be adopted in the estimation of the aggregate disposable incomes of agricultural households. Key issues within this methodology are, firstly, the definition of disposable income and, secondly, the basis of the typology used to distinguish between agricultural households and those belonging to other socio-professional groups. The methodology's development drew on the conceptual framework of national accounting, the experience of countries (both inside and outside the EU) which already constructed estimates, the view of the policy units of the European Commission (in particular the Directorate-General for Agriculture DG VI), and the opinions of the relevant national statistical authorities in Member States.

Fig. 1.1 Objectives of the TIAH statistics.

<p>A harmonized methodology is to be used to generate an aggregate income measure for the following purposes:</p> <ul style="list-style-type: none"> ▪ monitoring the year-on-year changes in the total income of agricultural households at aggregate level in Member States; ▪ monitoring the changing composition of income, especially the proportions of income from the agricultural holding and from other gainful activities, from property and from social benefits; ▪ comparing the trends in the total income of agricultural households per unit (household, household member, consumer unit) with that of other socio-professional groups; ▪ comparing the absolute income of farmers with that of other socio-professional groups, on a unit basis.

1.2.10 The progress made, both in terms of methodology and of results, has been outlined in a chapter in successive *Agricultural Income* reports, the publication that is mainly concerned with the development of Eurostat's Income Indicators for the branch agriculture (described later). Additionally:

- In 1992 a TIAH report was published giving summary results on a country-by-country basis;
- In 1994 a further TIAH publication described progress in 1993, including the outcome of special studies commissioned by Eurostat from Germany and the Netherlands on matters of methodological importance.

1.2.11 In 1995 a revised TIAH Manual of Methodology is being published, to cater for (a) developments in the methodology that have occurred since the 1990 edition appeared, including a change in the target basis for subdividing households into socio-professional groups, of which agricultural households form one, and a standard list of such groups, and (b) to bring the Manual in line with the 1995 European System of Accounts (ESA).

A list of these publications is given in Figure 1.2.

Fig. 1.2 Main documents of the TIAH statistics (all available in English, French and German).

1988	<i>Total Incomes of Agricultural Households</i> Theme 5 Series D. Versions in French and German were published in 1989.
1990	<i>Manual on the Total Income of Agricultural Households</i> Theme 5 Series E
1992	<i>Total Income of Agricultural Households: 1992 Report.</i> Theme 5 Series C
1994	<i>Total Income of Agricultural Households: Progress in 1993.</i> Theme 5 Series D
1995	<i>Total Income of Agricultural Households: 1995 Report</i> Theme 5 Series *
1995	<i>Manual on the Total Income of Agricultural Households (Rev. 1).</i> Theme 5 Series E

- 1.2.12 At present, harmonization of the calculation of TIAH statistics is far from complete and the periods covered and degree of details vary. The ASC has pointed to the necessity, when publishing results, of ensuring that adequate explanation of the methodology is given in order to avoid misinterpretations. The Working Party is also adamant that publication of results should take into account the present level of harmonization.
- 1.2.13 This 1995 Report, like its predecessor the 1992 Report, has therefore to balance, on the one hand, interest in the nature of the information now available with, on the other, the need for caution for statistical reasons. Consequently, for some countries absolute TIAH income figures are not given here. As harmonization proceeds, more absolute results will be published. Despite this present limitation, it is the opinion of Eurostat and the Working Party that the information already assembled is of substantial importance. The Report is structured as a general section followed by short chapters on each Member State.
- 1.3 The relationship between the existing Eurostat Indicators and the new measure of net disposable income**
- 1.3.1 Eurostat already calculates a range of indicators (Indicators 1, 2 and 3) which are published in its annual *Agricultural Income* report as well as in other documents, notably the *Agricultural Situation in the European Union* series. These Indicators play an important role in the monitoring of the CAP, and they will continue to do so long after the TIAH statistics reach maturity. In order to understand the methodology adopted by TIAH statistics and to put the initial results in context, it is necessary to outline briefly the nature of the existing indicators.
- 1.3.2 Indicators 1, 2 and 3 are derived from the aggregate Economic Accounts for Agriculture (EAA), drawn up by Eurostat for each Member State and for the EU as a whole using data supplied by national statistical authorities. A detailed harmonized methodology has been developed for these agricultural accounts¹. This set of EAAs in turn forms part of the harmonized national accounts system for the EU, the European System of Integrated Economic Accounts (ESA)². Within the ESA two types of account are of direct relevance to the discussion here - the Production Account and the Distribution of Income Account. The existing Indicators are derived from the first of these; the TIAH methodology belongs to the second.
- 1.3.3 The *Production Account* shows, on one side, the value of output from productive activity (goods and services) and, on the other, intermediate consumption (goods and services bought); the balancing item is Gross Value Added (GVA) at market prices. After allowing for capital consumption and adjusting for subsidies and taxes linked to production, this becomes Net Value Added (NVA) at factor cost. In the ESA the overall Account is subdivided into parts, of which the account of the agricultural branch of the economy is one. As a historically important part of the economy of most countries, especially so in the period during and following the Second World War when the conceptual framework of the present accounting system took shape, this singling out of agriculture reflects the way that national accounting has developed. Eurostat publishes the *Economic Accounts for Agriculture* separately³, covering the agricultural branch in each Member State and the entire European Union.
- 1.3.4 The "branch agriculture" is defined in terms of economic activities to produce commodities deemed to be agricultural and which are listed in the EAA Manual. Consequently, the production by farms of non-agricultural commodities (such as tourism services, food processing and environmental services) is excluded when measuring the activities of the agricultural branch. In practical terms the building up of an account for agricultural production is relatively straightforward; its products are fairly easily distinguished from those of other industries, and the inputs it buys from other industries can also be measured, though not so easily. The values of outputs and inputs are, in the main, taken from information on physical levels of production and input use which are multiplied by average prices of outputs and inputs. This enables an account to be drawn up rapidly, so that,

1 Eurostat (1992) *Manual on Economic Accounts for Agriculture and Forestry*. Theme 5 Series E. Luxembourg: Eurostat.

2 Eurostat (1979) *European System of Integrated Economic Accounts*. Second edition. Luxembourg: Eurostat. A third edition *European System of Accounts: ESA 1995*, will be published soon.

3 It is published under Theme 5 Series C. In most recent years the publications have contained both the economic accounts for agriculture and those (separately) for forestry.

typically, estimates for the calendar year are available to Eurostat within a few weeks of its closing date, with early estimates possible before the year end (as soon as the main harvest period is over). The balancing item in the agricultural production account (agriculture's Net Value Added) can be interpreted as the increase in value which agricultural production gives to the goods and services (including capital goods) which farming buys from other parts of the economy.

- 1.3.5 A "branch" is described in the ESA Manual as consisting of "groups of units of homogeneous production which are exclusively engaged in the production of a single product or groups of products". In essence, the account for the agricultural branch of the economy relates to the total production of agricultural goods irrespective of the nature of the operators who produce them. Though most of this productive activity takes place on what would be generally accepted as being commercial farms, some takes place on units which are not primarily farms (for example, religious institutions) and some takes place in domestic gardens. No notice is taken of the nature of the operator, so the agricultural branch's production is the combination of output from full-time farmers, part-time farmers with various degrees of off-farm activity, from corporate bodies and so on.
- 1.3.6 Agriculture's Net Value Added at factor cost forms the reward to all the fixed factors used in agricultural production - all land, all capital and all labour (both independent and dependent). From the Net Value Added of agricultural productive activity it is possible to deduct the costs of interest payments and rents paid to leave a residual which forms the reward to a bundle of resources consisting of the total labour input employed and the capital and land owned by producers. A further deduction of the cost of hired labour leaves a residual which is the reward to the unpaid (family) labour (including its managerial activities) and the owned land and capital. From these three Eurostat calculates its Indicators 1, 2 and 3 by deflating and dividing by the number of Annual Work Units (AWUs), in the manner shown in Figure 1.3.

Fig. 1.3 Income indicators relating to the agriculture production branch of the economy, as calculated by Eurostat.

		Final output			
Intermediate consumption	Gross value added at market prices			Subsidies	
	Taxes linked to production	Gross value added at factor cost			
	Depreciation	Net value added at factor cost		Deflated, divided by AWU (total labour input)	INDICATOR 1
	Rents interest	Net income from agricultural activity of total labour input		Deflated, divided by AWU (total labour input)	INDICATOR 2
	Compensation of employees	Net income from agricultural activity of family labour input		Deflated, divided by AWU (family labour input)	INDICATOR 3

Note: computation or estimation of these income indicators is based on the Economic Accounts for Agriculture, which form part of the European System of Integrated Economic Accounts. Indicators are worked out as shown below.

- 1.3.7 These Indicators have been interpreted, for policy purposes, as showing the changing income situation of agriculture. Of the three, Indicator 1 (Real NVA/AWU) has been given the greatest weight because it pre-dated the others and is considered statistically the most reliable. However, it is self-evident that, except in very particular circumstances, they represent concepts which are far removed from the personal income of farmers and their households; this applies especially to Indicator 1. They ignore any income accruing to farmers and their families from sources other than farming. They make no allowance for the amounts taken by taxation and other forms of involuntary spending. It would be wrong therefore to interpret them as representing personal incomes; even using them as proxies for *developments* in personal incomes over time is suspect, since the existence of multiple income sources means that it is possible for the total income situation of farmers and their households to be improving while their incomes from farming are declining, and

vice versa. Nevertheless these Indicators *have* been misused as a proxy for personal incomes, probably because they were published and no other measure nearer the policy needs was available.

- 1.3.8 The other account within the national accounting framework of the EU which is relevant to income measurement in the present context is the *Distribution of Income Account*. Again this can be subdivided, and for this purpose the economy may be split into sectors, of which households form one, on the basis of their principal function. An account can be drawn up for the households sector of the economy. On one side of the account are the resources flowing towards households (from independent and dependent activity, from property income, welfare transfers and so on) and on the other are the payments which households are required to make (including taxes and social security contributions). The residual in this account after all claims on income are met is Net Disposable Income.
- 1.3.9 Within the ESA there is provision for a further sub-division of households into socio-professional groups. However, this has not as yet been developed by most Member States. The TIAH project is, in effect, an anticipation of a more general disaggregation of the households sector account. The aim is to construct for each country a Distribution of Income Account for agricultural households, and for other groups where possible, in order to estimate aggregate Net Disposable Income for these households. Disposable income of the agricultural households sub-sector can be expressed per household, per household member and per consumer unit. Comparisons can be drawn with the income situation of all households and, where the data exist, with other socio-professional groups. The account also allows the composition and distribution of agricultural households' total income to be examined.
- 1.3.10 In this sector approach some conceptual problems (described later) are encountered because agricultural households are engaged both in consumption activities and in production, no separation being made in the ESA Distribution of Income Account. On a more practical level, it is important to realise that in the Distribution of Income Account all the resources flowing towards agricultural households are covered, not just the rewards from farming. Drawing up the Account presents more data problems than are encountered in the EAA, since the economic activities of agricultural households extend well beyond the limits of agricultural production. Many of the aggregate data sources (such as the interest paid or received by banks) will not keep separate records on the amounts paid or received from agricultural households; a variety of sources have to be used to build up the income picture. Some of the practical difficulties and the ways in which they may be overcome are described in Chapter 2.
- 1.3.11 When considering estimates of Net Disposable Income, key issues which must be borne in mind are the definition of income used, the definition of a household, and the definition of what constitutes an agricultural household. Each is dealt with separately in this report. For specific policy purposes it may be desirable to use other concepts than those adopted for the TIAH statistics. This is completely in line with the principle that the choice of any indicator should depend on the problem in hand. Given sufficiently detailed basic data, it should be possible to construct estimates using a range of alternative definitions of income, household and agricultural household. However, there was virtue in starting the project using a clearly-understood set of definitions within the framework of national accounts. This formed the approach of the Working Party.

Chapter 2: MAJOR FEATURES OF THE TIAH METHODOLOGY

An over-view of the main items

Income: the main concept is household **net disposable income**, that includes all income from independent activity (self-employment), dependent activity (employment), property, social and other transfers, and is after the deduction of items such as current taxes, social contributions and other payments. It is expressed in aggregate, per household, per household member and per consumer unit.

Household: the household includes all members living together (this varies in detail between Member States), and includes, in agricultural households, both those who work on the agricultural holding and those who do not.

An agricultural household ("narrow definition) is one where the main income of the household reference person (typically the head of household) is from independent activity in agriculture (farming). A range of other socio-professional groups can be established on the same basis for the purpose of comparison. The "broad" definition of an agricultural household includes all households where any member has some income from independent activity in agriculture. Over time, the numbers of agricultural households according to both definitions have been falling in most EU countries; the fact that statistics relate to a changing cohort must be borne in mind when interpreting income results.

2.1 Background

- 2.1.1 The full methodology of TIAH statistics is presented in the *Manual on the Total Income of Agricultural Households* (hereafter called the TIAH Manual), which was first published in three languages (French, German and English) in 1990. A revised version of the TIAH Manual was published in 1995, taking account of both the developments in the methodology of TIAH statistics and of the adjustments, mainly of a small nature, that were a consequence of the revisions made to the ESA 1995. This TIAH methodology was developed by Eurostat staff concerned with the Economic Accounts for Agriculture and with national accounting in collaboration with the Working Party on the Economic Accounts for Agriculture, representing the relevant statistical authorities in Member States. Other parts of the Commission were consulted and kept informed; these included sections of Eurostat concerned with national accounts and family budget surveys and the Directorate-General for Agriculture, DG VI.
- 2.1.2 The TIAH Manual sets out "target" definitions and procedures. It is recognised that some Member States are not yet fully capable of applying the methodology. Nevertheless, by having targets it is clear what the harmonized basis of producing results should be, and any changes in actual practice should be in the direction of the targets. The TIAH Manual also sets out, for key elements in the methodology, a number of acceptable interim alternatives to the "target" which Member States may adopt. As will be seen below, this applies principally to the method by which households are classified into socio-professional groups. Member States are requested to supply documentation on any departures from the harmonized methodology.
- 2.1.3 Here, only an outline of the most important features can be given. Attention is focused on three issues: the definition of disposable income, the definition of a household, and the classification system used to distinguish agricultural households from those belonging to other socio-professional groups.

2.2 Definition of disposable income

- 2.2.1 The main income concept used in the TIAH project is Net disposable income. The way that this is defined is shown in Figure 2.1. It should be noted that this concept includes not only income from other gainful activities, but also from pensions and other forms of transfer. The value of farm-produced goods consumed by agricultural households and the rental value of the farmhouse are treated as positive components of income. Elements deducted include current taxes and social contributions.

2.2.2 The items shown in Figure 2.1 are each composed of a number of sub-items, described in detail in the TIAH Manual. When sending figures to Eurostat, Member States are requested to supply details of each item and sub-item. In addition to being necessary in order to describe the composition of the income of agricultural households (one of the objectives of TIAH statistics), in the short-term some countries may not have access to data for all the components, and a detailed presentation of information will allow a degree of harmonization between them at something less than the target income definition. In the longer-term, the detail will permit the consideration of a range of alternative income concepts, such as income before the deduction of tax.

Fig. 2.1 Definition of net disposable income.

- | |
|---|
| <p>(1) Net operating surplus (mixed income)⁴ from independent activity</p> <p>a) from agricultural activity</p> <p>b) from non-agricultural activity</p> <p>c) from imputed rental value of owner-occupied dwellings</p> <p>(2) Compensation to members of agricultural households as employees, from agricultural and non-agricultural activity</p> <p>(3) Property income received</p> <p>(4) Non-life insurance claims (personal and material damage)</p> <p>(5) Social benefits (other than Social benefits in kind)</p> <p>(6) Miscellaneous inward current transfers</p> <p>(7) Current receipts (sum of 1 - 6)</p> <p>(8) Property income paid</p> <p>(9) Net non-life insurance premiums</p> <p>(10) Current taxes on income and wealth</p> <p>(11) Social contributions</p> <p>(12) Miscellaneous outgoing current transfers</p> <p>(13) Net disposable income (7 minus 8 - 12)</p> <p>(14) Social transfers in kind</p> <p>(15) Net adjusted disposable income (13 plus 14)</p> |
|---|

2.2.3 Some features of the definition are worthy of note, since lack of awareness may lead to a misinterpretation of results. Many of these reflect the macroeconomic origins of the methodology. There are differences between the nature of individual items listed in Figure 2.1 and concepts using similar names within microeconomic sources (such as family budget surveys). However, their importance should not be overstated (see footnote to paragraph 4.1.8).

2.2.4 First, in the flow of resources to agricultural households in Figure 2.1, the reward from independent activity (self-employment) is shown in the form of operating surplus (value of output minus costs of hired labour). Rent and interest costs (property and entrepreneurial income paid) are deducted later, among the list of negative items. However, in practice many Member States deduct these two at the level of Item 1, showing what is in effect an income figure. The end result is the same, but there are

4 Under the new ESA 1995, *operating surplus* and *mixed income* are alternative names for the same balancing item. Mixed income is the term used in the context of unincorporated enterprises owned by members of households in which the owners or other members of their households may work without receiving any wage or salary. Though farms are usually of this form, for the purpose of the TIAH methodology the term operating surplus is used for this item; this is done to avoid potential confusion between mixed income and other microeconomic income concepts in which interest and rents have already been deducted.

implications when looking at the composition of total income.

- 2.2.5 Second, accident insurance premiums and claims (receipts) are shown as separate items. This may seem strange, but is explained by the fact that the Distribution of Income Account for households, as part of the ESA, has to record flows between all the various sectors; one of these is the Insurance Enterprises sector. On the negative side, at the individual household level, insurance premiums would normally be regarded as a cost to be deducted before the calculation of disposable income, but receipts from claims, especially for the replacement of assets destroyed by accident, probably would not. This is a specific example of a general point; in microeconomic approaches some items would not normally be regarded as elements in the calculation of disposable income although they appear in the list in the macroeconomic approach.
- 2.2.6 Third, in the TIAH methodology all interest charges are treated as negative items, whether the borrowing is for business purposes or to finance consumption goods. This reflects the dual role of agricultural households within the ESA as both production and consumption units (see 1.2.10 above). Again, a family budget approach might accept the former as being a cost associated with independent activity, but would probably claim that payment of interest on consumer borrowing should be made out of disposable income, and not treated as a cost in its determination. However, even if the methodology required a distinction between the two, for agricultural households it may be impossible in practice for surveys to separate them in any meaningful way because of the close association of business and personal wealth.
- 2.2.7 Net disposable income should not be interpreted as bearing a direct relationship with standards of living for reasons that include the following:
- No account is taken (at present) of the consumption of goods and service provided by the state without direct cost to the individual, such as public health care or education. In the revised version of the TIAH methodology, following changes in the ESA 1995, there is provision for the concept of Net adjusted disposable income, the nature of the adjustment being social transfers in kind, which include *inter alia* publicly provided education and health services. This concept is intended to improve the comparability of disposable income figures over time and space, such as between countries, between socio-professional groups and between time periods that include changes in the extent of public sector activity. However, no results contained in this 1995 Report are on this supplementary new basis.
 - While there is an attempt within the existing Net disposable income concept to cover goods and services taken from farms by their operators in non-money forms (farmhouse consumption of farm products, the rental value of owned accommodation), it is by no means certain that these are either adequately captured or correctly valued.
 - Net disposable income is only a measure of current flows, and no account is taken of capital gains which, according to some conventions, could form a part of personal income.⁵ Capital gains can be realised in many ways other than by sale, and it has been found that farmers with capital gains can adjust their consumption spending (or sums set aside for pensions) to reflect these gains.
 - Wealth, which represents a potential source of purchasing power and therefore of economic status, is also ignored.

Hence Net disposable income must be regarded only as a partial measure of the command which agricultural households have over goods and services.

- 2.2.8 Particular care must be taken when drawing comparisons between the income levels of agricultural households and those of other socio-professional groups. Here, the coverage of income in kind taken from the farm is a particularly sensitive issue. Farmers have a greater opportunity than household in general to consume directly the output from their productive activities (food, fuel), and to treat some items of personal consumption as business expenses. Often farmers live in houses which would command substantial rental values; there is an impression among the statistical authorities of Member States that, where this item is included as a form of income, the value of owner-housing on farms is often understated. In some countries the estimate of own-consumption is

⁵ For a discussion of the definition of personal income, and the relevance of different forms of income measurement to agricultural policy, see: Hill, Berkeley (1989) *Farm Incomes, Wealth and Agricultural Policy*. Aldershot, UK: Gower.

too low, as it is valued at farm-gate prices whereas perhaps it should be measured at retail prices, with appropriate reductions to allow for any lack of processing, presentation and so on. On the other hand, the costs of consumer goods are often higher in rural than urban areas, so that a given disposable income could indicate lower physical consumption⁶. To ease some, though not all, of these sources of disparity, the Working Party has proposed that comparisons should be made, where possible, with other households which rely for their main income source on independent activity.

- 2.2.9 It is also evident that the income of agricultural households differs in the nature of the rewards it represents from that accruing to households in general. Income from independent agricultural activity (the main source for farmers) is a mix of rewards, being the residual available to the owned capital and land, and the unpaid labour of the household, including an element for the risk-taking function of entrepreneurship. In contrast, the main source of income of households in general is from dependent activity (that is, wages) alone. While not denying the different economic function of the main income source, this is not a valid reason for objecting to comparisons between the disposable income of farmer households and other groups, even those whose income comes entirely from state welfare benefits. Net disposable income is essentially an indicator of potential for spending on consumption and/or saving. Whether one group is relatively disadvantaged compared with another will depend on the level of disposable income, not its composition (though composition may be used as a means by which the groups to be compared are defined). For policy purposes there may be special interest in drawing comparisons of income levels between farm households and the households of, for example, other independent businessmen, but again this has nothing directly to do with matching the mix of factor returns. This is an important point.
- 2.2.10 Finally, there is the matter of comparability between incomes in different countries. Such an exercise is beset with problems. Even in the absence of the present disharmony between actual TIAH methodologies, the different extents of public provision of goods and services varies may lead to false pictures of real consumption potentials using the present Net disposable income (in its unadjusted form). There may be different cost structures, reflecting national indirect taxation regimes. And the means of expressing national currencies in a common unit (ECU exchange rates, or Purchasing Power Standards) may be inadequate for the purpose. Hence, at this stage, direct comparisons of absolute levels of Net Disposable Incomes of agricultural households between Member States are best avoided.

2.3 Definition of a household

- 2.3.1 For the purpose of measuring Net disposable income, the most appropriate unit is that of the household. This is the practice in Family Budget Surveys. The logic for preferring the household rather than the individual as the income unit is that members of households, and especially married couples and their dependent children, usually pool their incomes and spend on behalf of the members jointly. This is not to deny that there may be some differentiation; a wife may consider part of her income, perhaps some minor sums coming from outside the farm, as her own to do with as she wishes. However, in general it makes much more sense to use the household as the unit. Otherwise, in a farm family with the business operated as a sole proprietorship, all the farming income would be shown against the farmer, and his wife and children would be shown as having zero income, a situation which obviously inaccurately expresses their real position as potential consumers.
- 2.3.2 In the TIAH methodology, households are defined as in national Family (Household) Budget Surveys. Though not completely harmonized, the definitions of household employed in Member States typically include all members who live under the same roof and share meals. A household can consist of a single person. Large groups of persons living together in institutions (religious houses, universities etc.) are normally excluded.
- 2.3.3 In order that households of different sizes and compositions can be brought together for income measurement purposes, it is convenient to express incomes per household member and per consumer unit. While the former is simply the result of a count of the number of persons in

⁶ In practice it seems that the net effect of these factors is to lower the cost of living of farmers as a group, requiring a correction factor to be applied to their income when attempting to make comparisons with other members of society. In the USA, the official poverty income for farmer households is set at 85 per cent of the non-farm level. In Australia, the 1973 Henderson Poverty Enquiry used a farmer poverty line 20 per cent below that for all families.

households, the latter uses coefficients (in the form of an equivalence scale) to express children and additional adults in terms of consumer units. A variety of approaches can be used to calculate these coefficients.⁷ However it appears that, whatever scales are chosen, arbitrary judgements are inevitable. Scales devised for general application may not necessarily be suitable for application in agriculture, though they may be accepted as being the only ones available. The use of such scales is nevertheless important to any comparison between farmers and non-farmers, since agricultural households are on average larger than households in general in all Member States⁸. Small variations in the scales used are found between Member States (which may reflect real differences in socio-economic conditions between countries), but in practice most Member States adopt a standard set of coefficients; typically the head of the household counts as 1 unit, additional adults 0.7 units, and children as 0.5 units.

- 2.3.4 It is important to note that households of farmers, defined in this way, may include persons who contribute no labour input to the agricultural holding. These individuals may or may not have other occupations or sources of income. Their treatment reflects the consumption orientation of income measurement in the TIAH methodology. In contrast, some of the assistance given by the CAP under structural aids adopts a narrower view of the household, comprising only those members of the family working on the holding, or only the individual⁹. These various approaches taken to the size of the unit over which income measurement takes place are not necessarily in conflict. Aids directed at those engaged in agriculture will, understandably, not wish to consider people who do not work in agriculture. Given sufficient detail in its basic data, the TIAH project might throw light on the relative contributions made to the total income of households by members who do no work on the holding. In practice, it is felt that very few people who live as parts of agricultural households would contribute zero labour input to the farm at times of labour shortage, such as harvest, even if they held full-time jobs off the farm. The essence of the TIAH project is to provide information on the *overall* income position of agricultural households, not fractions of them.
- 2.3.5 As will be seen later, all but three of the Member States who have supplied results as the TIAH statistics have adopted the household as the basic unit over which income has been measured. The exceptions are Belgium, Denmark and the United Kingdom. In Denmark, the "family" is used, although this is not felt to be a major departure since the social structure of Denmark means that multi-generation households (and other extended forms) are not common. Belgium uses the fiscal household, which includes only the reference person, spouse and dependent persons. The United Kingdom uses tax cases, as this is the only practical option.

2.4 Bases for classifying households into agricultural and non-agricultural groups

- 2.4.1 The most significant part of the target methodology, and one which can have a substantial effect on the results, is the system used for classifying households as agricultural or belonging to some other socio-professional group. As noted above, at the time when the TIAH methodology was being drawn up, the national accounts methodology for the European Union as a whole (ESA) had not developed such a classification system. Nevertheless, it was clear that it would have to be capable of allocating all households in a systematic way using the same basic criterion. For example, it would not be satisfactory to classify agricultural households on the basis of the occupation of agricultural land, but to classify households of waged workers according to their main income source. The possibility would exist of one household being included in two groups or being left out of any.
- 2.4.2 After consultation with the Eurostat staff responsible for developments in the ESA, the proposed

7 Some of these methods are reviewed in Buhmann, B., Rainwater, L., Schmaus, G. and Smeeding, T. M. (1987) "Equivalence Scales, Well-being, Inequality, and Poverty Sensitivity Estimates Across Ten Countries Using the Luxembourg Income Study (LIS) Database". *Review of Income and Wealth*, 33, 115-42.

8 In Eurostat (1986) *Family Budgets - Comparative Tables*, the average numbers (persons) per household were as follows, (all households followed by households headed by farmers and agricultural workers): Belgium 2.9, 4.2; Denmark 2.2, 2.8; FR Germany 2.5, 4.1; Spain 3.7, 4.2; France 2.8, 3.6; Ireland 3.7, 4.0; Italy 3.2, 4.0; Netherlands 2.9, 3.8. The reference year varies from 1978 to 1982. Part of the difference may be explained by the inclusion of households headed by retired persons in the "all households" figure. The way that elderly farmers (who may be in receipt of retirement pensions but who regard themselves still as farmers) are treated in the statistics requires careful consideration.

9 For example, in applying income tests to the "Transitional aids to agricultural income" (Regulations (EEC) Nos 768/89, 3813/89, 1279/90) income was measured only for the farmer and those members of his family working on the holding, though it captured all forms of income for these persons. Early retirement aids (Regulation (EEC) No 1096/88) only consider the income from the applicant (that is, the one person).

basis for household classification within the TIAH project was initially set in line with the option which was to become the ESA preferred basis for a general disaggregation of the household sector into socio-professional groups. This was a system based on the income composition of the entire household. Under this system, *an agricultural household is taken to be one in which independent (self-employment) agricultural activity is the main source of total income of the entire household.* However, many Member States found that this system of household classification was impractical; among EUR 12 only Denmark, Greece, Ireland and the Netherlands could use it. Consequently TIAH statistics have adopted one of the alternatives put forward in the ESA - a system of classification based on the household's reference person.

- 2.4.3 For the purpose of classification in TIAH statistics, households are allocated to socio-professional groups on the basis of the main source of income of the 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 reference person is from independent activity in agriculture.*¹⁰ Some Member States, that cannot at present use an income criterion, substitute the main declared *occupation* of the reference person.
- 2.4.4 In the context of the TIAH statistics this definition of an agricultural household is sometimes labelled "narrow" since it excludes those households which operate a holding but where farming is not the main income of the reference person (or the person's main occupation). Of course, when measuring household income the incomes of all members are summed, but these additional incomes are not considered at the classification stage. All Member States (except the Netherlands and Austria) now use this reference person system in calculating their TIAH results.¹¹
- 2.4.5 Use of a reference person system can result in some households being classed as agricultural where farming contributes only a minor part of the household's total income, but such cases have to be accepted as a price of the greater practicality of such a system. This is particularly the case when the process for identifying the reference person is not based on the largest contributor to the family budget. As will be seen later in the country chapters (Part Two), typically the determination of the reference person, or head of the household, is subjective and self-declared, though there are examples of explicit criteria being applied. For example, in such circumstances an elderly person who declares himself as being the head of household and also as being a farmer may have living in his household many younger people whose main income sources and occupations are off the farm. While the household may be classed as agricultural using a reference person system, it might be non-agricultural in terms of its overall income composition.
- 2.4.6 There is the possibility under any "narrow" definition of an agricultural household of substantial year-to-year changes taking place in the numbers of households, and this could make income results difficult to interpret. An income-based system which only looks at figures for a single year is likely to result in many temporary reclassifications at the margin due to the fluctuating nature of farm incomes. Not only will the number of agricultural households change; their average income will be affected, though it is not clear if this results in an overstatement or an understatement of the position relative to that of a more consistent group of households¹². Averaging incomes over a run of years would present the basis for a more stable classification; analysis of farm-level data in Germany suggests that taking a three year period removes most of the unpredictable variation in incomes. Taking longer periods gives more stability, but there is an increasing danger that changing farm structure (changes in the size distribution of the farms concerned) will affect the long-term

10 Where possible the group of agricultural (farmer) households should not include forestry or fishery households.

11 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 harmonized methodology is of little significance, though the extent of this will be regularly monitored. Greece can use the reference person classification system, although its results in this Report are based on the entire household's income composition.

12 Situations could be set out in which either possibility might arise. Also a distinction has to be drawn between those circumstances in which the number of agricultural households remains unchanged and those where the same individuals remain in the group. Taking a rather extreme case, if falling agricultural incomes are restricted to households with low total incomes, marginal reclassification could result in a rise in the average income for the remaining agricultural households. Conversely, rising agricultural incomes could cause a fall in the overall average if many previously-excluded low income farms are brought in.

trend in income variability¹³. Classifying according to the main occupation (defined according to time spent) of the reference person may show more stability, but this system has other major disadvantages; there is plenty of evidence to show that the proportion of time spent on farming is not a satisfactory guide to the proportion of income derived from it, especially among small farmers. In addition, time allocation does not correspond to the ESA 1995 methodology as a basis for allocating households to socio-professional groups.

- 2.4.7 The TIAH methodology encourages the use of classification involving the averaging of incomes over time. While at present income measurement systems are rarely set up in ways which enable this to be carried out formally, in practice an element of averaging seems to take place in most Member States. For example, when information on the main source of income involves some subjective judgement by administrators (such as is used in the UK by taxation authorities in allocating taxpayers according to their normal main income source) a form of averaging is already being employed. Most Member States operate mechanisms that give a degree of short-term stability to households that comprise the agricultural group.
- 2.4.8 Even if the effects of short-term fluctuation in the income of farming on the numbers of agricultural households are smoothed out, the households which are covered will not form a constant group over time. In the long term numbers will be expected to fall, in line with the historic pattern. If the policy interest were to be to trace the development of income of people who *started* any given period as members of agricultural households, some attempt would have to be made to retain these in the group. For example, the households which are most successful in diversification into non-agricultural activities can be expected sooner or later to fall outside the agricultural group (defined in the "narrow" sense) and to join some other. Under the present arrangement, farmers who face a fall in their income from farming will eventually be excluded from the agricultural category as their welfare transfers grow in relative importance. Thus when commenting on income developments over time, changes in the composition of the group of agricultural households must be borne in mind.
- 2.4.9 It should be noted that households headed by hired workers in the agricultural industry are not included within the agricultural household group under any of the classification systems put forward. In practice, only farmer-households are covered.
- 2.4.10 A specific problem which has had to be tackled is that of farmers who run their farm businesses as corporate institutions (companies). These are of numerical importance only in a few countries (most notably in the UK) but tend to be in the largest business size groups. Their operators might therefore be expected to have relatively high incomes. In practice these farms may behave as if they were operated in non-corporate form; the structural arrangements are often made for taxation convenience rather than to secure other advantages. Taxation data form an important information source in countries where these farms are found. However, farmer-directors of such farms will normally be treated in taxation statistics as receiving income as employees of their own businesses, rather than as receiving income from independent activity (self-employment). Consequently, they may escape inclusion as agricultural households; they may be classed among the large group of dependent households (wage or salary earners). Special arrangements have been made in the TIAH methodology to cover such households.

2.5 Choice of other socio-professional groups for purposes of income comparisons

- 2.5.1 Two of the objectives of TIAH statistics explicitly involve comparisons between agricultural households and other socio-professional groups (developments of income and absolute levels of income). An important step was taken in 1993 in this area by establishing a **harmonized list of socio-professional groups** for use within TIAH statistics. This was drawn up after reviewing the categories currently used in the data sources from which results are derived. Some Member States already divide their "private households" sector into sub-sectors for national purposes within the

13 See: Cordts, W., Deerberg, K. H. and Hanf, C. H. (1984) "Analysis on the Intra-sectoral Income Differences in West German Agriculture". *European Review of Agricultural Economics*, 11(3), 323-42. Using estimates of the coefficients of variation in farm profits for single years (over the period 1968/9 to 1979/80) and for profits averaged over from two to twelve years, it was shown that for single years the average coefficient was 0.78, for two years 0.68, for three years 0.64 and for four years 0.61. Over twelve years it was 0.55. Some 60 per cent of the total reduction was achieved by averaging over three years. More reduction (83 per cent) was achieved by taking five year averages, but in the opinion of the authors, farm growth had probably become significant by then.

framework of their national accounts (France and Germany in the disaggregation of their household sectors, and the Netherlands within its related Socio-Economic Accounts). Eurostat also publishes results from national Family (Household) Budget Surveys in Member States as "comparative tables" using standard socio-economic categories for the head of household.

- 2.5.2 Following discussion by the Working Party and consultation with units of Eurostat responsible for Family Budget Surveys and national accounts, a list of socio-professional groups was agreed for the purpose of disaggregating the household sector and the drawing of comparisons. This list (see Figure 2.2) is expressed in two levels, a "minimum" list (shown in **bold**) and an indication where the first level of expansion should take place (shown in normal print). Member States that wished to use a more detailed breakdown could do so. In line with the existing (1990) TIAH Manual instructions, where possible the group of agricultural (farmer) households should not include forestry or fishery households.

Fig. 2.2 "Minimum" list of socio-professional groups, and the first level of expansion.

(a)	Employers and own-account workers (main income of reference person from independent activity)
(i)	Farmers
(ii)	Others
(x)	retail and wholesale distribution: accommodation and catering
(y)	services (including professions operating as own-account workers)
(z)	others (including manufacturing industry)
(iii)	All self-employed [(i)+(ii)]
(b)	Employees (main income of reference person from dependent activity):
(i)	Manual workers in agriculture, industry and services
(ii)	Non-manual workers
(iii)	All employees ((b)(i) + (b)(ii))
(c)	Others
(i)	Recipients of property income
(ii)	Recipients of pensions
(iii)	Recipients of other current transfers
(iv)	All others
(d)	All households except farmers ((e) minus (a)(i))
(e)	All households ((a) + (b) + (c))

- 2.5.3 When comparing households in different socio-professional groups according to their levels of disposable income, there appears to be no strong reason why restrictions should be placed *a priori* on the selection of groups. Though there may be a particular policy interest in seeing how the incomes of agricultural households compare with, for example, the incomes of small retail traders, there is little inherent reason why their potential spending power should not be compared with households headed by employed persons, or by persons who are retired or mainly dependent on social transfers for their income. Real differences in costs of living (especially of housing, food and transport) may require caution when drawing inferences about relative potential consumption levels, but this also applies to many other forms of comparison (such as disparities in the costs faced by rural and urban households, which may be large). These cost differences are not in essence related to the manner in which the income is generated. Nevertheless, when interpreting comparisons it should be borne in mind that the income from farming differs in its economic characteristics (including risk) from, for example, income from employment, and that satisfactory data are often

less easy to obtain for income from self-employment, not least because the concept of income is more complex and involves the identification and evaluation of a greater volume of items which are taken as income in kind.

2.6 The use of a "broad" concept of an agricultural household

2.6.1 The definition of an agricultural household used here is consistent with the background and aims of TIAH statistics. In other circumstances other definitions are appropriate¹⁴. Specific policy programmes will have target groups which may be either more or less restricted in their coverage than the definition adopted here. For some policy purposes it may be desirable to treat all households with which a holding is associated as "agricultural". Eurostat has considered this "broad" definition and the problems of estimating results to cover all the households involved. In some countries (Greece, for example) it is felt by the national statistical authorities that such an approach would have little meaning; small holdings operated on a part-time basis and associated with large families whose members are predominantly engaged in urban jobs will not produce meaningful information on the income situation of the agricultural community. For other programmes some minimum threshold of holding size might be imposed on the "broad" approach, but this runs the danger of excluding families who produce little but who nevertheless are mainly dependent on farming for their livelihood. Also, some large farms will be included where the occupiers are mainly dependent on even larger earnings from other businesses; these may be significant agricultural producers and thus of importance to policies directed at influencing the level of production, but they will be outside the boundary of policies aimed at families which are mainly dependent on farming. Given enough basic data, it might be possible to estimate disposable incomes for agricultural households defined in many alternative ways. However, for the present purpose it was necessary to give priority to a definition which was appropriate to the general direction of the TIAH project.

2.6.2 Though the main focus of attention of TIAH statistics remains the "narrow" approach to what constitutes an agricultural household, during the period since the target definition was established the desirability of also making income estimates using the "broad" approach has arisen. It is accepted that this could never be the basis for a complete disaggregation of all households into socio-professional groups. But in the opinion of the Commission's DG VI (a major potential user of the results) there are particular policy situations where information gathered in this way might be useful, leading to requests for results calculated on this basis. By subtraction it should also be possible to throw light on the income situation of those households with agricultural holdings which are not primarily dependent on farming for their livelihood (those households which fall outside the "narrow" but inside the "broad" approaches).

2.6.3 In the TIAH methodology, under the "broad" definition, an agricultural household is *one which derives an income from independent activity in agriculture (other than income solely in kind)*. Because of the way in which the household is defined, this means that a household is included under this "broad" approach if *any* member of the household has some income in this form. Because the "broad" definition is 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). Rather, occasional estimates are likely to be adequate.

2.7 The methods (models) used for generating results and the problems of bringing together estimates produced by macroeconomic and microeconomic approaches

2.7.1 The diversity of data sources found in Member States has meant that, though target definitions are harmonized, the way in which estimates are actually created must be allowed to vary from country to country. Three broad approaches to making estimates were proposed, representing points on a spectrum between microeconomic and macroeconomic methodology.

2.7.2 **Model 1 - Grossing-up microeconomic data.** Estimates of the disposable income of the agricultural household sector can be obtained by grossing-up microeconomic data, as collected in household budget surveys, taxation records (total or samples) or farm accounts surveys. The first two typically also generate estimates for non-agricultural households using the same methodologies, though for purposes of comparison this may not be ideal (for example, the way that own-production

14 The question of what sorts of households constitute the target for agricultural policy is tackled in Hill (1989) *op cit.* and in Hill, B. (1990) "In Search of the Common Agricultural Policy's "Agricultural Community" ". *Journal of Agricultural Economics*, 41(3), 316-26.

is valued may be inappropriate). None of these banks of data will have been designed for the purpose of estimating the income measure currently under development, and each will have its own set of definitions and conventions, including the classification system used to place households in socio-professional groups. They share the microeconomic approach to components of income. In particular, they do not use operating surplus as a concept, but substitute income net of rent and interest and insurance payments. Where disposable income is estimated, this would be before the subtraction of some items (such as voluntary contributions to religious bodies) which are treated as deductions in the target macroeconomic methodology. Consequently, details on some items in the chain of calculation leading to disposable income, as set out in the TIAH Manual, may be partly or totally subsumed in other categories, or information may not be collected.

- 2.7.3 All EU countries carry out annual farm accounts surveys. One reason for doing so is the commitment to contribute harmonized data to the European Commission's Farm Accountancy Data Network (FADN, also known by its French acronym RICA), whose results are published regularly by the Commission¹⁵. There is no requirement in FADN to cover information on income from outside the farm business, though this may be collected for national purposes; countries where this is regularly undertaken include Denmark, Germany, Netherlands, Austria, Finland and the United Kingdom. The administrative requirement that these surveys should achieve a high coverage of national production in an economic way means that they leave out many small farms which fall below some imposed minimum size threshold and which contribute relatively little to total output. Nevertheless, these small farms may be the main source of livelihood or occupation of their holders and may form a substantial element of "the farm income problem".
- 2.7.4 All countries also undertake Family (Household) Budget Surveys, co-ordinated by Eurostat. The methodology is not yet completely harmonized, but similar approaches are taken by Member States¹⁶. However, these surveys are often widely spaced in time (with intervals of up to seven years between surveys), are frequently weak in terms of income data, especially from self-employment (independent activity) since they were not set up with income measurement primarily in mind (their focus was expenditure information needed to construct indices), and the number of cases formed by farmer households is, at least in the northern countries, often too small to be statistically reliable. In Ireland, where the household budget survey is the main source for TIAH statistics, special steps are taken to improve income data quality (including, in the 1987 survey, a link with the sample of the farm accounts survey).
- 2.7.5 Among the other sources encountered, taxation records are hampered by incomplete coverage and, in many Member States, by regimes that levy tax at a flat rate per hectare (the "forfait" approach) rather than on actual income. However, these are a major source of primary data in Denmark, Finland, Sweden and the United Kingdom. Other information sources found in a few countries included social security schemes and occasional surveys. Perhaps not unexpectedly, some Member States have several good microeconomic data sources while others have none.
- 2.7.6 Member States using this microeconomic approach include Denmark, Ireland, Austria, Finland, Sweden and the United Kingdom.
- 2.7.7 **Model 2 - Subdivision of the household sector (macroeconomic approach).** This Model is within the macroeconomic framework of national accounting, and consists of subdividing the household sector to form a separate Distribution of Income Accounts for agricultural households and for other socio-professional groups. It uses economic aggregates (for example, the global interest

15 The basic harmonized methodology is described in: Commission of the European Communities (1989) *Farm Accountancy Data Network: An A to Z of methodology*. Document series. FADN results are published regularly in a separate report, the latest being Commission of the European Communities (1990) *Economic Results of Agricultural Holdings No 5 - 1986/87: Farm Accountancy Data Network*. Document series. Summary results also appear in the annual Commission of the European Communities *Agricultural Situation in the European Union* reports.

16 The basic methodology for the latest round of surveys is described in Eurostat (1990) *Family Budgets: Methodological handbook*. Theme 3 Series C. Results are given in Eurostat (1990) *Family Budgets: Comparative tables*. However only the methodologies and results for six countries (Germany, Spain, France, Ireland, Italy, Netherlands) are covered. For a more complete account reference should be made to the earlier round of surveys, made in about 1979, and reported in Eurostat (1985) *Family Budgets: Comparative Tables - Federal Republic of Germany, France, Italy, United Kingdom* and Eurostat (1986) *Family Budgets: Comparative Tables - Netherlands, Belgium, Ireland, Denmark, Greece, Spain*. Both Theme 3 Series C. Luxembourg: EEC.

received by households) as the starting point for the separate components in the income calculation, augmented by microeconomic data sources. In practice macroeconomic data sources rarely distinguish between payments or receipts from people who are members of agricultural households and those from other households. Sometimes alternative indirect methods can be used to deduce amounts; for example, the age composition of agricultural households can be used to estimate the receipts from pensions and some other social benefits.

- 2.7.8 Often a distribution agent is used to allocate an economic aggregate between classes of recipient. For example, data from family budget surveys or tax records of income from self-employment, though perhaps underestimating the level of income, might be used to distribute the equivalent income figure taken from national accounts. The choice of distribution agent to allocate the income of the branch agriculture to agricultural households and other institutions (including non-agricultural households) is of particular importance in view of the large contribution this item is likely to make to the former's total income. Standard Gross Margins (or Income) for different types of household, derived from the Farm Structure Survey, are sometimes used in this context. The overall quality of this approach will depend on both the quality of the aggregate (which will reflect the sources used in its construction and the existence of means of checking and reconciling them) and that of the distribution agent. In the present context the latter poses the bigger problem.
- 2.7.9 Member States using this approach include Belgium, Germany, Greece, Spain, France, Italy, the Netherlands and Portugal.
- 2.7.10 **Model 3: Hybrid.** This Model combines a macroeconomic approach for deriving the income from agricultural activity of agricultural households with a microeconomic approach towards the other components in the target list leading to disposable income. It recognises the difficulty in collecting reliable details on the income from independent activity in agriculture through surveys of agricultural households by substituting an estimate derived from the accounts of the branch agriculture. Where macroeconomic sources allow estimates for other forms of income and outgoings corresponding to agricultural households to be made, these are used, but the principal data source on all these other items will tend to be a survey of agricultural households. This may be the household budget survey, or a survey mounted specially. The results will be grossed-up and, if not repeated annually, will require extrapolation.
- 2.7.11 Member States using this approach include Greece and Luxembourg.
- 2.7.12 All the above are capable of producing absolute figures. In addition, the term **Model 4 (Extrapolation from a Base Year, or Change Model)** has been used where direct estimates of disposable income are not available for particular years but have to be extrapolated from a base of absolute figures by applying rates of change to the various components in the income calculation. In reality this process (sometimes called Base-line and Mover) is also often employed within the other Models to fill data gaps.
- 2.7.13 The normal method of updating would be, first, to establish the composition of disposable income in the base year as a means of attaching weights to the various components. Then indicators of the rates of change for the individual components would be sought from the most appropriate sources which, suitably weighted, would enable the change in overall disposable income to be estimated. This could be expressed in terms of an absolute figure by reference to the base year. Where direct annual estimates exist for individual components, these would take the place of extrapolated figures. For Model 3, this process would be used for items other than the income from agricultural activity, for which annual estimates could be made from the agricultural accounts.

