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# TOTAL INCOMES OF AGRICULTURAL HOUSEHOLDS

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# **TOTAL INCOMES OF AGRICULTURAL HOUSEHOLDS**

**Existing information and proposed methodology  
for a harmonized aggregate indicator**

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## FOREWORD

This Study Report has been prepared by Berkeley Hill of Wye College, University of London, on behalf of Eurostat, Luxembourg. The intention is to give a general account of the current state of knowledge on the income position of agricultural households in Member States of the European Community and of work undertaken towards the development of an aggregate income indicator for these households using a harmonised methodology. Technical details will be found in a Handbook of Methodology which is in preparation.

The material has been drawn from:

(a) reports prepared by the statistical authorities of Member States on the situation regarding the measurement of total income of agricultural households in their respective countries. These are available in their original languages and in English translation. No written reports exist for Spain and Portugal.

(b) multilateral discussions within the Working Party on the Economic Accounts for Agriculture based on working papers, including an interim report prepared from the national reports (E/LG/111).

(c) discussions within Eurostat by staff responsible for agricultural accounts, national accounts and family budget surveys, and between Eurostat and DG.VI of the Commission.

(d) bilateral discussions between, on the one hand, the statistical authorities in members states and, on the other, Eurostat and its advisor. Reports of these discussions are available in English.

(e) other information gathered by Eurostat and its advisor.

The contents of this Report are the responsibility of Berkeley Hill.



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## CHAPTER 1 INTRODUCTION

The genesis of this Study was the need for better information on the total income of farmers' households resulting from the new orientation of the Common Agricultural Policy (CAP). There is a well-established and harmonised system of aggregate economic accounting within the European Community (EC), of which the economic accounts for agriculture form a part, and a system for monitoring the income developments of individual farm businesses (Farm Accountancy Data Network, known by its acronyms FADN or RICA). However, no parallel systems exist by which the incomes of farm households in the Community can be assessed. Household incomes can differ substantially from the incomes generated from farm businesses because of the existence of earnings from other activities and from welfare and other transfers which may be received by farmers or other members of their households. On the other hand, usually there are payments which must be made out of income (such as personal taxes) before households are free to dispose of the residue. Because of these and other factors, it is now recognised that measures of agricultural activity are not a satisfactory guide to the personal income situation of farmers and their families.

The immediate aim of this Study was to develop a common methodology for generating indicators of the aggregate disposable income of agricultural households in Member States of the EC. The intention is that these indicators will eventually stand alongside those relating to the agricultural branch of the economy and to farm businesses in assisting policy decisions within the CAP. They will enable the changing level and composition of the incomes of agricultural households to be monitored over time, both in total and on a per household basis. Furthermore, some comparison with the income position of non-agricultural households within individual countries should also be possible. With this in mind a preference was shown for a methodology which was compatible with the system of national accounting as used in the European System of Integrated Economic Accounts (ESA). At present the ESA has not advanced to the stage in which Community accounts for the household sector of the economy are broken down into socio-professional groups, of which agricultural

households would form one, but it was felt that any proposals emerging from this Study should be in line with the procedures that a more comprehensive disaggregation within the ESA would be likely to adopt.

The prime interest of this Study was in a macroeconomic indicator, corresponding to the aggregate disposable income of all agricultural households. Many important policy questions also require detailed information on the distribution of total income and, in particular, the numbers and characteristics of low-income households, but the aggregate was considered the most appropriate point of departure. However, before an aggregate income indicator for agricultural households could be developed for general Community use it was necessary to evaluate the nature of the income information that is required, to review what is already available and how it is used, to identify gaps which must be filled and to assess the alternative ways of filling them.

### Background

The CAP is showing an increased awareness of the Treaty of Rome's fundamental concern with providing a fair standard of living for the agricultural population. This largely arises because of success in achieving other objectives and the emergence of surpluses in markets for farm commodities. In former times, when higher levels of production were welcomed, expansion of output was encouraged as a way of giving higher rewards to farmers and their families. Now, with the emphasis shifted to constraining output and the costs of support, a decoupling of the production aspect from the social support aspect of the CAP is necessary. This is forcing a re-examination of what is meant by the Treaty and a search for the statistics by which the need for action by the CAP can be assessed and costed, and the performance of its instruments monitored.

Though alternatives are possible, the conventional way to approach an assessment of standards of living is through the measurement of incomes. Hence the CAP is seen to be increasingly dominated by what is referred to as the income objective. Changes in product price support are often

resisted because of the effect they are thought to imply for the incomes of farmers. Reform of the CAP is interpreted largely in terms of finding ways in which the income objective can be more effectively approached.