Summary of 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) *Agricultural households (defined as above) 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.*
- (d) *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.*
- (e) *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.*
- (f) *Agricultural households have average disposable incomes per household that are typically higher than the all-household average. The relative position is eroded or reversed when income per household member or per consumer unit is examined.*
- (g) *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.*

3.1 Introduction

- 3.1.1 Results for the TIAH project are not at the same level of development throughout the European Union, and for several countries there are large gaps. Methodological differences remain between Member States, and therefore the interpretation of results should be made with caution. Nevertheless, some broad observations are possible. Even in an incomplete form the new information demonstrates the value of TIAH statistics in terms of an ability to cast additional light on the income situation of the agricultural community in ways not possible using Eurostat's existing agricultural branch Indicators 1 to 3.

3.2 Availability of results

- 3.2.1 TIAH results are available for all Member States of EUR 15 using a "narrow" definition of an agricultural household, although countries differ widely in the number of years covered, degree of disaggregation of the households sector and the extent to which results are integrated with national accounts. A description of the situation in August 1995 is given in Table 3.1. At one extreme is Germany, where annual figures for the period 1972-1993 are held in the TIAH database, broken down within the framework of national accounts into socio-professional groups, of which agricultural households form one. At the other, are those countries for which only a single year is currently represented, such as Belgium (1987), Ireland (1987) and Luxembourg (1989), or a larger number where comparable figures for non-agricultural households are not broken down into their composite socio-professional groups.
- 3.2.2 First sets of results have already been provided by the Member States that joined the European

Union in January 1995 (Austria, Finland and Sweden). Each calculates estimates by grossing up microeconomic data. Finland, taking one of its possible sources of information, has used a methodology that is in close accordance with the TIAH target methodology and its results are included in general analyses shown later. Austria and Sweden are expected to make rapid progress to this level; even now their results carry important insights.

- 3.2.3 There is a commitment by all Member States to (i) expand the number of years for which results are available, (ii) to apply universally the "minimum" list of socio-professional groups, thereby enabling a more detailed comparison of the incomes of agricultural households, and (iii) to make other improvements in the methodology and quality of results.

Table 3.1 Summary of the state of TIAH information from Member States held in the database.

Member State	Years covered in TIAH database, and summary of items
Belgium	<p>1987: disposable income and Items leading to it, for agricultural households and non-agricultural households (not subdivided).</p> <p>Results in aggregate and data to calculate per household and per household member; numbers of consumer units not provided.</p> <p>No results using a "broad" definition.</p>
Denmark	<p>1985, 1988, on an earlier basis.</p> <p>1989 to 1991; disposable income and Items leading to it, by socio-professional group for the target "narrow" definition of a household.</p> <p>Results in aggregate, with data to calculate per household, per household member (indirectly) and per consumer unit. (Also data for another "narrow" definition of agricultural households).</p> <p>1989 to 1991; results using the target "broad" definition. (Also data for another "broad" definition for a number of socio-professional groups).</p>
Germany	<p>1972 to 1993; disposable income and items leading to it, by socio-professional group. Results per household, per household member and per consumer unit.</p> <p>1983: results using a "broad" definition from a special study.</p>
Greece	<p>1982 to 1988; provisional results of disposable income and items leading to it using two definitions of an agricultural household and two bases of household classification for agricultural households, all households and non-agricultural households (not subdivided). Aggregate figures, and data to calculate results per household, per household member and per consumer unit.</p> <p>1982 to 1990; revised figures for agricultural households and all households using the TIAH target definition of a household and classified according to the main income of the entire household.</p>
Spain	<p>1980 to 1993; adjusted disposable income and items leading to it, by socio-professional group (minimum list). Aggregate figures and per household.</p> <p>Within this time series, the results for 1980 and 1990 are also available per household member and per consumer unit and according to a greater breakdown by socio-professional group.</p> <p>1990; results also for a "broad" definition for all households, agricultural households and non-agricultural households (derived and not subdivided) in aggregate and per units.</p>
France	<p>1984 to 1990 (on a comparable basis); disposable income and components leading to it (but not corresponding exactly to those in the TIAH methodology), by socio-professional group. Figures per household, per household member and per consumer unit.</p> <p>No results using a "broad" definition.</p>
Ireland	<p>1987; result for a range of "narrow" and "broad" definitions, including the target definitions.</p> <p>Some division by socio-professional group.</p>
Italy	<p>1984 to 1988; disposable income and items leading to it for agricultural and non-agricultural households (not subdivided by socio-professional group) in aggregate and per units. Provisional net disposable income figures for other socio-professional groups.</p> <p>No results using a "broad" definition.</p>

Luxembourg	1989; disposable income and items leading to it in aggregate, per household, per household member and per consumer unit, but only for "professional agricultural holdings" and not for any other socio-professional group.
Netherlands	1981 (not comparable with later set of figures), 1983, 1985, 1987 and 1988; disposable income and items leading to it for agricultural households and all households; aggregate results, per household and per household member. Revised series: 1988 (overlap year) to 1991 on a fully comparable basis broken down by socio-professional group, in aggregate and per household, with data to calculate per household member and per consumer unit. 1988 (special study); breakdown by socio-professional group, and consumer units introduced, and results using the "broad" definition.
Austria	1985 to 1993; disposable income and components leading to it, for a "narrow" and "broad" definition of an agricultural household, taken from the farm accounts survey (LBZ). 1991 to 1993: disposable income and components leading to it for a "broad" definition of an agricultural household. All results (income per holding and per person) refer only to agricultural households; no comparable figures for other socio-professional groups.
Portugal	1980 to 1989; disposable income and items leading to it, for agricultural households, defined in a "narrow" way; aggregate results and per household. 1980 and 1989; disposable income and items leading to it by socio-professional group; aggregate results, per household, per household member, per consumer unit.
Finland	1987 to 1992; average disposable income figures per agricultural household and per (all) households. 1992, disposable income and items leading to it by socio-professional group. Numbers of households, household members and consumer units. 1992 "Broad" and "narrow" approach.
Sweden	1989; disposable income and items leading to it, by main socio-professional groups but not for all households. 1977-90; total income and components, for agricultural households only (separate series, now discontinued).
United Kingdom	1980 - 1991 (1989 onwards are not comparable with earlier years). The coverage (tax cases with incomes from agricultural and horticulture) does not correspond closely with either the "narrow" or "broad" TIAH definitions of an agricultural household. Income figures are only for aggregates; not shown per household, per household member or per consumer unit. Results do not show estimates for non-agricultural households.

3.3 Main findings

- 3.3.1 The second part of this *TIAH 1995 Report* gives results for the individual Member States in a series of fifteen chapters, which update and revise those contained in the *TIAH 1992 Report*. However, they also extended coverage to include Belgium for the first time as well as to the three new Member States. The degree of detail in the analysis is matched to the state of development in TIAH statistics in each country and attention is drawn to the disparities which remain between Member States in the methodologies they employ. These detailed results and caveats will not be repeated here.
- 3.3.2 Nevertheless, there are some preliminary general findings that are of direct importance to decision-making under the CAP and other EU policies. A summary was given in the Box at the head of this Chapter; some are based on results from all Member States while others depend on the greater quantity of information available in a minority of countries but which, nevertheless, are likely to be found throughout the EU.
- 3.3.3 This over-view concentrates on four 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 (at this stage concentrating on figures for a single year), the relative stability over time of the income from farming and total income, and comparisons of average disposable income between agricultural households and the entire households sector.

3.4 Numbers of agricultural households

3.4.1 It is clear that 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. This is apparent from Table 3.2, where a common year has been chosen (1987)¹⁷.

Table 3.2 Comparison of the numbers of agricultural holdings in the Eurostat's Farm Structure Survey with the numbers of agricultural households from Eurostat's TIAH statistics ("narrow" definition), 1987.

Member State	No. agricultural holdings x 1 000	No. agricultural households x 1 000	No. agricultural households as percentage of no. holdings
Belgium	93	66	71
Denmark	*81	*28	35
Germany	705	319	45
Greece	953	393	41
Spain	1 792	505	28
France	982	660	67
Ireland	217	85	39
Italy	2 784	646	23
Luxembourg	*4.0	*2.7	67
Netherlands	132	92	70
Portugal	636	191	30
United Kingdom	260	261	100
Sum of the above	8 639	3 249	38

* 1989

Notes:

- (i) Not all Member States are fully harmonized on the TIAH definition of an agricultural household. For example, France classifies according to the self-declared main occupation of the reference person (rather than main income), which is a subjective judgement that may include both time and income components. In the Netherlands, an agricultural household is one in which the main income from the entire family is from independent agricultural activity (a special study for 1988 only, allows the definition of an agricultural household to be in line with the target "narrow" definition - the results of this are presented in Table 3.3).
- (ii) An agricultural holding may have no agricultural household associated with it, one or more than one (such as on large farms where there are several households headed by self-employed farmers, who may be partners).
- (iii) The UK is unusual in that its number of holdings and agricultural households coincide; though there are many holdings (mainly small) without an agricultural household, there are many others (usually larger holdings) with more than one. The number of agricultural households in the UK is taken from the Survey of Personal Incomes. This probably under-estimates the real number because it does not cover farmers whose farms are arranged as companies.

Source: 1987 Farm Structure Survey and Eurostat's TIAH database.

3.4.2 For the European Union as a whole (EUR 12), the number of agricultural households was less than half the number of holdings. In some countries (notably Italy, Spain, Portugal and Denmark) the number of agricultural households was particularly low in relation to the number of holdings, implying that on two-thirds or more of holdings there were no households whose reference person

¹⁷ The three new Member States are not included and there are two exceptions (for DK and L, which refer to 1989).

(head) had farming as the main income source (or occupation). However, the correspondence between holding and household is not exact, and on some (typically large) holdings there may be more than one agricultural household. This and other technical factors help explain why in the United Kingdom the numbers of holdings and agricultural households were almost the same, despite the known existence of many smaller holdings where there was no household that satisfied the definition of being an agricultural one.

3.4.3 Due to the non-correspondence between agricultural holdings and households, a preferable approach is to compare the numbers of households that satisfy the target "narrow" definition with those of households where least one member of the household has **some** income from farming (that is, the target "broad" definition). This also throws some light onto the households that are outside the former definition but inside the latter, which might be called "marginal" agricultural households. Only five countries can provide such information at present¹⁸ (Denmark, Germany, Ireland, Netherlands and Finland), and mostly for only one year, so caution must be exercised in interpreting the findings. In each country, whilst the use of the "narrow" definition reduced the number of agricultural households compared with the numbers which qualified under the "broad" definition (see Table 3.3), the extent varies substantially; the number of "narrow" households as a percentage of "broad" households ranged (in ascending order) from 31% in Denmark (1991), 41% in Ireland (1987), 58% in Germany (1983), 60% in the Netherlands (1988) to 63% in Finland (1992). Further consideration of the "marginal" agricultural households is given later in this Chapter under point 3.8.

3.4.4 In countries where TIAH results are available for a run of years, it is clear that the number of agricultural households 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, farm household numbers fell even faster, with a fall of more than a quarter (-27%) in the number of agricultural households in the seven-year period 1984-90 against a background of a 7% increase in the total number of households. In Portugal the fall in agricultural household numbers between 1980 and 1989 was 37%¹⁹. Interpretations of income movements over time must recognise that the agricultural households group is not of a constant composition but is changing and contracting.

3.5 Composition of income of agricultural households, and deductions

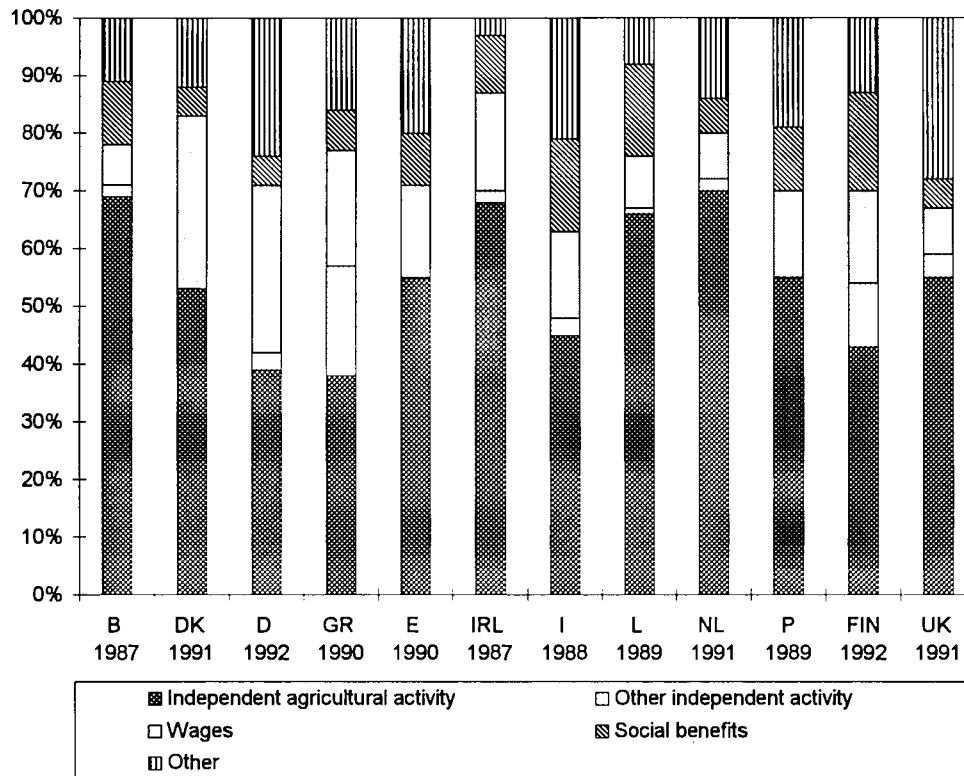
3.5.1 Any consideration of the TIAH's income results must, at this stage, bear in mind that full harmonization in the methodology has not yet been achieved among Member States and that gaps in the data exist. Results should therefore be regarded as indicative and, in the case of some countries, experimental. 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 Figure 3.1) and resulting from using alternative systems of household classification. 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, Ireland, Luxembourg and the Netherlands.

3.5.2 It follows that the overall income situation of agricultural households cannot be described satisfactorily by considering only their income from farming. Thus Eurostat's Indicators 1 to 3 relating to the branch agriculture, and the FADN measures at the farm level which are confined to farm business activity, are clearly shown by the TIAH statistics to be inappropriate for representing the overall income position of agricultural households. They cover only the part of income coming from farming, which in some countries was less than half the total. It should be borne in mind that households where farming is not the main income source of the household reference person (or in some Member States, the main occupation of the reference person) have already been excluded from the TIAH statistics.

18 Some other countries (GR, E and A) do have definitions for the household that are broader than the "narrow" definition but are not the target "broad" definition.

19 Over the same periods the declines in the volume of total agricultural labour input (measured in Annual Work Units) were Germany -26%, France -20% and Portugal -30%.

Fig. 3.1 Composition of the total income of agricultural households by source, for selected Member States. Per cent.



Notes:

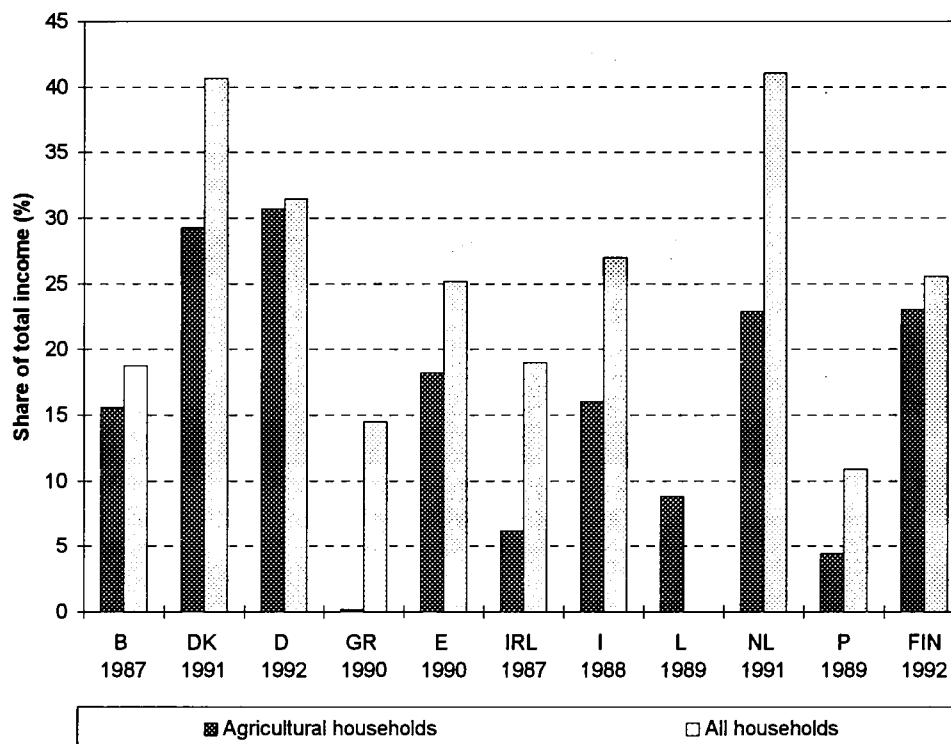
- (i) Results for the Netherlands and Greece are based on the household as the unit of classification (rather than the reference person).
- (ii) In France problems of comparability arise because of the way in which social contributions are treated.
- (iii) In the UK the current data source does not cover households with holdings arranged as corporate businesses, and there are other statistical problems that should preclude direct comparisons with other Member States.
- (iv) "Other" includes income from property, imputed value of domestic dwelling, and other miscellaneous current transfers.
- (v) For Germany figures for 1992 are taken; although 1993 results are available, they are subject to substantial revision.

3.5.3 The second most important source of income of agricultural households was usually wages or social receipts, although in the United Kingdom (1991) it was property income. Income from other forms of independent (self-employed) activity, such as operating other (non-agricultural) businesses, was generally unimportant, though there may have been 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

3.5.4 Countries also differed 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 were Denmark and Germany, where more than a quarter (on average) of an agricultural households' income was taken as taxes and social contributions in the latest year for which results are available. At the other were Portugal and Greece, where less than 5% was taken (see Figure 3.2). Of course, these differences reflect national policies on taxation for which there may be a counter-provision of goods and services provided in the form of social benefits. Only some of these are at present captured in the measurement of disposable income. For example, the provision of individual non-market goods or services (such as education and health services) are not currently covered (though they will be if the concept of *Net adjusted disposable income*, provided for in the *ESA 1995* is adopted). Consequently the net effect on consumption is impossible to assess without more detailed information. Differences in the taxation load may carry implications for the competitiveness of farmers from different countries in a single market, and have longer-term impacts on income, for example by influencing farmers' abilities to

reinvest in modern technology. However, these issues go beyond the scope of the TIAH statistics, which simply establish that differences exist within the European Union in the shares of income taken by these items.

Fig. 3.2 Proportion of total income taken by taxation and social contributions, for agricultural households and all households in selected Member States.



Notes:

- (i) In Greece, less than 1% of total income was taken by these items among agricultural households.
- (ii) France and the United Kingdom are not included, for reasons already outlined.

3.5.5 Another general finding was that the proportion of total income taken by current taxes and social contributions was lower (often much lower) among agricultural households than among households in general in each country. However, no conclusions can be drawn as to the relative burdens of taxation without much more information on the levels and distributions 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.

3.6 Stability of income of agricultural households

3.6.1 There is evidence from several countries (see the later country chapters) that the total household income for agricultural households is more stable than their 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; a variety of factors seem to be operating here, including the way that taxation is levied.

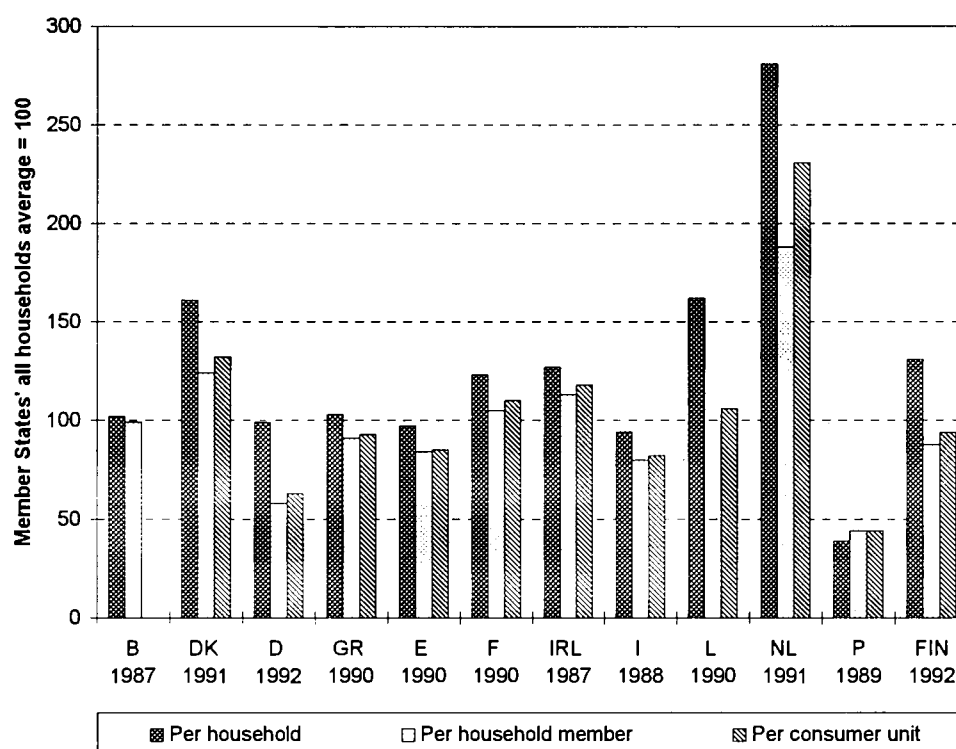
3.6.2 This implies that, in terms of percentage change from year to year, the variability of total income was less than that of income from farming alone. Thus the movements indicated by Eurostat's Indicators 1 to 3 for the agriculture branch of the economy and the farm-level measures from the FADN should not be taken to imply equivalent movements in the total income of agricultural households. These are likely to be more smaller.

3.7 Comparisons of the income of agricultural households with the all-households average

3.7.1 Agricultural households appear to compare favourably with the rest of society in terms of their average disposable incomes per household (comparisons are not possible for every Member State). Looking at results for the latest available year (Figure 3.3), their incomes were typically *close to or*

higher than the all-household average, with the single exception of Portugal where incomes were far lower. The relative position was eroded when income per household member or per consumer unit was examined. 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, the more detailed comparisons given in the country chapters of Part Two show that agricultural households on average usually had incomes lower than households headed by other self-employed reference persons.

Fig. 3.3 Average disposable income of agricultural households relative to the all-household average. Selected Member States.



Note:

- (i) For Luxembourg, in the absence of a comparison being generated within the TIAH statistics, interim figures taken from a survey of living standards have been substituted.

3.7.2 These results do not suggest that agricultural households are a particularly disadvantaged group in terms of their average disposable incomes, a major finding in the light of the objectives of agricultural policy in the European Union. In investigating whether there is a low income problem, other factors need to be considered, including the distribution of incomes around the group mean. And it should be recalled that, despite the stabilising influence of income from sources other than farming, the relative position of agricultural households can be subject to quite large short-term variations, so caution must be exercised when considering the results for single years.

3.7.3 In Germany, which has information extending over several decades, the relative disposable income situation of agricultural households seems to have been deteriorating over time. The average disposable income per household of agricultural households was above the all-household average in all years from 1972 until 1991, but with a gap that was narrowing. In 1992 their income dipped below the all-household average. In France a decline from 1970 is suggested (though there have been changes in methodology that dictate caution in drawing this conclusion). 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.

3.8 Income situation of "marginal" households

3.8.1 Reference has already been made to the numbers of households where some member has an income from independent activity in agriculture (that is, from farming) but where farming is not the

main income source of the household reference person. Among the Member States where information is available, such "marginal" households account for more than a half of all the households with some farming income in Denmark and Ireland (69% in 1991 and 59% in 1987 respectively), about 40% in Germany and the Netherlands (42% in 1983 and 40% in 1988 respectively) and about one third in Finland (36% in 1992). Perhaps of even greater importance are the income characteristics of these "marginal" households and the impacts that they have on average income levels when a "broad" definition of an agricultural household is adopted (Table 3.3).

Table 3.3 Number of households and levels of average net disposable income for three groups of agricultural households, in Denmark, Germany, Ireland, Netherlands and Finland.

	Denmark (1991)	Germany (1983)	Ireland (1987)	Netherlands (1988)	Finland (1992)
<i>No. agricultural households (x 1 000)</i>					
"broad"	77	613	207	136	115
"narrow"	24	353	84	87	73
"marginal"	53	260	122	49	42
<i>Disposable income per household</i>					
All households	100	100	100	100	100
Agricultural households					
"broad"	114	110	105	210	130
"narrow"	161	101	127	267	131
"marginal"	91	123	90	108	128
<i>Disposable income per household member</i>					
All households			100	100	100
Agricultural households					
"broad"			98	138	91
"narrow"			113	175	88
"marginal"			87	75	99
<i>Disposable income per consumer unit</i>					
All households			100	100	100
Agricultural households					
"broad"			101	167	97
"narrow"			117	211	94
"marginal"			90	85	104

Notes:

The definitions of the three groups of agricultural household are:

"narrow" - main source of income of the reference person is independent activity in agriculture.

"broad" - where any member of the household has some income from independent activity in agriculture

"marginal" - households which satisfy the "broad" definition but not the "narrow" definition.

3.8.2 In Denmark, Ireland and the Netherlands the average incomes per household of the "marginal" households were smaller than those of the agricultural households defined in the TIAH "narrow" way. In the first two countries they appeared to be a relatively low-income group, with incomes below the all-households average; in the Netherlands they were still a little above it. However, in Germany the "marginal" households appeared to be a relatively high income group. They had an average disposable income per household that was not only larger than that of agricultural households defined in the "narrow" way but was also substantially above the all-households average. In Finland there was little difference between the groups on a per household basis.

3.8.3 When incomes were expressed per household member and per consumer, the income position of

the "marginal" households was reduced relative to the all-households average in the Netherlands and Finland, though only for comparisons per household member in the case of Ireland (data on this basis are not available for Denmark and Germany). The difference between the incomes of the "marginal" households relative to the "narrow" agricultural households expanded in Finland, the result of the smaller household sizes of the former.

- 3.8.4 Such diversity among only five countries points to the need for sets of income results to be available for both "narrow" and "broad" (and "marginal") agricultural household groups in each Member State. The differing social, economic and agricultural structures seem likely to require countries to be considered individually and quick generalisations are to be avoided, at least until more comprehensive information is available.
- 3.8.5 However, 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 "marginal" household comes from farming. In Germany only 5% of their income came from farming, in Ireland 14%, in the Netherlands 8% (not updated since the study) and in Finland 9%. In Denmark (1991) these households had no positive income, once interest payments had been met²⁰. It follows that changes in the income from independent agricultural activity, such as are indicated by Eurostat's branch Indicators 1 to 3 and the FADN's microeconomic measures, are of relatively small impact on the total income of these households; their overall position is more likely to be affected by changes in the economy in general (as these impact on wages, often the major source of income) and policy on social benefits (another major source). Support of farming incomes through instruments such as raising the market prices of agricultural commodities is therefore not likely to be an appropriate way of improving the income situation of these households.

20 These marginal households faced a disproportionately high level of interest per household compared to agricultural households under the "narrow" definition.

Chapter 4: PROGRESS STILL TO BE MADE

Summary of areas of progress to be made

- (a) *In the short- and medium- term there is an on-going commitment to data improvement in terms of providing updated results and of filling gaps in data leading to the calculation of disposable income. Of particular significance is the need to monitor and preferably eliminate any departure from the target definition of an agricultural household that is used in the generation of results. Eurostat is in dialogue with Member States on a bilateral basis where particular problems are encountered.*
- (b) *Consideration has to be given to adapting to revisions flowing from the ESA 1995, including the use of the concept of Net adjusted disposable income. This will facilitate more reliable comparisons of incomes over time and space by including benefits provided by the state to individuals in kind and financed from general taxation, such as education and health services.*
- (c) *Liaison is to be maintained with developments in other potential sources of European Union official information on agricultural households, such the Farm Accountancy Data Network and the European Community Household Panel, with a view to co-operation for improvements in the quality and utility of information.*

4.1 Areas for data improvement

- 4.1.1 Though some Member States have considerable experience in generating TIAH statistics, others are still in their development phases. Understandably, there are outstanding disparities in the application of the methodology set out in the TIAH Manual. At present there are some important gaps in the required information and not all countries use the reference person system (main income) to allocate households to socio-professional groups. These disharmonies affect the ability to draw valid comparisons between agricultural and other households and to construct estimates expressed per household member or per consumer unit. Departures from the target methodology of TIAH statistics have formed the subject of bilateral correspondence between Eurostat and Member States, and it is hoped thereby to remedy many of them.
- 4.1.2 Eurostat, in consultation with Member States, has identified a number of priorities for the development of TIAH statistics. Some are of a general nature, mentioned below. Others are specific to particular countries and are not covered here.

Improving data quality

- 4.1.3 The TIAH Manual asks that estimates be checked against alternative sources of information as one way of improving data quality. In the present context this implies reconciliation with the Economic Accounts for Agriculture, as estimates of disposable income are likely to be contrasted by users with the branch income indicators (especially Indicator 3), and with the households sector accounts within the framework of national accounts. Some microeconomic data sources are known to contain biases; for example, declarations to surveys of incomes by self-employed people tend to understate their real incomes. Such reconciliation with economic aggregates applies chiefly to Member States basing their estimates on grossed-up microeconomic data. At present some Member States have generated estimates per household but are cautious about grossing up to national levels; Ireland is one such country. For Member States using macroeconomic methodologies the aggregates are automatically in line, but some checking in the opposite direction (especially with farm-accounts surveys and household budget surveys) might be appropriate; this is normally part of the search for reliable microeconomic agents by which to distribute economic aggregates between the various socio-professional groups.

Providing up-to-date results

- 4.1.4 Member States have accepted that the provision of results to form the basis of the TIAH statistics is a continuing commitment. Most are involved in an approximately annual process of updating. This is easiest for those countries that start from the households sector account within the framework of national accounts. Where countries rely on periodic surveys (such as Ireland with its Household

Budget Survey which is conducted at intervals of approximately seven years) there has to be a mechanism by which extrapolation and interpolation can take place. This also applies to countries that use their household surveys to provide distribution agents for the economic aggregates; a similar process is required to calculate distribution coefficients for years between base years of the survey.

- 4.1.5 While the Working Party has considered ways of modelling results, so that the TIAH income estimates might be available on a basis corresponding to the latest sets of Eurostat's Indicators 1 to 3 for the agricultural branch of the economy (available for year t early in year t+1 and with preliminary estimates being available even before the end of year t), high priority has not been attached to such models in view of the other improvements still to be made in TIAH statistics.

Greater uniformity in the household classification system

- 4.1.6 It has always been recognised that the TIAH target definition of an agricultural household (based on the main source of income of the household reference person), while it is compatible with a disaggregation of the households sector in national accounts, does not necessarily accord with current national practices, and that for some purposes within agricultural policy, other definitions might be appropriate. Some Member States have adopted a reference person classification system in which subjective judgement (typically the reference person's own) is used to ascertain the person's "main occupation" and hence the socio-professional group to which the entire household is allocated. Comparative information for Denmark, Ireland and Greece (described in Part Two of the *TIAH 1992 Report*) illustrated that alternative classification systems can produce substantially different numbers of agricultural households and average income levels, and can affect the comparison between agricultural and non-agricultural households. Some of the apparent differences between Member States in their patterns of income composition, importance of deductions and in relative income levels may be accounted for in part by disparities in classification methodology. Therefore, a major issue to be faced is the search for the best way to achieve harmonization in this important matter.

- 4.1.7 Member States which are committed to a "main-occupation" approach might bring their results more in line with an income criterion result by the use of a cut-off age (at which state pensions are received) and the elimination of occupiers of very small holdings. Ireland has put forward proposals in this direction, though designed to reflect the needs of agricultural policy rather than as a statistical device. Such procedures, of course, would require empirical investigation.

Coverage of items in the account leading to Net disposable income

- 4.1.8 Other disparities have to be tackled, though they are probably of lesser importance than the issue of household classification. Firstly, there are differences in the coverage of some of the components from which Net disposable income is calculated. This stems largely from the nature of the basic approaches adopted and the data sources used. For example, the imputed resource flows which appear in national accounting are not usually to be found in household budget or farm accounts surveys. The importance of disparities of this nature should not be overestimated.²¹ They are unlikely to seriously impair the ability of the TIAH results to trace income developments of agricultural households in individual Member States over time, or to prevent comparisons between income movements of farmers and other socio-professional groups in the same country. Clearly they would be of more importance to inter-country comparisons of absolute income levels but, as was indicated above, these are purposely avoided at this stage.

- 4.1.9 Miscellaneous matters concern the following:

- (a) There are minor differences between Member States in their definition of the "household". The only major departures from the target definition are for Denmark, which uses the "family", Belgium and the United Kingdom, where the units are those employed in tax statistics.
- (b) Most Member States adopt a definition of "agriculture" which is close to the that used in the NACE (General Industrial Classification of Economic Activities in the European Communities). There are exceptions (for example, France includes forestry households in the agricultural sub-sector, but again these are not thought to be very important overall). However, the combination

21 For example, in Ireland the items covered in the 1987 Household Budget Survey accounted for about 85% of the total resources covered by the TIAH macroeconomic concept. The items not covered were imputed rents, imputed interest and other miscellaneous items.

of farming with forestry is also a feature of the three new Member States (Austria, Finland and Sweden); this poses a methodological problem that is still under consideration.

- (c) Different methods are used to estimate depreciation, some Member States using tax rules and others national accounting rules. The implication of this departure from the target methodology is difficult to assess. It is unlikely to be great if the same rules are applied to other households and attention is focused on the income developments of farmers and other self-employed groups in the same country over time.
- (d) Disparities exist regarding the basis for estimating the imputed rental value of owner dwellings and of the value of own-consumption. Because of probable real differences in the importance of these items to agricultural and non-agricultural households, there is likely to be bias when making inter-sectoral comparisons. But again, these are less likely to influence comparisons of developments over time.
- (e) Insurance claims (personal accident and material damage) are given a range of treatments, sometimes shown as a separate item, sometimes assumed to net to zero and sometimes partially hidden within other items. While this is not entirely satisfactory, the overall income situation is probably not influenced greatly by these relatively small amounts.
- (f) Member States differ in the nature and coverage of items which they include under social benefits and current transfers (both flows towards and away from households).

4.2 Preparation for the changes associated with the ESA 1995

4.2.1 The results shown in this *TIAH 1995 Report* are based on the methodology as contained in the 1990 version of the TIAH Manual (with updates on the definition of the agricultural household and the minimum list of socio-professional groups). However, the introduction of the new TIAH Manual (Rev.1) has introduced some new items from the ESA 1995 that will require consideration and adjustment on the part of Member States. Perhaps the most significant of these is the new concept of Net **adjusted** disposable income, which the Working Party has accepted should form a supplementary income measure; the Net (unadjusted) disposable income concept will remain the focus of the TIAH statistics for the foreseeable future.

4.2.2 The nature of the adjustment is a new item in the consolidated distribution of income account for households in the ESA, termed Social transfers in kind. Part of this represents a rearrangement of elements previously covered under Social benefits. However, part is a completely novel component, comprising transfers of individual non-market goods and services, covering things such as education and healthcare services that are provided to the individual by the state and financed from general taxation. While these may be calculable at the level of the entire households sector, consideration has not yet been given as to how they should be distributed among the different socio-professional groups.

4.3 Links with microeconomic studies

4.3.1 The orientation of TIAH statistics is that of macroeconomics. Results are expressed in terms of aggregates and national averages (per household, per household member and per consumer unit). However, such statistics are not capable of providing all the information that might be required to assist with decisions in the Common Agricultural Policy and other EU policies. Many questions will require distributional results, such as total income data for farms of different types, sizes and regions.

4.3.2 Eurostat Unit F-1, responsible for the TIAH statistics, has been encouraged by the Working Party on the Economic Accounts for Agriculture, to maintain close liaison with other parts of the information system that are concerned with the microeconomic measurement of agricultural incomes. In particular this has involved repeated contact with:

- the part of the European Commission's Directorate-General for Agriculture (DG VI, A-3) that is responsible for the co-ordination of the Farm Accountancy Data Network (FADN, also known by its French acronym RICA). At present the data collected are confined to the farming activities of the agricultural holdings that keep accounts, but consideration has been given to extending coverage of the annual survey to include questions on other sources of income. DG VI is represented on the Working Party.
- the part of Eurostat that supervises the European Community Household Panel (Unit E-2), a

recent development that involves a large-scale survey of the living conditions of households throughout the European Union. Agricultural households were not sampled specifically but are likely to be encountered. Questions on incomes form part of the survey, the first round of which took place in 1994. Results are not yet available and the quality of the income information has yet to be assessed, though there are known problems associated with obtaining data from self-employed persons.

- 4.3.3 Eurostat has also maintained contact with the Organisation for Economic Co-operation and Development (OECD, Paris) in connection with its project *Farm household income, labour flexibility, and structural adjustment; a review of the total income of farm households in OECD countries*. The emphasis of this work is on policy and its review of information concentrates primarily on microeconomic sources of data in 21 OECD Member countries. All EU Member States (except Luxembourg) are represented, though for many only the macroeconomic-based results taken from the TIAH statistics are available. The OECD sends an observer to the Working Party meetings at which the TIAH statistics are discussed.
- 4.3.4 It is not clear at this stage if developments in these other sources of information will have implications for TIAH statistics. However, the links are in place by which interactions can occur.

PART TWO - COUNTRY REPORTS

Review of the methodology and results of the Total Income of Agricultural Households statistics on a country-by-country basis:

BELGIUM
DENMARK
GERMANY
GREECE
SPAIN
FRANCE
IRELAND
ITALY
LUXEMBOURG
NETHERLANDS
AUSTRIA
PORTUGAL
FINLAND
SWEDEN
UNITED KINGDOM

In the results that follow, absolute figures are only given where these are already published independently by Member States, or where specific permission is given to do so as part of this report. Where absolute figures are not published here, results are given in relative forms (indices or percentages). The degree of detail provided is related to the state of development of the estimation procedure in each Member State. At one extreme, for some there are simply the broadest indications of income composition and distribution. At the other, there is information on income developments over time and on comparisons between agricultural households and those in some other socio-professional groups.

The following elements are common to the country-by-country sections, although lack of data means that not all elements appear in each section:

- The main data sources and the limits these impose on the ability to generate results for household income (but with minimal repetition of the contents of the 1992 report);
- The method (model) used to generate results and any problems associated with this methodology;
- The household classification system used (and any departures from the target definition of the household);
- The composition of total income in the reference year;
- Deductions leading to disposable income;
- Developments in the net disposable income of agricultural households over time;
- Changes in the composition of income over time;
- The relative levels of income per unit (household, household member and consumer unit) between agricultural households and those in other socio-professional groups;
- Any particular insights given on the income situation of agricultural households from the information available.

BELGIUM

Methodology

General approach

Model 2 approach. The starting point is the income aggregates for the private households sector in the national economic accounts. Subdividing the household sector account into agricultural households and other households utilises distribution agents taken from the agricultural census (standard gross margins for seven groups of farmer, two of which correspond to the TIAH definition of an agricultural household), income tax returns, the 1987 - 1988 Family Budget Survey, and VAT returns. For some items, the amount relating to agricultural households is estimated directly.

The base year for the present calculations is 1987. For subsequent years (to 1989) it is anticipated that data from various sources will be used to update figures for the base year.

Household unit

Fiscal household: reference person, spouse and dependent persons, but excluding other members of the household who are gainfully employed or who receive a transfer income of their own, such as unemployment benefit or a pension.

Household classification

Based on the household reference person. Grouping is made according to the reference person's main occupation, determined on the basis of the time spent on the occupation and, as a secondary criterion, the income brought in.

Year for which results are available:

1987

Comments on the results

When the TIAH 1992 Report was compiled, the information that had been provided by Belgium relating to 1987 did not cover sufficient items to enable an estimate of disposable income to be made for agricultural households. Subsequently full estimates for agricultural and non-agricultural households have been carried out, though at this stage for only one year and without a further subdivision of non-agricultural households into socio-economic groups. Updated results and a more detailed breakdown are anticipated in the near future.

It should be noted that the unit over which income measurement takes place (the fiscal household) is narrower than that laid down in the TIAH target definition. While spouses and dependent children are included, the unit does not extend to other members of the household that have an independent income (from employment or social benefit).

Income from letting land and intangible assets is presently included not under property income but under income from non-agricultural independent activity.

(a) Number of households

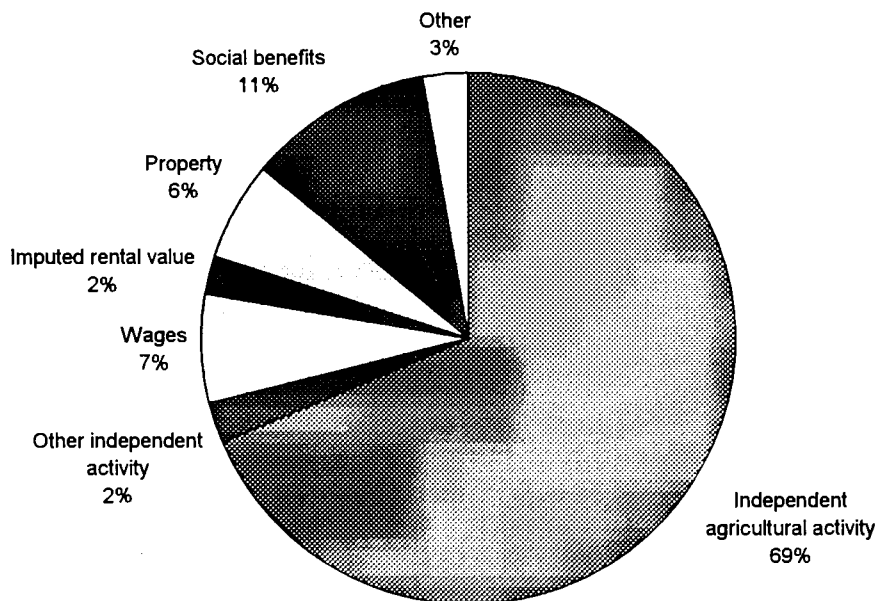
The number of agricultural households is taken from the agricultural census, which identifies seven types of holding, the first two corresponding to those where the holder has as agriculture or horticulture as their main occupation. The number of household members is estimated indirectly using the census number of households and information from tax statistics on the average sizes of households in which the reference person is recorded as a farmer. In 1987 the number of households classed as agricultural (66 141) represented 71% of the number of agricultural holdings in Belgium, among the highest proportions found among EU Member States.

(b) Composition of total income, and deductions

Farming contributed 69% of the total income of agricultural households in 1987 (see Figure B1), one of the highest shares seen in the EU. This must in part reflect the unit over which measurement is undertaken (in effect, the farmer and spouse) and the exclusion of other adults who have independent sources of income

(though these might include both income from farming and from other sources). The second largest income source was social benefits (11%) followed by wages (7%) and property (6%).

Fig. B1 Belgium: Composition of the total income of agricultural households, 1987.



(c) Deductions from income

In Belgium in 1987, the percentage of total income that was left as disposable income for the agricultural household group (81%) was very similar to that for households in general (79%). However, there was some difference in the composition of these deductions. Among agricultural households the share taken by current taxes (9%) was less than the all-households average (17%) but the share taken by social contributions (7%) was more than among the all-households group (1%). Nonetheless, in total these two items summed to similar proportions of total income (16% and 18% respectively).

(d) Comparison of incomes with other socio-professional groups

In Belgium, agricultural households achieved an average income that was close to the national average for all households, in 1987. In terms of disposable income per household, agricultural households were slightly above the all-households average (102% of it) and per household member slightly below (99% of it).

Table B1 Belgium: Composition of total income and deductions*, for agricultural households and all households, 1987 (base year). Nominal mio BFR.

	Item	Agricultural households	All households
1a	Independent agricultural activity		
	■ Operating Surplus	73 561	78 489
	■ Income		
1b	Independent non-agricultural activity*		
	■ Operating Surplus	2 446	624 150
	■ Income		
1c	Owner dwellings	1 835	157 310
2	Dependent activity	5 773	1 884 313
3	Property and entrepreneurial income	5 146	671 466
4	Accident insurance claims	1 047	58 445
5	Social benefits	9 347	1 399 149
6	Other current transfers	1 206	67 304
7	Current receipts		
	■ based on Operating Surplus	100 361	4 940 626
	■ based on Income	93 670	4 810 129
8	Distributed property and entrepreneurial income	16 391	130497
9	Net accident insurance premiums	1 078	60 197
10	Current taxes on income and wealth	7 548	825 547
11	Social contributions	5 571	62 924
12	Other outgoing current transfers	1 174	65 515
13	Disposable income	68 599	3 795 946
	Units		
	Number of households	66 141	3 750 100
	Number of household members	179 550	9 879 500
	Number of consumer units		
	Disposable income per unit (BFR x 1 000)		
	■ per household	1 037	1 012
	■ per household member	382	385
	■ per consumer unit		

* Includes income from land that should have appeared under item 3.

Note: in this table, the resources flowing to households from independent activity are shown as Operating Surplus, that is before the deduction of interest and rent payments, which are given in Item 8.

DENMARK

Methodology

General approach

Model 1 approach For generating data on the basis of the target "narrow" definition of the household, and so that comparisons can be made with other socio-professional groups, a sample (about 1%) is drawn from the Generalised Population Statistics. The incomes of these sample representatives and their partners and children are taken from the Generalised Income Statistics, a microeconomic data bank which is based largely but not exclusively on taxation information, and linked to other registers. For the purpose of generating TIAH statistics according to the target "broad" definition of the household, a sample is taken from the Farm Structure survey. No comparisons can be made with other socio-professional groups on this target basis.

Household unit

Families A family is either a single person, or a group of persons, who live at the same address, and who have certain family relations. Until 1990, children were included when their age was below 26. Since 1991, children have been included only when their age is below 18. Families are of three types: a married couple with or without children living at home, a non-married couple with at least one joint child who live with their child/children at the same address, a single person living with or without children. Note: this is narrower than the Eurostat target, as adults in addition to the farmer and spouse are not included

Household classification

Agricultural households and those belonging to other socio-professional groups may be selected both using the "target" method, based on the main income source of the reference person, or that of the entire family. For the purpose of producing TIAH statistics the reference person system as operated in Denmark takes agricultural households to be those where the person with the highest gross income has agriculture as his or her industry and employment status as self-employed (independent). The industry of the reference person is determined by the administration (that is, not subjectively by each reference person) according to several criteria, including the composition of income, registration for Value Added Tax and non-receipt of unemployment benefit. Reference persons are allocated to industries if that industry forms more than 50% of the total income of that reference person; total income must be positive. In essence this corresponds to a main-income system.

Years for which results are available:

1989, 1990, 1991 using the TIAH target definition of an agricultural household (with non-comparable results for 1985, 1988)

Comment on the results

The results for Denmark that appeared in the *Total Income of Agricultural Households: 1992 Report* departed from the TIAH target methodology in that the income concept used for the classification of reference persons (and hence households) was gross income, that is *before* interest payments were subtracted. This reflected the treatment of interest in the taxation system of Denmark under which nearly half of the interest is "paid" as deductions in income tax. Interest payments in Denmark represent a uniquely large share of the cost faced by farmers among the Member States of the European Union; this is linked to the way in which agricultural assets are transferred between generations that, typically, involve sales from parents to children. In order to support the high interest burden that results from the credit taken to purchase these assets by family successors there is a tendency for the spouses of Danish farmers, and frequently the farmers also, to work full-time or part-time outside agriculture, particularly in the early years of succession. This in turn has some impact on the choice of farming enterprise, since some forms of production (such as cereals) are more compatible with part-time activity than others (such as dairying).

The former method of classification, based on pre-interest income, was the key factor in explaining the

finding presented in the *TIAH 1992 Report* for the years 1985 and 1988, when farming contributed less than half of the total net income of agricultural households, even when the main-income criterion was applied to the entire household rather than to the reference person.²²

Subsequently, methodological developments have taken place involving, *inter alia*, a reclassification according to the main source of income calculated after interest charges have been deducted. Results using a reference person classification system and post-interest income are now available for 1989 to 1991. The number of socio-professional groups has also been expanded, so that the income of agricultural households can now be compared with seven classes of non-agricultural households, whereas previously comparison could only be made with all non-agricultural households combined.

The nature of the basic data sources drawn on in Denmark to construct TIAH results permits the exploration of a number of issues that are of potential general importance to the TIAH methodology throughout the European Union. One concerns the significance to the results of applying a classification system based on the main income source of the household's reference person in contrast to one based on the main income source of the entire household. Another is the implication of the fluctuation from year to year in the income from farming for the number of agricultural households and their average income; on an experimental basis classification has been undertaken on the income of individual households averaged over two years and comparisons made with the results using data for single years. These and other matters were the subject of a study contract between Eurostat and Danmarks Statistik.

(a) Numbers of households

Table DK1 shows the numbers of households for each of a set of socio-professional groups in Denmark, for the three years 1989 to 1991. The classification system is based on the main source of income of the household's reference person, with income in this context being that calculated after the payment of interest. This system thus conforms with the target methodology for the "narrow" definition of the household in the TIAH statistics. It should be borne in mind that the numbers of households are raised estimates, so some variation due to sampling error can be expected from year to year.

Agricultural households, defined in this "narrow" sense (in that farming was the main income of the reference person) represented about 1% of the total number of households in Denmark. Over the three-year period there was a fall in the number of agricultural households by about 14% whereas the total number of households was broadly maintained.

From Table DK1 it is also evident that the number of households that satisfy the TIAH "narrow" definition of an agricultural household is substantially smaller than the number of households that satisfy the target "broad" definition, in which any member of the household obtains some income from independent agricultural activity. This relationship is mirrored in many other Member States. Those households that fall within the "broad" definition but that fall outside the "narrow" definition, termed "marginal" households, are in the majority. In the years 1989 to 1991, only about one third of the number of agricultural households in the "broad" sense, qualified as being agricultural in the "narrow" sense: the share declining from 35% in the first of these years to 31% in the last. The fall in the number of agricultural households in the "narrow" sense between 1989 and 1991 appeared to be somewhat larger than that of the "broad" agricultural households. Part of the explanation is likely to be the increase in interest paid, which lowered the incomes from farming and hence influenced the numbers of agricultural households classified according to the main (post-interest) income of the reference person.

In Denmark interest payments represent an item of unique significance in influencing the number of agricultural households and, as will be shown later, in the account leading to disposable income. For example, if reference persons were to be allocated to socio-professional groups on the basis of the main source of income *before* the deduction of interest payments, then there would have been 64 000 households classed as agricultural in 1991 (compared with 24 000 when using income *after* the deduction of interest for classification purposes); this higher figure being very similar to the number of agricultural households under the target "broad" definition.

22 In 1988 farming formed only 39% of the total net income of agricultural households when selected according to the main (pre-interest) income source of the entire household. When selected according to the main (pre-interest) income of the reference person, farming only formed 21% of the total income of the households.

(b) Composition of income, and deductions

For the purpose of examining the composition of income, income from independent activity has been calculated by deducting interest payments from the operating surplus derived from independent activity. In the absence of more detailed information, these interest payments have been allocated to agricultural and non-agricultural activity in proportion to the size of the operating surplus arising from the two.

Table DK1 Denmark: Numbers of households (x 1 000) by socio-professional group (allocated by the main source of income of the household reference person), 1989, 1990 and 1991.

Socio-professional group	1989	1990	1991
All self-employed*	115	111	107
Agricultural (target "narrow" definition)	28	26	24
Retail and wholesale distribution	25	24	22
Services	33	33	30
Building	11	11	10
Others	19	17	21
Wage earners	1 388	1 393	1 384
Manual workers	584	603	559
Salaried employees	804	790	825
Others			
Recipients of property income and pensions	751	757	767
Others			
All households	2 255	2 261	2 258
<i>Agricultural according to the target "broad" definition</i>	81	79	77
<i>"Marginal" agricultural households ("broad" minus "narrow")</i>	53	53	53

* Includes "Co-operating spouses"

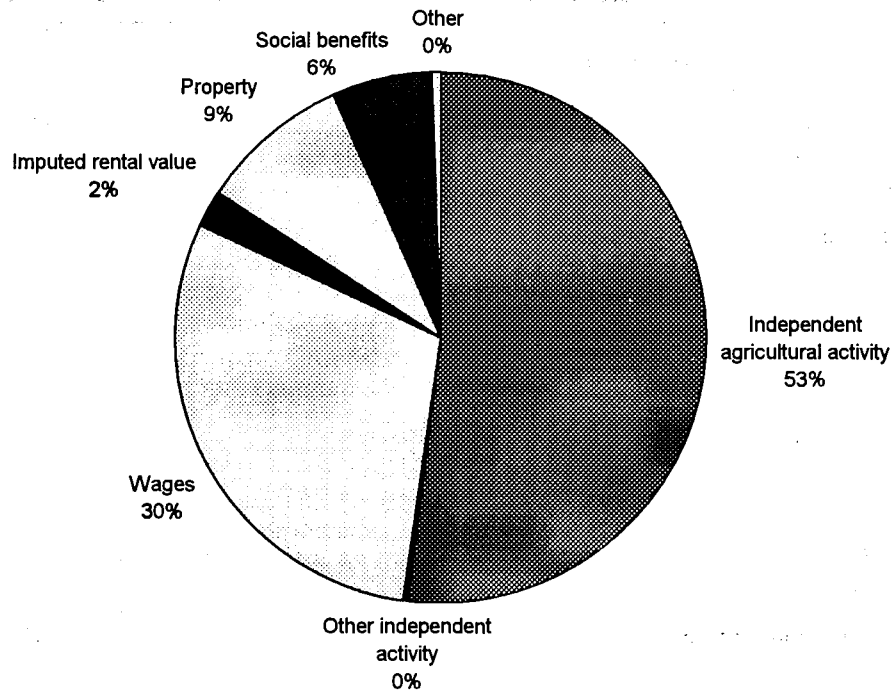
On this basis, among agricultural households as defined in the target "narrow" way for the TIAH statistics only just over half of the family income was derived from farming, with almost as much coming from other sources combined. Figure DK1 shows that, averaged over the years 1989 to 1991, some 53% of total income came from farming. The second largest source of income was wages (30%), with other sources of much lower importance. Income from other independent activity accounted for less than 0.5%.

The second pie chart in Figure DK1 shows the average composition of the total family income defined according to the TIAH "broad" definition. Among these agricultural households, farming provided as little as 2% of total income on average. The major source was wages, providing almost two-thirds of total income, followed by property income and social benefits.

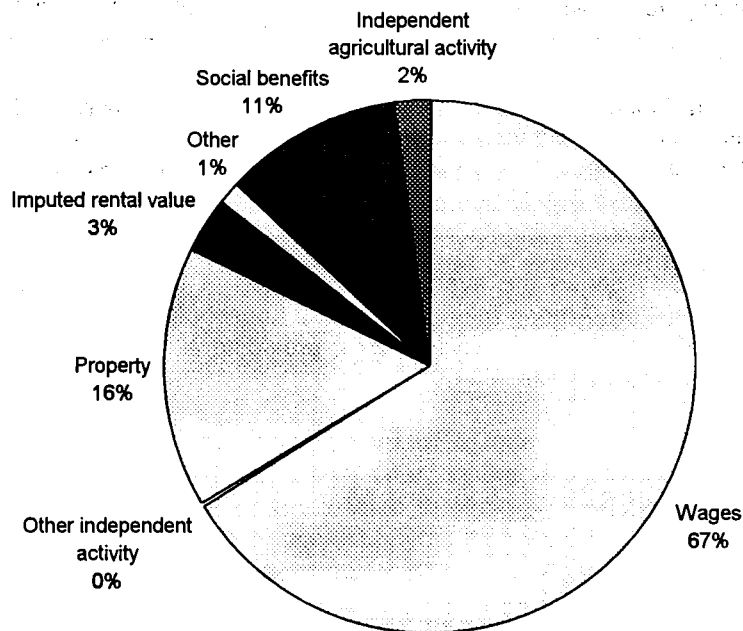
Fig. DK1 Denmark:

Composition of the total income of agricultural households, for both the "narrow" and "broad" definitions of an agricultural household, average over period 1989 to 1991.

"Narrow" definition



"Broad" definition



By subtraction it is possible to draw some conclusion about those "marginal" agricultural households where farming does not constitute the main income source of the household's reference person. As noted above, in the years 1989 to 1991 these marginal households outnumbered the "narrow" definition agricultural households. However, on average they appeared to make no positive income, once interest payments were

taken into account, from their independent activity in agriculture. Taking results for 1991 as an example (Table DK2), these marginal households had pre-interest income from farming that, per household, was only about one third of that of "narrow" agricultural households. On the other hand, their income from wages was about twice as high. Due to the greater number of marginal households, the pre-interest income they generated from agricultural activity in aggregate was not far short of the amount coming from agricultural households (DKR 5.1 billion compared with DKR 6.7 billion). Their interest payments per household were greater than those of agricultural households and exceeded their pre-interest income from all forms of self-employment by a substantial margin. As a consequence, while their average pre-interest income was 90% of that of agricultural households, after interest was taken into account their relative total income position had fallen to 63% and their disposable income to 57% of that of agricultural households. These characteristics of the marginal households are compatible with the pattern of land transfer and borrowing that was pointed out earlier as being typical in Denmark.

Table DK2 Denmark: Selected components in the income of households by definition of agricultural household, 1991. Average per household (DKR x 1 000).

Income	Agricultural household TIAH "narrow" definition	Marginal households	TIAH "broad" definition
Pre-interest income from agriculture	276	98	155
Pre-interest income from other self-employment	2	33	23
Wages	84	158	134
Total pre-interest income	408	369	381
Total post-interest income	276	175	207
Interest payments	132	194	174
Disposable income	195	111	138
Number of units (x 1 000)			
▪ households	24	53	77
▪ household members	60	131	191
▪ consumer units	46	146	146

Turning to deductions, under the target reference person classification system, over the period 1989 to 1991 among agricultural households ("narrow" definition), current taxes absorbed 28% and social contributions 1% of post-interest income, leaving 71% as disposable income. For households in general the proportions were 38%, 3% and 59% respectively.²³ The higher than average proportion of income remaining as disposable among agricultural households is a characteristic shared by many Member States, although it should be noted that the proportion left as disposable income in Denmark is low in comparison with many other EU countries.

(c) Comparisons of incomes with other socio-professional groups

Comparative income levels for agricultural households and other socio-professional groups are available for Denmark using a reference person system for 1989, 1990 and 1991 and are given in Table DK3 (these are not comparable with the breakdown given in the *TIAH 1992 Report* because the classification system previously used was based on pre-interest income). In each of these years, agricultural households had disposable incomes that were substantially above the all-households average. On a per household basis the disposable income of agricultural households varied between 148% of the all-households average (1989) and 164% (1990). The relative superiority of the incomes of agricultural households was reduced when judged on the basis of disposable income per consumer unit, but they still averaged incomes for the years 1989 to 1991 that were 28% above the national all-households level.

²³ The corresponding shares for households that satisfied the "broad" definition the proportions were 32%, 2% and 66% respectively.

Table DK3 Denmark:

Average net disposable income per unit (household, consumer unit) by socio-professional group, 1989 to 1991. Nominal DKR x 1 000.

Socio-professional group	1989		1990		1991	
	Household	Consumer unit	Household	Consumer unit	Household	Consumer unit
All self-employed*						
Agricultural (target "narrow" definition)	166	82	193	104	195	103
Retail and wholesale distribution	185	98	188	104	208	116
Services	214	108	210	112	242	128
Building	184	85	180	90	201	100
Others	182	98	176	98	193	108
Wage earners						
Manual workers	120	70	127	76	128	77
Salaried employees	142	81	153	88	158	90
Others						
Recipients of property income and pensions	61	50	62	51	65	53
All households	112	71	118	76	121	78
<i>Agricultural according to the target "Broad" definition</i>	127	62	118	62	138	72

* Includes "Co-operating spouses"

Comparisons with other groups show that agricultural households had average incomes, per household and per consumer unit, that were above those of households headed by wage-earners, even those classed as salaried employees.²⁴ However, among the other categories of households whose reference persons were self-employed, agricultural households compared less favourably; in 1989 agricultural households had the lowest income per household of the five self-employed groups shown in Table DK3, in 1991 the second lowest, while in 1990 they occupied the middle position; the ranking in terms of disposable income per consumer unit was similar.

Another feature of Table DK3 is the comparison that can be made between the income per household and per consumer unit of agricultural households defined in the TIAH "narrow" way and all agricultural households under the "broad" definition. Income per household in each year was substantially greater when the "narrow" definition was applied, but the relative position was somewhat reduced when income per consumer unit was considered. This is consistent, *inter alia*, with bringing marginal households consisting of relatively young single people or couples without grown up children whose main source of income is off-farm employment and of elderly single persons or couples whose children may have left home and whose main income source is pensions and social benefits into the broad definition. However, the nature of these marginal households cannot be identified with certainty from the results as they stand.

²⁴ It is worth noting that, in the results quoted in the *TIAH 1992 Report*, agricultural wage earners had lower incomes per household and per Consumer Unit than the average for all other wage earners. Such comparisons are not provided in the latest sets of results.

Table DK4 Denmark: Composition of total income and deductions, for agricultural households, 1989, 1990, 1991. Nominal mio DKR.

	Item	1989	1990	1991
1a	Independent agricultural activity			
	■ Operating Surplus	6 549 925	6 856 799	6 743 193
	■ Income			
1b	Independent non-agricultural activity			
	■ Operating Surplus	1 186	31 755	40 606
	■ Income			
1c	Owner dwellings	164 980	160 965	152 296
2	Dependent activity	1 868 800	2 154 960	2 043 909
3	Property and entrepreneurial income	617 124	662 019	591 756
4	Accident insurance claims	-	-	-
5	Social benefits	456 341	402 686	376 954
6	Other current transfers	33 945	36 956	27 923
7	Current receipts			
	■ based on Operating Surplus	9 692 301	10 306 231	9 976 636
	■ based on Income	-	-	-
8	Distributed property and entrepreneurial income			
	■ interest	3 114 545	3 207 620	3 236 455
	■ rent	-	-	-
9	Net accident insurance premiums	-	-	-
10	Current taxes on income and wealth	1 816 879	1 930 394	1 891 339
11	Social contributions	58 035	72 179	81 851
12	Other outgoing current transfers	-	-	-
13	Disposable income	4 702 843	5 096 039	4 766 991
	Units			
	Number of households	28 379	26 371	24 455
	Number of household members	74 554	63 234	59 958
	Number of consumer units	57 488	49 220	46 328
	Disposable income per unit (DKR x 1 000)			
	■ per household	166	193	195
	■ per household member	63	81	80
	■ per consumer unit	82	104	103

Note: in this table, the resources flowing to households from independent activity are shown as Operating Surplus, that is before the deduction of interest and rent payments, which are given in Item 8.

GERMANY

Methodology

General approach

Model 2 approach. The starting point is the income aggregates for the private household sector in the national Economic Accounts. These aggregates are distributed among socio-professional groups mainly on the basis of the results obtained from the five-yearly Income and Consumption Sample Survey, the most recently accessible of which is for 1988. The updating indicator used is, in most cases, the trend in the corresponding macroeconomic aggregate per receiver unit (i.e. household, employee, non-active person, pensioner etc.). The results are, as a rule, further modified by aligning them to the macroeconomic data of the Economic Accounts. The calculations tend generally to encounter more problems than is usual for the national accounts; at the present time it is not possible to indicate the reliability of individual items.

Household unit

Household; comprises persons living alone or persons forming a residential, income and consumption unit. This definition is very largely similar to that used for the Income and Consumption Sample Surveys. Members in addition to the farmer and spouse are included.

Household classification

This is based on the main source of livelihood of the household's reference person (previously known as the head of household). The reference person is nominated by the household itself, following a set list of criteria, both for the annual Microcensus (the most important source of statistics for calculating the demographic reference frame) and for the Income and Consumption Sample Survey. In most cases it will be the person contributing most to the household's income. In the Income and Consumption Sample Survey the reference person's main source of livelihood was ascertained by comparing all potential main income types in gross terms (i.e. before deduction of tax and social contributions). For entrepreneurial income, depreciation and the balance of commercial interest payments and net rents have already been deducted. In the Microcensus, no information is required on the value of different types of income, so that classification of reference persons has to be based on details of the person's self-declared main source of livelihood and occupational status.

Years for which results are available:

1972 to 1993

Comments on the results:

(a) *Numbers of households*

Germany (as constituted before 3rd October 1990) is the Member State with the longest run of results for household incomes. Estimates of disposable income (in absolute figures) are published nationally for household groups, of which agricultural households are one. Agricultural households are taken to be those where the main source of income of the reference person (normally the one contributing most to the household's income) is from independent agricultural activity (farming).

It should be noted that the number of agricultural households, derived from the periodic "*Agrarberichterstattungen*", is updated in non-survey years using the annual Microcensus, in which the reference person of an agricultural household is a person who describes himself as an independent farmer and as earning his/her living mainly from gainful activity. On the whole, the updating system on the basis of the two surveys mentioned has a stabilizing effect on the number of agricultural households.

Table D1 shows that, between 1972 and 1992, the number of agricultural households fell by almost half, the loss being rather faster over the first decade than in the second. This was in contrast to the total number of households, which increased by more than a quarter (27%). Among the other socio-professional groups, numbers of households headed by other self-employed persons rose a little (by 10%) for the period as a

whole, though this consisted of a fall followed by a rise. Particularly large increases in household numbers were seen among non-manual (salaried) worker households and in the non-active group. Waged (manual worker) households fell in numbers, but less so than the households headed by farmers. While agricultural households constituted 2.2% of all households in 1972, by 1992 they had declined to only 0.9%.

Table D1 Germany: Numbers of households and household size, by socio-professional group, 1972, 1982 and 1992.

	Agricultural	Other self-employed	Civil servants	Non-manual (Salaried)	Manual (Waged)	Non-active	Total
Numbers of households x 1000							
1972	507	1 499	1 339	4 371	7 095	7 862	22 673
1982	362	1 427	1 567	5 436	6 151	10 187	25 129
1992	267	1 649	1 595	6 772	6 314	12 092	28 689
1982/1972 %	71	95	117	124	87	130	111
1992/1972 %	52	110	119	155	89	154	127
Members per 100 households							
1972	461	327	316	282	319	176	266
1992	379	269	275	235	275	171	223
1992/1972 %	82	82	87	83	86	97	84
Consumer units per 100 households							
1972	329	243	235	213	236	151	205
1992	282	209	211	186	212	148	179
1992/1972 %	86	86	90	87	90	98	87

There was a similar shrinkage in the average size of the household between 1972 and 1992 for all socio-professional groups except those households headed by someone not economically active (largely the retired and unemployed), where the size was only marginally smaller in the latter year. Among agricultural households the reduction in the number of household members (18%) and consumer units (14%) corresponded to the national average in each case. The implication is that, over the two decades, numbers of household members and consumer units in households classed as agricultural dropped by more than half (by 57% and 55% respectively).

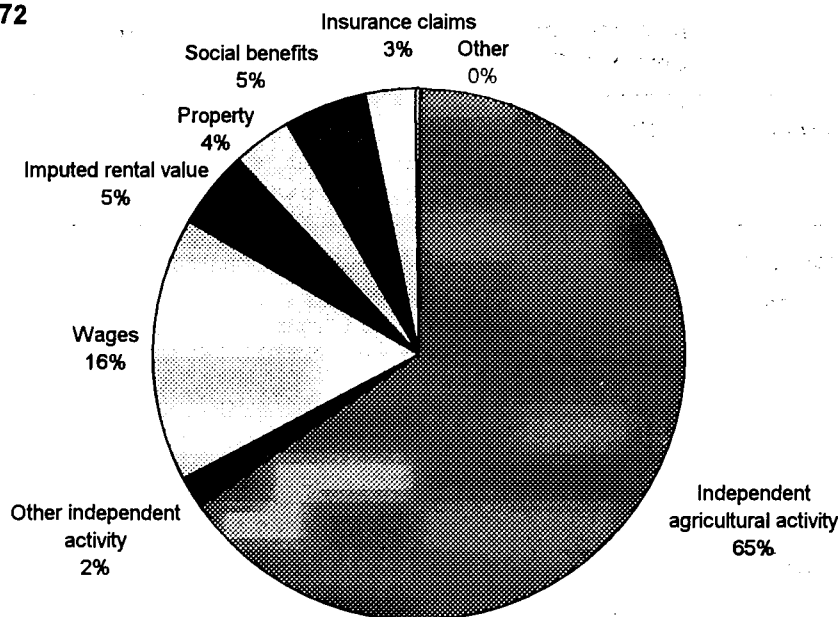
(b) Composition of total income of agricultural households, and deductions

The pie charts in Figure D1 show the composition of the income of agricultural households in the first and latest years of the income data series (1972 and 1993). In 1993 income from farming contributed to less than a third of the total income, down from two-thirds in 1972. In contrast, income from dependent activity (wages) had become the principal source of income for agricultural households by 1993 (34%, up from 16% in 1972). Other independent income was of minor importance in each year.

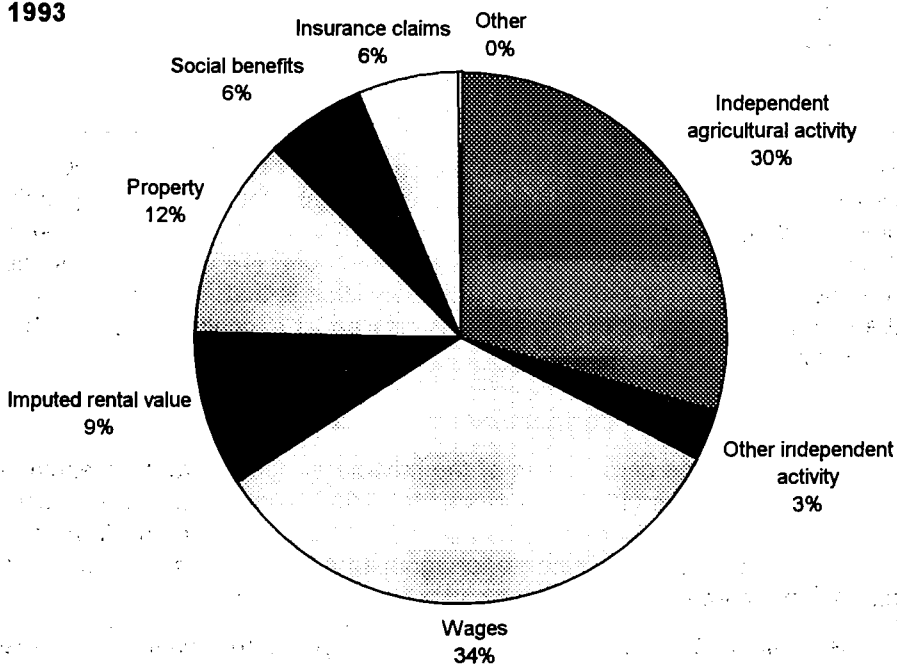
Unusual among Member States, Germany was capable of supplying information on the resources flowing towards households from insurance claims. This amounted to 6% of total income in 1993; any comparisons of the results for Germany with those of other countries where this flow is not shown will need to take this difference in coverage into account.

Fig. D1 Germany: Composition of the total income of agricultural households, 1972 and 1993.

1972



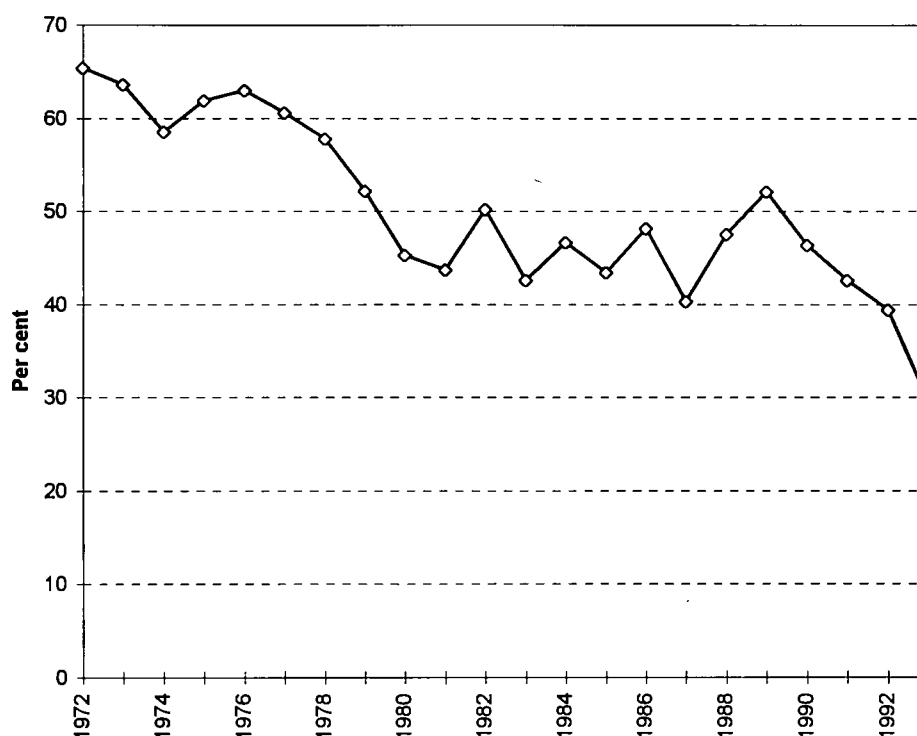
1993



The large fall in the relative importance of farming as a source of income to agricultural households in Germany between 1972 and 1993, though clearly affected by short-term movements in the profitability of farming, seems to reflect a longer-term trend. Figure D2 shows the share of total income coming from this source in each year. A decline from about two thirds of total income to about half took place over the 1970's, followed by a period in the 1980's when the share oscillated in the band 40% to 50%. Since 1990 the percentage of total income coming from farming has dropped markedly, although the continual process of revising latest results may change the picture somewhat. It should be recalled that these results relate to a

decreasing number of agricultural households and that those with reference persons whose main income source is not from farming have already been excluded. The trend must reflect, *inter alia*, increasing incomes from non-farm sources for members of agricultural households.

Fig. D2 Germany: Income from farming as a percentage of total income, for agricultural households, 1972 to 1993.



Among the deductions made from total income, when moving to disposable income, the biggest single item among agricultural households was social security payments. The proportion of the total income of agricultural households remaining as disposable income was only 52% in 1993, though this was substantially lower than the average of 61% for the period 1989-93. Over the same period the equivalent figure for all households together was 62%.

Germany was again unusual in that data were available on distributed property income other than that related to independent activity; this is interest on loans for consumer purchases. Most other countries either ignore this item (so that it forms part of disposable income) or include it with interest on business loans, deducting it before total income is calculated. However, such practices are unlikely to have a major impact; this type of interest represents only about 1% of total income.

(c) Developments in the income of agricultural households over time

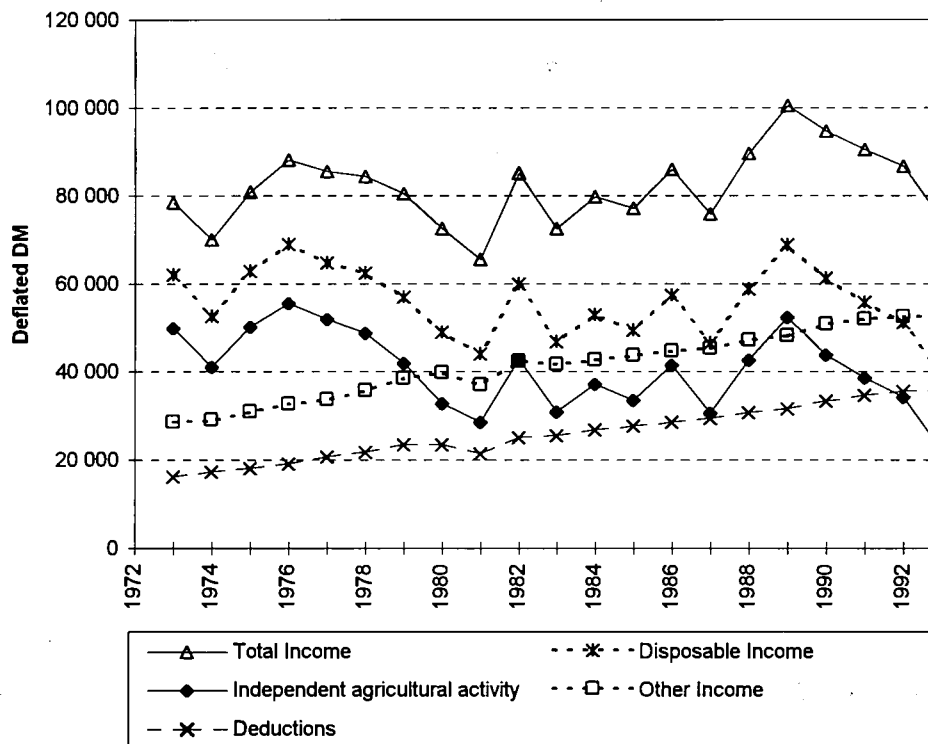
Figure D3 traces income developments for agricultural households from 1973²⁵ to 1993, in deflated money values per household. It shows, separately, income from farming, income from other sources, total income, the deductions made in order to calculate net disposable income, and net disposable income. From this Figure, the following observations may be drawn:

- The average income (in real terms) which agricultural households gained from independent agricultural activity was lower in the early 1990's than it had been in the early 1970's, though it is difficult to identify a trend because of the substantial movement from year to year, and, in particular, the sharp decline that started in 1989. In contrast, the real income from all other sources more than doubled over the same period;
- Since 1980 agricultural households have received less income from farming than from other sources, with the exception of 1989, when the substantial improvement in farming income seen between 1987 and 1989 caused independent agricultural activity to become the main source;

25 A suitable deflator with base "1990" is not available for 1972.

- The income from farming has been less stable than the sum of incomes from other sources. Non-agricultural income (per household) has added a degree of stability to the total income situation of Germany's agricultural households which, in proportional terms, has been less variable than the income from farming alone;
- Even after the deduction of taxes and other negative items from the total income, the average disposable income of agricultural households throughout the period was substantially greater than the income from farming alone. Disposable income appears to have been more stable than agricultural income, though less so than total income.

Fig. D3 Germany: Income per household by source, for agricultural households, 1973 to 1993. Deflated DM ("1990" = 100).

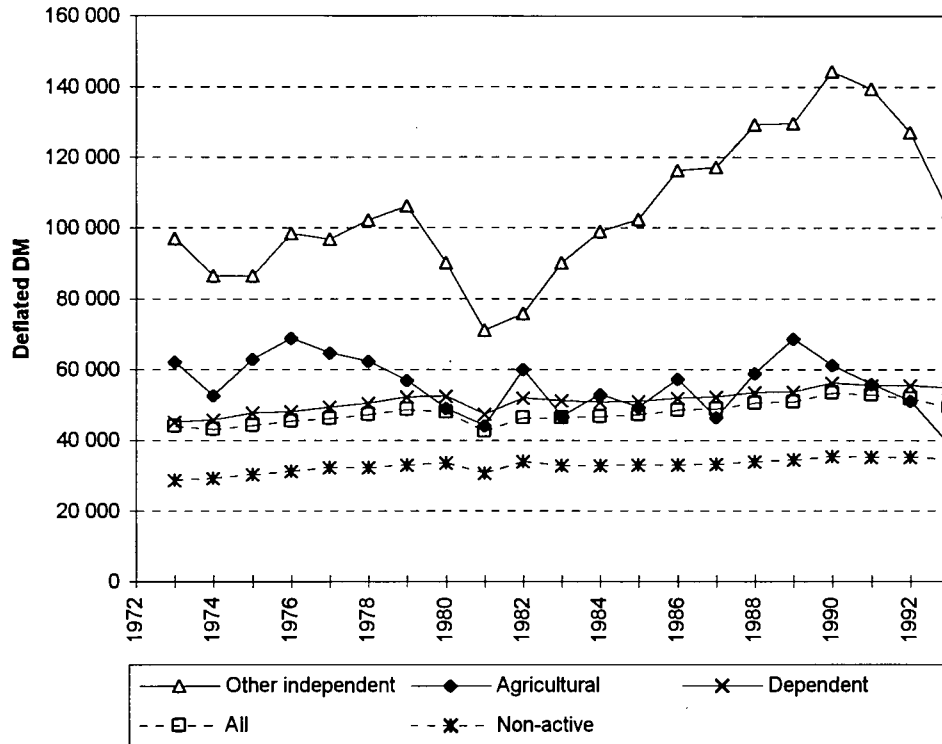


(d) Comparison of incomes with other socio-professional groups

The information for Germany permits a breakdown of non-agricultural households into socio-professional groups. Figure D4 shows the development of the average net disposable income (deflated) for agricultural households, other independent households, dependent (employees') households, non-active households, and the all-households average. The main features are that:

- For most of the period, the average disposable income of agricultural households has been above the all-households national average;
- The relative position of agricultural households seems to have deteriorated from its position in the 1970's to one in the 1980's where it was closer to the national average. Since 1988 the fluctuation in income from farming has meant that agricultural households have been at times substantially above the national average (1989) and also below it (1993);
- Households headed by other independent (self-employed) operators have average disposable incomes that are substantially above those of agricultural households;
- The non-active group have incomes that have been consistently below the national average and below the average for agricultural households.

Fig. D4 Germany: Average net disposable income per household by main socio-professional group, 1972 to 1993. Deflated DM ("1990" = 100).

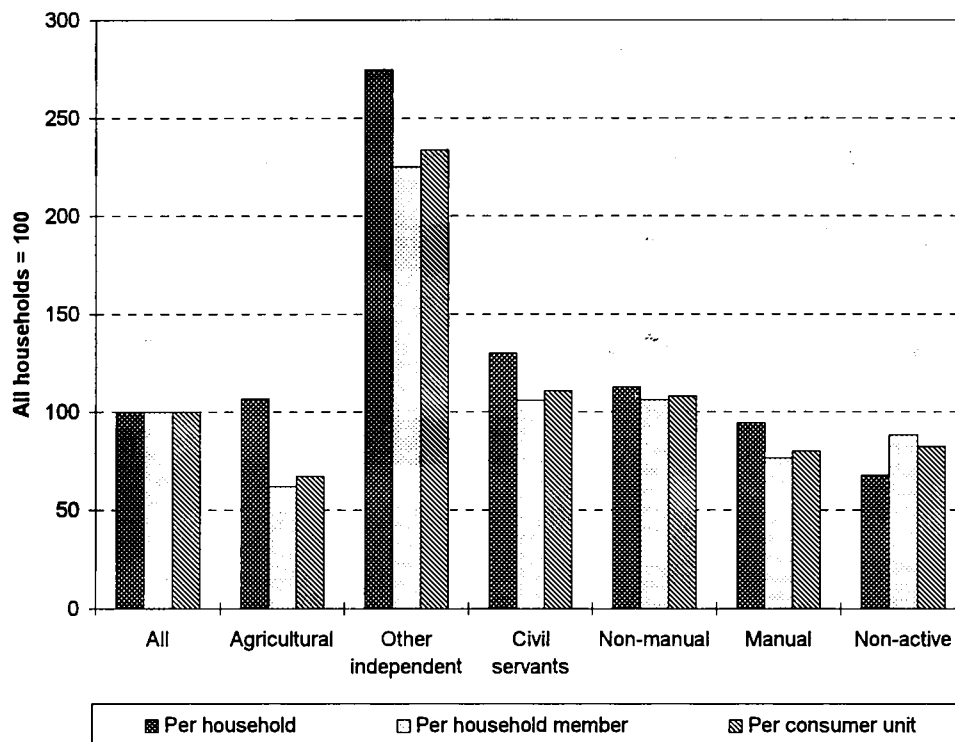


It has already been stated that the average size of households differs among the socio-professional groups, and in particular that the non-active group was noticeably smaller. This is also reflected in the all-households figure. Consequently, comparisons in terms of disposable income per household member or per consumer unit can show a different relative income situation.

Figure D5 shows income per household, per household member and per consumer unit for a rather more detailed breakdown, in which households headed by a dependent (waged) worker are subdivided into those of civil servants, non-manual employees and manual workers. Given the sharp movement in the incomes of agricultural households in the latter years of the series, an index has been calculated for the average real incomes of each group in the five years 1989-93 inclusive. The all-household average has been set at 100.

While agricultural households had a disposable income per household that was slightly above the all-households average in this period, the generally larger size of these agricultural households meant that incomes per household member and per consumer unit were only about two-thirds of the national average; they were the lowest among the groups shown, below those of manual worker households and of the large non-active group that includes households headed by retired and unemployed persons.

Fig. D5 Germany: Average net disposable income per unit by main socio-professional group, over period 1989 to 1993. Index, All households = 100.



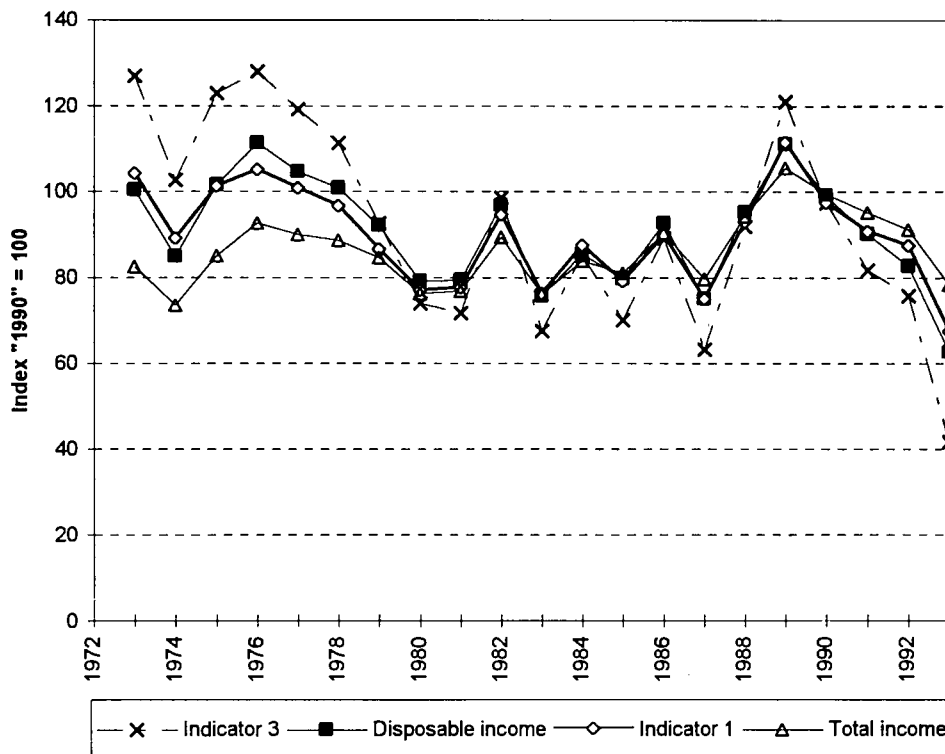
On each of the measures of income per unit, other self-employed (non-agricultural independent) households were clearly better off than all other groups, and had incomes more than double the national average. Though not very numerous in relation to all households (1.659m in 1992) they outnumbered agricultural households in later years by about 5 to 1. German agricultural households appear to be in a far worse relative position compared to other self-employed households than they are when compared to households in general. This highlights the care needed when choosing an appropriate group with which to compare the income position of German farmers and their families

(e) Relationship between Net Disposable Income and Eurostat's existing income indicators

One question which is bound to be raised about TIAH statistics, is to what extent does their household sector income measurement add to information already available, particularly through Eurostat's Indicators 1, 2 and 3? Figure D6 shows two household income measures (total household income, and disposable income) for Germany in real terms for the period 1973-93 and compares them with Indicators 1 (Real Net Value Added at factor cost per Annual Work Unit of labour input) and Indicator 3 (Real Net Income from Agricultural Activity of Family Labour per AWU of family labour input). Each is in index form ("1990" = 100).

Indicator 3 is clearly the most volatile of these four measures over this period. Average total household income was the least variable, showing much greater stability than Indicator 3 not only in the short-term fluctuations of the early 1980's but also in the larger income movements in the 1970's and the from the late 1980's. Indeed, though Indicator 3 suggested a large income fall in real terms between the first and last years of the series, more than halving its level, the real average total household income of agricultural households was very similar in 1992-93 to the level it had been in 1973-74. Disposable income took an intermediate position of stability and, in practice seemed to bear some similarity to Indicator 1 in its movements, though conceptually they are, of course, far removed from each other.

Fig. D6 Germany: Indices of deflated total income and average net disposable income per agricultural household, and Eurostat's agriculture branch indicators 1 and 3, 1973 to 1993.



(f) Use of a broad approach

Germany does not calculate income results annually for agricultural households defined in the "broad" way, that is, where any member of the household has some income from independent activity in agriculture. However, a special study was undertaken, at the request of Eurostat, which gave rise to estimates of numbers of households corresponding to a range of definitions of an agricultural household (including the target "narrow" and "broad" ones) for years from 1982 to 1992. Income results according to the broad definition were calculated for 1983. This study was fully reported in the report *Total Income of Agricultural Households: Progress in 1993*. Only a brief reference to the main findings will be given here.²⁶

In 1992, when there were 267 000 households that qualified as agricultural on the basis that independent activity in agriculture was the main source of income of the reference person, there were some 459 000 (or an additional 72%) households that qualified as agricultural on the basis of some member of the household having some income from this source. This percentage was virtually the same as in 1983.

Comparing the overall income aggregates for agricultural households found that, when using the "broad" approach, the total disposable income in 1983 was much greater (about 90%) than when using the "narrow" definition. This was due to the "broad" approach bringing into the calculation about three times the quantity of gross wages and salaries and higher social benefits. Additional pension payments were obviously of great significance.

In terms of disposable income per household, agricultural households under the "broad" definition had an average income somewhat higher (about 9%) than that of the conventionally defined "narrow" agricultural households. This was because the marginal households, that were brought in by extending coverage in Germany to households where the reference persons did not primarily earn their living from agricultural activity, had a higher income on average than those corresponding to the "narrow" target approach of the

²⁶ Figures for the "narrow" definition of the household have been brought into line with the most recent updates and are therefore different to those published in the *Total Income of Agricultural Households: Progress in 1993* report

TIAH statistics (about 12% higher)²⁷. However, very little of the total income of these households came from farming (only 5%). This low dependency implies that changes in incomes from agricultural activity are of relatively little significance to the overall situation of these households which, though they operate holdings, are outside the coverage of the "narrow" TIAH definition of what constitutes an agricultural household.

Finally, some comparison of TIAH statistics with other information sources showing the numbers of farmers and agricultural holdings is of interest. In 1989, when there were 298,000 agricultural households in Germany, according to the TIAH statistics, the number of farmers (who were at the same time farm heads)²⁸ shown in the European Union's Farm Structure Survey was 625 760. Of these a little more than half claimed to have no other major gainful activity (56%). Combining these two categories implies a much larger number of farmers in the Structure Survey where farming is the main source of earned income (about 350 000) than the number of agricultural households reported in the TIAH statistics. These totals are not necessarily in conflict, since the Structure Survey takes no account of income sources other than gainful activities (that is, pension and property income are ignored) and "main" may imply the use of labour input rather than the income derived (used in the TIAH methodology). It is also possible for the holder not to be a household reference person.

According to the "broad" definition, there were 491 000 agricultural households in 1989, compared with 653 500 agricultural holdings in the Farm Structure Survey of that year, of which 435 000 were of 5 ha or over. Between 1980 and 1989 holding numbers fell by 18%, whereas agricultural households under the "narrow" definition fell by 21%.

27 This is in contrast to the findings in Ireland and the Netherlands, where these marginal households had incomes that were lower than agricultural households defined in the target TIAH "narrow" way.

28 In the Farm Structure Survey the **farmer** is the person for whom and on whose behalf the holding is farmed. The **farm head** is the person responsible for the current, day-to-day management of the holding. In EUR 10 in 1987, 97% of agricultural holdings were farmed by farmers who were at the same time farm heads.