An income approach which aims to be a proxy for the standard of living of the agricultural population will need to cover income received from all sources, and it is appropriate to focus on the household or family unit rather than on the head alone. The concept is one of personal income of the household rather than the income received from farming activity. This marks a substantial departure in thinking from that usually adopted within the CAP and, indeed, within most national agricultural policies.

Community income indicators at both macro and micro levels have by convention confined themselves to measuring the income from agriculture solely and have adopted the holding as the basic unit rather than the farming household. The absence of systematic information on the personal circumstances of agricultural households in the EC has constrained the ability of policymakers in their design of new instruments appropriate to changed conditions and targeted more precisely on those farm families requiring the most support, and in their monitoring of the development of Community agriculture.

Where data on the personal income of farmers and their households exist (both inside the EC and elsewhere), the evidence underlines the desirability, even the necessity, of collecting a more comprehensive set of income statistics. The average household income per farmer is in total substantially higher than the average income derived from the holding. Again in general terms, the size of this difference has been widening with the growth of pluriactivity (combining farming with some other gainful activity) and through the rise in the number of pensions and other welfare benefits for which farmers are eligible. These other forms of income are typically more stable than the income from farming, moderating the fluctuation in the total income of farmers. Other gainful activities are found in all size-groups of farm, yet their numerical importance is greatest among small farms which, generally, have the lowest incomes from farming. In many cases the levels of agricultural activity, investment patterns and the volumes of farming profits generated can only be

satisfactorily explained when non-farming incomes are also taken into account. The occupiers of part-time farms in some countries can be shown to have total incomes which are higher than those of full-time farmers, yet their incomes from agriculture may be lower. Such information has an obvious significance to the shaping of agricultural policy within the EC.

Attempts to assess the total income of agricultural households and the development of indicators for them face a number of conceptual problems. Important among these are:

- a) what constitutes a household and whose incomes should be aggregated to give household income? In particular, how should incomes belonging to adults in addition to the head and spouse be treated?
- b) what constitutes an agricultural household as opposed to one belonging to some other socio-professional group?
- c) how should income be measured, or what is the income concept to be employed? This will in turn depend on the sort of use for which the measure is intended, and special care will be needed if the incomes of agricultural households are to be compared with those of other groups in society.

The implications of these and other conceptual issues are discussed further in Chapter 2. Even if they can be settled there is the practical problem that, in many countries, data sources are relatively undeveloped. What is available within EC member states is described in Chapter 3 and the way sources are used in Chapter 4.

In any proposals for household income indicators to form part of the policy process of the CAP emphasis must fall on choosing a methodology which can be adopted by all Member States. Some EC countries already employ such indicators but their chosen procedures are not necessarily applicable elsewhere. It is not feasible to establish a new comprehensive

data collection and analysis network for agricultural households throughout the EC; not only is this ruled out for budgetary reasons but it would also prove politically difficult. What is possible depends to a large extent on what information sources currently exist or on what modification can be made to established series. Proposals for a common methodology are presented in Chapter 5. These have been developed through discussions with Member States, both in multilateral sessions and in bilateral meetings. The main features are common definitions of agricultural households and of the income concept to be employed. However a variety of ways exist by which national estimates corresponding to these definitions can be provided, with wide diversity between countries in their proposals reflecting their present and projected data sources. In the short-term some departures from the common concepts are inevitable as the indicators go through an experimental stage and harmonisation proceeds.

#### Stages of the research

The EC's Agricultural Statistics Committee (ASC), at its meeting of 20th November 1985, gave a positive reception to the Eurostat plan to record farmers' household incomes. As an initial step each EC country was requested to report on the available means of assessing the total income of farmers' households. There was the recommendation that the definition of agricultural households should be in line with the European System of Integrated Economic Accounts (ESA), that coverage should be restricted to the households of holders, and that provision be made for comparison with non-agricultural occupation groups. The Working Party on Agricultural Accounts (WPAA) was requested to look into the technical problems of the project, a function that has continued throughout the period covered by the Study.

The framework set by Eurostat for the reports submitted by each country covered:

- a review of the current situation with regard to the availability of information on agricultural households' disposable income and its components;
- a description of work currently in hand on measuring agricultural households' disposable income;
- details of estimates already made in this field (by official bodies or research institutions);
- a description of the sources which can be used for such work;
- if possible, proposals for achieving the objective in question.

Reports were received from ten countries and verbal accounts from Spain and Portugal. Wye College, University of London, was contracted to assist in this Study. The first task was to prepare an Interim Report, based on the individual responses by Member States. This noted that the responses differed widely in terms of length of document, approach and information available. Most countries had taken a microeconomic approach, describing a range of surveys which cast light on farmers' disposable incomes, some of which were capable of being raised to national levels. A few countries also took a macroeconomic approach, attempting to partition the economic aggregates used to estimate the personal income of the private sector into agricultural and non-agricultural segments. While recognising the fundamental interest of Eurostat with achieving a reliable macro-indicator, the Interim Report encompassed both macro and micro aspects.

The Interim Report, together with national reports, documents arising from internal discussions within Eurostat, with DG VI of the Commission and from the regular meetings of the Working Party, formed the basis of a series of bilateral discussions between the relevant national statistical authorities and Eurostat, with a representative of Wye College acting as advisor. This Final Report draws together the various strands and examines the present state of information in Member States on the income

of their agricultural households, puts forward guidelines for a common methodology for an indicator of their aggregate disposable income, and outlines the steps which each country proposes to take in order to generate the required information.



## CHAPTER 2: APPROACHES TO THE MEASUREMENT OF HOUSEHOLD INCOME

The policy debate focused by the 1985 Perspectives Green Paper clearly directs attention to the "fair standard of living" component of the objectives stated in the Treaty of Rome. The sorts of questions that are currently being posed include "how many farm households have incomes which are below an acceptable minimum? On what sizes and types of holdings are they to be found and, especially, in which regions and states? By how much do their incomes fall below this minimum or below some other arbitrary level, such as half the median income? To what extent do incomes earned from non-farm sources compensate for low agricultural incomes, and are these non-farm sources more stable than farm incomes?" Answers to these sorts of question require a bank of microeconomic data, capable of generating distributions as well as group averages. By its very nature, such information is slow to collect and frequently expensive. Where undertaken, data collection on total farm household income is usually combined with the gathering of other information (such as farm accounts surveys directed primarily at the business activities of holdings, tax records, and general household budget surveys aimed at the construction of price indices). On grounds of timeliness alone there is good reason why a macroeconomic measure of the disposable income of agricultural households should be developed. Eurostat has embarked on the construction of such an indicator; this Chapter explores the main issues encountered in developing the appropriate methodology.

Some deceptively simple questions have first to be posed, the answers to which are far from straightforward. These concern the essential matters of, firstly, what is the appropriate income concept to employ in this context and, secondly, what constitutes the group of households to which the income indicator is intended to apply.? The latter question can be put more plainly as "what is an agricultural household?".

Assuming these questions of definition can be settled, the next problem is the practical estimation of income indicators. Given that existing data sources impose constraints on the ways that estimation can be carried out, this Chapter also considers the alternative approaches that might be used.

### Concepts of income

For the purpose of assessing the ability of agricultural households to consume goods and services the most appropriate concept is disposable income. In national accounting terms this forms the balancing item in the "Distribution of income account" (Code N3 in the ESA). Disposable (personal) income is essentially a "sector" concept, in that it corresponds to a grouping of institutional units, in this case agricultural households. The account for households within the ESA is not as yet disaggregated into socio-professional groups, of which agricultural households would form one. The present study, leading to the construction of an account for agricultural households with disposable income as the end calculation, is seen as leading the way in this disaggregation process. Care is being taken that the procedures adopted in this one-group exercise do not conflict unnecessarily with the proposals for a more general disaggregation. As will be seen later, this causes some difficulties, both of a conceptual nature and, in countries where data are drawn primarily from microeconomic sources, of practicality.

The main elements in the calculation of disposable income are shown in Figure 2.1. Rewards from independent (self-employed) activity in agriculture are combined with those from other independent activity, from wages, property and transfers. Deductions are made for payment to owners of land and capital used in production, taxes, social contributions and other transfers out, leaving disposable income. This presentation reflects the macroeconomic origins of the income indicator, being a simplified form of the Distribution of Income Account (C3) for Households (S80) as shown in the ESA handbook (table T3, 1979 edition). Because the household account forms part of an integrated system in which transfers between sectors have to be accounted for, the treatment of some elements