Table D2 Germany: Items leading to net disposable income per agricultural household, 1972 to 1993. Nominal DM.

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Farming Income	25 900	27 300	24 000	31 000	35 600	34 500	33 800	30 200	24 800	25 100	35 100
Other independent activity	700	800	800	800	900	1 000	1 200	1 300	1 300	1 300	1 200
Owner dwellings	1 900	2 100	2 100	2 400	2 600	2 600	2 700	2 600	2 600	2 500	2 700
Wages	6 400	7 400	8 300	8 600	9 700	10 900	12 300	14 000	14 900	16 000	17 200
Property	1 400	1 900	2 100	2 100	2 200	2 400	2 500	3 000	3 900	4 700	5 300
Insurance Claims	1 200	1 300	1 300	1 500	1 700	1 800	2 100	2 400	2 700	2 800	3 300
Social benefits	2 000	2 100	2 300	3 600	3 600	3 600	3800	4 300	4 500	5 000	4 900
Other	100	100	100	100	100	100	100	100	100	100	100
Total income	39 600	42 900	41 000	50 100	56 500	56 900	58 500	57 900	54 800	57 500	69 900
Private (consumer) interest	400	500	500	400	400	400	400	500	800	1 000	1 100
Insurance premiums	1 300	1 400	1 400	1 600	1 900	2 000	2 200	2 600	2 900	3 000	3 500
Current taxes	1 600	1 900	2 200	2 200	2 500	3 200	3 700	3 900	3 700	3 700	3 900
Social Contributions	3 300	4 700	5 500	6 400	6 800	7 600	8 200	9 100	9 600	10 200	11 200
Other outgoing current transfers	400	400	500	500	600	600	700	700	800	800	800
Disposable income	32 700	34 000	30 800	38 900	44 200	43 100	43 300	41 000	37 000	38 700	49 300
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Farming income	26 200	32 200	29 600	37 800	28 400	40 200	50 600	43 700	39 900	37 000	24 600
Other independent activity	1 500	1 600	1 600	1 700	1 800	2 000	2 100	2 300	2 400	2 500	2 400
Owner dwellings	3 100	3 500	4 000	4 600	4 900	5 400	5 900	6 100	6 300	6 900	7 800
Wages	17 400	18 000	18 800	19 800	20 400	21 500	21 900	24 600	26 300	27 500	27 800
Property	5 000	5 500	5 900	6 000	6 100	6 600	7 400	8 100	8 900	9 900	10 100
Insurance Claims	3 500	3 700	3 900	4 000	4 100	4 200	4 400	4 600	4 700	4 900	5 200
Social benefits	4 600	4 400	4 300	4 400	4 600	4 600	4 600	4 600	4 900	4 900	5 100
Other	100	200	200	200	200	200	200	200	200	200	200
Total income	61 500	69 100	68 200	78 500	70 500	84 600	97 100	94 300	93 700	93 800	83 200
Private (consumer) interest	1 100	1 200	1 200	1 300	1 300	1 400	1 500	1 700	2 000	2 400	2 900
Insurance premiums	3 800	3 900	4 100	4 200	4 400	4 500	4 700	4 900	5 000	5 200	5 500
Current taxes	4 000	4 500	4 700	5 000	5 300	5 500	6 200	6 600	8 000	8 400	8 100
Social Contributions	12 000	12 600	13 300	14 300	15 000	16 000	16 600	18 300	19 000	20 400	21 300
Other outgoing current transfers	800	1 000	1 100	1 200	1 400	1 500	1 600	1 800	1 900	2 000	2 100
Disposable income	39 800	45 900	43 700	52 400	43 200	55 600	66 500	61 100	57 800	55 400	43 400

Table D3 Germany:

Average net disposable income per household, by socio-professional group, 1972 to 1993. Nominal DM x 100.

	GDP deflator	All households	Independent			Dependent				Non-active
			All	Agricultural	Non agricultural	All	Civil servants	Non-manual	Manual	
1972		225	531	327	600	227	285	249	202	144
1973	54.7	240	530	340	592	247	313	271	220	157
1974	58.6	252	506	308	570	268	344	291	237	172
1975	61.9	273	535	389	580	295	378	315	262	188
1976	64.1	291	630	442	686	308	392	330	273	201
1977	66.5	307	643	431	707	328	411	349	292	215
1978	69.4	327	709	433	790	350	436	371	313	225
1979	72.0	350	764	410	861	376	461	398	338	238
1980	75.6	362	680	370	764	397	487	417	359	254
1981	78.7	373	623	387	685	416	510	437	377	269
1982	82.2	381	622	493	655	427	519	452	382	280
1983	84.9	393	765	398	855	434	525	461	386	279
1984	86.7	405	857	459	952	441	534	469	390	285
1985	88.5	417	906	437	1 016	451	550	479	398	292
1986	91.3	443	1 062	524	1 182	473	573	503	418	302
1987	93.0	454	1 090	432	1 230	486	589	517	429	310
1988	94.4	476	1 220	556	1 355	505	612	534	446	321
1989	96.7	492	1 253	665	1 367	520	629	555	457	334
1990	99.7	532	1 439	611	1 591	560	669	595	495	353
1991	103.6	546	1 444	578	1 591	575	700	608	509	366
1992	108.2	560	1 376	554	1 509	600	740	629	532	382
1993	111.7	551	1 168	434	1 283	611	755	636	544	387

Table D4 Germany: Composition of total income and deductions, for agricultural households and all households, 1972 and 1993. Nominal DM per household.

	Item	1987		1993	
		Agricultural households	All households	Agricultural households	All households
1a	Independent agricultural activity				
	▪ Operating Surplus				
	▪ Income	25 900	700	24 600	200
1b	Independent non-agricultural activity				
	▪ Operating Surplus				
	▪ Income	700	5 200	2 400	9 600
1c	Owner dwellings	1 900	400	7 800	1 700
2	Dependent activity	6 400	19 500	27 800	52 200
3	Property and entrepreneurial income	1 400	1 200	10 100	6 200
4	Accident insurance claims	1 200	600	5 200	2 100
5	Social benefits	2 000	5 300	5 100	18 700
6	Other current transfers	100	400	200	1 500
7	Current receipts				
	▪ based on Operating Surplus				
	▪ based on Income	39 600	33 200	83 200	90 300
8	Distributed property and entrepreneurial income	400	200	2 900	1 300
9	Net accident insurance premiums	1 300	600	5 500	2 100
10	Current taxes on income and wealth	1 600	3 400	8 100	10 000
11	Social contributions	3 300	5 400	21 300	18 800
12	Other outgoing current transfers	400	1 100	2100	3 000
13	Disposable income (per household)	32 700	22 500	43 400	55 100
	Units (x 1 000)				
	Number of households	507	22 673	261	29 134
	Number of household members	2 337	60 310	987	64 386
	Number of consumer units	1 668	46 480	736	51 858
	Disposable income per unit				
	▪ per household member	7 100	8 500	11 500	24 900
	▪ per consumer unit	9 900	11 000	15 400	30 900

Note: In this table for Germany, the resources flowing to households from independent activity are shown as Income, that is after the deduction of interest and rent, except for interest on loans for consumption spending which is shown under Item 8

GREECE

Methodology

General approach

A version of the Model 2 approach is used, but with some similarities to Model 3. For most items, data come from macroeconomic sources (agricultural income from the Economic Accounts for Agriculture, others from national accounts), distributed between agricultural and non-agricultural households. For other items not obtained in this way, data come from the Family Budget Survey (FBS, 1982 and 1988) after being grossed up; interpolation was used for non-survey years and extrapolation to 1990. Examples of items covered in this manner included financial assistance to households from friends or relatives living in Greece or abroad, and contributions to churches and charitable institutions. The FBS also provides distribution agents for the economic aggregates; other agents (for distributing income tax and social security contributions) come from the Statistics of Declared Income of Natural Persons (tax returns), published annually.

Household unit

Household; comprises all persons living under the same roof. This includes the head, spouse, dependent members (young, disabled and elderly), but also financially independent members who are still living in the household. Calculations using an alternative household definition are possible, in which the financially independent members are excluded.

Household classification

Two classification systems are available for comparative purposes. The first is based on the main employment (occupation) of the head of household, as declared to the Household Income Survey (Family Budget Survey). Under this system, heads of agricultural households who are in receipt of retirement pensions are classified as pensioners (that is, not as farmers) even if at the same time they continue to work on their farms. The second is based on the main source of income of the entire household. Classification can be applied to both broad and narrow concepts of a household. For the purpose of the FBS, agricultural activities also included forestry and fishing.

Years for which results are available:

Provisional results for 1982 to 1988 using four definitions of an agricultural household (two definitions of a household, and two basis of household classification) and all households. Revised figures for 1982 to 1990 for households including financially independent members other than the farmer and spouse and classified according to the main income of the entire household, together with figures for all households.

Comments on the results:

Greece is one of those countries for which there were no existing procedures for estimating the disposable income of agricultural households. Consequently, the generation of TIAH statistics involved setting up such a procedure. The first preliminary results, given in *the Total Income of Agricultural Households: 1992 Report*, covered the years 1982 to 1988 but contained significant gaps in the coverage of items in the chain of calculation leading to disposable income. In particular, income (or operating surplus) from independent activity outside agriculture was not covered, the reason being that there were large discrepancies between the relevant magnitudes in the national accounts and in the Family Budget Surveys (the distribution agent). Such income is under-reported in the FBS of Greece by about 30%, partly by a propensity to conceal income out of fear that the information might be used for fiscal purposes, and partly because of the considerable time lag between the receipt of income and its declaration. There were also some differences between the coverage of items for agricultural households and for non-agricultural households, which eroded the validity of comparisons.

Progress has been made in improving the quality of results, but so far only one set of figures has been generated on the new basis (for each year between 1982 and 1990 inclusive) and this for a group of

households that do not correspond to the TIAH target "narrow" definition of an agricultural household. No breakdown of non-agricultural households into socio-professional groups has been made. No results have been calculated using the concept of the "broad" agricultural household. For these reasons, it is not possible at this stage to give other than broad indications of the income situation among agricultural households in Greece.

(a) Numbers of households

Four definitions of an agricultural household can be used in Greece. Two bases of classification can be employed (the main occupation of a reference person as declared to the Family Budget Survey, or the income composition of the entire household) and these criteria can be applied to either a broad or a narrow concept of the household. The broader version includes everyone living in the household irrespective of their occupation and corresponds with that specified in the TIAH methodology. The narrower household concept (which should not be confused with the TIAH target "narrow" definition of an agricultural household) differs in that, of the independent adults, only those members working in the family business (on the agricultural holding or, in the case of non-agricultural households, in the family's small industry or shop) are included. Hence, when this narrow household approach is applied to agricultural households, financially independent members working off the holding are excluded. It should be noted that none of these four approaches corresponds exactly with the present TIAH "target" definition of an agricultural household (based on the main income source of the reference person).

Numbers of units found using all four definitions are included here for comparative purposes. Table ELL1 shows the numbers of households, household members and consumer units which each definition of an agricultural household produced for 1985.

Table ELL1 Greece: Numbers of units resulting from alternative definitions of the agricultural household.

<u>Classification criterion</u> Type of household / classification system	No. households	No. household members	No. consumer units
Broad household - household main income source	500 250	1 837 000	1 337 275
Broad household - reference person occupation	437 750	1 637 750	1 192 350
Narrow household - household main income source	325 000	1 540 500	1 174 525
Narrow household - reference person occupation	268 500	1 410 250	1 033 100

The pattern of results does not fit closely with what is experienced in other countries. Contrary to findings elsewhere, the use of a reference person classification system (in the case where agriculture is the person's main occupation) produced lower numbers of households and other units than a system based on the main source of income of the entire household. One possible explanation is that the use of a reference person system may have caused some households where the main income is from farming to be excluded from the agricultural group if the reference person (head) receives a pension and considers himself to be retired. Similarly, the impact of using a narrower household concept is not as might be expected. Such differences require additional information on the nature of the households covered before a fully satisfactory explanation can be arrived at.

Table ELL2 Greece: Estimated numbers of agricultural households in base years of the Family Budget Survey.

<u>Classification criterion</u> Type of household / classification system	No. households 1982	No. households 1988
Broad household - household main income source	479 500	521 000
Broad household - reference person occupation	470 500	405 000
Narrow household - household main income source	327 500	322 500
Narrow household - reference person occupation	317 500	219 500

Another feature of the results for Greece is the contrasting movements over time in the numbers of agricultural households produced by the two classification systems. A reference person (main occupation)

system saw substantial falls between 1982 and 1988, the base years of the Family Budget Surveys (Table ELL2). This is in line with the finding of the Farm Structure Survey; numbers of holdings fell by 9% between 1980 and 1987. However, the number of agricultural households found by using the income criterion was either almost static over the period (narrow household definition) or rose by some 9% (broad household definition). Such an increase could be a reflection of the rise in real incomes from agricultural activity experienced in Greece between these years (Eurostat's Indicator 3 also rose by 9%), but there may be other explanatory factors.

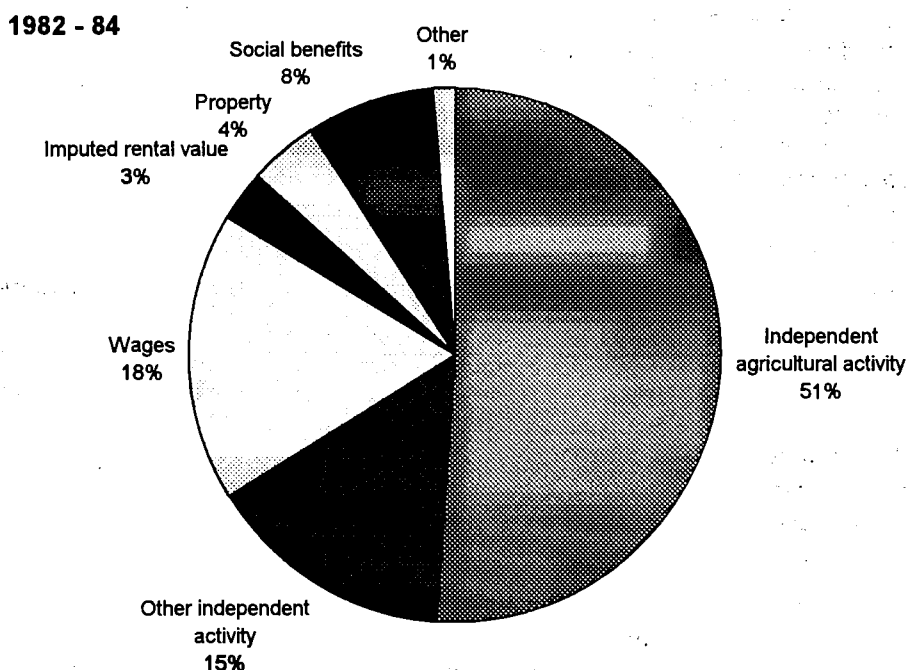
(b) Composition of total income, and deductions

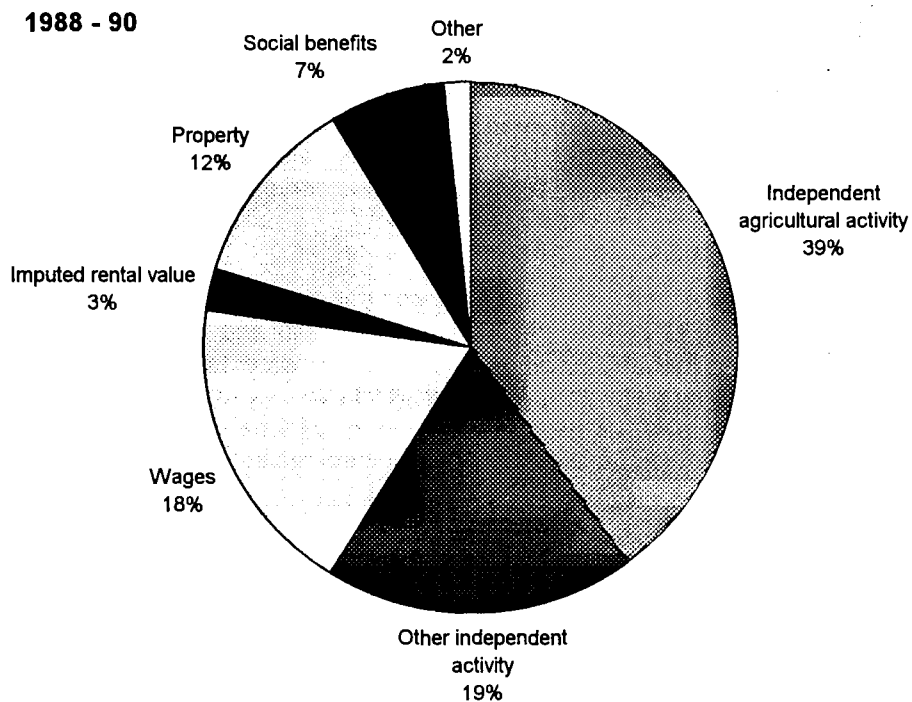
The preliminary results for Greece, given in the *Total Income of Agricultural Households: 1992 Report* found that, when using a reference person classification system, agricultural households on average received 66% of their total income from farming, somewhat more than the 57% that resulted from classifying households on the basis of the main source of their entire income. For this analysis, operating surplus was converted to income by deducting rent and interest payments. It should be recalled that income from non-agricultural independent activity was not covered in this first information from Greece.

Later information has enabled many of the gaps in the preliminary results to be filled. Revised figures are available up to 1990 but only for households in which farming is the main source of income of the entire household; this does not correspond to the TIAH definition of an agricultural household (which is where farming is the main income of the reference person). Figure ELL1 shows the composition of total income for agricultural households defined in this way averaged over the three year periods 1982-84 and 1988-90. It is clear that, in aggregate, agricultural households received a substantial proportion of their income from sources other than from farming. Income from independent agricultural activity constituted only just over half the total in the earlier period and less than half in the latter. On the basis of the evidence from the preliminary information, the share of household income coming from farming is likely to have been somewhat greater if a reference person classification system were used in selecting agricultural households. The second most important source of income to agricultural households in the period 1982-84 was wages, but in 1988-90 this was matched by income from other independent activities. Income from property had also expanded substantially between the two periods.

The proportion of total income remaining as disposable was 92% in the first period and 94% in the second. This was substantially higher than the share remaining for households in general, which was 84% in 1990.

Fig. ELL1 Greece: Composition of the total income of households where farming is the main income source of the entire household, average over periods 1982 to 1984 and 1988 to 1990.



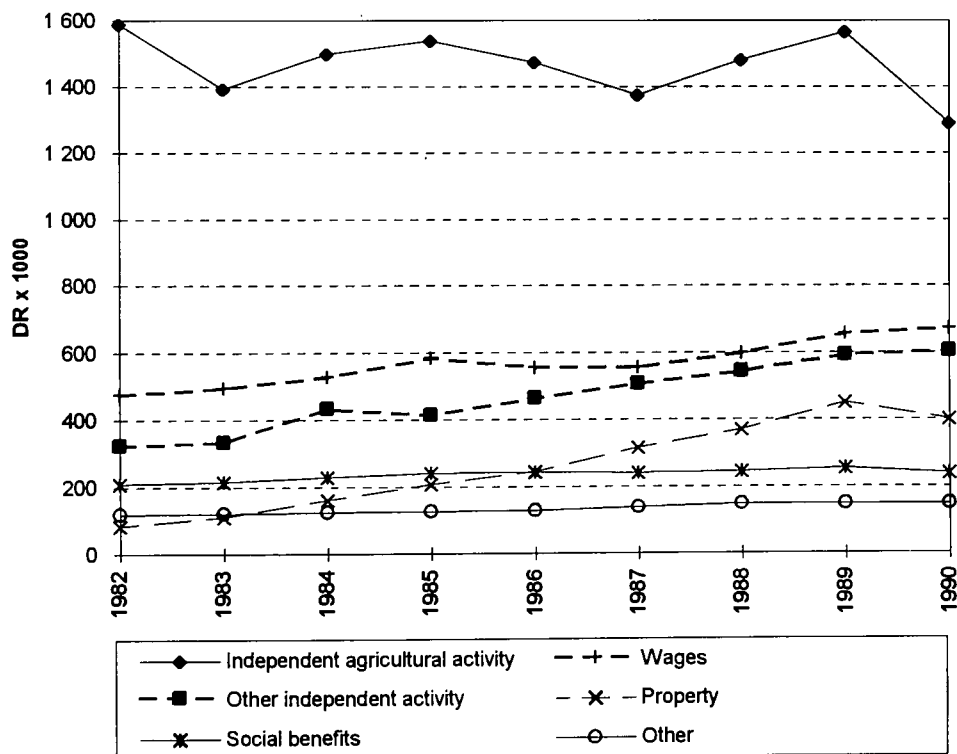


(c) Development of income components over time

The changes in the various major components contributing to the total income of households where farming was the main income source are given in Figure ELL2.

Fig. ELL2 Greece:

Development of the major components of the total income of households where farming is the main income source. Income per household, 1982 to 1990. Real DR (1989-91 = 100).



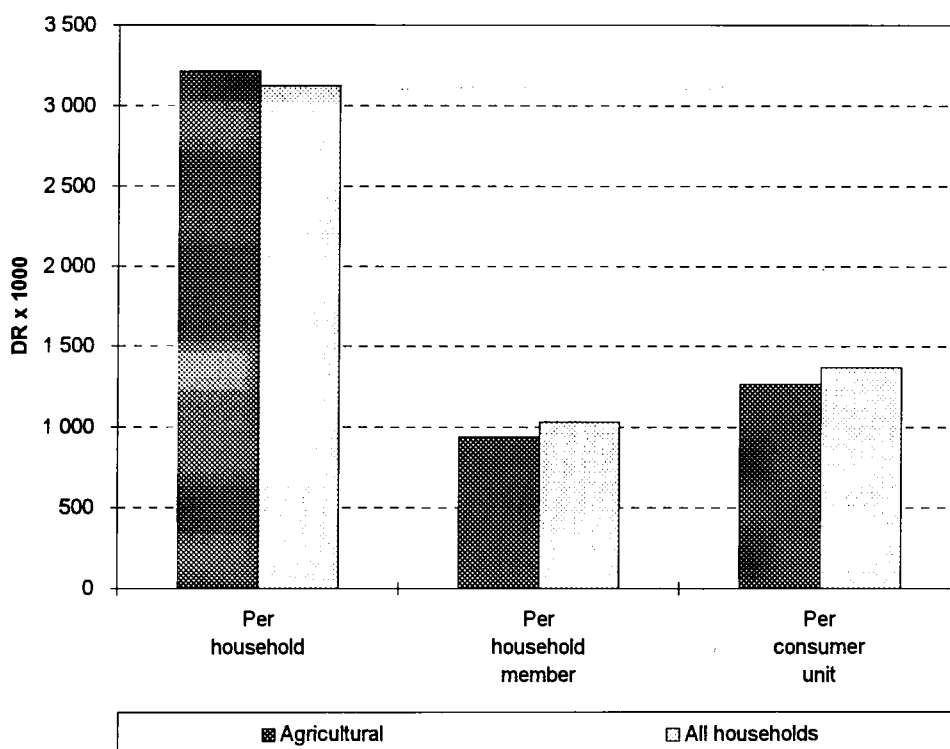
Incomes are expressed per household and in real terms. Because of the relatively high rates of inflation seen in Greece over the 1980s a clearer picture emerges if incomes are first deflated²⁹. It can be seen that the income from farming has been variable, with the first year in the series showing the highest income per household and the latest year the lowest. There is no obvious trend for the period as a whole. In contrast, the average real income from other forms of self-employment (independent activity) has been on a strong upward trend, doubling over the period. Wages in real terms have also been increasing. The strongest rise in relative terms occurred with the income from property, which experienced a four-fold increase.

(d) Comparison of income levels

The preliminary results given in the *Total Income of Agricultural Households 1992 Report* suggested that, though the alternative approaches to defining the size of household and to their classification produced different levels of income per household, when household sizes were taken into account, the level of income per member or per consumer unit was very similar whichever approach was taken. The more recent results from Greece, by filling some of the gaps in the types of income covered, provide the basis for a more valid comparison between the income situation of agricultural households and households in general.

Figure ELL3 gives average incomes per unit in 1990 for households in which farming was the main income source of the entire household and households in general. Average disposable income per household was higher in these agricultural households than for all households together, but the income per member and per consumer unit was lower, although only marginally. This pattern is similar to that found in many other Member States. The basic data from which this Figure was derived appear in Table ELL3, together with equivalent results for the first year of the series.

Fig. ELL3 Greece: Average net disposable income per unit for households in which farming is the main income source for the entire household, and all households together, 1990. Nominal DR.



29 The implicit price index of gross domestic product at market prices has been used in this context.

Table ELL3 Greece:

Composition of total income and deductions, for households in which farming is the main income source of the entire household, and all households, 1982 and 1990.

Nominal mio DR.

	Item	1982		1990	
		Agricultural households	All households	Agricultural households	All households
1a	Independent agricultural activity				
	■ Operating Surplus	239 690	357 639	786 989	1 096 084
	■ Income	-	-	-	-
1b	Independent non-agricultural activity				
	■ Operating Surplus	48 600	767 901	368 268	3 755 989
	■ Income	-	-	-	-
1c	Owner dwellings	12 009	100 491	47 728	412 875
2	Dependent activity	64 022	1 216 966	357 999	4 931 676
3	Property and entrepreneurial income	11 179	199 201	213 213	1 083 424
4	Accident insurance claims	331	331	1 267	1 267
5	Social benefits	28 222	322 571	127 121	1 510 620
6	Other current transfers	3 515	107 502	29 352	433 736
7	Current receipts				
	■ based on Operating Surplus	407 568	3 072 603	1 931 936	13 225 671
	■ based on Income	-	-	-	-
8	Distributed property and entrepreneurial income	28 642	186 264	112 669	612 577
9	Net accident insurance premiums	1 437	1 437	3 298	3 298
10	Current taxes on income and wealth	637	155 738	2 137	520 104
11	Social contributions	204	308 651	1 793	1 310 135
12	Other outgoing current transfers	18 241	91 536	93 032	406 322
13	Disposable income	358 407	2 328 977	1 719 007	10 373 235
	Units (x 1 000)				
	Number of households	480	3 018	535	3 320
	Number of household members	1 845	9 923	1 824	10 050
	Number of consumer units	1 327	7 286	1 354	7 558
	Disposable income per unit (DR x 1 000)				
	■ per household	747	772	3 214	3 124
	■ per household member	194	235	943	1 032
	■ per consumer unit	270	320	1 270	1 372

Note: in this table, the resources flowing to households from independent activity are shown as Operating Surplus, that is before the deduction of interest and rent payments, which are given in Item 8.

SPAIN

Methodology

General approach

Model 2 approach.

The starting point is the Distribution of Income Account for the households sector within the national accounts. These were first compiled for 1980 and run annually to 1993. For the purpose of calculating TIAH statistics, the accounts for 1980 and 1990 form base years. Each item in these accounts is distributed between a range of socio-professional groups (of which agricultural households form one). This is done using distribution keys developed from the Family Budget Surveys of 1980-81 and 1990-91; in calculating these keys adjustment is made to take account of the known under-reporting of some forms of income. A process of interpolation and extrapolation is used to generate results for non-base years. For reasons of data availability, incomes and operating surplus are taken gross when measuring the resources flowing to households; capital consumption is deducted at a later stage in the account leading to Net Disposable Income.

Household unit

Household: in the Family Budget Surveys the household is defined as the person or group of persons jointly occupying a family housing unit or part thereof and consuming foodstuffs and other goods paid for from the same budget.

Household classification

Based on the head of the household as the reference person. In the 1990-91 FBS, the head is the member whose regular (not occasional) contribution to the joint budget is intended to a greater extent than the contributions of each of the other members to meet the household's expenditure. This is slightly different (but not substantially so in the present context) from that of the 1980-81 FBS, where the head of household was defined as the member whose regular (not occasional) contribution to the joint budget currently served to meet the largest part of the household's expenditure.

Agricultural households are those whose head is an employer, entrepreneur without employees or self-employed worker working in arable or livestock farming or forestry where the business does not constitute a type of trading company. In the FBS, where a person has several occupations and there is doubt which is the main occupation, the one providing the highest income is recorded. Incomes are used gross of capital consumption in this situation.

Years for which results are available:

1980 to 1993, with base years 1980 and 1990.

Comments on the results

Spain had no pre-existing system for estimating the net disposable income of agricultural households, either in aggregate or per unit (household, household member or consumer unit). However, there were several surveys covering households, which could be used to obtain partial information (numbers, composition, some aspects of income and expenditure, sizes of holdings). The method used to derive the results for Spain that appeared in the *TIAH 1992 Report* involved combining the household sector account and the agricultural branch account, both belonging to Spain's national accounts, with the agricultural census and the Family (household) Budget Survey (FBS). The results shown here use a rather different approach, in which the aggregates that appear in the Distribution of Income Account for the households sector in national accounts are distributed among a range of socio-professional groups, of which agricultural households form one, using keys derived from the FBS. The quality of the distribution keys has been substantially improved since the first set of results was estimated.

There are two base years for the calculations (1980 and 1990), corresponding to years in which household budget surveys took place. Intermediate years, and projections to 1993, use an updating technique which since 1985 has been based on the family budget survey. Unlike the previous results, this no longer assumes that the structure of income of agricultural households is constant.

(a) Numbers of households, household members and consumer units

Spain disaggregates its households sector using a breakdown into socio-professional groups that is more detailed than that of the TIAH statistics' minimum list. In addition to subdividing households headed by self-employed persons into agricultural (farmer) households and others, the households headed by employed (dependent) persons are further broken down into those of directors and senior managers, middle managers and foremen, and manual workers. These dependent categories may include heads working in agriculture (but not as self-employed persons). The remaining category ("Others") includes households headed by persons who are not economically active and the unemployed.

Agricultural households constitute a relatively small group in society. Table E1 shows the numbers of households, household members and consumer units for each socio-professional group in 1980 and 1990. Households headed by a farmer accounted for only 6% of households in 1980 and 3% in 1990, the numerically smallest group in the breakdown for the latter year. The largest categories were households of manual workers and the "Other" group. Over the period shown the number of farmer households almost halved, numbers in 1990 being only 53% of those in 1980. Such a large fall requires caution when interpreting changes in average incomes. In contrast, most of other groups saw a rise, the only other (modest) fall being among manual workers. Total numbers of households rose by 13%, but household members increased by only 4% and the consumer units fell by 1%, indicating a changing picture of household size and composition, with a tendency for households to become smaller.

Table E1 Spain: Numbers of units (x 1 000) by socio-professional group, 1980 and 1990.

Units	Agricultural	Other self-employed	Senior management	Middle management	Manual workers	Others	All households
1980							
Households	644	986	441	1 446	3 341	3 167	10 025
Household members	2 591	4 128	1 793	5 604	13 897	9 069	37 082
Consumer units	1 903	2 946	1 272	4 042	9 891	9 069	29 124
Members per household	4.0	4.2	4.1	3.9	4.2	2.9	3.7
1990							
Households	345	1 045	510	1 560	3 169	4 669	11 299
Household members	1 350	4 139	1 992	5 767	12 620	12 625	38 494
Consumer units	1 010	3 017	1 458	4 239	9 202	10 030	28 957
Members per household	3.9	4.0	3.9	3.7	4.0	2.7	3.4

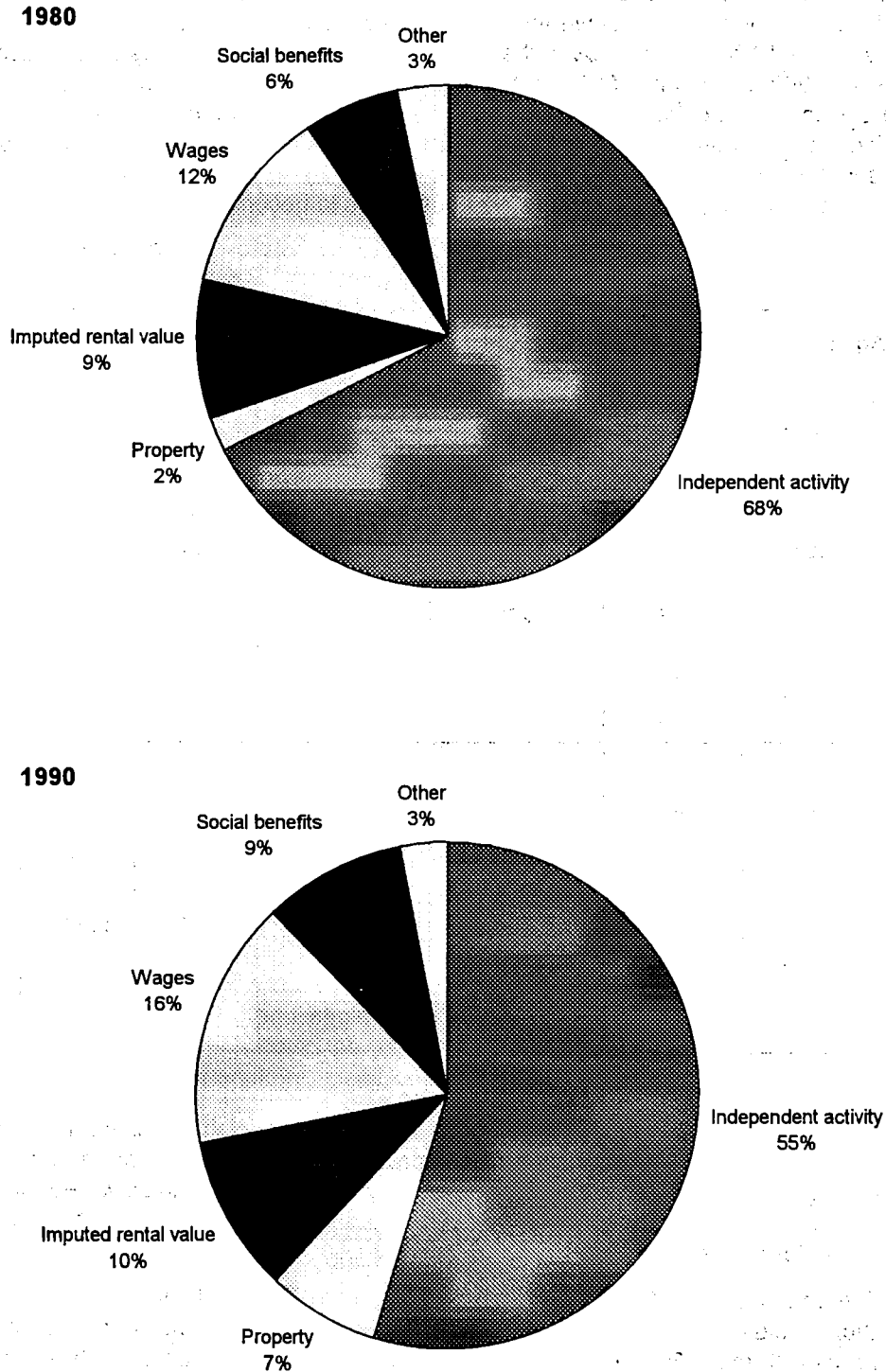
Contrary to what is often found elsewhere, the average size of the Spanish agricultural household was, in 1990, little different from that of other socio-professional groups, other than the group containing the economically inactive (including the retired) and the unemployed where households were smaller (reflecting the family stage of retired people). Other self-employed heads and manual workers had households that were a little larger than farmer households.

It should be noted that the number of agricultural households in the TIAH statistics is much smaller than the number of agricultural holdings found by the Structure Survey (in 1990 there were 345 386 agricultural households in contrast with the 1 593 640 agricultural holdings in the 1989 Survey). These figures suggest that on perhaps four-fifths of Spanish holdings there is no household that satisfies the criterion for being classed as agricultural in the present "narrow" context.

(b) Composition of total income of agricultural households, and deductions

Figure E1 shows the composition of income for the two base years, 1980 and 1990. Following the practice adopted in displaying this information for other Member States, Operating Surplus from independent activity (agricultural and other) has been converted to an income concept by deducting all interest payments (both that on loans for farming purposes and on loans for consumption spending, there being many practical difficulties in separating the two). Also, it has been assumed that all the capital consumption associated with agricultural households should be deducted from gross income from independent activity.

Fig. E1 Spain: Composition of the total income of agricultural households, 1980 and 1990.



On this basis, in 1980 independent activity in agriculture (farming) appears to have been responsible for two thirds of the total income of agricultural households in Spain. Unfortunately, no breakdown of the income from independent activity into that coming from agricultural and from other activities is possible, although for agricultural households most will have come from farming (the previous methodology suggested that, for 1981, about 85% of independent income of this group came from activity in agriculture). The second largest source of income was wages. In 1990 the share of total income that agricultural household derived from independent activity had fallen to little more than half (55%), contrasting with increases seen particularly in the proportion from wages and from social benefits.

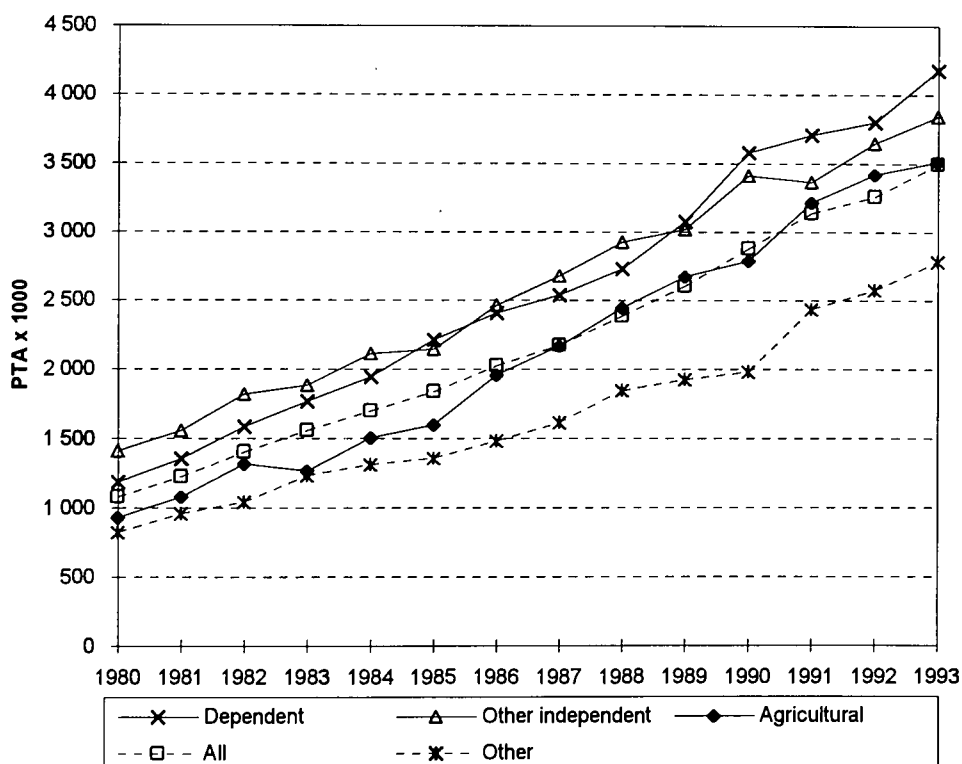
The deductions from total income that lead to disposable income were not large by comparison with many northern Member States, although there was an increase in the share taken over the period shown. Taxes and social contributions together accounted for 12% of total income in 1980 and 18% in 1990. Disposable income formed 86% of total income in 1980 and 79% in 1990. Compared with the all-household position in Spain, agricultural households paid a smaller proportion of their income as taxes, social contributions and other deductions; 76% of the all-household total income remained as disposable income in 1980 and 71% in 1990.

(c) Income developments over time

In the present state of methodological development it is not possible to trace the way in which the balance between the major sources of income of agricultural households has been changing over time. This is because, except in the base years, income from independent activity in agriculture cannot be separated from all forms of independent and dependent activity and from interest and rent derived from property (including from owned dwellings). These groups together constitute "primary income" (see Table E3 at the end of this chapter).

However, the development in the disposable income of agricultural households over the years 1980 to 1993 can be compared with what has happened in other socio-professional groups. Figure E2 presents the pattern of income per household in deflated terms (using the implicit price index of GDP at market prices) for the "minimum list" of groups (which has amalgamated the three sub-groups of independent households) - see also Table E4 at the end of this chapter.

Fig. E2 Spain: Average net disposable income per household by main socio-professional group, 1980 to 1993. Nominal PTAs.



Agricultural households have increased their average real net disposable income over the period. Compared with the all-households average, agricultural households appear to have marginally improved their position; in each year before 1987 agricultural households were below the national position but since then they have been very close to or above the all-households figure. Households of other self-employed reference persons had the highest incomes in the early years shown but were overtaken in the late 1980s by households of waged reference persons. The particularly heterogeneous "Other" group seems to have relatively low incomes per household and to have seen no real increase until 1991.

These figures, of course, reflect the falling number of households that can be classed as agricultural and the rise, in particular, of numbers in the "Other" group.

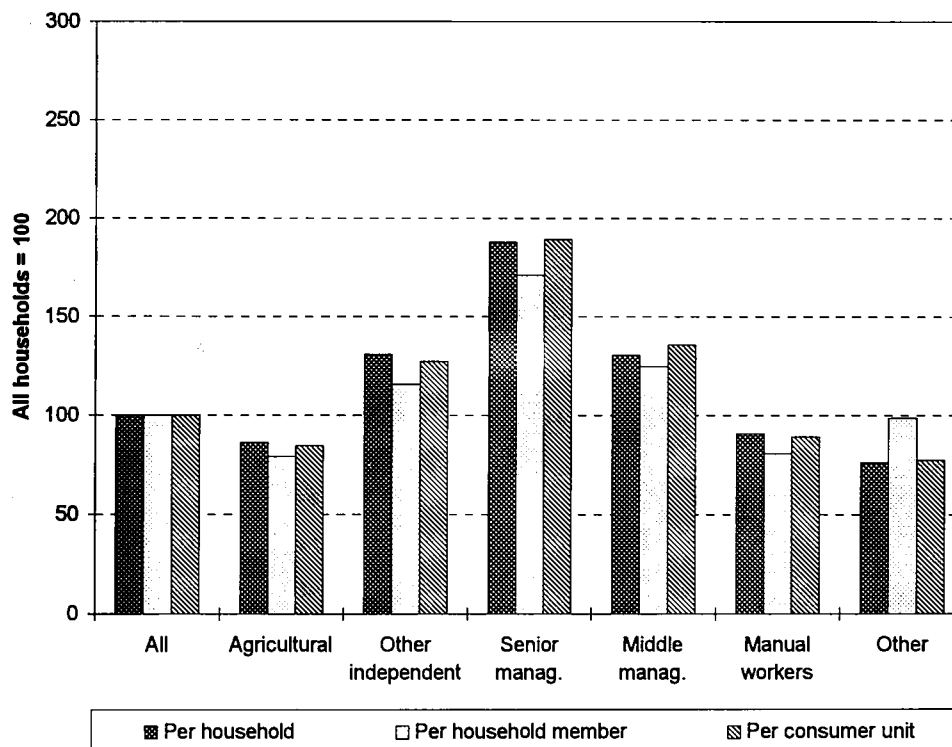
(d) Comparison of income levels

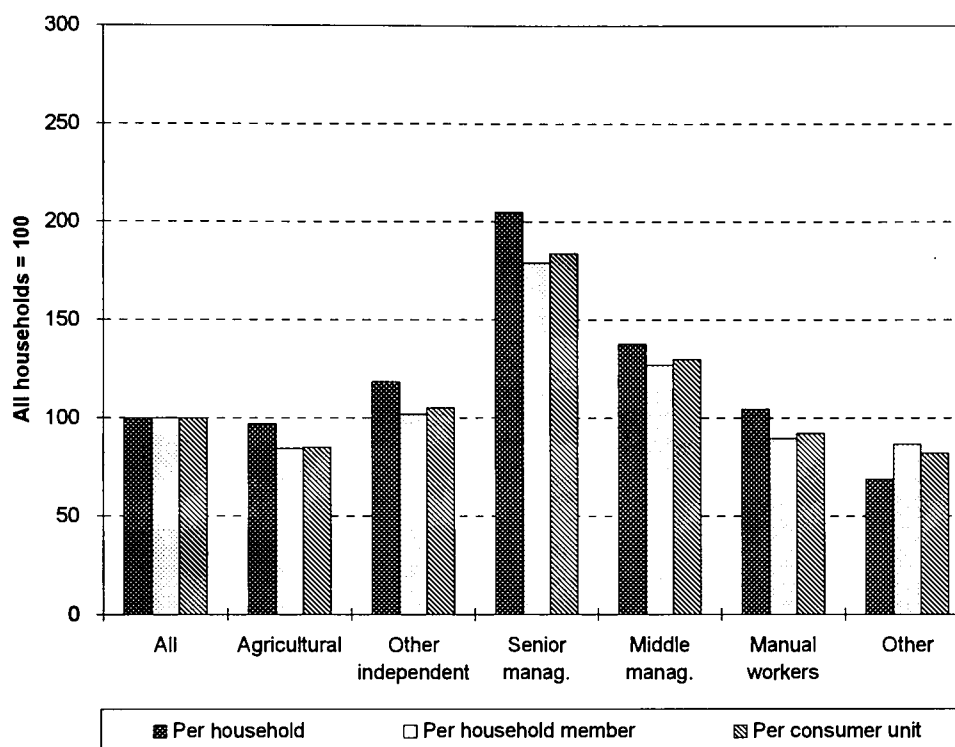
Incomes per unit for 1980 and 1990 are shown in Figure E3 in an index form, with the all-households average set at 100. It is evident that, in 1980, the average income of agricultural households was below the all-household average in terms of income per household, per household member and per consumer unit. Levels in agricultural households were similar to those of households headed by a manual worker. Households headed by other self-employed persons (independents) had net disposable incomes some 50% higher than those of agricultural households, at levels similar to those of middle management households. Senior management households had incomes more than double those of agricultural households, and approaching twice the national average.

The comparisons were broadly similar in 1990. Income per household among agricultural households appears to have increased relative to the all-households average (though not income per household member or per consumer unit). The households of other independent workers fell back in relative terms but manual workers had improved their position.

Fig. E3 Spain: Average net disposable income per unit by main socio-professional group, 1980 and 1990. Index, All households = 100.

1980





(e) Using a broader definition of an agricultural household

It was pointed out above that the number of agricultural households in Spain is much smaller than the number of agricultural holdings, of the order of one fifth. This implies that there would be a substantial number of households in which a household member (other than the reference person) derives some income from farming but which fails to satisfy the criterion of being an agricultural household in the TIAH statistics. The methodology used in Spain cannot generate results using the TIAH "broad" definition of an agricultural household (in which there is some income from farming accruing to any household member). However, it can go part way in this direction by identifying all households in which at least one member gives self-employment in agriculture as their **main** source of income. Even on this basis, which clearly falls short of a comprehensive coverage of households with some income from farming, the number of households covered increased by 33%.

As Table E2 shows, the impact in terms of average net disposable income per household of this somewhat broader coverage is rather small. However, when the characteristics of the marginal households brought into the coverage are isolated (by subtraction) they are found to be in line with expectations. The marginal households generate smaller amounts of income per household from independent activity (presumed to be mostly from farming) than agricultural households defined in the "narrow" sense, and they are relatively less dependent on it for their total income (34% of total income coming from independent activity, in contrast with 55% for the "narrow" group). However, in terms of average disposable income their level per household is almost the same.

At this stage, therefore, no firm conclusions can be drawn about the larger number of households in Spain that receive some income from farming but which do not qualify as agricultural households in the TIAH statistics.

Table E2 Spain:

Characteristics of households defined in various ways, average per household, 1990. Numbers of units (x 1 000) and average incomes (PTAs x 1 000).

Definition	Households (x 1 000)	Average household size	Net disposable income	Gross Operating Surplus from independent activity	Income from independent activity	Share of total income from independent activity (%)
TIAH target "narrow" (a)	345	3.9	2 792	2 391	1 933	55
Broader definition (b)	459	3.9	2 772	2 163	1 752	49
Marginal (b) - (a)	114	4.1	2 711	1 474	1 203	34

Table E3 Spain: Items leading to net disposable income per agricultural household, 1980 to 1993. Nominal PTAs x 1 000.

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Primary revenue*	1 074	1 148	1 392	1 348	1 619	1 782	2 162	2 470	2 815	3 150	3 631	3 829	4 110	4 225
Insurance	7	8	10	15	16	16	20	26	30	39	43	49	54	61
Social benefits	66	87	102	169	196	220	230	242	264	293	326	416	459	488
Other current transfers	29	31	39	18	19	24	27	30	33	37	66	38	40	41
Total receipts	1 175	1 274	1 544	1 550	1 849	2 043	2 438	2 769	3 141	3 519	3 996	4 331	4 663	4 815
Distributed property income	13	20	23	46	61	49	58	70	86	101	125	129	133	127
Insurance premiums	6	7	8	12	13	15	19	25	28	37	41	45	50	56
Taxes	59	71	78	106	133	158	165	227	258	311	337	389	440	445
Social contributions	67	79	96	100	122	191	205	244	283	353	307	500	567	618
Other transfers	18	17	19	17	18	31	34	38	42	42	61	51	55	56
Net disposable income	931	1 081	1 320	1 269	1 503	1 598	1 958	2 164	2 444	2 675	2 792	3 216	3 417	3 513

* Includes net income from independent activity, dependent activity and from property

Table E4 Spain: Average net disposable income per household, by socio-professional group, 1980 to 1993. Nominal PTAs x 1 000.

Socio-professional group	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Agricultural	931	1 081	1 320	1 269	1 503	1 598	1 958	2 164	2 444	2 675	2 792	3 216	3 417	3 513
Other independent	1 411	1 558	1 819	1 880	2 111	2 145	2 463	2 680	2 927	3 019	3 412	3 362	3 646	3 844
Waged	1 188	1 354	1 584	1 767	1 941	2 211	2 410	2 537	2 732	3 073	3 576	3 708	3 801	4 179
Others	824	958	1 043	1 234	1 313	1 358	1 483	1 611	1 843	1 923	1 981	2 437	2 578	2 785
All	1 079	1 226	1 404	1 557	1 696	1 835	2 024	2 172	2 385	2 602	2 878	3 137	3 257	3 492

Table E5 Spain:

Composition of total income and deductions, for agricultural households and other socio-professional groups, 1990.
Nominal mio PTAs x 1 000.

	Item	Agricultural households	Other independent households	Employees	Others	All households
1a and 1b	Independent activity (agricultural and non-agricultural)					
	■ Operating Surplus	948	4 059	5 439	2 760	13 206
	■ Income	-	-	-	-	-
1c	Owner dwellings	122	666	3 087	2 076	5 951
2	Dependent activity - wages	193	771	18 969	3 174	23 108
3	Property and entrepreneurial income	88	262	2 159	1 374	3 884
4	Accident insurance claims	15	67	314	114	510
5	Social benefits	113	182	2 293	4 720	7 307
6	Other current transfers	23	197	865	411	1 496
7	Current receipts					
	■ based on Operating Surplus	1 380	5 538	30 040	12 553	49 512
	■ based on Income	-	-	-	-	-
8	Distributed property and entrepreneurial income	43	337	1 529	270	2 179
9	Net accident insurance premiums	14	63	295	107	479
10	Current taxes on income and wealth	116	536	2 516	1 061	4 229
11	Social contributions	106	436	5 681	1 055	7 277
12	Other outgoing current transfers	21	110	624	476	1 231
	Capital consumption	115	492	659	335	1 601
13	Disposable income	964	3 565	18 737	9 250	32 516
	Units (x 1 000)					
	Number of households	345	1 045	5 239	4 669	11 299
	Number of household members	1 350	4 139	20 379	12 625	38 494
	Number of consumer units	1 010	3 017	14 899	10 030	28 957
	Disposable income per unit (PTAs x 1 000)					
	■ per household	2 792	3 413	3 576	1 981	2 878
	■ per household member	714	861	919	733	845
	■ per consumer unit	955	1 182	1 258	922	1 123

Note: in this table, the resources flowing to households from independent activity are shown as Operating Surplus, that is before the deduction of interest and rent payments, which are given in Item 8.

FRANCE

Methodology

General approach

Model 2 approach. The starting point is the income aggregates for the private household sector in the national economic accounts. Agricultural (gross) income is obtained from the Gross Operating Surplus of sole agricultural proprietorships by adding payments by co-operatives and subtracting interest on loans, rents and social contributions. Subdividing the household sector account into socio-professional groups utilises mainly information coming from surveys of taxation revenue; this is used as the distribution agent for allocating the economic aggregates relating to the whole sector. Other distribution agents are taken from surveys on "Financial Assets", the Family Budget Survey, and on health spending.

The base year for the present calculations is 1984. For subsequent years the weight allocated to each type of household (in constructing national estimates) is adjusted using the annual employment survey. The components of income in the all-household account are adjusted using data from various sources (for example, the annual declaration of social statistics (DADS by their French acronym), retirement funds, national accounts). The main source of distribution agents (the survey on taxation information) is updated annually from its 1984 base; the coefficients are also altered progressively from other surveys when they are carried out and when their results are available (Housing Survey in 1988, Family Budget Survey in 1989,...).

Household unit

Household: all occupiers of the same private fixed dwelling occupied as a main house, whatever the links between them.

Household classification

Based on the head of the household as the reference person; where the household consists of a single family, this is usually the husband. Grouping is made according to the industry in which the head declares himself/herself to be primarily active.

Years for which results are available:

1984 to 1990 (on a comparable basis)

Comments on the results:

The first publication on the TIAH project (1988) reported that an income account for the socio-professional group "farmers" has existed in France since 1956, and that it is considered by the national statistical authorities as being relatively reliable and very consistent. Agricultural households form one of several occupation groups into which the household sector's distribution of income account is completely subdivided. The first series of published estimates were for 1956, 1962, 1965 and 1970. A second series, based on data from the national accounts for 1971, provided estimates for 1970 and 1979 (with a non-comparable set for 1975), with a further series based on 1979 data providing results up to 1983. The latest set of results, which are given here and which form part of the TIAH statistics, is based on 1984 data.

There are some particular features of the methodology used in France which merit attention. Firstly, as part of its disaggregation of the household sector, France uses a classification system in which agricultural households are those where the reference person (head of the household) declares himself/herself to be primarily active in this industry³⁰. The criteria by which the reference person nominates his main occupation cannot be known precisely, but it is felt that time rather than income is the predominant factor. This classification system is common to all the household surveys conducted by the Institut National de la Statistique et des Etudes Economique (INSEE), including the population census. It has, therefore, the virtue of consistency. It is also less subject to fluctuations in the number of agricultural households than systems which simply consider the proportion of income coming from farming; the head of a household who

³⁰ Also includes forestry households, although these are thought to represent no more than 4 per cent of the total number of households in this socio-professional group.

considers his main occupation to be in agriculture is unlikely to revise his opinion in the face of short-term ups and downs in technical or economic conditions. However, such a system, while appropriate in the context of making comparisons between socio-professional groups, is not fully in line with the target methodology of the TIAH project (in which classification is based on the main income source of the reference person) and is not capable of permitting income estimates to be constructed for all households that engage in some agricultural production (a "broad" approach to what constitutes an agricultural household).

In 1979 there were 860 000 agricultural households. This compares with 1 250 000 family agricultural holdings, suggesting that **about**³¹ one third of all holdings were operated by households where the head felt that his main occupation was not in farming. By 1989 the number of agricultural households had fallen to 597 300 and the number of holdings to 923 590. Over the seven years covered by results for France (1984 - 90) the numbers of agricultural households dropped by more than a quarter (27%) whereas the overall number of households increased by 7%. This large fall in the number of agricultural households is likely to carry some implication for the results and therefore for the way that they are interpreted. Average income figures do not correspond to a sample of constant composition. This point was made in Part One of this report.

Secondly, the special treatment of social contributions in France (incomes are shown net of such payments) and of rents received and of production from family gardens (see the note to Table F3 below) means that caution has to be used when drawing conclusions about movements in the components leading to disposable income and, especially, the pattern of deductions. However, the final figure in the income calculation (Net Disposable Income) for France is in line with the definition set out in the approved TIAH methodology.

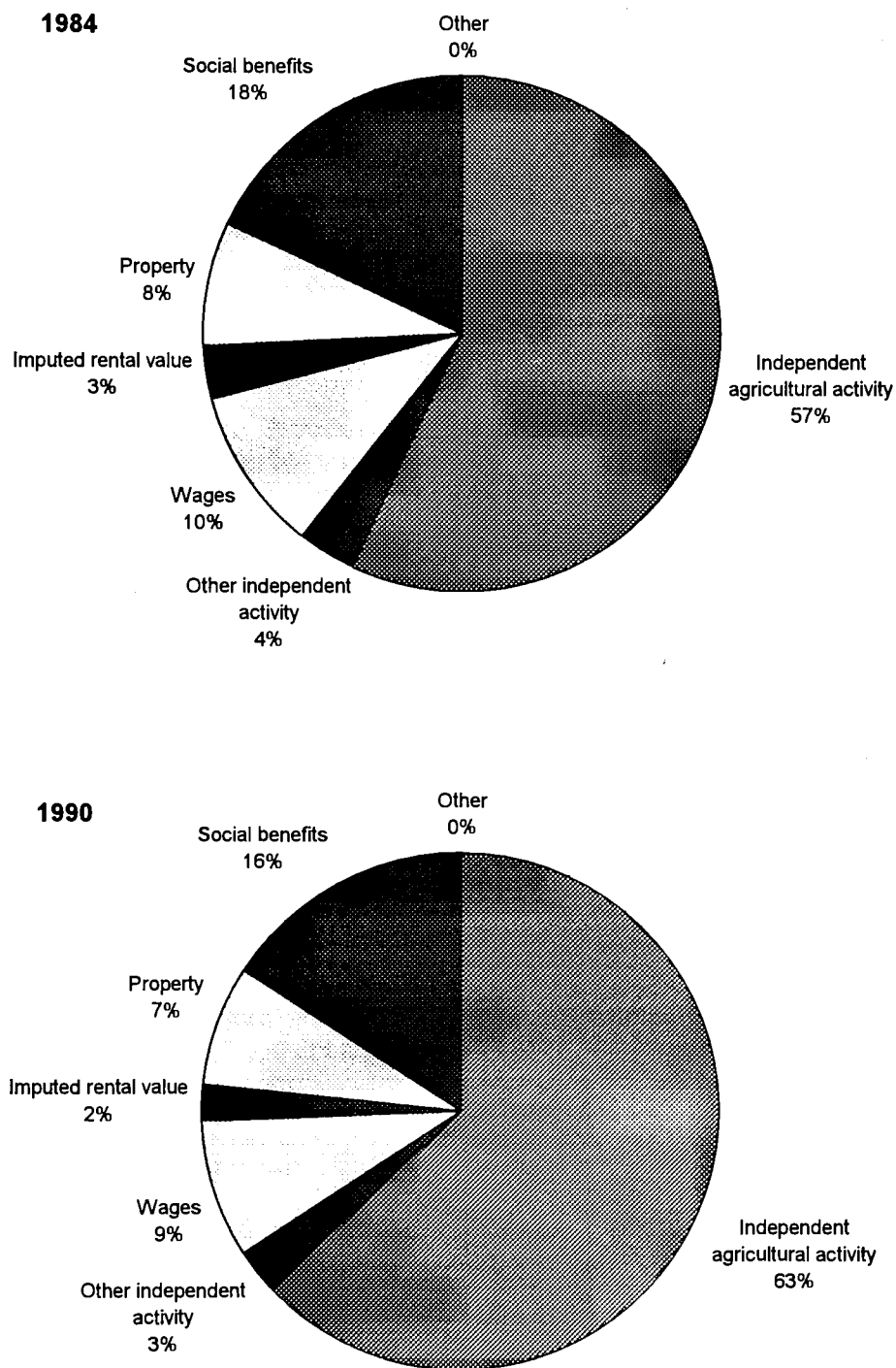
(a) Composition of income, and deductions

Despite the latter reservation, the results clearly establish that agricultural households in France receive substantial amounts of non-farming income. Figure F1 shows the composition of income for the base year of the current series (1984) and the latest year available (1990). Independent activity in agriculture accounted for little over half the total in 1984 (57%) and slightly more (63%) in 1990 when, as will be seen later, incomes from farming were relatively improved. Social benefits formed the second largest source. It is not possible to show the income from dependent activity before the deduction of social payments etc., though such an adjustment would be expected to increase the relative importance of this source of income and to reduce the share coming from farming.

The treatment given to social contributions in France also raises the proportion of total income remaining as disposable income relative to the level which might otherwise be expected, though to an uncertain extent. Agricultural households retained 92% of their income before tax as disposable income in 1984 and 91% in 1990, proportions almost identical to those for all households together (91% in 1984 and 92% in 1990). An account showing the overall income position for France at the two ends of the reference period is given at the end of this chapter in Table F3.

31 This comment on the number of agricultural households and the number of holdings is highly approximate because in France two holdings can be linked to the same household.

Fig. F1 France: Composition of the total (*) income of agricultural households, 1984 and 1990.



* Net of social contributions

(b) Developments of income over time

The separate series of household income estimates in the French national economic accounts are not directly comparable, so a long time series (such as that for Germany) cannot be constructed. In particular, the earlier series used Gross Disposable Income as their main income concept (that is, before the deduction of capital depreciation).

The latest short series of comparable income estimates (1984 - 90) displays a fairly stable overall income situation for France's agricultural households (when viewed in nominal FF), with a gentle rise over the period (see Figure F2 and Table F1). Among agricultural households, the average income from independent activity in agriculture was somewhat below the trend in 1988 and increased substantially after this whilst the income from other sources (together) increased steadily. Deductions (in this case only taxation) also rose steadily in nominal FF terms. As a result of these fluctuations, the average total income of agricultural households appears to have been less variable than the income from farming alone, with the variability of disposable income taking an intermediate position.

Fig. F2 France: Income per household by source, for agricultural households, 1984 to 1990. Nominal FF.

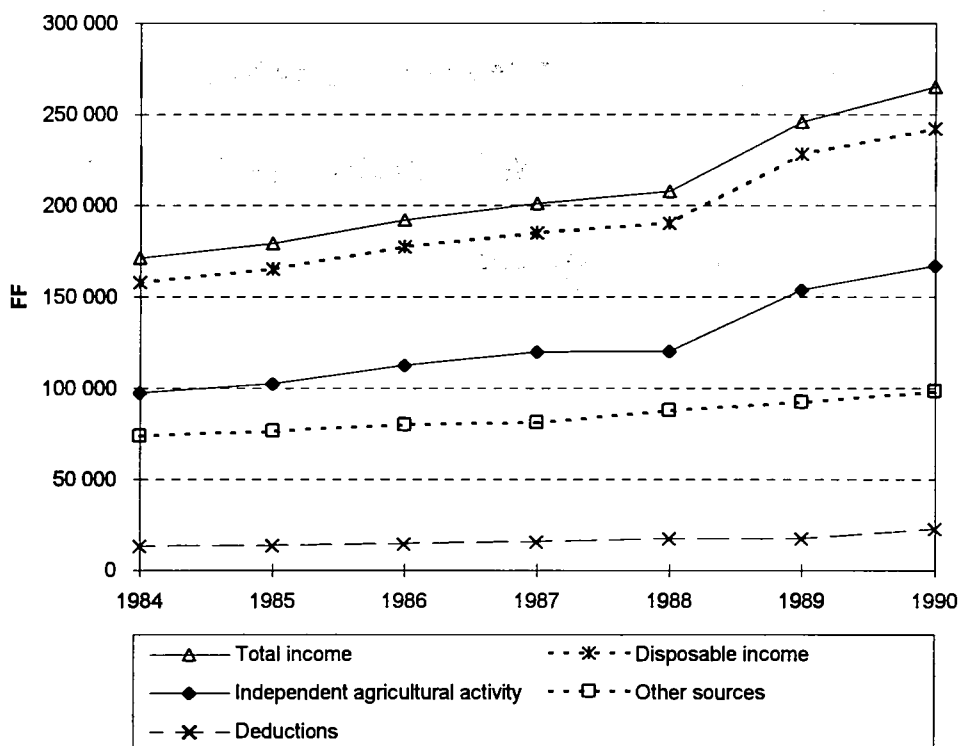


Table F1 France: Agricultural households - income per household and numbers of households, 1984 - 90. Nominal FF.

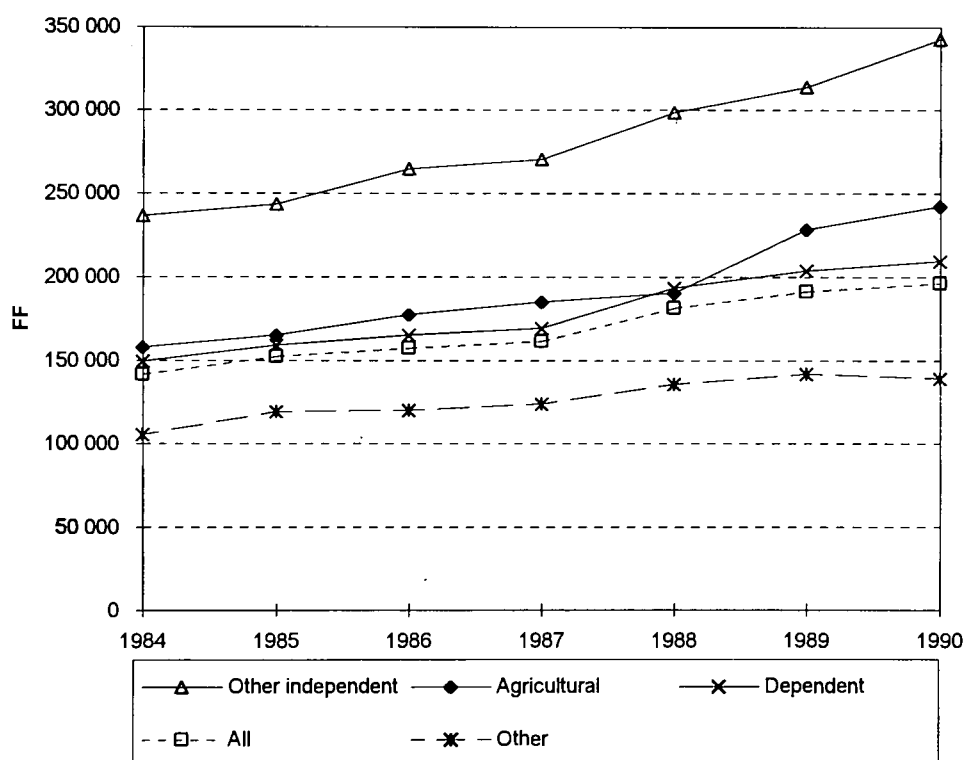
	1984	1985	1986	1987	1988	1989	1990
Income per household							
Farming income	97 338	102 420	112 300	119 870	120 290	153 570	166 890
Non-agricultural income	73 682	77 020	80 360	81 640	88 540	93 140	99 130
Total income	171 020	179 440	192 660	201 510	208 830	246 710	266 020
Deductions	13 150	14 190	15 240	16 270	18 440	18 310	23 610
Disposable income	157 870	165 250	177 420	185 240	190 390	228 400	242 410
Number of units (x 1 000)							
No. households	758	716	700	660	640	597	554
No. household members	2 525	2 370	2 297	2 179	2 074	2 013	1 866
No. consumer units	1 919	1 797	1 744	1 658	1 581	1 517	1 407

(c) Comparisons of incomes with other socio-professional groups

The information from France throws light on both the income position of agricultural households relative to a number of other socio-professional groups and the way that these relationships have behaved over time.

Figure F3 shows the income per household of a range of socio-professional groups for the period 1984 to 1990. A more detailed breakdown is given in Table F2. From the Figure it is clear that in each year the average disposable income of agricultural households was above the all-household average. Putting aside the large "Other" group (8.2m households in 1990, which would include many small or single person households consisting of retired people), the 0.6m agricultural households had an average disposable income that was generally above that of employees and substantially higher than those of two large occupation classes - the households of wage earners (4.7m households) and salaried workers (2.3m households). The income level of farmer households was lower than that of other independent businessmen (1.7m households, including the independent persons in the liberal professionals). The more detailed income results given in Table F2 show that farmers had average household incomes that were lower than that of higher management (1.8m) but similar to that of the households of middle management (2.6m) and exceeding them in 1989 and 1990. Over the period covered, the average household income of households headed by self-employed people (businessmen) not in agriculture and by higher management rose relative to the all-other groups average.

Fig. F3 France: Average net disposable income per household, by socio-professional group, 1984 to 1990. Nominal FF.



The TIAH 1988 report described the deterioration since 1970³² in the relative income position of agricultural households in France. The average disposable income of farmers' households as a percentage of the all-household average was as follows: 1970, 125%; 1979, 119%; 1983, 113%. The years from 1984 to 1989 saw figures which were lower, ranging from 106% to 112% but with no very clear trend within the period. However, in 1989 and 1990 agricultural households again had relatively high average incomes (119% and 123% of the all-household average respectively). It should be recalled that the number of agricultural

32 However, the TIAH 1988 report also noted that, according to an earlier series of calculations, between 1956 and 1970 the relative position of households headed by a farmer had improved; over that period the mean farmer-household income rose by a multiple of 3.9 compared with an all-household multiple of 3.3. (This earlier series is not directly compatible with that which started in 1970, though both share 1970 as an overlap year).

households has declined substantially; at least part of the increase in average income might be explained by a disproportionate reduction in the number of low income agricultural households.

Figure F4 shows the average disposable income per household, per household member and per consumer unit in 1990 for each socio-professional group into which the households sector is subdivided in the national accounts for France (data for 1984 - 90 are given in Table F2). As has been noted in other Member States, though income per household is higher than the national all-household average, the larger size of agricultural households results in income per household member and per consumer unit being, in most years during the period covered, lower than the average. However, in 1989 and 1990 the substantially improved average income per household among agricultural households was reflected in income per consumer unit rising above the all-household average in both years, and income per household member being above in the last year.

Only the households with heads classed as wage earners had incomes per member or per consumer unit that were consistently below those of farmers. Farmer households achieved an income per consumer unit very close to that of salaried workers in most years but were substantially above them at the end of the period. The smaller size of the households in the "Other" group meant that, although their average household income was only about two-thirds of that of agricultural households, their income per consumer unit was greater, except in 1990.

Fig. F4 France: Average net disposable income per unit by main socio-professional group, 1990. Nominal FF.

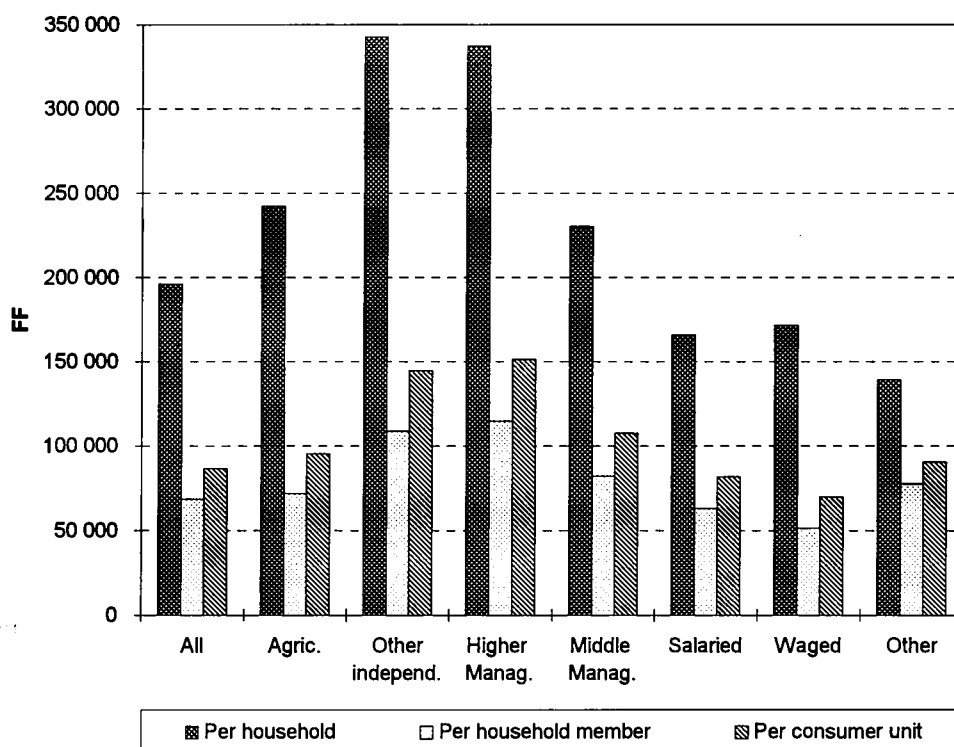


Table F2 France: Average net disposable income per unit, by socio-professional group, 1984 to 1990. Nominal FF.

	All households	Farmers	All other self-employed	All self-employed	Employees (all)	Higher Management	Middle Management	Salaried	Waged	Others	All except farmers
Per household											
1984	141 350	157 870	236 350	210 672	149 529	235 680	165 350	121 470	128 260	105 600	140 711
1985	152 180	165 250	243 320	219 777	159 037	246 160	174 960	126 680	138 000	119 170	151 709
1986	157 280	177 420	264 590	238 493	165 353	261 250	181 190	130 210	143 170	119 920	156 578
1987	161 220	185 240	270 230	246 343	169 278	265 550	184 500	132 150	146 820	123 920	160 439
1988	181 240	190 390	298 570	268 664	193 461	303 730	214 520	152 500	166 120	135 640	170 550
1989	191 250	228 400	314 050	292 690	203 896	321 030	224 180	160 040	172 540	141 840	178 774
1990	196 290	242 410	342 790	318 573	209 661	337 490	230 480	166 040	171 540	139 320	176 959
Per household member											
1984	54 575	47 408	77 747	67 202	50 128	79 354	57 815	49 178	38 985	57 705	54 936
1985	58 984	49 924	79 000	69 785	53 666	82 604	61 823	51 496	42 073	65 478	59 407
1986	61 438	53 945	86 179	76 126	56 137	87 068	63 408	53 025	43 777	64 426	61 769
1987	63 224	56 133	87 737	78 407	57 649	89 411	65 893	53 720	45 315	68 088	63 525
1988	67 382	58 497	98 201	86 798	66 203	101 846	75 093	60 364	51 581	72 538	67 728
1989	69 288	67 774	99 698	91 327	67 768	109 194	80 064	60 852	51 659	79 240	69 345
1990	68 703	71 932	108 822	99 458	69 656	114 793	82 314	63 133	51 359	77 832	68 592
Per consumer unit											
1984	69 975	62 399	102 316	88 444	66 786	104 747	76 198	63 266	53 000	67 261	70 346
1985	75 711	65 837	104 429	92 177	71 314	109 404	81 000	66325	57 025	75 904	76 159
1986	78 640	71 060	114 039	100 592	74 418	115 054	83 167	67 894	59 153	75 096	78 963
1987	81 015	73 801	115 979	103 480	76 444	118 549	86 215	69 188	61 175	79 436	81 313
1988	86 439	76 733	129 234	114 120	87 747	133 959	98 252	77 656	69 786	84 628	86 806
1989	87 451	89 921	132 511	121 328	90 272	143 960	104 757	78 837	70 424	92 104	87 364
1990	86 712	95 437	144 637	132 132	92 791	151 341	107 701	81 793	70 016	90 468	86 429

Table F3 France: Composition of total income and deductions*, for agricultural households and all households, 1984 (base year) and 1990. Nominal FF per household.

	Item	1984		1990	
		Agricultural households	All households	Agricultural households	All households
1a	Independent agricultural activity				
	▪ Operating Surplus	-	-	-	-
	▪ Income	97 337	4 230	1 166 690	5 420
1b	Independent non-agricultural activity*				
	▪ Operating Surplus	-	-	-	-
	▪ Income	6 292	13 170	7 310	18 280
1c	Owner dwellings	5 350	4 330	6 270	5 500
2	Dependent activity	17 670	73 160	22 920	102 550
3	Property and entrepreneurial income	13 410	11 980	19 720	16 670
4	Accident insurance claims				
5	Social benefits	30 960	49 120	42 000	63 210
6	Other current transfers			910	2 680
7	Current receipts				
	▪ based on Operating Surplus				
	▪ based on Income				
8	Distributed property and entrepreneurial income				
9	Net accident insurance premiums				
10	Current taxes on income and wealth	13 150	14 640	23 610	18 020
11	Social contributions				
12	Other outgoing current transfers				
13	Disposable income (per household)	157 870	141 350	242 410	196 290
	Units (x 1 000)				
	Number of households	758	20 373	554	21 729
	Number of household members	2 525	52 767	1 866	56 493
	Number of consumer units	1 919	41 154	1 407	44 761
	Disposable income				
	▪ per household member	47 408	54 575	71 932	68 703
	▪ per consumer unit	62 399	69 975	95 437	86 712

* The manner of presentation of data for France means that, though Disposable Income follows the TIAH definition, several of the individual items leading to its calculation do not. The main differences in this respect for France are that (a) Incomes are recorded net of social contributions, so nothing is shown under Item 11. This also means that no figures should be shown under Item 7 (b) Under Item 1c, the French methodology places "the income from production of pure households". In addition to the rental value of owner dwellings, this includes actual rents received (which for other Member States is in Item 1b) and the production from family gardens (which would be in Item 1a).

IRELAND

Methodology

General approach

Model 1 approach. The 1987 Household Budget Survey (HBS) was the starting point, but with most (80%) farm household cases being integrated from the National Farm Survey (which contributes to FADN), the other cases coming from the HBS. Results were grossed up to national level; they were broadly compatible with the economic accounts for agriculture.

Household unit

Household: a single person or group of persons who regularly reside together in the same accommodation and who share the same catering arrangements. This implies that they need not be related by blood or marriage or be necessarily financially or otherwise dependent on one another.

Household classification

A flexible approach to classification is possible. In addition to applying the TIAH target "narrow" definition of an agricultural household (where income from independent activity in agriculture forms the main source of income for the reference person, in Ireland interpreted as the head of the household) households can be selected where income from farming accounts for 50% or more of the gross household income (or is the greatest single source) or where the head of household classifies himself/herself as an active "farmer". Also the use of a "broad" definition of agricultural households is possible, comprised of all those reporting some agricultural income. No specific instructions were given in the HBS as to who was to be treated as the head of the household; almost invariably he/she was either the chief economic supporter and/or the owner or tenant of the house.

Year for which results are available:

1987.

Comments on the results

Because there has been no additional information for Ireland since the publication of the TIAH 1992 Report, this chapter contains only a summary of the results presented therein.

The main source of data on the disposable income of households in Ireland is the periodic Household Budget Survey (HBS). These Surveys are carried out at intervals of seven years. The Household Budget Survey has been analysed on previous occasions according to the main occupation of the head of the household. Published results for 1973 and 1980 have shown the household income situation of farmers and some other socio-professional groups (including agricultural workers). The detail with which income information was collected enabled the relative importance of the various components to be assessed for various sizes of farm, and a range of income indicators to be used.

The most recently available HBS took place in 1987. In order to generate results for later years, coefficients for updating the base year results would be required. Technical problems have meant that no satisfactory way of updating the 1987 HBS results has been feasible. However, another base year survey took place in 1994. It is anticipated that data from this will be available in 1996, when it will be possible to generate results using a range of definitions of an agricultural household, along the lines explored using 1987 data and described in the TIAH 1992 Report.

Results were calculated for 1987 using both the TIAH target "narrow" definition of an agricultural household (where independent activity in agriculture is the main income source of the reference person) and the "broad" definition (all households with some independent agricultural income). In addition, results were available on the basis of classification according to the main occupation of the reference person and according to the main income of the entire household. The (raised) numbers of cases corresponding to each definition and average income levels have already been discussed in Part One (Chapter 3 of the General Report).

It is evident that the "narrow" definitions, which involve a main income criterion, have the effect in Ireland of limiting the coverage of agricultural households predominantly to those operators on the larger and better-off farms. Application of the TIAH target "narrow" definition (in which the income criterion is applied to the reference person) produced 84 500 agricultural households, this representing only 41% of the number of agricultural households under the "broad" definition but whose share of the income from independent agricultural activity was 81%. Similarly, classification according to the main income of the entire household resulted in an even smaller number of households (72 400 households, or 35% of all households with some agricultural income), yet these accounted for 79% of all the income from independent agricultural activity.

(a) Composition of total income, and deductions

Figure IRL1 shows the compositions of total income in Ireland in 1987 using the TIAH target "narrow" and "broad" definitions of an agricultural household. Taking the "narrow" approach found that, of the household's total income, in 1987 some 68% came from farming. As would be expected from the above observation, the composition of income was sensitive to the definition of agricultural households adopted³³. The second largest source of income was social benefits, and this ranking was not changed if alternative "narrow" definitions were used. Taking the "broad" approach found that only 39% of total household income came from farming, with wages the second largest source and contributing almost as much (35%) and social benefits in third place (18%).

By definition, using the "broad" approach to what constitutes an agricultural household covers many for which farming is only a minor income source. By subtraction, it is possible to establish the income composition of these marginal households; that is, households brought in by applying the "broad" approach but which would not be included by using the "narrow" definition. Marginal agricultural households are numerically important in Ireland. Households in which there was some farming income but where it did not constitute the main income of the head formed more than half the total in the "broad" group in 1987 (122 000 out of 207 000). Farming only constituted some 14% of their total income; the main source was wages (50%), and the second most important source was social benefits (26%). Overall, the impact of these marginal households was to reduce the proportion of income coming from independent agricultural activity for the entire "broad" group³⁴.

Turning to the deductions from income found that tax and social contributions and others (together) accounted for 9% of household income for those satisfying the TIAH target "narrow" definition of an agricultural household³⁵. By way of comparison, these deductions accounted for 13% of agricultural households' total income under the "broad" approach, 17% among the marginal households and 21% for all households in Ireland. A progression could be seen in the proportion of total income taken by tax and by social contributions, the share rising as the definition of what constituted an agricultural household broadened.

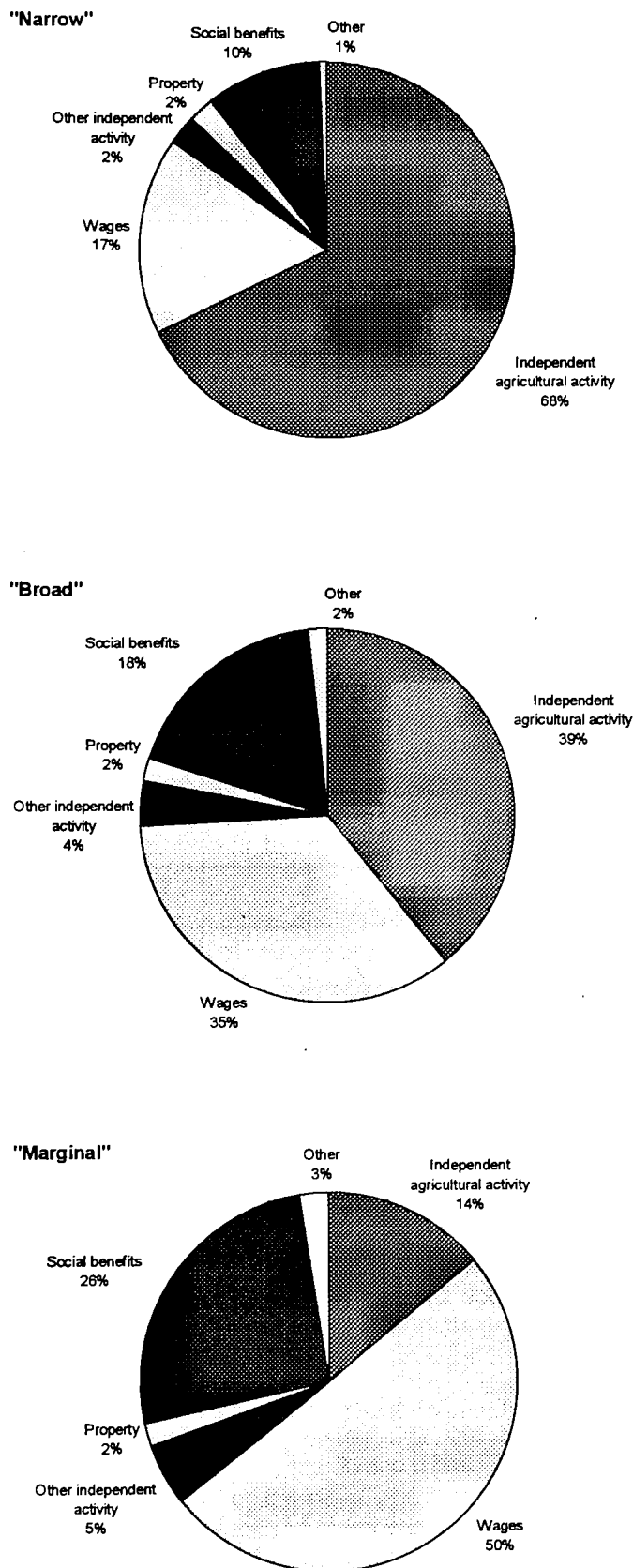
33 For 1987 the use of a definition based on the main income of the entire household produced the highest proportion of income from independent (mainly agricultural) activity (77%), whereas classifying on the occupation of the head of household (140 500 households) gave a much smaller share (52%). It is clear that, in Ireland, classifying by main occupation brings into the coverage many low-income households receiving substantial amounts of social payments (including old-age pensions); overall, 21% of the total income of households selected in this way was from social benefits.

34 See the TIAH 1992 Report for a more detailed analysis of households that are covered by the "broad" definition but which fall outside each of the three ways of defining the "narrow" agricultural household (main income of the entire household, main income of the reference person, main occupation of the reference person).

35 These items took 7% of income of households where farming was the main income source of the entire household, and 10% of household income where the main occupation of the reference person was farming.

Fig. IRL1 Ireland:

Composition of the total income of agricultural households, for both "narrow" and "broad" definitions of an agricultural household, and "marginal" households, 1987.



(b) Comparison of income levels

Table IRL1 shows that, in 1987, the average disposable income per unit (household, household member, and consumer unit) of agricultural households defined in the "narrow" way was substantially above the equivalent figures resulting from the use of the "broad" definition³⁶. This was because the households that derived some income from farming, but where it was not the main income of the reference person, had disposable incomes that were well below those of the "narrow" group (some 30% less). This suggests that, in Ireland, the "broad" definition of an agricultural household produces a group that is quite heterogeneous in its composition.

Table IRL1 Ireland: Numbers of households and average disposable income per unit for alternative definitions of an agricultural household, 1987.

Classification criterion	Households (x 1 000)	Income per household (£IRL)	Income per household member (£IRL)	Income per consumer unit (£IRL)
TIAH "narrow" definition (reference person, main income)	84.5	12 867	3 266	4 529
"Broad" definition	206.7	10 600	2 837	3 910
Marginal households ("Broad" minus "narrow")	122.2	9 032	2 512	3 447
All households in Ireland		10 101	2 882	3 854

Analysis presented in the TIAH 1992 Report (but not repeated here) helps explain the income situation. It drew attention to evidence that households which were headed by a person who regarded himself as a farmer fell into two distinct groups, which were of similar numerical size. One consisted of operators mainly dependent on farming for their livelihoods (corresponding to the TIAH "narrow" definition of an agricultural household). The other was made up of people who called themselves farmers but who were mainly dependent on social benefits and who had substantially lower average levels of disposable income. Among households where the head did not claim to be a farmer, the average income was greater than those that did so claim and was primarily composed of wage earnings. In Ireland the choice of an income criterion for allocating the reference person to a socio-professional group, in contrast with an occupation criterion, clearly has an important bearing on the outcome.

When the incomes of agricultural households in Ireland were compared with the national all-household average, it was clear that the outcome depended very much on the definition of the agricultural household being used. Applying the TIAH target "narrow" definition resulted in average incomes per unit that were about one quarter to one fifth higher than the all-household figure; the premium was greatest when measured per household but was still evident on a per household member or per consumer unit basis. Among households covered by the "broad" definition, the average income level was close to the national average, showing the effect of including households with some income from farming but which failed to meet the TIAH "narrow" definition of an agricultural household; the average income of this "marginal" group was 10% to 13% below the all household average, depending on the unit over which measurement was made.

Finally, as supplementary information, some broad indications regarding the relative income position of farmer households can be taken from the HBS. It should be stressed that these results are not directly comparable with those given above, since different weightings are used for agricultural households. Farm households (classified on the main occupation of the reference person) in 1987 were shown as having an average income some 27% higher than other households in rural areas, 8% higher than urban households, and 12% higher than the national average.

³⁶ Average disposable income per unit (household, household member, and consumer unit) of agricultural households defined in the "narrow" way was very similar when applying the income criterion to the entire household or to the reference person. Classifying according to the main occupation of the head produced substantially lower average income levels.

ITALY

Methodology

General approach

Model 2 approach. The calculation uses a general disaggregation method, distributing the general household account to agricultural and non-agricultural subsectors. Agricultural branch data are used to evaluate the agricultural Operating Surplus accruing to the household sector and then this is distributed between the subsectors using a variety of microeconomic data sources, including a (now biennial) household survey by the Banca d'Italia and an annual household survey by ISTAT on family budgets. Both classify households into socio-professional groups and deal with income and expenditure. The distribution agent for the Operating Surplus from agricultural activity is the estimated labour input to agriculture from agricultural and non-agricultural households. It should be noted that the main income item (operating surplus from agricultural activity) is distributed gross (of capital consumption), with this item being estimated independently for agricultural households based on the total for all households. The compensation of employees is also distributed in proportion to the hours worked.

Separate estimates are available including or excluding fishing; the latter is adopted in this report.

Household unit

Households are defined as in the ISTAT survey of the labour force. As given for the Family Budget Survey, it consists of persons linked by ties of marriage, family (in the broad sense) or affection, who live together and have their permanent address in the same municipality, and who normally provide for their needs by pooling all or part of their earned or unearned income. Households include staff and other persons who for many reasons habitually live with the family.

Household classification

Agricultural households are those headed by a self-employed farmer. The income capacity of the person is generally taken into account when identifying the head. Heads declare the branch in which they pursue their main activity. Both time and income factors are taken into account. Agricultural households can be defined so as to include or exclude fishing. Italy can sub-divide its non-agricultural households into those whose heads are mainly in independent, dependent or "non-professional" activity. Studies are in hand in Italy to define agricultural households in a way which excludes with greater consistency those households which derive substantial income from non-agricultural sources.

Years for which results are available

Each year from 1984 to 1988 (agricultural households, non-agricultural households, all households) with provisional net disposable income results for a more detailed subdivision of households (as described above).

Comments on the results:

Italy did not undertake estimates of the disposable income of agricultural households (or other socio-professional groups) before the TIAH project was initiated. The calculation of results starts from the household sector account in national accounts, and distribution agents are used to break down the aggregates into the components for agricultural households and other groups. A main source for this purpose is a survey of households undertaken by the Banca d'Italia. A major review of its methodology has taken place, both in terms of the definition of the main variables and the sample; the new arrangements have operated from 1986. The survey is carried out every two years (from 1987). It covers many aspects of households, including their social structure and economic behavioural patterns. Information on the income composition of each individual member of a household is collected. Where appropriate, other distribution agents are used; for example, the annual ISTAT household survey and taxation records. As these surveys take place relatively frequently (compared with household budget surveys in many other Member States),

the basic methodology is capable of annually generating estimates of the disposable income of agricultural households without the need for specific updating techniques. From the estimates of income for the subsector formed by agricultural households it is possible to calculate income per household, per household member and per consumer unit.

The results presented here are different from those given in the *TIAH 1992 Report*, though the years covered have not been extended yet. The revisions affect both the numbers of households and the income figures.

(a) Numbers of households

Table I1 shows the numbers of households by socio-professional group for each year from 1984 to 1988 and the numbers of household members and consumer units for 1988. Even in this short period, the number of agricultural households fell by 17%, against a background of very little movement in the numbers of households headed by other self-employed (independent) or dependent (employed) reference persons but a rise in the households headed by the "Other" group (including the retired). In 1988 agricultural households constituted only 3% of all households and a similar share of total household members and consumer units.

Table I1 Italy: Numbers of households by socio-professional group, 1984 to 1988, and numbers of household members and consumer units, 1988.

	Agricultural	Other independent	Dependent	Other	Total
Numbers of households (x 1 000)					
1984	724	3 303	8 093	7 741	19 861
1985	662	2 882	8 069	8 153	19 766
1986	660	3 077	8 216	8 161	20 114
1987	646	3 080	8 134	8 631	20 491
1988	604	3 138	8 075	8 994	20 811
Share of all households in 1988	3%	15%	39%	43%	100%
Numbers of household members (x 1 000)					
1988	1 929	10 444	26 040	18 410	56 823
Share of all households in 1988	3%	18%	46%	32%	100%
Household members per household					
1988	3.19	3.33	3.22	2.05	2.73
Numbers of consumer units (x 1 000)					
1988	1 477	7 854	19 531	15 439	44 301
Share of all households in 1988	3%	18%	44%	35%	100%
Consumer units per household					
1988	2.45	2.50	2.42	1.72	2.13

Agricultural households are frequently assumed to be large in relation to those of other socio-professional groups. However, Table I1 shows that in 1988 they had an average size that was slightly smaller than households headed by other self-employed people and much the same as households headed by waged persons. All three categories had larger households than the "Other" group, which includes households headed by retired persons, a common finding in many Member States.