Figure 2.1

Elements in the calculation of Disposable Income

- 1 Net Operating Surplus including imputed rent
  - a) Net Operating Surplus from agricultural activity
  - b) Net Operating Surplus from non-agricultural activity
  - c) Imputed rent for owner dwellings
- 2 Compensation of employees from agricultural and non-agricultural activity
- 3 Property and entrepreneurial income received (interest and rents)
- 4 Accident insurance claims
- 5 Social benefits
- 6 Other current transfers
- 7 Current receipts (1-6)
- 8 Distributed property and entrepreneurial income (interest and rents)
- 9 Net accident insurance premiums
- 10 Current taxes on income and wealth
- 11 Social contributions
- 12 Other outgoing current transfers
- 13 Disposable Income (7 minus 8-12)

is different from how these items are commonly perceived at the personal level. Many of the information sources reported in this present study are microeconomic in nature, and these will take a view of disposable income and the components leading to it which will not correspond exactly to the macroeconomic approach. Examples, developed below, are the differing treatments of insurance claim receipts, interest payments on private (as opposed to business) loans, and voluntary contributions to non-personal institutions. This disharmony between macroeconomic and microeconomic approaches is a familiar problem to economic statisticians.

Though not amounting to a serious challenge, the macroeconomic concept of disposable income might be questioned in several respects; these boil down essentially to a debate on what farmer-consumers perceive as "disposable" in their income and therefore the nature of the income concept most appropriate in the present context. In the list of items leading to disposable income shown in Figure 2.1 compensation payments from insurance claims are treated as a positive item. It seems unlikely that farmers perceive receipts arising from claims for the loss of business assets, especially capital items, as forming part of their disposable income; on the other hand, the payment of premiums relating to these assets is probably regarded as a business expense, the reward for the expenditure being a reduction of risk. The area of insurance claims and premiums is one of difficulty in many countries, less on theoretical grounds than because the information seems rarely to be available in adequate detail. In Figure 2.1 interest deductions cover loans not only for farming purposes, including land purchase, but also for consumer purchases; it could be argued that interest on private loans should properly be treated as a way of disposing of income rather than a deduction in its calculation, though in practice it is difficult to distinguish between private and business borrowing. In some countries deductions are made under "other outgoing current transfers" to preserve the integrity of the accounting system which would generally be regarded as ways of using disposable income - voluntary payments to churches and to political parties are examples.

The greatest impact on the final figure for the disposable income of agricultural households is likely to come from Item 1, the Operating Surplus from agriculture. Operating Surplus is essentially a

macroeconomic concept. In its Gross form (that is, before the deduction of capital consumption) it is described in the Manual on Economic Accounts for Agriculture and Forestry (Theme 5, Series E, 1987) as gross value added at market prices less the compensation of employees, taxes linked to production, plus subsidies. According to the convention described in the Manual, the compensation of employees will not include a charge for unpaid members of the farmer's family. Operating Surplus is before the deduction of rent and interest payments, and these items are deducted separately in reaching disposable income; in contrast, the microeconomic concept of income deducts them in the same way as hired labour charges.

In the estimation of Operating Surplus from agricultural activity there are several matters of contention. The first relates to the treatment of depreciation. As it stands, the estimation of disposable income is after deductions for capital consumption, that is Net Disposable Income is being measured. The rationale is that part of the gross income of farmers is not "disposable" for consumption purposes in that the failure to maintain the capital stock will in time be reflected in a reduced future income stream. However, in the short term depreciation allowances are available for consumption spending. A case could be made for two additional indicators; the first before taking depreciation into account and the second, as an alternative to deducting depreciation estimates, could deduct actual spending on capital goods. The latter is approaching an indicator of cash-flow available for consumption spending, but of course it is susceptible to manipulation by farmers within accounting periods.

The second arises with respect to changes in output stocks. Rising output stocks do not generate a cash flow which is available for consumption spending, though they form part of the income from production according to conventional accounting practice; increases constitute a form of deferred income. The view could also be taken that rising stocks are one way in which the farmer chooses to dispose of his income. On the other hand, reductions in output stocks by sale lead to a cash flow in addition to accounting income. Freedom of choice is critical to the way any change in stocks is interpreted and treated, as is also the ability of the farmer to

make the value of stocks liquid by borrowing against their market value. A similar case could be developed for input stocks and works in progress.

The third involves the value of own-produced goods consumed by farm households. If the objective is to achieve an indicator which views farmers as consumers, then own-consumption is more appropriately valued at retail prices rather than at farm-gate sale price (or costs of production). Within the present national accounting framework the latter valuation is used, not retail prices. A closely similar problem arises in imputing a value for the farmhouse accommodation; various approaches are possible. If an assessment of absolute levels of disposable income is wanted, then the value placed on the accommodation is important, especially if comparisons are to be made with levels of disposable income in other socio-professional groups. However, if interest is confined to changes in disposable income experienced in the short term by the agricultural household sector alone, it is probably unimportant which method of valuation is chosen.

The above points illustrate that the concept of disposable income put forward as the main indicator is capable of being challenged on detail. However, its general validity has not been brought into question. Most of the criticisms could be met by collecting information in sufficient detail to enable recalculation of the indicator to be undertaken in ways which reflect alternative views of the most appropriate measure of income for policy purposes.

#### The field of study - the limits of agriculture and of the agricultural population

The determination of the nature and extent of the agricultural population to which the proposed indicator is intended to apply has caused considerable difficulty to the progress of this study. There is no single definition of an agricultural household that is appropriate to all situations, even within the framework of the Common Agricultural Policy. Some forms of support are intended to benefit all producers while others

discriminate according to such criteria as holding size and the proportion of the holder's time and/or income coming from the holding.

The main problems to be faced are:

- a) what is the extent of the meaning of the term "agricultural"?
- b) are both self-employed (independent) and employed (dependent) households to be covered?
- c) what constitutes a household?
- d) how are agricultural households to be distinguished from non-agricultural ones?
- e) how are non-personal operators, such as farms arranged as companies, to be treated?

a) The limits of agriculture

Defining the meaning of the term "agricultural" is perhaps the simplest of these tasks. Within Member States the term may be used in different contexts to cover either the production of a range of defined products (typically grown in fields or livestock and their products) or more broadly to include not only farming but also horticulture, some processing, forestry and even fishing. The treatment of activities which are on the borders of conventional agriculture because they use farm resources (such as farmhouse overnight accommodation, camping, riding stables, and road haulage depots) vary. Frequently definitions used in surveys will differ from those of national accounts. As will be seen later, what activities are deemed to be agricultural and what to be non-agricultural has importance for the classification of households. However, there is already an established common definition of agriculture which forms a useful harmonised base. The Economic Accounts for Agriculture take a production branch approach; this values the final production of a list of items deemed to be agricultural wherever they are produced (crops and crop products, whether cultivated or not; animals and

animal products of agriculture and hunting (though not the manufacturing processes involved in making butter and cheese and other dairy products, which are regarded as industrial products); grape must and wine; and olive oil (unrefined). In addition, specialised units which supply machinery, materials and operating staff for the carrying out of contract work at the agricultural producer stage are also treated as part of the agricultural production branch. Where several production processes are vertically integrated (such as units which wash and pre-pack vegetables) the agricultural branch includes only those sections of the enterprise which fall into the description of agriculture above; the final production is valued at the stage of the last "truly agricultural" activity (Manual on EAAF). Though data sources in individual countries may not be fully in accord with this definition, the limits of agriculture are clearly established in Community statistics, and this is the obvious approach to adopt in the present context.

#### b) Self-employed and employee households

The Common Agricultural Policy is generally interpreted as acting for the benefit of the entire agricultural population. The main Community income indicators for the branch agriculture, in the per capita form, do not distinguish between self-employed (independent) farmers and their hired (dependent) employees. However it was clear from the national reports which formed the starting point of this Study that information on the incomes of households of agricultural workers is not readily available in a form which corresponds to the requirements of Eurostat. National statistics often have difficulty in establishing the industry group of hired workers, by which agricultural employees could be distinguished from others, and more so in determining how many are heads of households. The reports also made it clear that monitoring incomes in agriculture was widely interpreted in terms of the income of self-employed farmers and their households. An exception was Ireland, but even there the number of cases of employee-headed households in available statistics was very small. The UK, the country with the greatest number of hired employees, has a long-standing series of annual studies of the wages and conditions

of hired workers, but these are on an individual-worker basis; there are no plans to conduct surveys of the total incomes of workers and their households, who are in any event covered by national social security arrangements and who are not seen as direct beneficiaries of the CAP.

In view of the substantial data problems presented by hired workers and their relatively small numbers in the Community overall, it was felt appropriate to set them on one side. Consideration might be given to the advisability of a more comprehensive identification of households headed by agricultural workers in general household surveys, or special surveys of these workers, such as an extension of that currently used in the UK to embrace other forms of income. Consequently, the indicators under development here are restricted to households of farmers, that is those which are, to various degrees, dependent on self-employment in agriculture for their livelihood. In most cases there will be only one household of this type on an agricultural holding, but the methodology has to allow for situations, found most frequently on the largest holdings, where more than one household derives entrepreneurial income from operating the holding.