Before commenting on the income figures it is worth noting that the group of "agricultural" households constitutes only a minority of those households which operate a holding. The number of households headed by a person who declared his (her) main occupation to be that of a farmer (646 000 in 1987, excluding fishing) corresponded to only 23% of the total number of farmers shown in the Farm Structure Survey (2.78m in 1987, of which 79% claimed to have no other gainful activity or where it was only a secondary

source).³⁷ Nevertheless, this minority of agricultural households accounted for most of the agricultural activity. It was estimated that in 1987 the net operating surplus for the branch agriculture accruing to households (all types) was LIT 26 909 million. Of this, agricultural households accounted for LIT 16 584 million (62%).

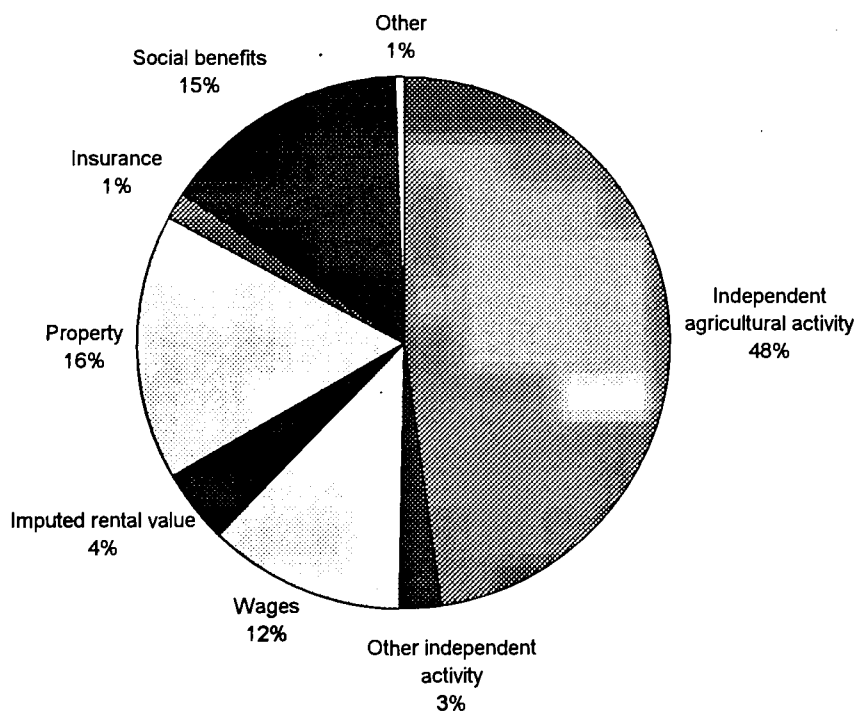
The share of the total number of household members found in agricultural households (3%) in the TIAH statistics is also substantially smaller than the figure of 10% for the share of the employed civilian working population found in agriculture (and forestry, hunting and fishing), as quoted in the *Agricultural Situation in the Community*. These two are not necessarily incompatible, as there are no doubt many examples of households headed by a person who is not a farmer where some of the economically active household members are largely or completely engaged in agricultural employment.

(a) Composition of total income of agricultural households, and deductions

Information from Italy on the resources flowing from independent (self-employed) activity has been provided in the form of Operating Surplus. In order to convert this to an income concept, which is used principally in this report, interest payments and rent have been deducted from Operating Surplus. The basic data sources do not show how the amounts of these distributed property payments should be allocated between agricultural and non-agricultural activities, so they have been distributed in proportion to the gross Operating Surplus coming from each source.

Figure I1 shows the average income composition of agricultural households over the five year period 1984 to 1988 (inclusive).

Fig. I1 Italy: Composition of the total income of agricultural households, average over period 1984 to 1988.



Even in this fairly narrowly-defined group, corresponding probably to less than one quarter of farmers,

37 Farmers who are also farm heads. The farmer is the person for whom and on whose behalf the holding is farmed; the farm head is the person responsible for the current, day-to-day management of the holding. In EUR 10, 97% of agricultural holdings were farmed by farmers who were at the same time farm heads. Of the total number of holders in the 1987 Farm Structure Survey, 35 000 were shown as working full-time on their holdings (that is, for 100% of the annual working hours of a full-time worker). A further 492 000 worked for from 50% to 100% of this number of working hours. These two categories sum to 130% of the number of agricultural households in Italy, as shown in the results of the TIAH project (646 000 households in 1987).

income from independent activity in agriculture (farming) formed just under a half (48%) of the group's total income, the share varying somewhat (from 51% in 1986 to 45% in 1988). Of the remainder, the main sources were property, social benefits (a sixth each) and wages.

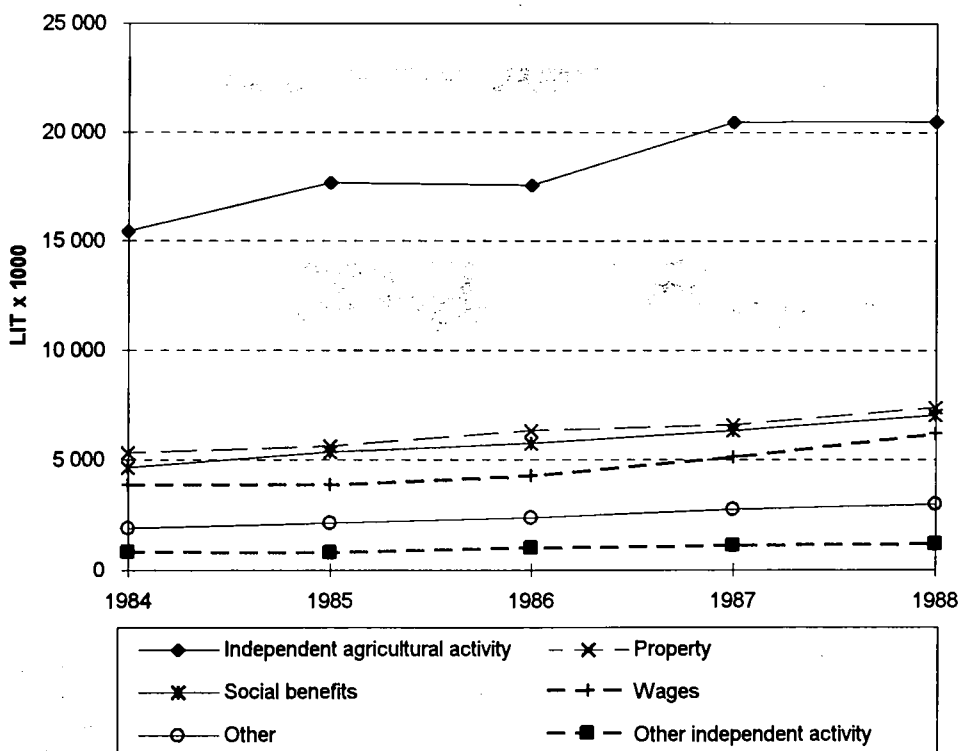
The extent to which non-farming income accrues to adults in a household who are neither the farmer nor spouse cannot be deduced from the results; the average number of members and consumer units per agricultural household (3.2 and 2.4 respectively in 1988) imply that such adults may form part of the explanation for the relatively low dependence on farming, as they do in all Member States to varying degrees. Whoever contributes the off-farm income, these figures underline the need, when assessing the income situation of households headed by a farmer, to include information on sources other than independent activity in agriculture. It would not be unreasonable to assume that, for the majority of farm families which do not satisfy the criteria for being classed as agricultural, income from farming is even less important in the household total. However, investigation of this must await results calculated using a broad definition of an agricultural household (which Italy is not yet able to provide) and their comparison with those for the "narrow" definition described here.

Turning to deductions from income, in 1988 on average agricultural households in Italy contributed a proportion of their total income as current taxes (9%) that was similar to the all-households average (11%). However, the proportion paid as social contributions was far smaller (8%, compared with 15% for all households together) and the payment by agricultural households, in absolute terms per household, was less than half the national average (LIT 3.8 mio compared with LIT 8.1 mio). Taking all deductions into account found that, in 1988, a larger share of total income remained as disposable income among agricultural households (78%) than was the national household average (72%).

(b) Income developments over time.

Figure I2 shows the movement, in current Lira, of the main components of the total income of agricultural households, expressed per agricultural household. As would be expected, the income from farming showed less stability than the other sources.

Fig. I2 Italy: Development of the major components of the total income of agricultural households. Income per household, 1984 to 1988. Nominal LIT.



(c) Comparisons of income per unit

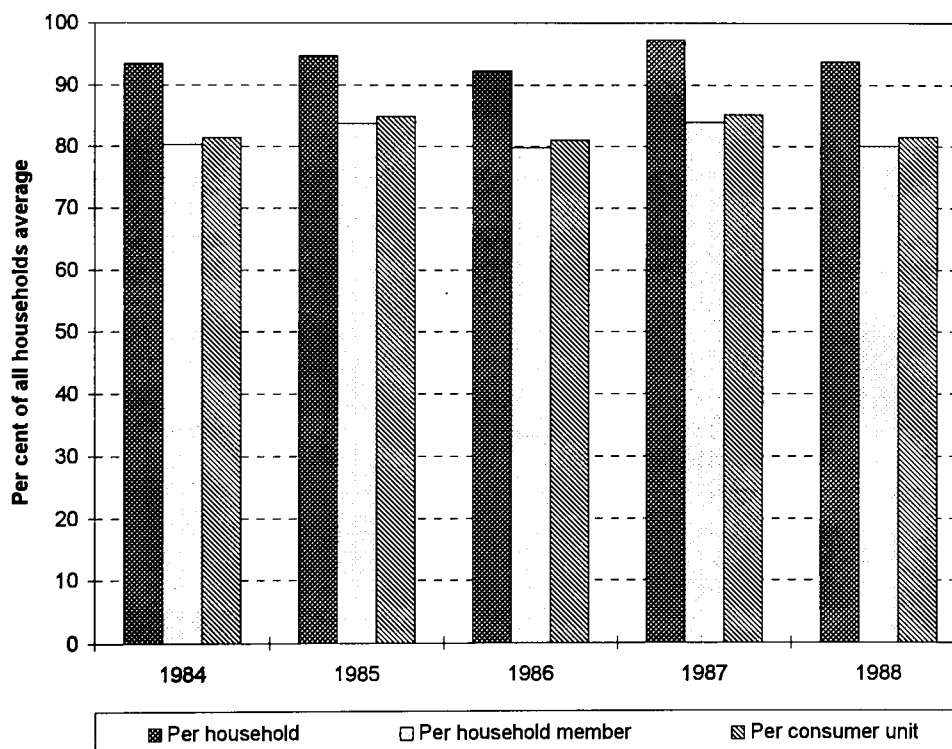
Table I2 shows average net disposable income figures per unit (per household, household member and consumer unit) for agricultural households and all households together for the years 1984-88. The relationship between the income situation of agricultural households and the all-households average is also shown in Figure I3.

Table I2 Italy: Average net disposable income per unit, for agricultural households and all households, 1984 to 1988. Nominal LIT x 1 000.

	per household		per household member		per consumer unit	
	Agricultural	All households	Agricultural	All households	Agricultural	All households
1984	25 809	27 595	7 805	9 716	10 307	12 649
1985	28 625	30 210	8 843	10 559	11 640	13 709
1986	29 424	31 906	9 049	11 331	11 892	14 663
1987	33 715	34 648	10 507	12 515	13 750	16 136
1988	35 349	37 695	11 068	13 805	14 456	17 708

On all three measures, agricultural households had lower disposable incomes than the national average throughout the period. Disposable income per household varied between 92% of the all households average in 1986 to 97% in 1987, reflecting the changes in the income from farming as seen in Figure I2. Income per household member and per consumer unit were relatively lower (between 80% to 84% and 81% to 85% of the national average, respectively)³⁸.

Fig. I3 Italy: Average net disposable income of agricultural households relative to the all-households average, per unit, 1984 to 1988.



38 This position is different from the preliminary findings given in the *TIAH 1992 Report* which indicated that agricultural households had higher incomes per unit than the national average and that the margin of superiority of the agricultural households in Italy increased over the period.

Provisional results have been supplied for 1984 to 1988 in which non-agricultural households are subdivided further into three groups; those headed by other independent operators, dependent persons, and others (mainly the economically inactive). These suggest that in Italy the net disposable income per unit over this period was highest among the households of non-agricultural self-employed persons. Agricultural households occupied an intermediate position, with incomes per household about half that of the non-agricultural self-employed group and at a level very similar to that of dependent persons. In these preliminary figures, households headed by the economically inactive had the lowest incomes.

In terms of income per household member, agricultural households were again at about the same level as dependent households and (reflecting in this measure the smaller sizes of their households) the economically inactive group. Average net disposable income per member was again much higher among the non-agricultural independent households, at about 60% more than the national average and double the average income per member of an agricultural household. Confirmation of these comparisons must await revised results using this more detailed breakdown.

Table 13 Italy: Composition of disposable income and deductions, for agricultural households and all households, 1988. Nominal mio LIT.

	Item	Agricultural households	All households
1a	Independent agricultural activity		
	▪ Operating Surplus	15 932	25 832
	▪ Income		
1b	Independent non-agricultural activity		
	▪ Operating Surplus	895	253 513
	▪ Income		
1c	Owner dwellings	1 147	45 594
2	Dependent activity - wages	3 737	487 831
3	Property and entrepreneurial income	3 753	91 830
4	Accident insurance claims	528	11 451
5	Social benefits	4 240	201 222
6	Other current transfers	188	6 118
7	Current receipts		
	▪ based on Operating Surplus	31 127	1 143 322
	▪ based on Income		
8	Distributed property and entrepreneurial income	3 802	47 086
9	Net accident insurance premiums	603	10 780
10	Current taxes on income and wealth	2 542	120 090
11	Social contributions	2 318	168 334
12	Other outgoing current transfers	507	12 564
13	Disposable income	21 351	784 468
	Units (x 1 000)		
	Number of households	604	20 811
	Number of household members	1 928	56 822
	Number of consumer units	1 477	44 301
	Disposable income per unit (LIT x 1 000)		
	▪ per household	35 349	37 595
	▪ per household member	11 068	13 805
	▪ per consumer unit	14 456	17 708

LUXEMBOURG

Methodology

General approach

Model 3 approach. The income from agricultural activity is taken from the national accounts and distributed among farms operated by agricultural households and other households according to the proportion of standard gross margin found on these farms; the distribution agent is taken from the Farm Structure Survey. Data for other items (except imputed rental values, for which reference to a survey of rents is used) are taken direct from the accounts of farms operated by agricultural households in the farm accounts survey and extrapolated to the national level. The questions contained in the farm accounts survey were specially enlarged to cover items of non-farm income for 1989.

Household unit

Head of household, spouse and other adults living in the household

Household classification

Agricultural households are taken to be those which operate "professional agricultural holdings". These are holdings headed by a person who satisfies all the following conditions: the head of the holding works more than 50% of his time on the holding; he gets from the holding more than 50% of his income; he is affiliated to the agricultural social insurance; he has no other non-agricultural main activity

Year for which results are available:

1989

Comments on the results:

TIAH estimates for agricultural households in Luxembourg are available only for a single year (1989, which was a good one for farming incomes) and without any comparable figures for all households or for other socio-professional groups. Because there has been no additional official information since the publication of the TIAH 1992 Report, this chapter contains only a summary of the results presented therein. However, a supplementary source exists by which comparisons can be drawn and in which some changes have occurred since the TIAH 1992 Report, that indicate developments in income from 1985 to 1990; this is described below.

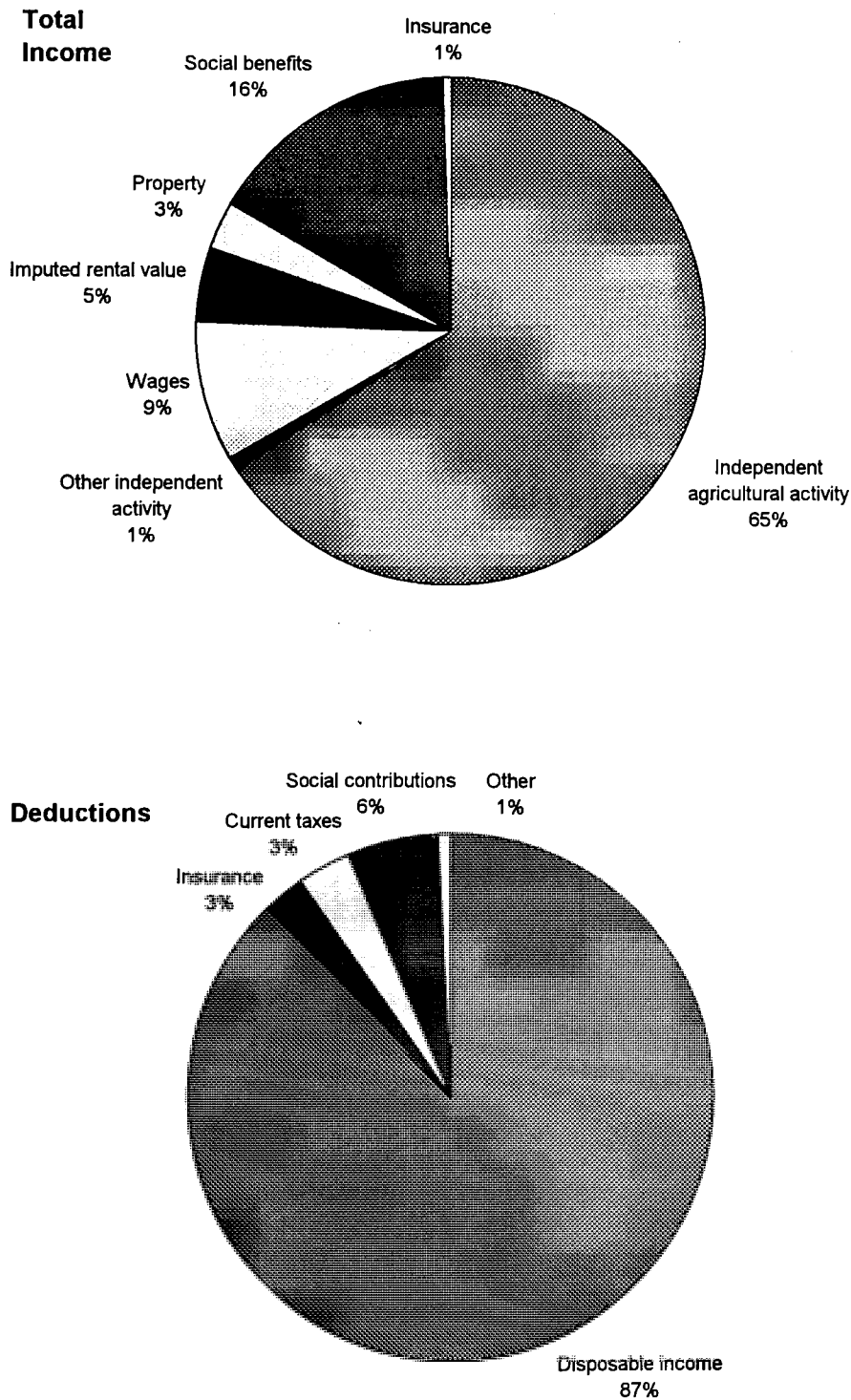
Before the TIAH project was initiated, Luxembourg had undertaken two special studies on the total income situation of its farmers, one related to the farm accounts survey and one to tax records. The first, for 1984/5, took the form of a supplement to the regular survey of the economic accounts of farms undertaken by the Rural Economy Department (SER) and the Luxembourg Office for Productivity (OLAP). Information about non-farming income was incomplete, and the sample was not representative, not adequately covering small and part-time holdings. For these reasons it was not possible to extrapolate the microeconomic data to the macro level. The second was a special analysis of tax records for 1971 (repeated for 1983), but likewise there was incomplete coverage of income (non-taxable welfare receipts were excluded) and incomes below the tax threshold were disregarded. Even in the absence of these gaps, income figures from this source would not have been a satisfactory guide to real levels because about 90% of farmers were taxed on the "forfait" system, rather than on accounting profits. The results for 1989 that form part of the TIAH statistics are not directly comparable with earlier information, and it has not been possible to repeat the survey that gave rise to them.

A "narrow" concept of an agricultural household is employed, using both an income and a time criterion. The present definition covers a field of observation of 2651 holdings; together these accounted for 89% of the total agricultural standard gross margin in Luxembourg. To put them in context, the 1989 Farm Structure Survey found 3 950 holdings in Luxembourg, of which 3 390 were of more than 2 ha (Utilised Agricultural Area).

(a) Composition of total income of agricultural households, and deductions

Figure L.1 shows the composition of the total income of agricultural households in 1989. In the conversion of the rewards from independent activity from Operating Surplus to income, distributed property income (rent and interest) have been distributed between agricultural activity (farming) and non-agricultural activity in proportion to the Operating Surplus from these two sources. Income from dependent activity (wages and salaries, called "wages" in the Figure) are shown net of social contributions and of direct taxes on wages.

Fig. L1 Luxembourg: Composition of the total income and of the deductions of agricultural households, 1989.



Some two-thirds of the total income of agricultural households in 1989 came from farming. The second largest source was social benefits. Some 87% of total income remained as disposable income, though this figure would be a little smaller if wages and salaries were not shown net. The set of results from which the Figure was derived is given at the end of this chapter (as Table L.2).

(b) Additional background information

No comparisons between farmers and other socio-professional groups are possible at present for Luxembourg using TIAH statistics. As an interim measure, it is helpful to look outside the TIAH framework for background information on the relative income position of agricultural households. The Centre d'Etudes de Populations, de Prauvreté et de Politiques Socio-Economiques (CEPS) has published comparable figures for agricultural and other households based on surveys³⁹. As in the TIAH project, the classification system used is one based on a reference person, but in this case it is the person's main occupation (rather than the main source of income) that is the criterion used. The number of agricultural cases is smaller than those used to form the TIAH results.

The TIAH 1992 Report gave details of the relative income situation of farmers (and wine growers) and a range of other socio-professional groups, based on CEPS results for 1985⁴⁰. The average net disposable income of the households of self-employed farmers per household and per consumer unit was 43% above the all-household average and was greater than that of all self-employed households (together) and even exceeded the income of the liberal professions. The only group of households with higher incomes were those headed by office-worker employees of the EEC institutions. However, farmer households were in a rather different position when income per consumer unit was calculated; they fell 6% below the all-household average.

Table L1 is derived from later CEPS work and includes income estimates for both 1985 and 1990, although for a reduced range of socio-professional groups⁴¹. In both years the household of farmers had average incomes (expressed in amounts per month) that were well above the national all-household average, not far short of double the household income of the most numerous group (workers) and higher than any other occupation group (even including the liberal professions).

Table L1 Luxembourg: Disposable income per household and per consumer unit by socio-professional group, 1985 and 1990. Income per month, in constant (1985) LFR.

Socio-professional group	Share of all households		Disposable income per household, LFR			Disposable income per consumer unit, LFR		
	1985	1990	1985	1990	90/85%	1985	1990	90/85%
Farmers	2.0	1.4	116 858	149 401	+27.9	36 796	49 607	+34.8
Liberal professions	1.2	0.8	108 755	133 691	+22.9	44 393	64 432	+45.1
Craftsmen, traders	4.6	3.5	82 664	132 911	+60.8	40 158	62 941	+56.7
Salaried employees	25.9	28.9	92 643	122 101	+31.8	42 445	57 693	+35.9
Workers	30.1	24.9	62 958	84 556	+34.3	27 882	37 288	+33.7
Inactive	36.2	40.5	51 564	69 909	+35.6	31 605	42 818	+35.5
All households	100.0	100.0	69 086	92 482	+33.9	33 948	46 715	+37.6

The rate of growth in income between 1985 and 1990 was smaller among farmers than among households in general, but this did not change their ranking. Too much emphasis should not be placed on movements between single years, because of the short-term variation that typifies the economics of farming.

39 The nature of CEPS and its study of economic well being were described in the Hill report of 1988 (Total Incomes of Agricultural Households).

40 Taken from CEPS *Niveaux de vie et de bien-être économique des ménages en 1985*.

41 Hausman, P. (1994) *Évolution du revenu des ménages 1985 et 1990*. Document PSELL No. 56. CEPS/Instead.

On the basis of disposable income per consumer unit the larger size of agricultural households was reflected in a less advantageous position, though their average income per unit was still 5 - 6% above the all-household average in 1990 (a similar proportion above the all-households average also being the case in 1985). However, their ranking was much lower, with only the households headed by workers and inactive persons falling below. It is worth noting that the inactive group were much closer to the national average in terms of income per consumer unit than they were in terms of income per household, a reflection of the large proportion of small, often single-person households dependent on retirement pensions.

These supplementary estimates are not directly comparable with the TIAH results. Nevertheless, the CEPS data seem to offer a means for generating later figures and for filling the statistical gap concerning other household groups. It is anticipated that, in future, an increase in the number of agricultural cases will result from a drawing together of several inter-related surveys that take place in Luxembourg, and steps are being taken to improve the quality of income data contained in them.

Table L2 Luxembourg: Composition of total income and deductions, for agricultural households, 1989. Nominal mio LFR.

	Item	Agricultural households
1a	Independent agricultural activity	
	■ Operating Surplus	3 849
	■ Income	3 156
1b	Independent non-agricultural activity	
	■ Operating Surplus	46
	■ Income	38
1c	Owner dwellings	233
2	Dependent activity - wages	421
3	Property and entrepreneurial income	139
4	Accident insurance claims	29
5	Social benefits	773
6	Other current transfers	
7	Current receipts	
	■ based on Operating Surplus	5 490
	■ based on Income	4 789
8	Distributed property and entrepreneurial income	701
9	Net accident insurance premiums	131
10	Current taxes on income and wealth	155
11	Social contributions	267
12	Other outgoing current transfers	38
13	Disposable income	4 198
	Units	
	Number of households	2 651
	Number of household members	11 108
	Number of consumer units	9 226
	Disposable income per unit (LFR x 1 000)	
	■ per household	1 584
	■ per household member	378
	■ per consumer unit	455

NETHERLANDS

Methodology

General approach

Model 2 approach. Figures are taken from the Socio-Economic Accounts (SER), now compiled annually. These are related to, but differ from, the households sector account in national accounts. In the SER, households are divided into a number of socio-professional groups. The distribution agents for this disaggregation are taken from the personal income distribution statistics, derived largely from taxation data. It should be noted that these personal income statistics are also capable of generating national-level estimates of disposable income; the description of income generation is less complete but with a greater degree of detail for the items covered. Gaps in information can be made up by reference to the national agricultural accounts and to the "agricultural and horticultural production accounts" (which are in turn based on a sample survey of holdings and cover their operating results and a number of other income sources).

Household unit

Group of persons living together and having a joint form of household management; can comprise a single person. This definition accords with that used by the household budget survey and the personal income distribution statistics (see above).

Household classification

In the SER, the classification of households into socio-professional groups (of which agricultural households are one) is based on the main source of income of the household as a whole. Seven income clusters are used; independent activity falls within "profit prior to deduction of stock and capital" which in turn leads to the class of business being determined. Agriculture now excludes forestry and fishing.

Results using a "broad" definition of an agricultural household and using alternatives for the "narrow" approach taken by TIAH statistics are available on an experimental basis for 1988 only.

Years for which results are available:

1981 (not comparable with later figures)⁴², 1983, 1985, 1988 (in which agriculture included forestry and fishing). On a revised and fully comparable basis results are available annually for 1988 (overlap year) to 1991

Comments on the results:

The *TIAH 1992 Report* showed that, in the Netherlands, two completely different methods can be used to construct estimates of the disposable income of agricultural households. One, used by the Institute of Agricultural Economics (LEI), grosses up farm accounts survey information. However, there are significant departures from the TIAH target methodology in terms of household definition and coverage, and such an approach cannot generate comparable results for other groups in society. The other is a disaggregation of the households sector as part of the construction of the Socio-Economic Accounts for the Netherlands, carried out by the Centraal Bureau voor de Statistiek (CBS). This uses definitions closer to the requirements of the TIAH statistics and produces income estimates for agricultural households and a range of other socio-professional groups. Here attention will be focused solely on this macroeconomic approach.

Estimates provided by the CBS are taken from the Socio-Economic Accounts (SER) for the Netherlands; these were first assembled for 1981 and are now compiled annually. The SER describe the way in which

⁴² Figures from the 1981 SER differed in some respects from the later sets in their classification of households and treatment of a number of items. Important in the present context, in the 1981 typology households in which there was at least one member aged 65 or over were included in the 65+ households, even if the major source of income of the entire household was profits from a farm business. This was changed from 1983, and such households were classed as agricultural, with a consequent increase in the number of households and a rise in the income they received from social security benefits.

incomes are obtained, distributed and spent by various categories of household (92 combinations of types of household and levels of income). For the purpose of supplying TIAH statistics, only eight categories of household are used, of which agricultural households form one.

The SER were developed to cater for the growing national interest in statistics on the socio-economic situation of population groups within Dutch society. The aim is to describe, systematically and as fully as possible, the socio-economic situations of population categories and their trends over time. The SER are compiled by integrating data from existing sources in the CBS, the most important being income statistics, the household budget survey and the National Accounts. They have been revised, following the 1988 revision of the national accounts, with results for 1988 being available on both the old and new bases.

The SER for the Netherlands are based on the account for the private households sector in national accounts, but differ in a number of ways. As has been pointed out in Part One (General Report), within the framework of national accounts the distribution of income account for households combines the production and consumption activities of households. Essentially, these socio-economic accounts view the household only as a "consumption entity", splitting off the production element. Independent activity (such as farming) is reflected in the socio-economic accounts as the resultant net operating surplus to which it gives rise (that is, net of depreciation, indirect taxes and levies, subsidies and indemnity insurance premiums etc. but including interest on commercial loans and rent on commercial property). Income and expenditure belonging to non-profit institutions are not included in the socio-economic accounts, so payments by households to them have to be recorded separately. Voluntary contributions to churches and other similar institutions are not deducted in reaching disposable income, but are treated as ways in which households choose to spend that income. Treatments given to pension and life insurance transactions and medical goods and services (and other items) are also not the same as in national accounts, with the removal of elements which do not form part of the actual spendable money income of households or have an influence on that income. The aim of these changes is to produce a disposable income concept which is a better reflection of households' spending potential. The SER account is also carried further by identifying how much of the disposable income is used for consumption and how much saved, which enables movements over time in actual spending on goods and services to be monitored. In these respects, the Socio-Economic Accounts for the Netherlands are in advance of the approach currently employed by Eurostat's TIAH statistics.

The key used to disaggregate the accounts is the personal income distribution statistics for the Netherlands; these statistics, derived largely from taxation data, use a reference person system (income based) and are also capable of being raised to national level, though their coverage is not as complete as the socio-economic accounts. Nevertheless, they can be reconciled with the estimates in the socio-economic accounts by making allowances for the differences in coverage. These personal income distribution statistics are capable of providing information on the income situation of farm households which operate their farm businesses in corporate form⁴³. In the socio-economic accounts such households are included with households in which wages earned in the private sector form the most important source of income.

In the classification system used in the SER, households are allocated to socio-professional groups on the basis of the main source of income of the entire household. It should be noted that this basis does not correspond with the TIAH target methodology (which uses a reference person system). Alternatives to this system are not used within the SER. However, a special study commissioned by Eurostat and undertaken by the CBS found that the impact of this departure from the target was modest in terms of numbers of households and of even less importance in terms of average incomes per household (see Chapter 4 of *Total Income of Agricultural households: Progress in 1993*)⁴⁴. Thus, when supplying TIAH statistics, and bearing in mind that the SER are calculated annually for national purposes, the use of a classification system based on the income composition of the entire household is viewed as an acceptable departure from the target TIAH methodology, conditional on periodic checks being carried out using the target reference person system. However, the particular circumstances found in the Netherlands which make this acceptable should not be assumed to apply elsewhere; different patterns of household size and composition and conditions of

43 The *TIAH 1992 Report* stated that farms arranged in corporate form accounted for 2.3 per cent of agricultural households and 2.2 per cent of household members but 3.3 per cent of total income.

44 In 1988 the number of agricultural households identified using the criterion that farming was the main source of the entire household was 82 000, in contrast with 87 000 where farming was the main income of the household reference person (household member with the largest income). The conclusion is that, the more spouses and other members of the household were taken into account, the fewer agricultural households were left. The average incomes per household were HFL 105 000 and HFL 104 000 respectively.

employment may cause large departures in the results calculated using these alternative bases for classifying households (for example, see the chapter on Ireland).

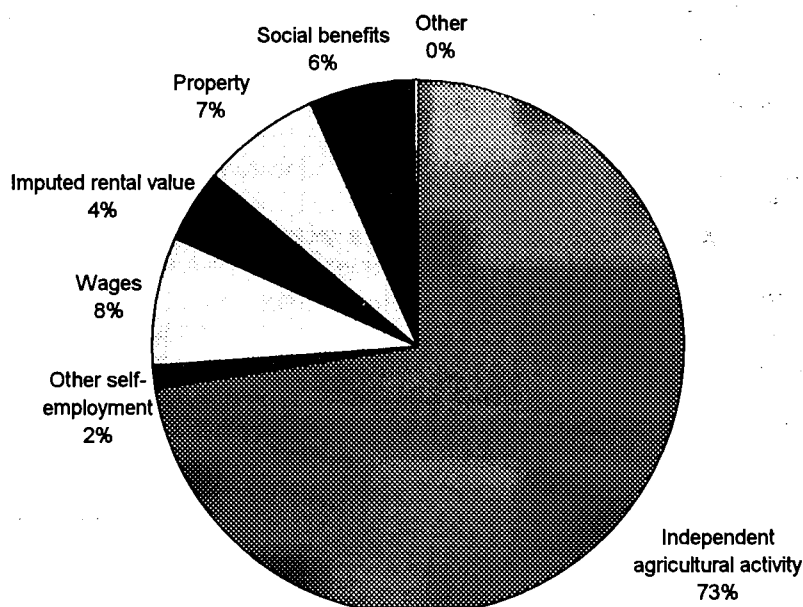
Here, comments on the TIAH statistics will be confined to the comparable figures from 1988 to 1991 generated using the revised national accounts. In these, agriculture excludes forestry and fishing. Results for 1988 differ slightly from those published in the *TIAH: Progress in 1993* because the revision of national accounts and SER had not been fully completed at that time.

(a) Composition of total income, and deductions

The method by which households are classified annually to socio-professional groups on the basis of the composition of the household income means that year-to-year changes in the income from agriculture will be reflected in the number of households classed as agricultural. Movements resulting from changes in income from other sources will, of course, also affect the situation, but probably to a lesser extent. Over the four years for which comparable results are available (1988 to 1991) the number of households first increased (from 82 000 in 1988 to 84 000 in 1989), then fell (to 78 000 in 1990 and 76 000 in 1991). As described in Part One, such movements in numbers makes the interpretation of short-term changes in income per unit difficult. Therefore attention will be focused here on the entire period 1988 to 1991, with the income situation being described primarily in terms of the average of the figures for the individual years.

The average income composition of agricultural households for the years 1988 to 1991 is shown in Figure NL1. As with the parallel treatment given in other country chapters of this report, in order to describe this pattern operating surplus from independent activity (self-employment) has been converted to an income concept by deducting interest and rent payments. These items have been distributed between agricultural and non-agricultural activity in proportion to the operating surplus from each source. Calculated in this way, farming contributed almost three-quarters (73%) of the total income of agricultural households, varying between a high of 75% in 1989 and a low of 70% in 1991. This high share is compatible with the relatively low incidence of other gainful activities among holders returned in the 1991 Dutch National Structure Survey (at 23% of holders one of the lowest in the EU). Wages, property income and social benefits provided similar but much small proportions of the total.

Fig. NL1 Netherlands: Composition of the total income of agricultural households, average over period 1988 to 1991.



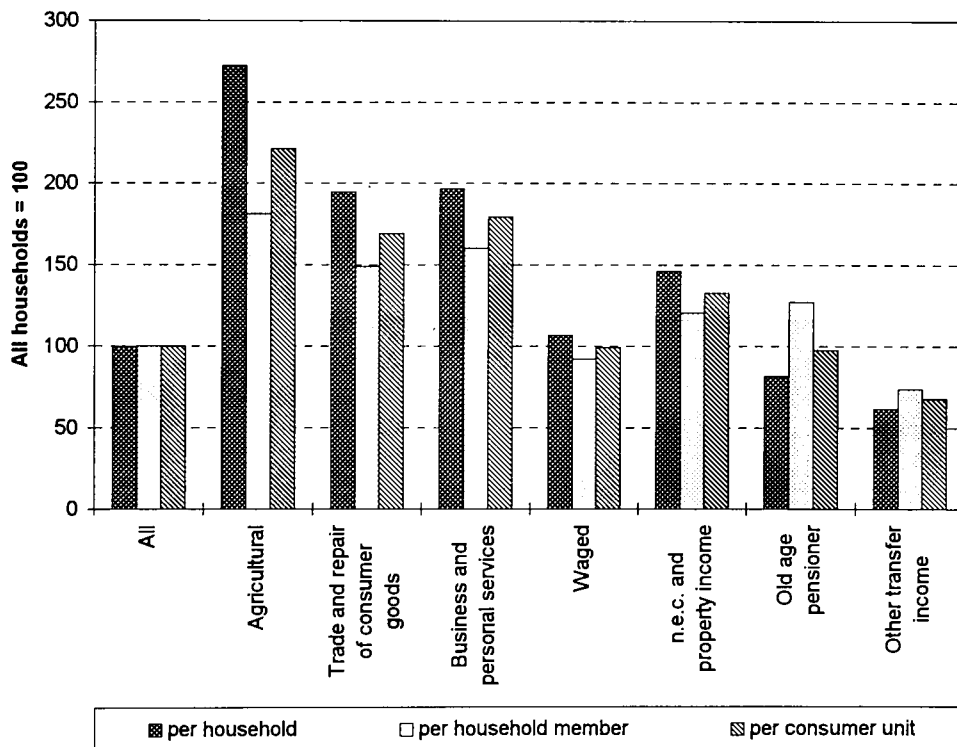
Turning to deductions, taxes and social contributions (together) absorbed just under a quarter of the total income of agricultural households, leaving a little over three quarters as disposable (76%)⁴⁵. Compared with the all-household average in 1991, agricultural households retained a greater proportion of their total income as disposable income (77% in contrast with 58%); they paid a similar proportion of their income as current taxes (10% for agricultural households compared with 13% for all households together) but only about half the share taken by social contributions (13% for agricultural households, in contrast with the all-household average of 28%).

(b) Comparisons of income with other socio-professional groups

In the Socio-Economic Accounts, households are grouped into a range of occupational categories. Those where the main income source is entrepreneurial income are divided into agricultural (76 000 households in 1991), trade and repair of consumer goods (90 000 households), and the provision of business and personal services (120 000 households). In this way, agricultural households represented only 1.2% of the total 6.2 mio households in the Netherlands. There is also a group comprising households whose main source is entrepreneurial income from economic activities not elsewhere classified (n.e.c.) (102 000 households), such as forestry, fishing, manufacturing, construction and hotels and restaurants; for statistical reasons a relatively small number of households whose main income comes from property income is also included in this group. The largest group in the breakdown is of waged households (3.4 mio households in 1991) but these are not broken down further. Households where the main income comes from transfers are divided into those where this is in the form of old-age pensions (1.4 mio households) and others (906 000 households).

Figure NL2 shows the levels of net disposable income per unit for the socio-professional groups averaged over the years 1988 to 1991 and expressed as an index (the all-households income being 100).

Fig. NL2 Netherlands: Average net disposable income per unit by main socio-professional group, over period 1988 to 1991. All households = 100.



Agricultural households are seen to have high incomes in relation to the national average. Income per household was 272% of the national figure, with income per household member and per consumer unit

45 The share varied from a low of 74% in 1988 to a high of 77% in 1991.

181% and 221% respectively of the of all-household levels. No other socio-professional group had incomes that were higher than agricultural households (in contrast with what was found in some other Member States, where the incomes of other self-employed households are often found to be greater). The households with the lowest average incomes were those where the main income source was social transfers (other than old-age pensions).

The relative position of agricultural households in these latest years was similar to that described in the *TIAH 1992 Report* for 1985, though there are changes in methodology that prevent a direct comparison. In this earlier report, both disposable income per household and per household member for agricultural households were substantially above the national averages, with levels 228% and 151% respectively of the all-households figure. A similar comparison emerged from the tax-based personal income distribution statistics, though the relative position of farmer households was not so markedly superior. Perhaps surprisingly in view of the frequent supposition that farms arranged as companies tend to be the largest and successful businesses, this source found that the income per household of these farms was almost identical with that of other agricultural households, and income per household member was only 6% greater.

(c) Estimates using the "broad" definition of an agricultural household

The Netherlands does not make regular annual estimates of the incomes of agricultural households using the "broad" definition, that is covering all households where any member has some income from independent activity in agriculture. However, results for a single year (1988) were calculated on this basis as part of a study commissioned by Eurostat from the CBS on the implications of adopting alternative definitions of an agricultural household for the classification process (including that of using a reference person system compared with the income composition of the entire household). This was reported in the 1994 publication *Total Income of Agricultural Households: Progress in 1993*. It is appropriate to draw on this information to supplement the results derived from the SER, although the figures are not completely compatible with those given above or given in Tables NL2 or NL3 below because of some further revisions that have been made in the national accounts of the Netherlands, from which the SER are derived.

The use of a "broad" definition combined with a "narrow" definition (as applied by the Netherlands) allows, by subtraction, the generation of results for "marginal" agricultural households, that is, those where some member of the household has an income from farming but where it is not the main income of the household. Some summary figures are presented in Table NL1 for the three groups. These show that the nature of the "marginal" households is substantially different from that of households which satisfy the "narrow" definition. Thus an application of the "broad" definition encompassed groups that are rather dissimilar in nature, implying that the meaning of figures generated on this basis must be of limited use.

Table NL1 Netherlands: Characteristics of households satisfying three definitions of an agricultural household, 1988.

Characteristic	"Broad"	"Narrow"	"Marginal"
Number of units (x 1 000)			
households	136	82	54
household members	501	306	195
consumer units	250	149	101
Income per unit (HFL x 1 000)			
per household	82	105	48
per household member	22	28	13
per consumer unit	45	58	26
Income from farming			
per household (HFL x 1 000)	67	107	7
per cent of total income	56	74	8
Per cent of total operating surplus from agricultural activity	100	95	5

* Further revisions to the accounts since the publication *Total Income of Agricultural Households: Progress in 1993*, means that these figures are not completely compatible with those appearing elsewhere.

Though "marginal" households in 1988 represented almost 40% of the numbers of households that derived some income from farming, they did not appear to be very significant in the Netherlands in terms of their share of overall agricultural activity. As Table NL1 shows, only 5% of the total operating surplus generated by all the households covered by the "broad" definition in 1988 came from these "marginal" households. Perhaps of even more significance was the finding that among them only a very small level of income per household came from farming and that this represented only 8% of their total income; they are clearly not very dependent on farming for their livelihoods.

The structure of income households corresponding to the "narrow", "marginal" and "broad" definitions of an agricultural household are shown in more detail in Figure NL3. While for agricultural households defined in the "narrow" way farming was clearly the main source, accounting for 74% of total income, among the "marginal" households the main source was wages (48% of total income) followed by social benefits (26%). Under such circumstances it would appear that the income of these households is relatively little affected by changes in the income from farming. They are more likely to be sensitive to developments in the wider economy and to policy decisions on social benefits than to agricultural support policy.

Fig. NL3 Netherlands: Composition of the total income of agricultural households, for both "narrow" and "broad" definitions of an agricultural household, and "marginal" households, 1988.

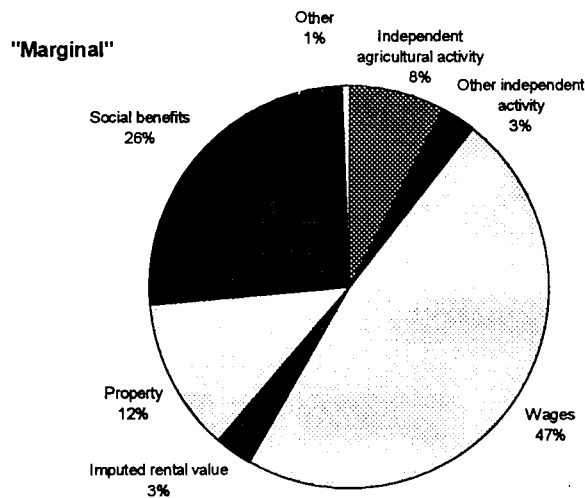
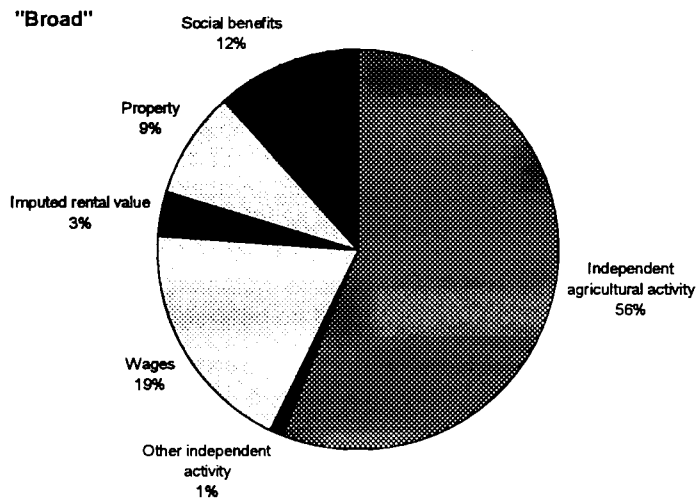
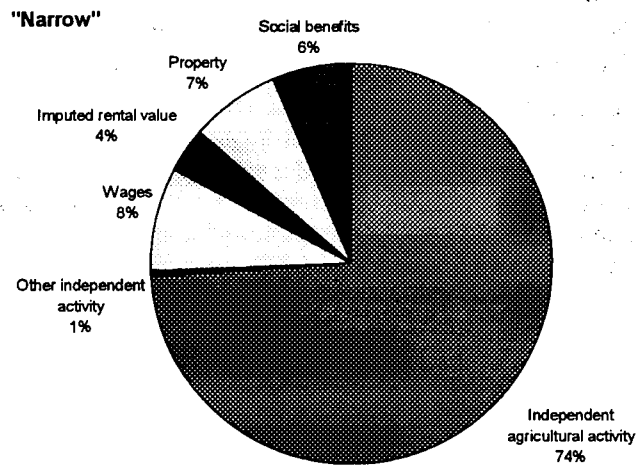


Table NL2 Netherlands: Composition of total income and deductions, for agricultural households, 1988 to 1991.
Nominal mio HFL.

	Item	1988	1989	1990	1991
1a	Independent agricultural activity				
	■ Operating Surplus	9 495	11 702	10 956	10 953
	■ Income	-	-	-	-
1b	Independent non-agricultural activity				
	■ Operating Surplus	82	160	320	369
	■ Income	-	-	-	-
1c	Owner dwellings	494	553	558	601
2	Dependent activity - wages	945	904	950	974
3	Property and entrepreneurial income	788	788	1 011	1 062
4	Accident insurance claims	-	-	-	-
5	Social benefits	718	872	830	758
6	Other current transfers	32	34	24	23
7	Current receipts				
	■ based on Operating Surplus	12 554	15 013	14 649	14 740
	■ based on Income	-	-	-	-
8	Distributed property and entrepreneurial income	1 553	1 730	1 776	2 149
9	Net accident insurance premiums	-	-	-	-
10	Current taxes on income and wealth	1 252	1 623	1 370	1 250
11	Social contributions	1 609	1 621	1 696	1 629
12	Other outgoing current transfers	18	34	23	25
13	Disposable income	8 122	10 005	9 784	9 687
	Units (x 1 000)				
	Number of households	82	84	78	76
	Number of household members	304	310	284	273
	Number of consumer units	148	152	140	134

Note: In Table NL2 the resources flowing to agricultural households from independent activity are shown as operating surplus, that is, before the deduction of interest and rent payments which are given under Item 8.

Table NL3 Netherlands: Numbers of units and average net disposable income, (nominal HFL) by socio-professional group, 1988 to 1991.

Year	Socio-professional group							
	Agricultural	Trade and repair of consumer goods	Business and personal services	n.e.c. and property income	Waged	Old age pensioner	Other transfers	All households
Numbers of units (x 1 000)								
■ households								
1988	82	72	109	89	3 301	1 310	877	5 839
1989	84	89	119	101	3 306	1 360	882	5 939
1990	78	89	116	99	3 417	1 384	879	6 062
1991	76	90	120	102	3 446	1 424	906	6 164
■ household members								
1988	304	229	336	253	9 478	2 055	1 820	14 474
1989	310	285	356	296	9 408	2 132	1 782	14 568
1990	284	285	343	299	9 518	2 169	1 782	14 680
1991	273	285	354	306	9 538	2 226	1 831	14 813
■ consumer units								
1988	148	120	176	139	5 229	1 599	1 167	8 579
1989	152	150	189	162	5 214	1 659	1 160	8 687
1990	140	150	185	161	5 316	1 690	1 158	8 799
1991	134	151	192	165	5 359	1 723	1 202	8 927
Net disposable income								
■ aggregate (mio HFL)								
1988	8 122	5 565	8 254	4 769	143 588	43 521	22 415	236 231
1989	10 005	7 253	9 944	6 028	148 558	45 648	22 904	250 336
1990	9 784	7 966	10 521	6 827	161 945	50 729	24 058	271 826
1991	9 687	7 927	10 814	7 206	166 063	53 496	24 552	279 742
■ per household (HFL x 1 000)								
1988	99	77	76	54	43	33	26	40
1989	119	81	84	60	45	34	26	42
1990	125	90	91	69	47	37	27	45
1991	127	88	90	71	48	38	27	45
■ per household member (HFL x 1 000)								
1988	27	24	25	19	15	21	12	16
1989	32	25	28	20	16	21	13	17
1990	34	28	31	23	17	23	14	19
1991	35	28	31	24	17	24	13	19
■ per consumer unit (HFL x 1 000)								
1988	55	46	47	34	27	27	19	28
1989	66	48	53	37	28	28	20	29
1990	70	53	57	42	30	30	21	31
1991	72	52	56	44	31	31	20	31

AUSTRIA

Introduction

As one of the three countries that joined the European Union in January 1995, Austria was not involved in the preparatory phase of the TIAH statistics, which started in 1986. Discussions took place in 1994 on the existing state of information on total incomes in Austria and on their basic data sources. It emerged that Austria does not calculate income results for agricultural households as part of its national economic accounting. Nevertheless, there is information on total incomes derived from microeconomic data sources. Work has started on evaluating how the national methodology could be adapted to the requirements of the TIAH project.

This Chapter contains an outline of the data sources in Austria and an indication of the existing findings on income. It must be borne in mind that the methodology behind results quoted here is not yet fully harmonized with that set out for TIAH statistics.

Data sources

At present, the main source of information on the total and disposable incomes of agricultural households is the national farm accounts survey (Landwirtschaftlich Buchführungs-Gesellschaft (LBG)), a national network of some 2 500 holdings that volunteer to keep accounts and which are selected on the basis of the latest (1990) Census of Agricultural and Forestry Holdings (LBZ) carried out by the Austrian Central Statistical Office (ÖSTAT). Other data sources exist but are not suitable. Taxation is based on the principle of the individual (rather than the household or couple) and, as taxes levied on agriculture are mainly flat-rate, this source cannot provide consistent data on incomes. There is also the household consumption survey, but this is only carried out every ten years (the most recent being 1993)⁴⁶.

The main characteristics of the LBG are given in Figure A.1.

Fig. A1 Austria: Characteristics of the farm accounts survey (LBG).

Sample coverage	Income covered	Household membership	Form of agricultural household
<p>Covers farms with a standard gross margin of between ÖS 90 000 and ÖS 1.5 Mio. It excludes farms where > 25% of total gross profit comes from horticulture, and mixed enterprises, such as forestry plantations over 200 ha.</p> <p>Covers 50% of farms, 88% of the total arable area, 62% of forested area, 88% of dairy cows, 90% of cattle and pigs, 81% of the volume of agricultural activity.</p> <p>The accounting period is the calendar year.</p>	<p>Total income covers farm income, income from independent non-farm activities, salaries and wages, pensions, social transfers and family allowances. Payments for health insurance and old age pension schemes and taxes are identified. Earnings from paid employment are net of social contributions and wage tax. Consumption spending is measured.</p> <p>Disposable income can be calculated.</p>	<p>All persons living under the same roof. The 'Total family labour force' consists of the farm manager plus spouse and assisting family members, provided that they form part of the household and are working in either agriculture, forestry or in a non-agricultural activity.</p>	<p>A distinction is made between <i>primary</i> and <i>secondary</i> activity holdings. Primary farms are where at least half the income from the labour of the operator and spouse plus members of the family forming part of their household and working together full or part-time in farming or forestry comes from farming or forestry activities.</p>

It should be noted that agricultural activity is deemed to include forestry plantations up to 200 ha. Thus, the

⁴⁶ The two-yearly micro-census on the household income of employees does not cover the households headed by self-employed persons. It also does not cover any additional income that the households of employees may have from activities on a self-employed basis or from property.

income to the household comprises both that from the production of goods and services that are classed as belonging to agriculture within the framework of the EU's Economic Accounts for Agriculture, as well as that from forestry. Also, the LBG farm accounts survey excludes very small and very large holdings and those where more than 25% of gross profit comes from horticulture.

The Primary Activity Holdings in the LBG are those where the main income of the household (defined as shown in Figure 1) comes from agriculture and forestry; this corresponds to a TIAH "narrow" definition of an agricultural household, but classifies households according to the composition of the income of the entire household rather than that of a reference person. Secondary Activity Holdings are those that qualify for inclusion in the LBG farm accounts survey but where agriculture (and forestry) is not the main source of income of the household. The Primary Activity Holdings together with the Secondary Activity Holdings constitute a broader coverage of holdings, but only to the extent that they qualify for inclusion in the LBG, which represents only about 50% of the number of agricultural holdings in Austria. The use of a minimum size threshold probably excludes many holdings that might qualify if the sample selection were based on households rather than holdings. These excluded holdings are likely to be less important numerically when using the "narrow" definition than when taking the broader approach. Hence, the use of data taken from Primary and Secondary Activity Holdings together corresponds to a coverage that is less comprehensive than the TIAH target "broad" definition of an agricultural household (which includes all households in which any member has some income from independent activity in agriculture).

Results

Results from the LBG show total income and disposable income for those holdings covered. The LBG also collects information on the value of consumption, which may be useful in the context of TIAH statistics. Income figures are shown per household and per member of the family labour force. They are also grossed up to national levels. Measures of household size can be used to calculate income per household member but at present results per consumer unit are not generated. The nature of the basic data source means that no results are available on a comparable basis for households belonging to other socio-professional groups or for all households together. Estimates of the net income of salary-earning households (manual workers, employees and civil servants), obtained from a micro-census, are published in the Austrian Statistics Yearbook, but they are not comparable with the total incomes of agricultural households.

The "narrow" approach

Results are available for 1980 onwards for Primary Activity Holdings in the LBG, approximating to the TIAH "narrow" definition of an agricultural household. A change in the sampling frame in 1991 (based on the 1990 Census of Agricultural and Forestry Holdings) means that only results using the Primary Activity Holdings can be compared with earlier years. Two sets of results are calculated for 1991, the overlap year. The nature of the data source means that results can be broken down by type of farming, holding size in SGM, location etc..

According to the LBG, over the period 1985 to 1993 income from agriculture (and forestry), including from public funds, accounted for between 76% and 81% of the total income of Primary Activity Holdings (see Table A2 at the end of this chapter). Other independent activity was relatively unimportant, with less than 1% of the total. Wages formed 6% to 9%, pensions 3% to 4% and family allowances and other social transfers 9% to 12%. It should be noted that some sources of income required by the TIAH methodology are missing from this list (such as income from property, rental value of own dwelling and other current transfers). From total income the main deductions were made up of contributions to farmers' old-age pension schemes (9% to 11%) with insurance and tax accounting for only 1% to 3%. Altogether, deductions took only between 10% and 13%, depending on the year. It should be noted that the results show wage income net of social contributions and wage tax, thereby understating the real overall level of deductions.

Figure A2 shows the way in which incomes (in nominal ÖS) have varied over the years 1985 to 1993. It shows that year-to-year changes in average total income per holding were largely a reflection of what was happening to the income from farming and forestry. Income from all other sources (together) was relatively stable and appeared to reduce the variability seen in total income compared to that coming from farming alone. Up to 1990 the average income from independent agricultural (forestry) activity increased strongly (in nominal terms). After 1990 the level of this income was broadly maintained whereas the income from other sources continued its steady upward movement. These patterns are reflected in the proportion of total income that came from farming and forestry; a rise from 77% in 1985 to 81% in 1989 and 1990 and then down again to 76% in 1993. Deductions were particularly stable over the years, so that the pattern of Disposable Income over time closely followed that of total income, but at a level above that of the income from the farming and forestry alone.

Fig. A2 Austria: Income per agricultural holding - Primary Activity Holdings, 1985 - 93. Nominal ÖS.



A breakdown by farm type establishes that the contribution of off-farm income varied relatively little between enterprise types, except where forestry accounted for more than 50% of the holding's SGM, for which non-farm incomes were lower. In 1992, the proportion of income from farming in the total was somewhat lower on farms where forestry accounted for between 25% to 50% of total SGM and on farms with extensive livestock production and perennial crops. In these cases, however, the slightly higher than average non-farm income did not fully offset the comparatively low incomes from farming, so that their total incomes were lower than the average. Among the seven classes of specialist farm, the amounts of non-farm income were more variable, being lowest among fruit farms and highest among cattle farms. Taking all income sources into account found that there were wide variations among the specialist farms, with pig farms and fruit farms having total incomes between two and three times those of wine growers; all specialist farms had total incomes that were above the all-farm average (except for wine growers and dairy farms). The breakdown by region found that off-farm income contributed not less than a quarter of total income in any region, and in the north-west plains and hills this rose to 41%.

The "broad" approach

As pointed out above, by adding data from Secondary Activity Holdings to that from Primary Activity Holdings a coverage is achieved that is broader than the TIAH target "narrow" definition, although still falling short of the TIAH target "broad" definition. Between 1984 and 1987 the surveying and evaluation of Secondary Activity Holdings were discontinued. In 1988 it was resumed on an experimental basis and with a reduced number of holdings. Results for this broader coverage are available for 1991 to 1993. Table A1 below shows a comparison between the results per holdings using the "narrow" and the broader coverage for the latest year available (1993). Patterns were similar in each of the three years.

As would be expected, the Primary Activity Holdings derived greater absolute amounts of income per holdings from farming (agriculture and forestry) and a higher proportion of their income came in this form than was the case when coverage was extended to include Secondary Activity Holdings. However, in contrast, the broader coverage resulted in a much higher wage income and a somewhat greater level of pensions, reflected in higher shares for these sources. Total income per holding was greater among the Primary Activity Holdings but these made larger payments to the Farmers' Pension scheme. The net effect was that the disposable income per household of the narrow and broader coverage were similar. When the slightly larger household size of Primary Activity Holdings was taken into account, the average disposable income per household member came even closer.

Table A1 Austria:

Average incomes per holding of Primary Activity Holdings and Primary plus Secondary Activity Holdings in the farm accounts survey (LBG), 1993.

	Primary Activity Holdings		Primary and Secondary Activity Holdings	
	ÖS	%	ÖS	%
Farming and forestry	306 408	76	232 709	60
Other self-employment	1 400	0.3	1 382	0.4
Wages	28 991	7	85 276	22
Pensions	17 460	4	23 321	6
Family allowances and other social benefits	48 617	12	46 071	12
Total income	402 876	100	388 759	100
Insurance and taxes	5 404	1	5 443	1
Farmers' pension contribution	44 832	11	36 568	9
Disposable income	352 640	88	346 749	89
Average size (UAA) per holding (in ha)	21.88		18.45	
Average total family labour force per holding	2.08		2.02	
Average number of persons fully subject to compulsory insurance per holding	4.15		4.10	
Average disposable income per person (ÖS)	84 973		84 573	

These findings suggest that, unlike the situation in some other Member States, there is little difference between the disposable income levels of agricultural households, defined in a "narrow" sense, and those marginal households where farming is not the main source of income. However, of course, this data source excludes many households with very small farms whose income situation remains unknown.

Table A2 Austria: Average incomes per holding by source, as well as other averages, for Primary Activity Holdings only, 1985-1993. Nominal ÖS.

	Agriculture and forestry	Other independent	Wages	Pensions	Other social benefits	Total income	Insurance and taxes	Contribution to farmers' pension scheme	Disposable income	Holding size (ha)	Total family labour force	Persons subject to compulsory insurance
<i>Income per household</i>												
1985	211 578	1 146	23 969	6 967	31 194	274 853	7 078	27 775	240 000	18.48	2.06	4.52
1986	231 849	1 402	25 699	8 840	31 138	298 928	4 299	29 175	265 454	18.69	2.06	4.50
1987	239 982	1 407	27 679	8 726	33 058	310 852	4 030	30 910	275 911	19.01	2.05	4.50
1988	264 371	1 216	20 941	9 592	33 022	329 142	3 879	33 273	291 990	19.30	2.06	4.47
1989	277 087	1 115	22 064	11 032	32 743	344 041	4 068	34 719	305 253	19.56	2.03	4.38
1990	325 839	1 484	27 010	12 206	37 732	404 271	4 511	35 193	364 567	19.53	2.04	4.31
1991	312 813	1 397	25 397	15 596	36 925	392 126	5 775	37 530	348 821	20.85	2.06	4.22
1992	336 501	1 447	26 685	16 598	38 921	420 152	5 277	40 645	374 230	21.28	2.06	4.19
1993	306 408	1 400	28 991	17 460	48 617	402 876	5 404	44 832	352 640	21.88	2.08	4.15
<i>Per cent of total income</i>												
1985	77	0.4	9	3	11	100	3	10	87			
1986	78	0.5	9	3	10	100	1	10	89			
1987	77	0.5	9	3	11	100	1	10	89			
1988	80	0.4	6	3	10	100	1	10	89			
1989	81	0.3	6	3	10	100	1	10	89			
1990	81	0.4	7	3	9	100	1	9	90			
1991	80	0.4	6	4	9	100	1	10	89			
1992	80	0.3	6	4	9	100	1	10	89			
1993	76	0.3	7	4	12	100	1	11	88			

PORTUGAL

Methodology

General approach

Model 2 approach. The starting point is the Household Sector account (N3/S80) in national accounts (base year 1977) for 1980 to 1986 (definitive data) and 1987 to 1989 (provisional data). Distribution of the gross disposable income in this account between agricultural households and other socio-professional groups makes use of equivalent items in the Survey of Household Income and Expenditure (IRDF) of 1980-81 (for 1980) and the Family Budget Survey (FBS) of 1989-90 (1989). These Surveys give the average (gross) disposable income of households broken down into socio-professional groups and show the origins of this income and the deductions made from it (though independent activity cannot be subdivided into that from farming and that from other sources). Multiplying average disposable incomes of each group by the numbers of households for each group taken from the General Population Censuses of 1981 and 1991 gives a key by which Gross Disposable Income (of S80) is first distributed between socio-professional groups; this is subsequently broken down for each group into its components. Numbers of household members and consumer units are estimated from these numbers of households and average sizes found in the General Population Censuses. For agricultural households (only) an income series from 1980 to 1989 has been estimated in which the major components of the structure of income have been adjusted separately for each year between the two base years using proxy indicators. Capital consumption is not deducted in any of the statistics at present; all income figures are shown gross.

Household unit

Private domestic household: a group residing in a single housing unit and whose regular expenditure on accommodation and food is funded by a joint budget; a person occupying an entire housing unit or sharing it with others but not meeting the above definition.

Household classification

Households headed by a self-employed worker in agriculture, including both those with and without paid employees. The head is selected by the household. Agriculture is defined broadly, and also includes forestry, fishing and hunting.

Year for which results are available:

1980 to 1989

Comments on the results:

The results for Portugal that appeared in the TIAH 1992 Report were best regarded as experimental. Subsequent improvements in the methodology have taken place, including the subdivision of non-agricultural households into several socio-professional groups. As a result of these changes, the latest year for which results are available has moved back to 1989 (1990 in the earlier figures). However, the results should not yet be regarded as definitive. A new national accounts base year (1986) is being introduced, which will involve a revision of the Household Sector accounts, starting in 1986. Among other changes, the new system of accounts extends to the whole territory of Portugal, rather than only the mainland. When results from the 1993-94 Family Budget Survey become available to form distribution keys, TIAH statistics for 1986 onwards will be recalculated and updated on this new national accounts base.

In the former method of calculation, results for 1981 to 1985 were estimated by applying the distribution keys derived from the 1980-81 Survey of Household Income and Expenditure to the household sector accounts for each of these years. Other keys derived from the 1989-90 Family Budget Survey were used in estimating results from 1986 onwards. It was assumed that the structure of (gross) income and expenditure remained unchanged within these periods. Under the new system, there is extrapolation between the two series and a more detailed breakdown of households into socio-professional groups, in line with the TIAH "minimum" list devised for this purpose. Of particular importance is the new series of estimates for

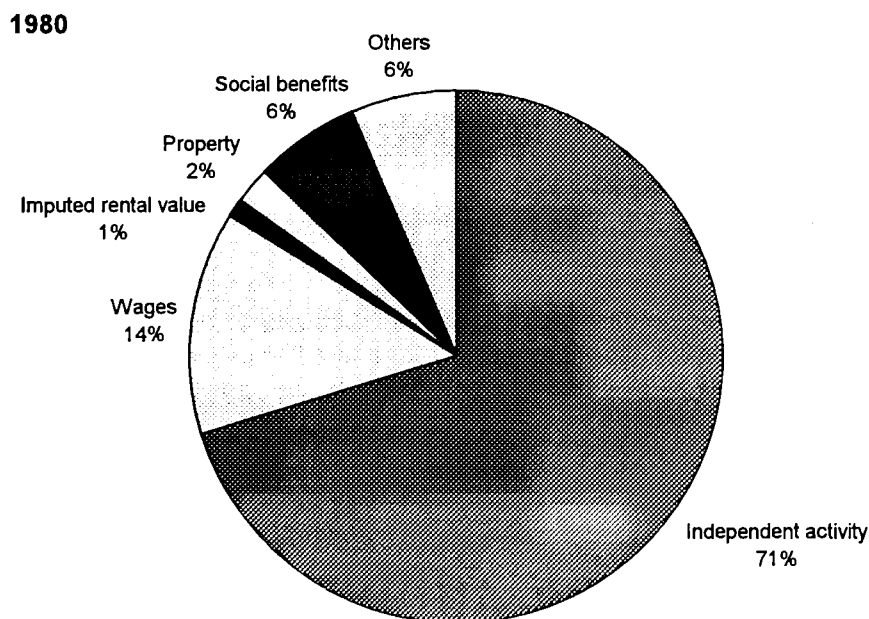
agricultural households (only) in which changes are estimated annually between the two base years for each major component of the structure of income. For the main source of income of agricultural households (self-employment), the indicator of change is taken to be the Gross Value Added of the branch agriculture (as shown in the Economic Accounts for Agriculture for Portugal) less wages. In this series, the structure of income of agricultural households is therefore allowed to change, in line with the movements in the incomes derived from agriculture. The number of agricultural households for each year was also made to vary, using as a reference indicator the Annual Labour Unit per family worker.

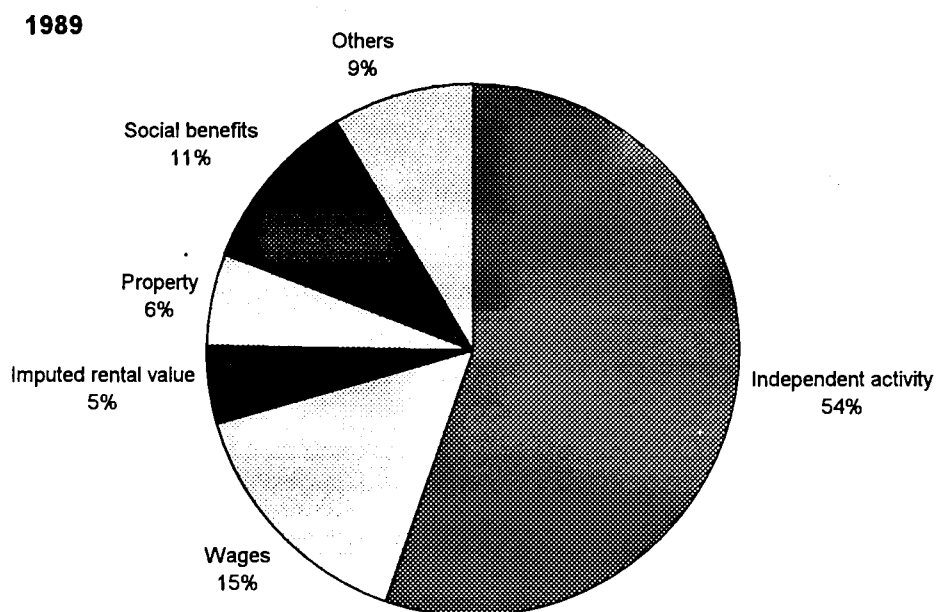
At present, it is not possible to subdivide the income that agricultural (and other) households receive from self-employment into that coming from farming and that from other independent activities, as these are not identified separately in the Family Budget Survey. However, because of the nature of the adopted definition of an agricultural household, the statistical authorities assume that farming is the principal source.

(a) Composition of total income, and deductions

Figure P1 shows the composition of total income for agricultural households in 1980 and 1989 (the base years of the methodology). In 1980, independent activity accounted for 71% of total income; most of this would have come from farming. Wages formed the second largest source. In 1989 the share from independent activity had fallen to 54%. While wages still came second, social benefits had increased substantially, from 6% in 1980 to 11% in 1989. The shares from property and own dwellings (imputed rental value) also rose considerably. It must be recalled that this decrease in the share of income coming from independent activity took place against a background of a fall in the number of agricultural households under the TIAH definition; over this period the number of agricultural households fell substantially (by 37%).

Fig. P1 Portugal: Composition of the total income of agricultural households, 1980 and 1989.





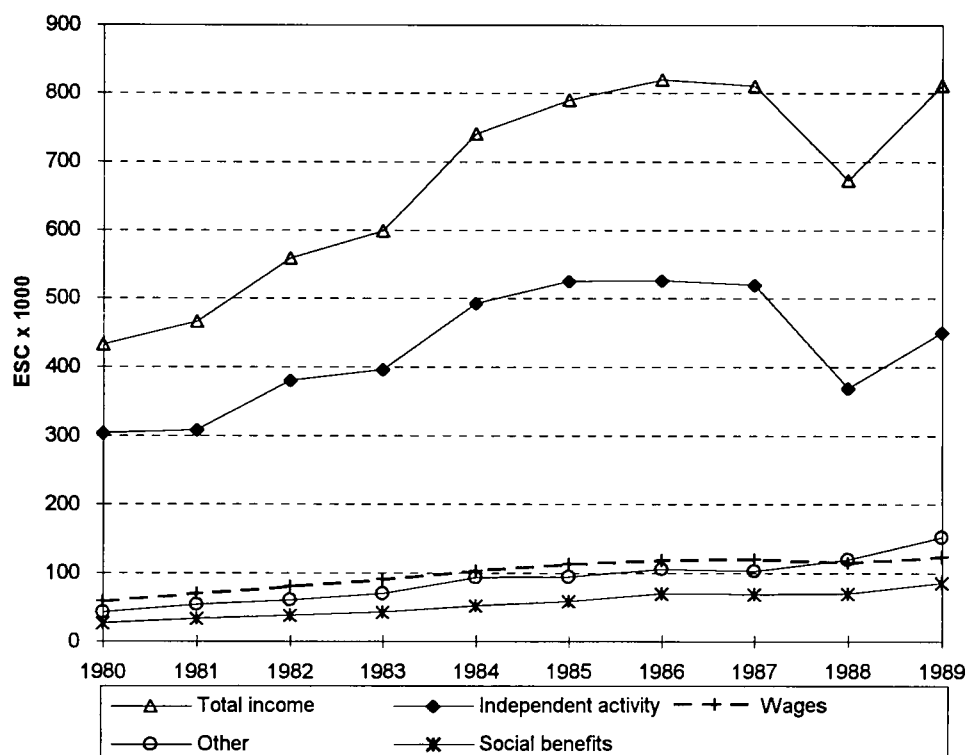
The proportion of total income retained as disposable income was greater for agricultural households than was the case for households in general. In 1980, only 3% of the total income of agricultural households was taken in deductions, of which social contributions was the largest element, forming over half of all deductions. In contrast, taking all households in Portugal together, some 9% of total income was taken as deductions. By 1989 both agricultural households and households in general were paying higher shares, though the differential was broadly maintained (they paid 6% and 13% respectively).

It is worth viewing these differences between the two years against a broader background. Agriculture in Portugal underwent substantial changes in the period 1980-89 and the number of agricultural households to which the distributions outlined above relate declined strongly. According to estimates published by Eurostat (in *Agricultural Income 1990*) the volume of agricultural labour input fell by about one third between 1980 and 1989. However, once this change in labour input had been taken into account, the level of real net income from agricultural activity per annual work unit of family labour (Eurostat's Indicator 3) was very similar in 1989 to what it had been in 1980 (Index of 98.6 in 1980 and 97.0 in 1989, where 1984-86=100). Differences in income composition are therefore unlikely to reflect fluctuations in the income from farming and are more probably the outcome of other changes, such as the growth in the non-farming income, methodological improvements and so on.

(b) Movements in income of agricultural households over time

As noted above, Portugal now calculates income for its agricultural households in a way that enables changes in the various major components to be reflected in its structure. Figure P2 shows the development of total income and its composition for the years 1980 to 1989. It is clear that the income from independent activities (mainly farming) was more variable over the period than any of the other sources identified; these have been on a fairly steady upward trend (nominal values). The variation seen in total income mirrors closely that in the income from independent activity, but with a somewhat greater degree of stability. Income from farming (and other self-employed activities) rose steadily until 1985, after which it was maintained for two years and then seems to have been moving downwards, with a sharp drop in 1988. Total (gross) income per household in 1989 continued to rise up to 1986, since when the level has been broadly maintained, though with a dip in 1988 that reflected what was happening in farming.

Fig. P2 Portugal: Development of the total income of agricultural households and its major components. Income per household, 1980 to 1989. Nominal ESC.



(c) Comparative income levels

Although there was a rise in the income of agricultural households between 1980 and 1989 (in nominal terms), they seem to have dropped behind households in general, and some groups in particular. Figure P3 shows estimates of (gross) disposable income per household and per household member in the two base years, in index form (all households = 100). In 1980, agricultural households were very close to the national average in terms of income per household and about one tenth below it in terms of income per household member, a common finding where households headed by farmers are somewhat larger than the average. Among the other socio-professional groups, incomes per household were highest among the households headed by non-manual workers and lowest among the "Other" group. The spread of income per household member was slightly less than on a per household basis, but still varied from 127% of the all-household average to 86% of it.

By 1989 there had been a dramatic widening of the disparities between the groups. In this latter year, the disposable income per person in agricultural households had slipped to only 40% of the national level, behind the households of manual workers and with only the "Other" group having lower incomes. In contrast, incomes of households of other self-employed (independent) persons and, in particular, non-manual workers had increased greatly in relative terms, in the latter case to more than double the national average level of income per household. In terms of income per household member, the range of income between the lowest income group (the "Other") and the highest income group (non-manual workers) expanded from about 1.5 to 1 in 1980 to over 10 to 1 in 1989.

Differences between the results for 1980 and 1989 must be interpreted with caution because methodological changes have occurred over the period that influence the figures. Nevertheless, the findings suggest that much of the benefit in Portugal since it joined the EC in 1986 has been experienced by the self-employed persons outside agriculture and non-manual workers. Though in absolute terms the incomes of agricultural households have not declined, the rapid increase in incomes of these two other groups have so influenced the national position that the relative position of farm households has deteriorated.

It should be remembered that, at present, the estimates of income from independent activity are not corrected for the under-estimation of this item, a characteristic of family budget surveys, which is often

found to be of the order of 20%. Income from independent activity was much more important to agricultural households than to households in general (55% in contrast to 16% in 1989). Thus the relative income position of agricultural households may be understated.

Fig. P3 Portugal: Average gross disposable income per household and per household member by socio-professional group, 1980 and 1989. Index: all households = 100.

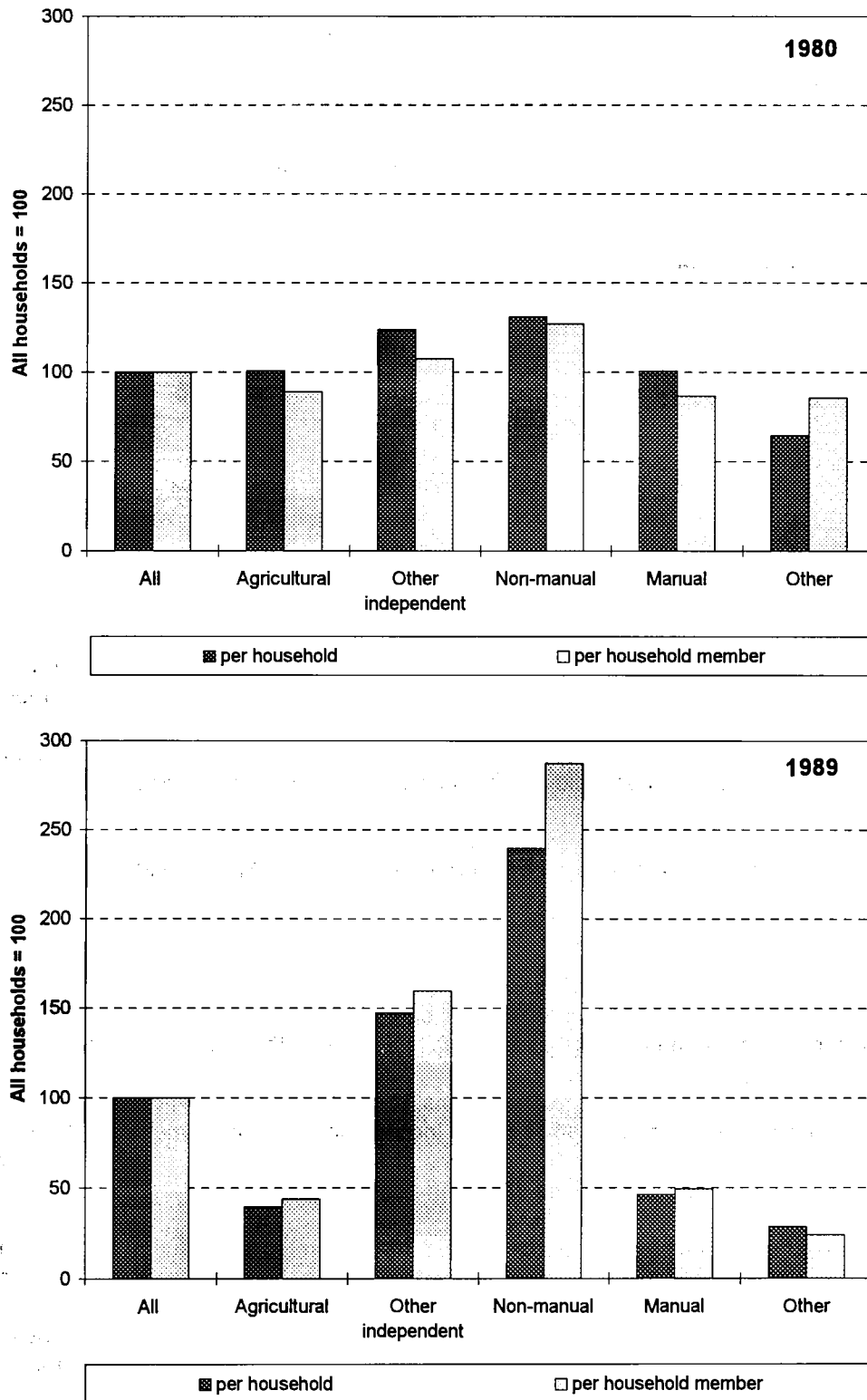


Table P1 Portugal: Composition of total income and deductions, for agricultural households and all households, 1989. Nominal mio ESC.

	Item	Agricultural households	All households
1a and 1b	Independent activity (agricultural and non-agricultural)		
	▪ Operating Surplus	67 814	1 207 300
	▪ Income	-	-
1c	Owner dwellings	5 545	379 650
2	Dependent activity	17 433	3 720 075
3	Property and entrepreneurial income	6 422	201 893
4	Accident insurance claims	169	11 318
5	Social benefits	12 234	611 402
6	Other current transfers	9 599	620 278
7	Current receipts		
	▪ based on Operating Surplus	119 216	6 751 915
	▪ based on Income	-	-
8	Distributed property and entrepreneurial income	4 349	80 593
9	Net accident insurance premiums	735	87 160
10	Current taxes on income and wealth	1 442	357 607
11	Social contributions	3 657	371 568
12	Other outgoing current transfers	757	54 616
13	Disposable income	108 275	5 800 371
	Units (x 1 000)		
	Number of households	142	3 016
	Number of household members	501	11 757
	Number of consumer units	396	9 301
	Disposable income per unit (ESC x 1 000)		
	▪ per household	762	1 923
	▪ per household member	216	493
	▪ per consumer unit	273	624

Note: In the text, comments are made about *income* from independent activity, rather than *operating surplus*, as shown in this table. Income figures have been calculated by deducting Item 8 from Item 1(a)+(b).

The numbers of households and household members differ from that in Table P2 below, which uses adjustments. Use of adjusted numbers would further depress the relative income position of agricultural households.

Table P2 Portugal: Income per household, 1980 to 1989, for agricultural households. Nominal ESC x 1 000.

Income source	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Independent activity	304	308	380	396	493	525	527	520	369	450
Wages	59	70	80	90	103	112	118	119	114	123
Social benefits	27	34	38	43	53	59	70	69	70	86
Other	43	54	61	70	93	94	106	103	120	153
Total income	433	466	559	599	741	790	820	811	672	813
Deductions	11	16	18	19	27	24	31	33	37	43
Disposable income	421	450	541	580	714	766	789	778	636	770
No. Households (x 1 000)	237	224	216	196	197	198	183	191	183	173

Note: the figures per household differ in this table from other tables because of the way in which projections from the base years have been made.

Table P3 Portugal: Gross disposable income per household and per household member by socio-professional group, 1980 and 1989.

Socio-professional group	1980				1989			
	Per household	Per household member	Per household	Per household member	Per household	Per household member	Per household	Per household member
	ESC x 1 000		Index, all = 100		ESC x 1 000		Index, all = 100	
Agricultural	421	112	101	89	762	216	39	44
Other self-employed	517	136	124	108	2 837	788	148	160
Manual workers	422	109	101	87	891	244	46	49
Non-manual workers	548	160	131	127	4609	1 418	239	287
Other	270	108	65	86	546	118	29	24
All	418	126	100	100	1922	493	100	100

FINLAND

Introduction

As one of the three countries that joined the European Union in January 1995, Finland was not involved in the preparatory phase of the TIAH statistics, which started in 1986 and which included an initial assessment of existing information and of data sources in Member States. Discussions with Finland on the TIAH started only in 1994. It was found that Finland did not calculate results for the agricultural households subsector as part of its national economic accounting. Nevertheless, there was microeconomic information on total incomes from several data sources. Work has started on evaluating how the national methodologies could be adapted to the requirements of the TIAH statistics.

This Chapter contains an outline of the data sources and an indication of the existing findings. It must be borne in mind that the results quoted here are not yet fully harmonized with the TIAH methodology.

Data sources

Finland has several microeconomic data sources in which the total income of agricultural households can be identified and, within the national accounts, a households sector account that at present is not subdivided into socio-professional groups. One of the microeconomic data sources, the Income Distribution Statistics (IDS), permits a comparison to be made between agricultural households and other socio-professional groups and can use both the TIAH target "narrow" and "broad" definitions of an agricultural household. This is seen as the major source for TIAH statistics. A second microeconomic source, the Income and Taxation Statistics for the Finnish Farm Economy (ITSFFE), also permits the use of the both TIAH target definitions ("narrow" and "broad"), but it does not contain information for other socio-professional groups and does not correspond to the target methodology in other ways. In addition to these two data sources, there is also the Household Budget Survey and the survey of book-keeping farms (FADN Finland)^{47,48}.

The estimates derived from the microeconomic sources, though raised to national levels, are not, in the current state of methodology, entirely consistent with the equivalent aggregates in national accounts, though work is progressing to explore the causes of disparities. Areas where there are differences include the treatment of employers' social contributions (not covered in the microeconomic sources but included in national accounts) and the basis on which depreciation / capital consumption is calculated (taxation conventions in the microeconomic statistics).

Methodology

(a) *Income Distribution Statistics (IDS)*

General approach

A Model 1 approach is used, involving a sample of 10 417 households, of which 700 are agricultural households. Microeconomic data are based largely but not exclusively on taxation information, and are linked to other registers. Interviews are also used as part of the primary data collection (on items such as the number and position of members in the household, main source of livelihood, occupation, land area and production trend of agricultural entrepreneurs, and some data on income that cannot be obtained from taxation registers).

47 The Household Budget Survey in Finland has been carried out about every five years since 1966. Statistics Finland has prepared standardised time series data files from the surveys of 1966, 1971, 1976, 1981, 1985 and 1990 (8 200 households). From 1994 an annual survey on a reduced sample (2 500) is to be introduced. Institutional households are excluded. The survey of book-keeping farms, which dates from 1912, has since 1960/61 been conducted by the Agricultural Economics Research Institute. This survey forms Finland's contribution to the Farm Accountancy Data Network (FADN/RICA). The sample is about 1 100 farms, that are willing to co-operate. Data collected covers income from the farm, from other sources (including wages, pensions and property) and taxes. In principal, this relates to the whole household.

48 For completeness, mention should be made also of the Enterprise and Income Statistics for the Farm Economy. This comprises a sample of 15 000 farms (with a third of the sample rotated each year) used to provide information on the structure of incomes and expenditure of farms. Data are taken from income tax forms. However, this source describes only the sales revenue from agricultural products and the expenditure of the farms, not their total incomes, and therefore it is not suitable as the basis of the TIAH statistics.

Household Unit

The basic unit in the IDS is the household. This consists of one person with an independent responsibility for his/her economic maintenance, or of several persons mainly living together and wholly or partly sharing their meals or pooling their incomes for other uses (that is, having wholly or partly common household arrangements). Persons included in institutional households are not included in the population.

Household classification

The reference person is used in the IDS for the classification of households into socio-professional groups. First, the reference persons are classified as economically active or inactive. Second, economically active persons are further classified, on the basis of information given in interviews, as (i) employees or (ii) employers or own account workers. Classification to socio-professional groups is based on the main income source of the reference person. A "broad" definition of an agricultural household can also be employed. In addition, there is the possibility of using the main income of the entire household as the basis of classification at a later stage.

Years for which results are available

The Income Distribution Statistics have been compiled since 1977.

(b) Income and Taxation Statistics for the Finnish Farm Economy (ITSFFE)

General approach

A Model 1 approach is used, based solely on taxation information. The statistics cover farms of natural persons with at least 2 ha of arable land which have taxable income from agriculture and / or forestry and are enrolled on the farm register. Income data are merged with the farm register records with the help of (personal) identity numbers. After merging, the income data are classified by region and by size and category of farm.

Household unit

Single person or married couple, with children aged less than 17 years. Additional adults who may form part of the "dwelling household" are not included. This household unit is more restricted than that used in the IDS and does not correspond with that set out in the TIAH target methodology (which includes all household members).

Household classification

Classification using the "narrow" approach can be based on either the reference person (the TIAH target) or the household (in effect, the couple). An agricultural household is thus one where the largest source of income of the reference person (or household) is from independent agricultural activity. In addition, the Income and Taxation Statistics describe the incomes of the population consisting of all recipients having some taxable income from agriculture and/or forestry.

Years for which results are available:

Annually since 1973.

Comments on the results

(a) Numbers of households

In Finland, the definition that is adopted for an agricultural household affects the numbers of households that qualify for inclusion in much the same way as is found elsewhere in the European Union. The TIAH "narrow" definition (based on the reference person, income criterion) when applied in the Income Distribution Statistics (IDS) resulted in substantially fewer households in 1992 than did the "broad" definition

(only 64% of the number covered by the "broad" approach)(see Table FIN1). In the Income and Taxation Statistics for the Finnish Farm Economy (ITSFFE), with its more restrictive concept of a household that comprises only the farming couple and their children and its application of a minimum size of farm threshold, only 41% of the entire coverage were classed as agricultural households according to the TIAH "narrow" definition. The use in the ITSFFE of a classification system based on the income of the entire household gave a number of households that was quite close to that coming from the reference person system.

Table FIN1 Finland: Numbers of agricultural households and disposable income per unit resulting from the use of alternative definitions of an agricultural household, 1992.

Unit	Number of households	Disposable income per unit (FMK)		
		per household	per household member	per consumer unit
Farm register				
Farms in the farm register	197 600			
▪ of which farms with at least 2 ha of arable land under cultivation	128 700			
of which the holder was an employer or own account worker	82 100			
Income Distribution Statistics				
Agricultural households (TIAH "broad" definition)	115 100	166 091	51 742	70 081
Agricultural households (TIAH "narrow" definition)	73 400	167 316	49 649	67 739
"Marginal" households ("broad" minus "narrow")	41 700	163 934	55 982	91 489
Income and Taxation Statistics for the Finnish Farm Economy				
Units with some income from farming (including losses) (TIAH "broad" definition)	135 600	134 674	55 421	72 405
▪ (of which those making losses)	(10 500)			
Units with farming the main income source of the reference person(TIAH target "narrow" definition)	55 000	96 564	40 235	53 057
Units with farming the main income source of the entire (fiscal) household	55 400	90 244	37 446	49 314

Source: IDS and ITSFFE

It is also apparent that the numbers of agricultural households in both the ITSFFE and the IDS, even when defined in the "broad" way, were smaller than the number of farms given in the farm register. One explanation for this could be the presence of single households that are holders of several farms and/or the existence of some farms, predominantly smaller than 2 ha, that do not carry out income-generating production (thereby making positive or negative incomes from farming). The number of farms with at least 2 ha of arable land under cultivation was much closer to the estimated number of households with some income from farming in either source.

Differences between definitions of an agricultural household are also reflected in differences in income levels (average net disposable income per unit) (Table FIN1). In the IDS, the average incomes found by using the "narrow" and "broad" definitions of an agricultural household were quite similar. In 1992, income per household was a little lower among the "marginal" households (those that were covered by the "broad" definition but excluded from the "narrow" one) than among the "narrow" agricultural households, though even these marginals were almost a third (28%) above the all-households average. However, with their smaller household sizes, incomes per household member and per consumer unit were noticeably higher among the "marginal" households than among the "narrow" group; they were very close to the all-households averages per household member and per consumer unit (99% and 104% respectively) whereas

the "narrow" households were further below the national averages (88% and 94% respectively). However, in the ITSFFE the average incomes per unit (per household, per household member and per consumer unit) were clearly lower among households that were covered by the "narrow" TIAH definition than among those households falling within the "broad" definition (by almost a third). This implies that the average incomes of these "marginal" agricultural households (where there was some income from farming but where the main income of the reference person came from some other source) were relatively high and above those of the "narrow" group. Once again, the restricted nature of the household in the ITSFFE and its farm size threshold must be borne in mind before conclusions are drawn. The slightly larger number of households brought into the "narrow" definition when the income composition of the farming couple was used as the basis of classification in the ITSFFE, and their lower levels of income per unit, might be explained by the inclusion of some households where there were spouses whose incomes came predominantly from farming, and possibly also the exclusion of other households where the spouse earned high incomes from other activities.

At this stage of methodological development too much emphasis should not be placed on differences between the IDS and the ITSFFE in their numbers of households and levels of income per unit. The substantially higher income per household in the IDS is likely to be in part a reflection of the larger household unit over which income measurement takes place (giving an average of 3.36 members per agricultural household in the IDS compared with 2.43 members in the ITSFFE). However there are also differences in the coverage of items and in the methods of calculation that preclude the drawing of strong conclusions.