#### c) The nature of the household

What constitutes an agricultural household is affected by the choice of definition of household, so this and the following section are closely related. These issues pose the most difficult problems, partly because of the range of household composition found in the EC which raises doubts over the use of a single definition, but mainly because agricultural policy has no single group to which it is directed. In some contexts (mainly forms of structural policy) it seems to be aimed at only those households which are primarily dependent on agriculture for their livelihoods whereas in other contexts (mainly the commodity programmes) it seems that all producers are the intended beneficiaries. In the absence of specific guidance from the Commission on their interpretation of the term "agricultural household" the Study has had to take a view on the appropriate definition(s) to be used both for purposes of agricultural policy and for other use within the EC. This has been a matter of protracted debate within the Working Groups involved with this Study.

In the present context, which views the disposable income of agricultural households in light of the consumption possibilities of the agricultural population, it seems appropriate to take a broad definition of the composition of the household rather than to confine it to just the farmer and spouse and dependent children. Household income thus will include the incomes accruing to all the members. The Eurostat review of Family Budgets Surveys in EC member states showed that these typically include within a household all persons who share the same accommodation and who live together. The problem posed to the construction of an income indicator primarily focuses on adult household members who are in addition to the farmer and spouse. Where these exist, a wide range of degrees of integration will be found in the sharing of income and expenditure. The concept of "disposable income" implies a freedom to dispose, and it is far from certain that, for example, earnings from off-farm sources or pensions received by adults other than the farmer and spouse can realistically be considered to be at the general disposal of the "household".

The extent to which the disposable income of the farmer and spouse differs from that of the entire household will not be uniform across Member States, the difference being generally of greater significance in the south of the Community than in the north. In Denmark, for example, it is usual for young people to set up their own households once they take a job. In other (mainly Mediterranean) countries the extended family is common, with several generations forming a single household and with possibly several members working full-time in off-farm occupations. The household could thus contain members who were full-time in agriculture but its overall composition (in terms of numbers of people, total labour input or income) could be dominated by non-farming activity. The exclusion of this type of household would lower substantially the number of those classed as agricultural. In the UK, with a northern household type, a research study of holdings with an other gainful activity found that including the earnings of other family members made remarkably little difference to the proportions of farms mainly dependent on farming for their livelihoods.

After considerable deliberation and discussion, Eurostat has come to the decision that the appropriate household concept is the one which includes all household members. This covers not only dependent children but also any adults in addition to the farmer and spouse, including members who do not contribute to the operation of the holding. The precise definition will vary slightly between countries, as it does for their household budget surveys. Household income will reflect the incomes of all the members, irrespective of whether they are mainly or totally engaged on the holding or in off-farm occupations. Even where members have an off-farm full-time job there is a likelihood that they will make some labour input at some time in the year. But a more compelling reason for this Eurostat position is that, if these other household members were not included as part of the household for the purpose of income measurement, they would not fall into any other group in a disaggregation of the household sector and their incomes would not be accounted for.

One of the aims of the methodology is to generate estimates of incomes per household for the agricultural sector and to draw comparisons with other socio-professional groups. This must take into account any differences in size of households; typically the average agricultural household is larger than all-household size. This can be handled by bringing households of differing compositions to a common base by attributing weights to various types of household members (for example, couples, single persons, additional adults, and children of various age bands). These weights are termed an equivalence scale and are common features of household budget surveys. Though the weights will be similar in Member States, there will be variations necessary to reflect the differences in socio-economic condition which are encountered.

To cast further light on the impact of adopting the Eurostat preferred definition of a household, where the basic data exist the relative significance of including the incomes of people whose only contact with the holding is through residence in the farm household should be assessed. As will be demonstrated later, in some countries a narrower household definition (farmer and spouse and dependent children) has to be

accepted largely for practical reasons. Two major sources of information - farm accounts surveys and taxation records - commonly take the farmer and spouse as their basic unit for assessing income; when accounts surveys cover non-farming income they tend to do this for the farming couple only. Where family labour is not paid - and this will tend to be those situations where financial integration is at its highest - under the present accounting framework any wage which might be imputed remains with the holder and forms part of his (and his spouse's) disposable income.

d) The classification of households as being agricultural

In the discussions a variety of ways of classifying households as belonging to the agricultural group, as opposed to other socio-professional groups, was considered. Among these the most important were:

(i) households to which a holding is attached which qualifies for inclusion in the Structure Survey

(ii) households in which the head spends most of his time on the holding

(iii) households in which the major income source is the holding

The first corresponds to the broadest definition of what constitutes agricultural households. While this group obviously covers all full-time farmers, it also extends to those with other forms of earned income; indeed, if this were not the case there would be little purpose in conducting the present Study. Various degrees of part-time farming can be found. This applies particularly when the concept of part-time is extended to the entire household. It is evident that the policy interest does not extend to all households that have an agricultural holding; to do so would be to encompass many who are not regarded by the agricultural departments or taxation authorities of Member States as farmers and who are excluded from structural measures financed under the Common Agricultural Policy.