(b) Composition of income, and deductions

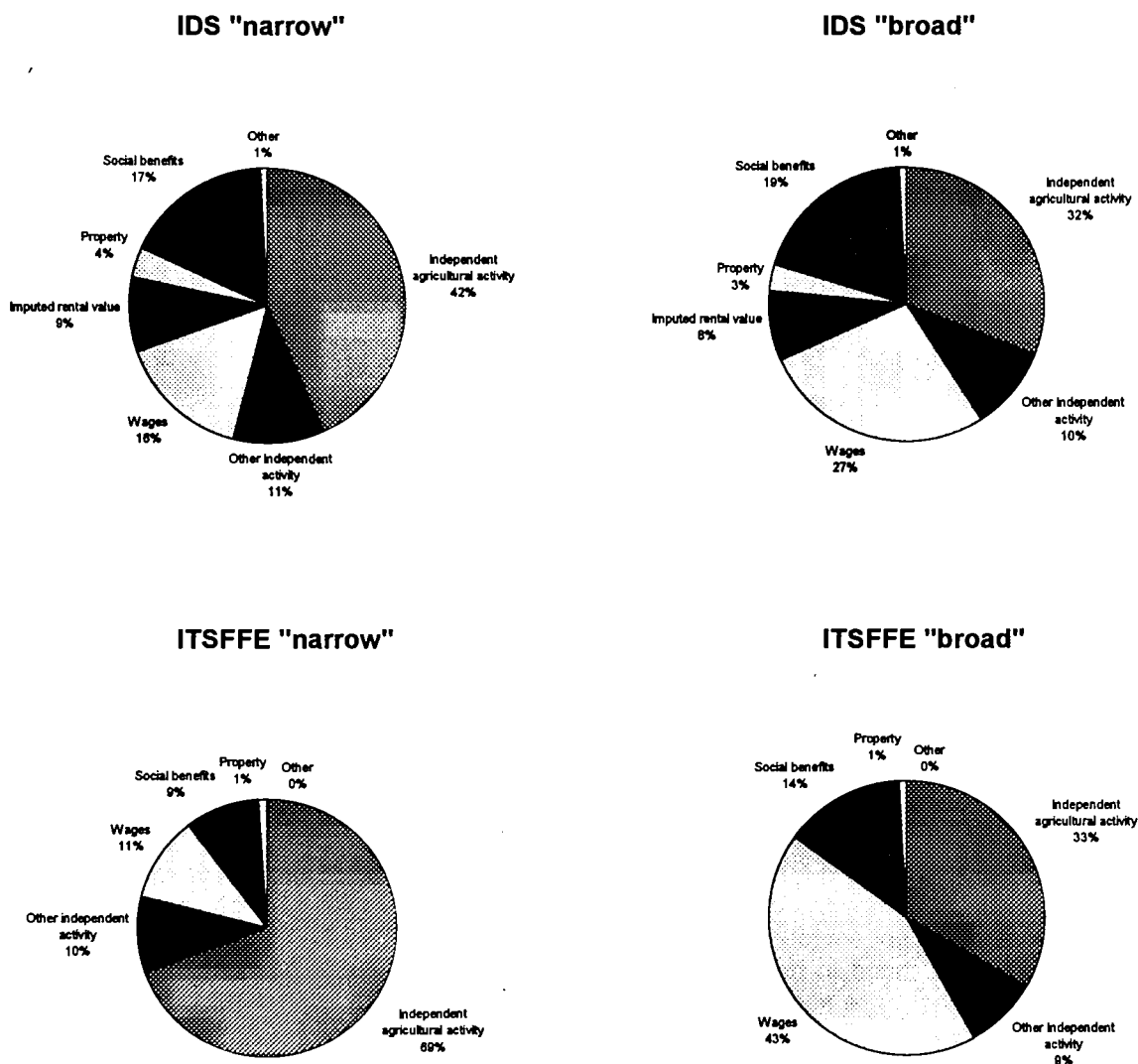
Figure FIN1 shows the composition of total income for the TIAH target "narrow" and "broad" definitions of an agricultural household taken from both the Income Distribution Statistics (IDS) and the Income and Taxation Statistics for the Finnish Farm Economy (ITSFFE). As would be expected, in each data source the share of total income contributed by farming was higher among agricultural households satisfying the "narrow" definition than the more numerous households that were covered by the "broad" definition. However, even using the "narrow" definition in the ITSFFE almost a third of total income came from other sources, in similar proportions from other independent activity (of which forestry would be significant), wages and social benefits. In the IDS, with its wider concept of a household and coverage of the incomes of adult members of the household other than the farmer and spouse, the share of total income coming from farming was much lower (42%) and wages and, in particular, social benefits (including pensions) accounted for greater shares of total income.

Among households covered by the "broad" definition in each data source farming accounted for only a third of total income (32% in the IDS and 33% in the ITSFFE). Wages were the most important (43%) source in the ITSFFE. Social benefits were relatively larger in the IDS than in the ITSFFE. Again, these differences reflect *inter alia* the coverage of the complete dwelling household in the IDS and the narrower household concept used in the ITSFFE.

Deductions (taxation and social contributions) took 23.1% of total income among agricultural households (defined in the "narrow" way) in the IDS, a little less than the average for all households (25.5%) and for employees' households (28.3%) and much less than among other independent households (31.6%). As would be expected, these items took a smaller share of total income in the "other" group, that included households headed by retired people.

Fig. FIN1 Finland:

Composition of the total income, for four definitions of an agricultural household, 1992.



Source: IDS and ITSFFE

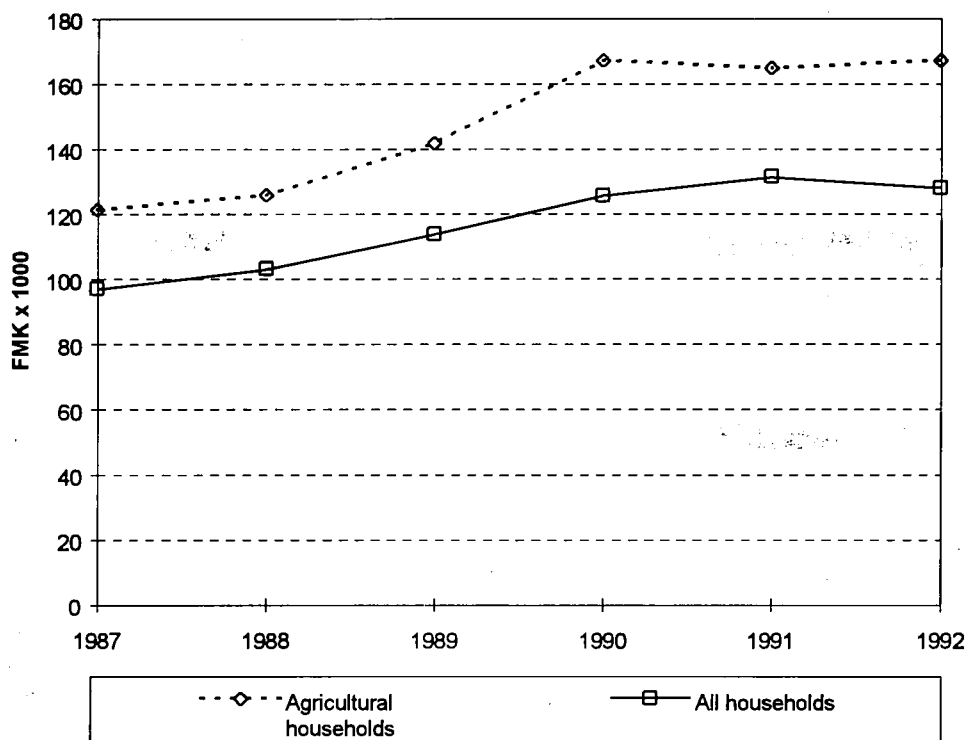
(c) Development of income over time

Figure FIN2 shows the movement in average net disposable income per household for the period 1987 to 1992, as estimated in the Income Distribution Statistics. Over the entire period the increase in income among agricultural households was similar to that for all households together (+38% and +32% respectively) but there were differences within it. Agricultural households increased their average nominal income per household over the first three years by 38%, a rise that was somewhat larger than the all-households average (+29%). However, among agricultural households there was no further increase to 1992 whereas the all-households average continued to rise, at least to 1991.

It should be noted that in each year the average income per agricultural household was greater than the all-household average. The income movements just described imply that there was little change in the relative positions over the period as a whole.

Fig. FIN2 Finland:

Average net disposable income, for agricultural households and all households, 1987 to 1992. Nominal FMK.



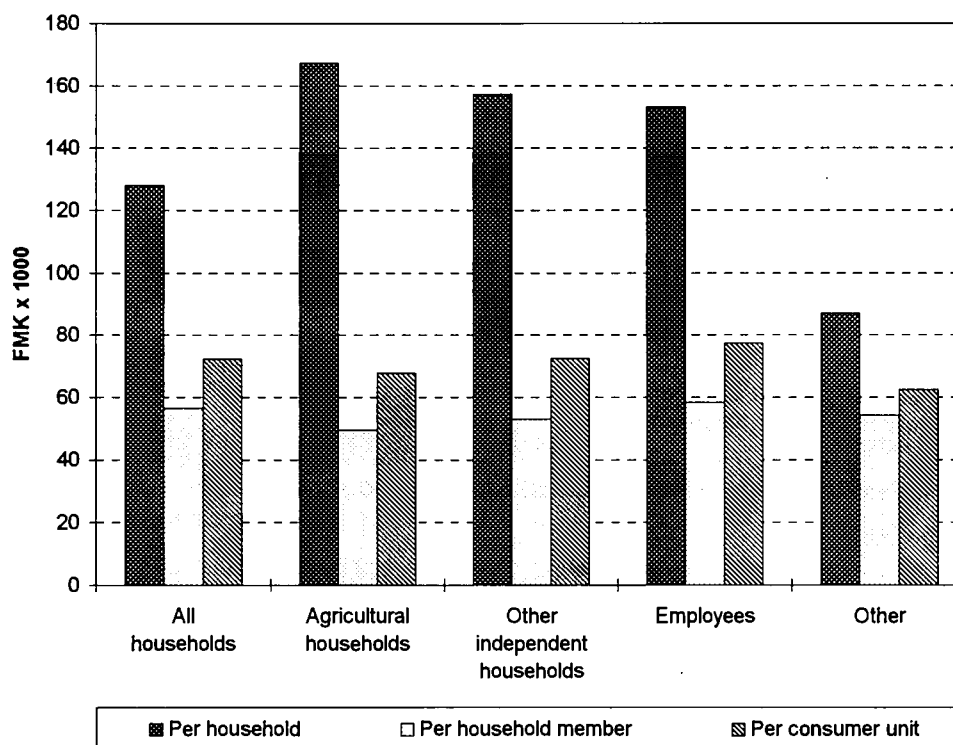
Source: IDS

(d) Comparisons of incomes with other socio-professional groups

The Income Distribution Statistics in Finland enable the use of the TIAH "minimum" list of socio-professional groups for the purpose of comparing the incomes of agricultural households (though the definition of an agricultural household does not comply with the TIAH "target"). The pattern of relative levels of disposable incomes is similar to that found in many other Member States. Agricultural households had disposable incomes per household that were above the national all-households average; in 1992 they were almost a third higher (131% of the national average) (see Figure FIN3 and Table FIN2). However in terms of income per household member and per consumer unit agricultural households were below the all-household average (88% and 94% of the national average respectively), reflecting the somewhat larger sizes of agricultural households.

Unlike the situation found in some other Member States, the spread of income levels across the socio-professional groups was quite narrow. Households falling in the "Other independent households" group did not have incomes per unit that were substantially higher than the national average. Indeed, income per household was smaller in this class than among agricultural households. Income per household member and per consumer unit were highest among the households headed by employees, an unusual finding for EU countries. The "Other" group, which included households of retired persons, had an average disposable income per household member that was close to the all-households average and exceeded those of agricultural households and of other independent households, though their income per consumer unit was the lowest among the groups listed.

Fig. FIN3 Finland: Average net disposable income per unit by main socio-professional group, 1992 (according to the Income Distribution Statistics). Nominal FMK.



Source: IDS

Further potential

The several microeconomic data sources in Finland appear to offer the means by which TIAH statistics can be developed that comply with the harmonized methodology and which are compatible with national accounts. In addition they hold the potential for a detailed exploration of the distribution of incomes around the averages shown in TIAH statistics. This should be useful for policy purposes. For example, they could be used to establish the extent to which very low disposable incomes exist within the agricultural household group. Eurostat will be conducting discussions with the statistical authorities in Finland on how the present data sources can be adapted to the fullest extent to comply with the established TIAH methodology and on how they can assist with providing additional distributional information to supplement the TIAH results.

Table FIN2 Finland: Composition of total income and deductions, for agricultural households and other socio-professional groups in the Income Distribution Statistics, 1992. Nominal mio FMK.

	Item	Agricultural households	Other independent households	Employees	Others	All households
1a	Independent agricultural activity					
	■ Operating Surplus					
	■ Income	6 899	288	908	744	8 839
1b	Independent non-agricultural activity					
	■ Operating Surplus					
	■ Income	1 704	9 774	4 836	1 586	17 900
1c	Owner dwellings	1 414	1 001	5 816	7 742	15 973
2	Dependent activity	2 478	10 953	199 484	8 616	221 531
3	Property and entrepreneurial income	569	1 084	2 979	3 187	7 819
4	Accident insurance claims					
5	Social benefits	2 779	3 218	29 771	67 552	103 320
6	Other current transfers	117	480	2 904	2 423	5 924
7	Current receipts					
	■ based on Operating Surplus					
	■ based on Income	15 960	26 798	246 698	91 850	381 306
8	Distributed property and entrepreneurial income					
9	Net accident insurance premiums					
10	Current taxes on income and wealth	2 643	5 623	56 349	12 979	77 594
11	Social contributions	1 036	2 838	12 512	3 432	19 818
12	Other outgoing current transfers					
13	Disposable income	12 281	18 337	177 837	75 439	283 894
	Units (x 1 000)					
	Number of households	73	117	1 161	867	2 218
	Number of household members per household	3.4	3.0	2.6	1.6	2.3
	Number of consumer units per household	2.5	2.2	2.0	1.4	1.8
13	Disposable income per unit					
	■ per household	167 316	157 264	153 176	87 012	127 996
	■ per household member	49 649	53 130	58 464	54 383	56 635
	■ per consumer unit	67 739	72 472	77 362	62 599	72 314

SWEDEN

Introduction

As one of the three countries that joined the European Union in January 1995, Sweden had not been involved in the preparatory phase of the TIAH statistics, which started in 1986. Discussion took place in 1994 on the state of information on the total income of agricultural households in Sweden and of the basic data sources. It emerged that Sweden did not calculate results as part of its national economic accounting. Nevertheless, information exists on the total income of farmers from several data sources, principally the survey of farm accounts (Farm Economics Survey - JEU) and taxation records (in various forms) though this relates to the 1980s. There are problems in generating later estimates because of the dismantling of basic data sources that took place in the early 1990s, before the need to be able to provide TIAH statistics for Sweden were evident.

In Sweden, there is a public demand for general statistics on the distribution of economic welfare, and microeconomic data sources have been developed with this in mind. Up to 1990 the income objective was an important part of the national agricultural policy in Sweden. In pursuit of this, income comparisons were made between farm households and other households, the purpose being to describe the potential level of consumption of farmers and other comparable groups in society. Agricultural households were defined using a "broad" approach, but only for households with holdings in the range 20-100 ha of arable land. Data for the comparisons were taken from the Survey of Income Distribution (HINK), based on tax records. Comparisons were discontinued from 1987.

In June 1990 the Swedish Parliament decided on a new agricultural policy, with the basic goal being to adjust agricultural production to domestic demand. This was accompanied by the deregulation and market-orientation of agriculture, with farming to be regarded as any other branch of business. At this time there was a review of agricultural statistics. As a consequence, some reductions were carried out. In the farm accounting survey (JEU) details of non-farm incomes were no longer collected. In the survey based on farm tax forms the sample was cut down by approximately 60% and non-farm incomes were left out.

When the agricultural policy decision of 1990 was taken, membership of the EU was not envisaged. In the years 1993-1994 changes were made in Swedish policy to facilitate the introduction of the CAP. In the field of agricultural statistics some adjustments were planned but have not yet been carried out. Work has started on evaluating how the national methodologies could be adapted to the requirements of the TIAH statistics, including filling the gaps caused by the changes to the data systems in 1990.

Data sources

(a) *The Farm Economics Survey (Jordbruksekonomiska undersökningen, JEU)*

The sampling frame for the Farm Economics (accounts) Survey (JEU) is the register of holdings in agriculture and forestry (the Farm Register). The survey is restricted to farm categories of particular interest for agricultural policy and to farms run by individuals below normal retirement age. Broadly speaking the main interest is concentrated on efficient, full-time family farms (in Sweden most farms are family-operated). Due to a limited sample size (600 holdings), the sampling errors are large.

The JEU involves extensive data collection. Accounting data on incoming and outgoing payments are taken from the cash-books which all Swedish farmers are obliged to keep. Data on the value of stocks, benefits in kind etc. are obtained through interviews. Most farmers in Sweden use the services of an accounting firm for the bookkeeping. Statistics Sweden co-operates with a nation-wide accounting organisation, and approximately 20 of its local offices are responsible for the collection of the data. Results are presented in various ways, which include the possibility for an analysis of incomes including capital gains and losses.

The data collected are now restricted to farming activities (including forestry) on the holding. The treatment of forestry may be influenced by discussions being undertaken within the European Union's Farm Accountancy Data Network (FADN), to which the JEU contributes. As mentioned above, questions on non-farm incomes received by the farm operator and family were dropped from the JEU some years ago.

(b) *Taxation data*

Taxation in Sweden takes several forms, a number of which generate statistics that are relevant in the present context. Both national income tax and municipal income tax are levied on taxable income from employment and business activities. Income from capital is taxed separately at a flat rate. There is also a property tax on immovable property (dwellings). In principle, Swedish VAT is payable on all commercial

goods or services within Sweden. Companies are subject to tax on income from Swedish and foreign sources. Special rules apply to closely-held companies.

In Sweden there are many surveys based on administrative registers involving tax data, solely or in combination with other data sources, especially questionnaires. In addition to reducing the costs of data collection, using administrative registers offers the possibility of producing statistics for very small areas since many registers involve the whole population.

A new taxation system was phased in after July 1990, taking full effect from the 1992 tax year. The income of individuals may now be recorded under three categories: income from employment, income from business and income from capital. Up to 1990 agricultural income was separated from other business income.

With these tax system changes, the statistical use of income tax return forms for monitoring the income situation of households has been made more difficult. In many cases, data on agriculture cannot now be separated from data on other entrepreneurial activities and often the receipts and expenses in agriculture are poorly specified.

There are three principle sources of information on the incomes of agricultural households that use tax data, described below.

(i) The Taxation Statistics of Agriculture (*Deklarationsundersökningen för jordbrukare, DU*)

The DU is a sample survey covering farmers' assessed incomes and expenses based on income tax returns. The DU has been mainly used by Government authorities in planning agricultural policy, research and education. Some parameters in the DU are used for farm models.

The Farm Register is used as the sampling frame. Up to 1990, the population covered all holdings exceeding 2 hectares of arable land and included the total income of households. From 1991, the sample was reduced from 6 500 to 2 700 holdings and covered only the income from agriculture and forestry. The population was limited to middle-sized cropping farms and dairy farms. The DU was not carried out in 1994 as its future conditions are under review.

Agricultural income is defined in the DU as the receipts from sales of agricultural and forestry products, direct payments and the imputed value of own consumption, less costs of inputs, maintenance of buildings and machinery, interest payments on farm debt, social insurance contributions and depreciation allowances. Net changes in stocks and other balance adjustments are then added.

Up to 1990, the DU can be regarded as having represented all agricultural holdings and thus corresponded to the TIAH "broad" approach to the definition on an agricultural household. Since 1991 the results cannot be used as the basis for the TIAH statistics, as the total income of the household has not been covered.

(ii) The Survey of Income Distribution (*Inkomstfördelningsundersökningen, HINK*).

The Survey of Income Distribution (HINK) has been used to analyse the distribution and redistribution of income and wealth in Sweden. There are three main sources of data in the HINK. The first is an interview of a sample of households and the second is a transformation of data from the income tax return forms relating to these households. The third is a connection to the sample of all data from the statistics of the whole population (IoF). Data are recorded on earnings from different sources (employment income, capital income, entrepreneurial income including agricultural income etc.). An important part of the data content is the positive and negative transfers, which make it possible to calculate disposable income. Wealth is also described by data on financial assets, real estates, cars and boats; data on most of these assets are within administrative registers. Nevertheless, there are still missing data for some types of housing and of durable and semi-durable goods.

The main sample frame is the Population Register, a national register including all living individuals in Sweden. From this frame a stratified sample is chosen. The HINK covers all people other than those living in institutions. Until 1992, the HINK included about 10 000 families, of which there were 575 agricultural cases. However, the number of agricultural households in the sample has diminished and is now too small to permit reliable income estimates to be made.

For the HINK sample, families constitute all persons living together. In the surveys up to 1992, the family consisted of spouses and children aged 17 years or less. Persons of age 18 and above were considered as a separate family unit irrespective of whether he/she was living with his/her parents. In the 1993 survey (and probably also in the 1994 survey), the main presentation of results was for the "core family" (spouses and children aged 17 years or less). However, from the 1993 survey onwards, data were also collected for the broader "dwelling household". In future, the main results will probably use the concept of the "dwelling

household".

In analysing the HINK, a "narrow" definition of the agricultural household has been used, but based on the main occupation of the reference person (rather than the TIAH's target definition of the main income of this reference person). However, the HINK has also been analysed in an alternative "broad" way, in which the households selected were those with holdings of 20-100 ha of arable land; in 1987 results were based on 354 farmer cases in this size band.

(iii) Statistics on Income and Taxes based on the whole population (Inkomst- och förmögenhetsregistret, IoF)

These statistics are based on the whole population resident in Sweden which come from tax authorities and others like the National Social Insurance Board. The statistics are normally published 20 months after the end of the income year. In the first run, statistics are based only on data from the National Tax Board. Statistics Sweden receives registers which include different types of taxable income, as well as different data on wages and taxable contributions from National Social Insurance Board, like pensions and sickness allowances. In the second run of the statistics, cash contributions such as child allowances, social assistance, housing allowances, student assistance, education grants etc. are included; these are administered by different authorities.

For 1991 and 1992 a connection was made between the IoF register and the Farm Register. This allowed the production of statistics showing the total household income of agricultural households corresponding with a *broad* definition. A drawback of the IoF is that agricultural income cannot be separated from other entrepreneurial income.

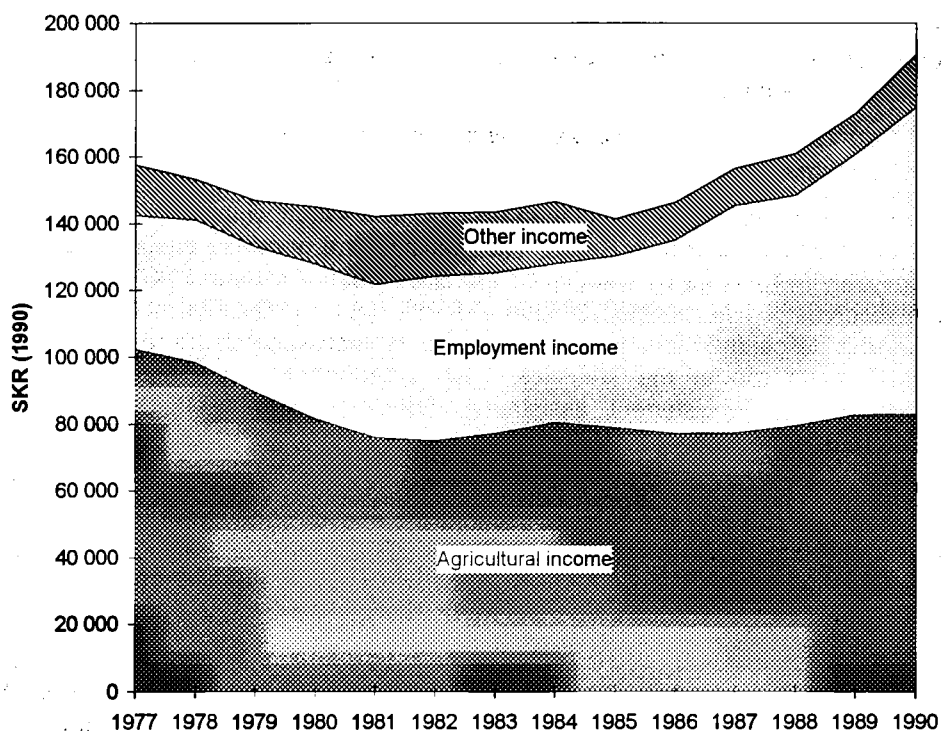
Comments on the results

Results for Sweden on the total and/or disposable incomes of agricultural households or holdings relate mainly to the period before the 1990 change in agricultural policy and revisions to the data systems.

(a) From The Taxation Statistics of Agriculture (Deklarationsundersökningen för jordbrukare, DU)

Figure S1 gives an example of the income results from the DU, expressed in real terms, for the years 1977 to 1990. The coverage corresponds with a "broad" definition of an agricultural household but the example relates to one size group of holdings (30-50 ha). This is an important group consisting of middle sized family farms. Over the period, the total income per household at first fell in real terms but then increased substantially in the later years. This rise was not due to the incomes derived from agriculture; farming income fell in the first four years and was subsequently maintained at near the same level. The increase after 1985 came primarily from a sharp rise in income from other forms of employment which, in 1990, contributed more to household income than did farming. Over the entire period, the share of total income coming from farming declined from about two thirds to less than half.

Fig. S1 Sweden: Average farm household income and its components (SKR, 1990 prices). Farms with 30-50 hectares arable land, 1977 to 1990.



Source: The Taxation Statistics on Agriculture (Deklarationsundersökningen for jordbrukare, DU).

(b) From the Survey of Income Distribution (Inkomstfördelningsundersökningen, HINK).

Results from this source come in two forms. First, for the period 1975-1990 data are available at Statistics Sweden for agricultural households and some other socio-professional groups (classified using the "narrow" definition, main occupation criterion). For the purposes of comparing living standards, these statistics are less than ideal because they fail to take into account different tax regulations as well as other non-measurable elements. As an example, results for 1989 are shown in Table S1. On the basis of these unadjusted figures, agricultural households had lower average incomes than the other two groups shown (households whose reference persons were entrepreneurs or employed workers).

Table S1 Sweden: Average household income by socio-economic groups, 1989 (SKR 1988).

	Farmers	Entrepreneurs	Workers
Entrepreneurial and employment income	106 000	156 000	149 000
Financial income	13 000	15 000	5 000
Transfers, including pensions and annuities	15 000	17 000	26 000
Other transfers (not taxable)	8 000	8 000	7 000
Total	142 000	195 000	187 000
Taxes	41 000	62 000	62 000
Disposable income	101 000	133 000	125 000

Source: Statistics Sweden, HINK, special extraction.

The second form in which HINK results come is as part of the explicit comparison of the incomes of farmer households with other households, that were made during the 1980s (up to 1987) as a basis for the negotiations on agricultural prices. They were intended to indicate the potential standard of consumption for farmers and other comparable groups in society. The agricultural households in the sample were selected in a special way to satisfy agricultural policy makers and were limited to holdings in the size group 20-100

hectares of arable land (354 cases in 1987).

In order to make a more complete comparison of the incomes of employees with those of farmers and other entrepreneurs, some adjustments were carried out, including changes to agricultural income and housing benefits. These involved corrections, based on DU and JEU information, for the special deduction of investment costs; of depositions to funds for future investments; of decreases in the amount of standing timber; of increases/decreases in forest accounts; of changes in values of stocks; of depreciation; and of car costs. In addition to these corrections, the amount of tax was amended to correspond to the adjusted income level. Table S2 shows the "comparable incomes" (disposable income in Skr per household) of married/cohabiting persons for the years 1980 to 1987. On this basis, the average income of farmer households was in each year below that of both groups selected for comparison. Furthermore, the relative position of farmer households appeared to have deteriorated over the period.

Table S2 Sweden: "Comparable incomes" of farmer households and other selected groups, as calculated and adjusted for use within Sweden's agricultural policy. SKR (nominal) per household.

Year	Farmers (a)	Workers (b)	Salaried employees (c)	(a) as % of (b)	(a) as % of (c)
1980	64 600	78 400	87 400	82	74
1981	73 800	85 300	93 900	86	79
1982	81 000	92 300	103 300	88	78
1983	78 400	100 300	111 800	85	70
1984	91 800	110 100	120 700	83	76
1985	91 600	121 400	133 000	75	69
1986	94 700	127 600	141 400	74	67
1987	103 100	137 900	155 200	75	66

Source: Joint Council for Economic Studies in the Food Sector

Comment

The HINK results, and those of the DU above, suggest that the income situation of agricultural households in Sweden has been less favourable, relative to other households, than has been found in many other Member States. However, confirmation of this, and of the trend, requires further information. Bilateral discussions are taking place between Eurostat and the statistical authorities on the ways in which more recent and more complete results can be generated, and how these can be linked with the system of national accounts.

UNITED KINGDOM

Methodology

General approach

Model 1. Aggregate estimates of the total income situation of agricultural tax cases are grossed up from the Inland Revenue (taxation authority) Survey of Personal Incomes (SPI).

Household unit

The basic units in the statistics are tax cases. Prior to 1989 these comprised single persons and married couples (which counted as single cases). However, independent taxation was introduced in the 1990/91 assessment year, affecting estimates of income from self-employment (independent activity) from 1989 and of all income from 1990 onwards.

Household classification

On the basis of the income of the tax case. Up to the 1990/91 year of assessment, agricultural cases were those in which self-employment (independent) income from agriculture or horticulture usually constituted the main or principal additional source of *self-employment income* of single persons or husbands or the main source of self-employment income of wives. Since then, husbands and wives have been treated separately and included in the analysis only if they, as *individuals*, have a main or principal additional source of self-employment income deriving from agriculture or horticulture. The classification to agriculture or horticulture is based on the Inland Revenue's Trade Classification. It should be noted that the classification system does not make use of a comparison of the income coming from independent activity in agriculture with total income, but only with that part coming from independent activity in all industries. Households that operate their farms as corporate bodies, and therefore receive income in the form of compensation from dependent activity rather than as income from independent activity, are therefore not treated as agricultural.

Years for which results are available:

1980 to 1991. However, because of the change to independent taxation referred to above, figures for 1989, 1990 and 1991 are not comparable with earlier years.

Comments on the results

The UK does not undertake, within the framework of national accounts, a general disaggregation of its households sector into socio-professional groups. No macroeconomic methodology is in place by which this could be done. Thus, in order to generate information on the income situation of agricultural households for Eurostat's TIAH statistics, attention has had to be given to microeconomic data sources. There are several such sources, but currently only one (the Survey of Personal Incomes) is capable of providing the required information for farmer households, with the possibility of comparable results for all households together. However, it has substantial deficiencies in the present context, outlined below. Of the others, the UK's Household Budget Survey contains too few cases of households headed by a farmer to be useful for grossing up to national level. The Farm Business Survey (FBS), which since 1988/89 has collected some information on the non-farm income of farmers and spouses by income band, does not cover deductions leading to disposable income and its sample is not necessarily representative of agricultural households; an analysis of FBS findings for 1992/93 is referred to later.

The annual Survey of Personal Incomes (SPI) is drawn from taxation records. The SPI does not cover the same set of cases each year; a fresh sample is drawn annually. Tax cases are classified as described above (see the Methodology section). It is understood that some discretion is used by tax authorities in allowing for fluctuations in the income from farming before a household is reclassified. The SPI contains about 1% of agricultural cases. Information from this source has been published for several years in the annual national report on incomes (first appearing in the 1986 edition of Farm Incomes in the United Kingdom) and the period covered now extends from 1977-78 to 1991-92. However, the change to a system of independent taxation of individuals (rather than treating married couples as a single tax case) from the 1990-91 year of assessment means that figures published for 1990-91 and subsequent years are not comparable with those for earlier years. For the TIAH statistics, the results for the UK have been adjusted to

correspond to the calendar year shown; for this reason, figures reported to the TIAH project are not identical with those given in national publications.

The SPI approach differs from the target methodology in some important respects. Among these, perhaps the most significant relate to the sample and coverage of households. First, the classification used means that the households which were described as agricultural (before the change to independent taxation) did not correspond with either of the "narrow" definitions (where independent activity is the main income source of the household's reference person or that person's main occupation, or where it is the main income source of the entire household). Rather, the UK's SPI approach was closer to the "broad" definition, but did not necessarily cover all households who operated holdings⁴⁹. Second, not all members of the household were included in the tax case, and this could affect both the amounts of income recorded and the numbers of households (when a household income classification system is in use). Third, households which operated their holdings as corporate bodies and thereby whose members received payments as dependent workers (employees) of the farm business were not included within the agricultural group (unless the farmer or spouse happened to have some other income from self-employment in agriculture). These are important in the UK context. In 1990 just under one quarter (23%) of the Net Operating Surplus of UK agriculture was estimated to have been generated on corporate farms; the proportion was very similar in 1984. Evidence from a range of sources points to these farms as tending to be found disproportionately frequently among the larger-size groups but, despite their size, the overwhelming majority would also be owned and managed by families. The SPI cannot provide a separation of the corporate farms into "family businesses" and "other". The omission of the households associated with these farms represents a significant gap in the SPI coverage.

The shift to the independent taxation of individuals, which increased the number of agricultural and horticultural cases in the raised estimates by about one quarter (from 283 000 in 1988 to 360 000 in 1990), has taken the SPI approach further away from the TIAH target methodology in terms of the ability to use a household unit for the purpose of classification into trade (socio-professional) groups and the unit over which measurement is made.

There are also problems of a more technical nature. The basic data in the SPI refer to income assessed for tax in particular tax years (beginning 6th April) and not to the incomes earned in any particular calendar year. Differences between the taxation arrangements applied to various types of income mean that the income assessed for tax contains a mix of earning periods; for example, that from self-employment assessed in 1988-89 was largely earned in 1987 but that from other sources related to the (tax) year of assessment. In the SPI, incomes from self-employment take into account taxation conventions; they are net of capital allowances, stock relief, superannuation contributions (a social benefit contribution), expenses of employment and business losses (if there is sufficient income against which they can be offset). Items that are not part of taxable income (such as the imputed income from owner-occupied dwellings) do not appear in tabulations taken from the SPI. Disposable income is not a concept in use and, though income after tax could be calculated, this does not currently appear in national publications.

The nature of the source of information for the UK means that particular caution must be exercised when interpreting the results. In addition to the problems mentioned above, the results from the UK as presented to Eurostat do not contain estimates for all households together or for other socio-professional groups by which comparison of the income situation of agricultural households could be made.

(a) Composition of total income

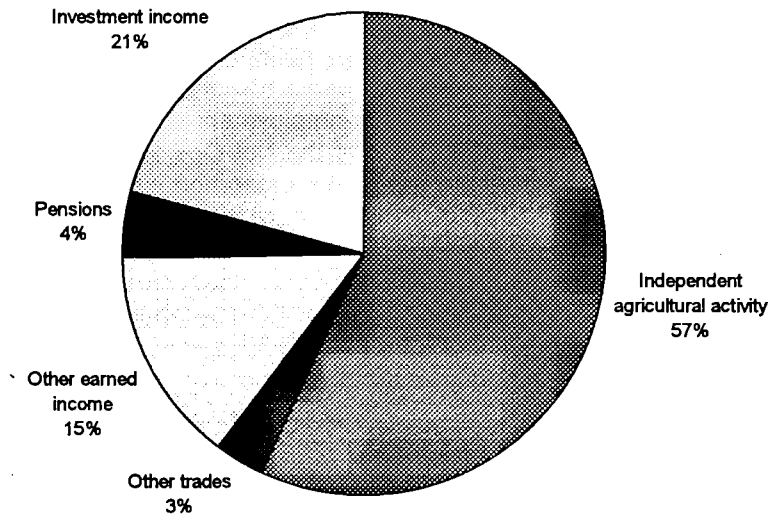
Despite the limitations of coverage referred to above, some observations may be made using results from the SPI. The composition of total income (assessed for tax) for 1980 and 1991 (the latest for which all items are available) for all agricultural and horticultural cases is shown in Figure UK1. Income from independent activity in agriculture and horticulture (labelled "farming") formed just over half the total (57% in 1980 and 55% in 1991). Over the period shown the share varied from 54%% (1981) to 62%% (1984). The second largest source in each year was investment income; the share of total income from this was at its greatest (29%) in 1991. The main change seen with the switch to independent taxation seems to have been a drop in

49 National UK reports also contain separate sets of results (not adjusted to calendar years) for tax cases in which self-employment income in agriculture and horticulture was the main source (that is, after the exclusion of those where it was the principal additional source). Numbers of cases were smaller (in 1987/88 261,000 cases, against 280,000 cases where it was the main or principal additional source; in 1990/91, after the change to independent taxation, there were 330 000 individuals whose main source of income was from self-employment in agriculture and horticulture, in contrast with 351 000 where it was the main or principal additional source).

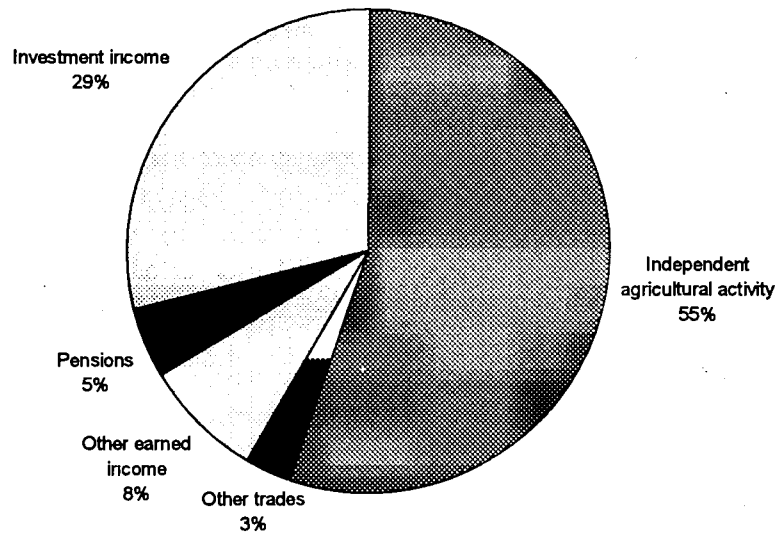
the share of income coming from "other earnings" (that is, mainly wages) and a rise in the share of income from property⁵⁰.

Fig. UK1 United Kingdom: Composition of the total taxable income of cases in the Survey of Personal Incomes where agriculture and horticulture is the main or principal additional source of self-employment income, 1980 and 1991.

1980



1991



Note: Refer to the text for the reasons why results for these two years are strictly non-comparable.

50 These results relate to cases where income from self-employment in agriculture and horticulture was the main source or principal additional source of self-employment income. Confining coverage to only those cases where it was the main source resulted in an average income from agriculture and horticulture which was a little higher than for all cases (6% higher in 1987/88 and 5% higher in 1990/91), but a total income which was 6 per cent lower in both years.

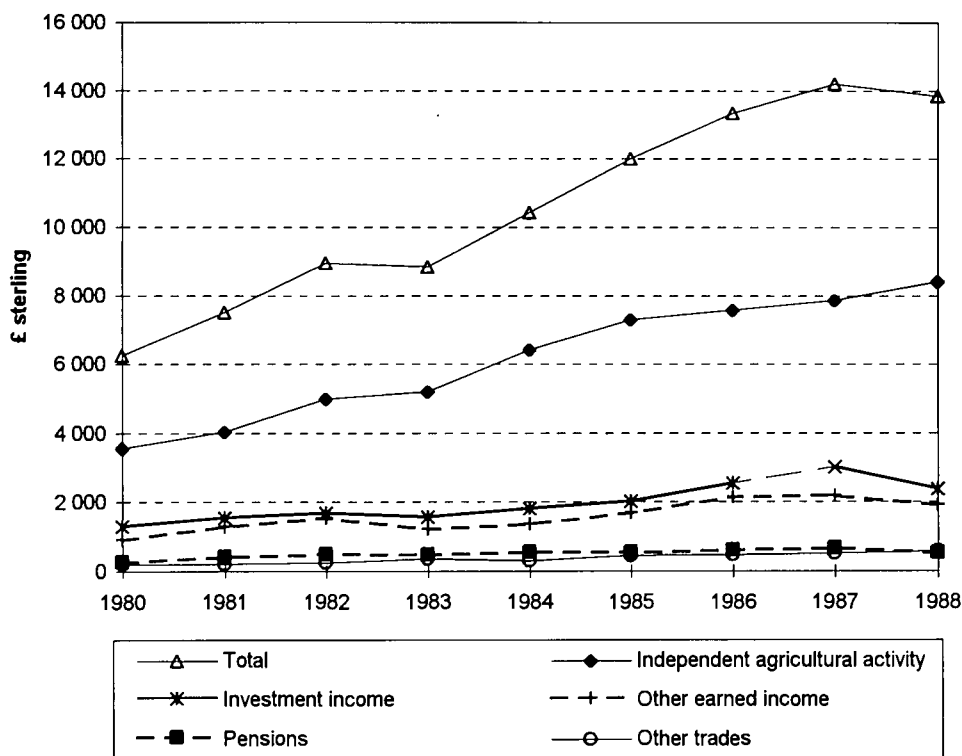
Deductions are not given in the results adjusted to a calendar year basis. However, reference to the unadjusted figures in national publications finds that, in the taxation years 1978-79 to 1991-92, tax took from 17% (1988-89) to 24% (1981-82) of total taxable income.

The nature of the data source permits a disaggregation according to the level of income. Again using the unadjusted figures, under the previous system when couples were taxed together, farming was found to be somewhat more important for middle income bands than for incomes at either of the extremes. Under the system of independent taxation, it can be shown that in 1990-1991 income from self-employment in agriculture and horticulture was relatively less important in the highest income band (the 2% of cases with incomes of over £50 000), where it accounted for 32% of total income, compared to over 60% in the other income bands. Half of the total income of these high-income cases came from investments. Cases at the other end of the income spectrum, where taxable income was less than £5 000, were far more numerous (42% of cases). The share of income coming from investments was lowest among these cases (16% of total income) and but they were relatively more dependent on pensions (10% of income); the importance of pensions declined as higher income bands were reached.

(b) Developments of income over time

The grossed-up figures of income for the period 1980 to 1990 reflect, in part, changes in the estimated numbers of tax cases belonging to the agricultural and horticultural group (numbers in 1985 seemed particularly high) and, in 1989 and 1990, the impact of the introduction of independent taxation. Consequently, developments over time are best described using incomes per tax case, but this is only appropriate up to 1988. Figure UK2 shows movements in the components of total income over time (in current £ per tax case). No consistent differences are evident in the growth patterns of the various income components. By 1988 total income had risen to 221% of its 1980 level in nominal terms; the smallest rise (to 183%) was shown by investment income, but this had fallen from a higher figure (231% of the 1980 level) in the previous year. The largest rise (to 282%) between 1980 and 1988 was seen in the income derived from self-employment in other trades. In no year in this period did the average nominal income from self-employment in agriculture and horticulture fall from one year to the next, though there was a slackening in the rate of increase between 1982 and 1983. This corresponded with falls in income from wages, from pensions and, in particular, from investment, so that total income per case fell, though how much of this can be attributed to sampling error is not clear.

Fig. UK2 United Kingdom: Development of income per case in the Survey of Personal Incomes where agriculture or horticulture is the main or principal additional source of self-employment income, 1980 - 1988.



(c) Supplementary information from the Farm Business Survey (FBS)

Though not suitable for contributing results to TIAH statistics, information on the off-farm income of a farmer and spouse coming from the UK's farm accounts survey (Farm Business Survey, or FBS) can cast light on some important distributional issues. Only a flavour of the information available can be given here. Items of off-farm income covered in the FBS are income from employment and self-employment away from the farm and unearned income from investments, pensions and social security payments (including child benefit, family credit and other cash welfare payments). Income generated on the farm from activities that are not closely related to agriculture, and for which the employed resources of the farm business can be separately measured (such as tourist accommodation, catering and rural crafts), is included in "Other on-farm income".

The average off-farm income (estimated using income bands) in 1992/93 in England was £4 700, compared with a cash income from farming of £21 700; on average about half of the off-farm income came from employment and self-employment off the farm, and half from other sources, including pensions and property. Off-farm income was substantially lower than the income from farming in most farming types; off-farm income per farm was lowest among dairy farms and highest among lowland cattle and sheep farms, cereals farms and horticultural holdings. The level of other on-farm income (that is, generated on the farm but not by agricultural or horticultural production) was generally very low. Off-farm income per farm was smaller in Scotland and Northern Ireland (averaging £4 000) and Wales (£2 700).

Some 69% of farms in England in 1992/93 reported some other income. However, the earnings were unevenly distributed, with only 12% of farms receiving more than £10 000. In Scotland and Wales the proportions of farms with some other income were lower (56% and 48% respectively) and smaller shares of farms had incomes of over £10 000 (11% and 10%).

(d) Statistical developments

The ability of the United Kingdom to supply TIAH statistics is constrained by the lack of a suitable source of basic data. There are problems in using the Survey of Personal Incomes, based on tax records, and these are likely to become more difficult. The Farm Business Survey is oriented primarily towards the provision of data on commercial farm businesses, not farmers and their households. Developments in the FBS are possible, but these will be linked essentially with the changing requirements of the EU's Farm Accountancy Data Network in terms of sample coverage and types of information collected. UK statistical authorities are at present pursuing alternative data sources, such as the UK's Family Resources Survey, which may hold possibilities for improving the information contributed to the TIAH statistics.

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Total income of agricultural households — 1995 report

Luxembourg: Office for Official Publications of the European Communities

1996 – X, 132 pp. – 21.0 x 29.7 cm

Theme 5: Agriculture, forestry and fisheries (green covers)

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ISBN 92-827-5911-3

Price (excluding VAT) in Luxembourg: ECU 12

The 'Total income of agricultural households: 1995 report' continues a series of publications concerned with the development of statistics that reflect the overall income situation of agricultural households. Since the publication of the first report in 1992, there have been a number of developments that make appropriate a second general review of the progress made in the methodology of the 'Total income of agricultural households' (TIAH), and of the results that have been accumulated.

This publication is in two parts; the first covers the general report and the second the country reports.

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- (i) Introduction
- (ii) Major features of the TIAH methodology, covering the extensions and modifications that have arisen since 1990, including the adjustments arising from the revised European system of integrated economic accounts (ESA).
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