The main possibilities for classifying households are to base it on either the complete household or to use a "reference person" who is then used to assign the whole household. This "reference person" could either be an individual, such as the head of the household as is used in most household budget surveys, or the head plus spouse, as used in taxation records. When classification is carried out using the whole household this is in effect becomes the "reference person".

When it comes to the criterion on which the classification is to be based, a number of possibilities present themselves. Each will be appropriate to particular circumstances. The main criteria for classification are:

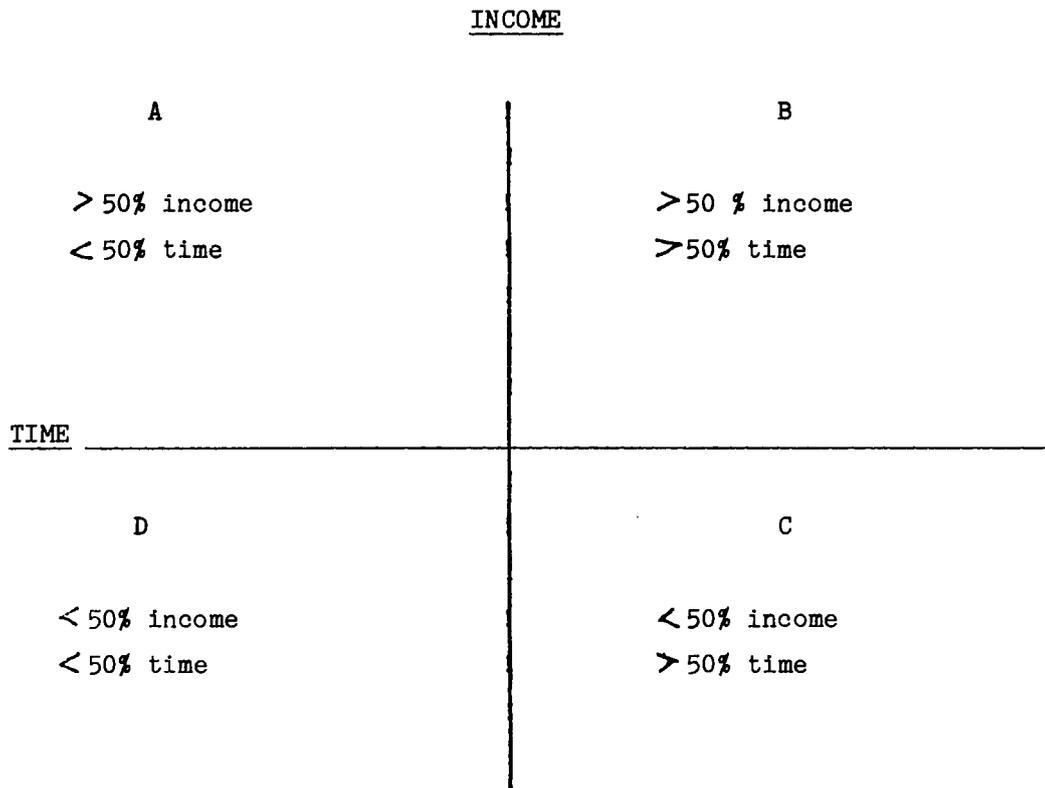
- (a) the amount of income from agriculture compared with other sources,  
or
- (b) the amount of time spent on agriculture in relation to that spent on other activities.

An arbitrary division at the 50 per cent of income or of time can be used to distinguish the agricultural from the non-agricultural.

There will be a correlation between classifications achieved by either criterion. It is to be expected that the time spent on agricultural and non-agricultural activities will reflect the income-earning potential of the resources commanded by households, though not in any simple and direct way. A cross-classification can be illustrated in Figure 2.2 which distributes households which operate an agricultural holding according to both income and time. Cases falling into quadrant B may confidently be treated as agricultural; agriculture is both the source of most of the income and the absorber of most of the working time. Similarly, quadrant D could be designated as non-agricultural (though its households are still operators of holdings). A few may be in this quadrant because of an inadequate resource base and a dependence on income from transfer payments; they may form the legitimate target of some sections of agricultural policy. This quadrant may also include the operators of some very large holdings who have even larger incomes from other industries and

Figure 2.2

Classification of households operating a holding by income generated  
by and time spent on the holding



who spent little of their time on their holding. Quadrants A and C present more perplexing combinations of circumstances and mixes of reasons for being included there; a case could be in C because the operator was retired from some other activity from which he still drew a substantial income but chooses to spend most of his time on his holding, or it could be a farm household struggling against adverse natural production conditions which absorb most of its available labour input yet leave it primarily dependent on other sources for its main income.

The classification can be made more complex if only earned income is considered for calculating the 50 per cent division (that is, interest, rents and welfare transfers are ignored) and if labour input to the holding is expressed with respect to a normal working week or to the total amount of time spent working.

As will be demonstrated later, in household budget surveys countries commonly use a subjective form of classification in which the head of the household is asked to indicate his main occupation, sometimes without any further guidelines as to how the term "main" is to be interpreted but in others suggesting that time spent in each activity should be used when the respondent is unsure how to classify himself.

From the possibilities outlined above it was necessary to recommend one system for classification which should be the aim of the common methodology. From the discussions it appeared that one based on the income composition was the preferred option, an agricultural household being one in which 50 per cent or more of the entire household's total current income (from all sources) came from operating the holding.

Two factors were important in determining the recommendation:

- (a) income composition seemed to be consistent with the general intentions of agricultural policy, especially the moves towards more direct forms of income support.

(b) most important, income composition was the method most likely to be adopted by the ESA in any disaggregation of the household sector in national accounting into socio-professional groups. As the estimating of disposable income for the agricultural household sector is seen as forming part of a more general disaggregation, consistency with ESA's intentions would be advantageous.

This recommendation has still to resolve some methodological problems. The fluctuation of agricultural incomes from year to year implies that some form of averaging over a period of, say, three years is desirable to prevent those households classed as agricultural, and hence the amount of income represented, shifting temporarily. While over a protracted period changes in the number of agricultural households must be allowed to be reflected in the size of the aggregate total income of this household sector, short-term re-classifications might give a false picture of what was happening to the income of households which, in the absence of short-term movements in farming prosperity, would be regarded as belonging to agriculture. And for those situations in which the holding is the major source of income but does not account for more than 50 per cent (perhaps 40 per cent, with 35 per cent from other earned sources and 25 per cent from pensions and property income) a decision pathway is being developed. The importance of both of these issues requires testing against a bank of microeconomic data.

#### (e) Non-personal agricultural operators

Some non-personal institutions (such as communal living units and universities) are considered as part of the Household Sector in the ESA, but even where they operate farms few would qualify as agricultural on an income criterion. A more substantial problem is posed where households arrange their farm businesses as companies for reasons of minimising taxation; as corporate enterprises they fall outside the Household Sector. Typically such companies are large agricultural producers, are totally owned by their operators and behave as personally operated holdings. Common sense suggests that the indicator should cover these

households. However they may present a problem, firstly in determining the distinction between these family-companies and those of a "real" non-personal nature, and because the operators may technically be classed as employees of their own companies and hence not appear in data sources in the same way as other self-employed farmers.

#### Summary of methodological recommendations regarding definitions

The main methodological points regarding definitions that emerge from the discussions and which are recommended by Eurostat for adoption in the new indicator of the total income of agricultural households are that:

(a) the concept of income is that corresponding to net disposable income as defined earlier. The identification of separate components in the list should allow a flexible approach to be taken, such as a recalculation of the indicator to give disposable income before tax and social contributions, or to exclude imputed elements.

(b) the household unit for which income is measured embraces all members of the household without distinguishing between those members who contribute to the operation of the holding and those who do not.

(c) households are classed as agricultural on the basis of the proportion of their total income which comes from the operation of the holding. This narrow definition of an agricultural household may be augmented for purposes of national investigation by a broader one, covering all households which operate a holding which qualifies for inclusion in the Structure Survey.

#### Interim divergencies from the common definitions

As will be seen later, EC Member States have a diverse array of information sources on the total incomes of agricultural households. These use a variety of definitions which depart, to greater or lesser

degrees, from the preferred methodology outlined above. In that movement towards harmonisation will require an adaptation of existing national positions, during the period of harmonisation it will be necessary to accept some divergencies from the preferred methodology. These should be regarded as interim expedients rather than alternatives. Dependent on the situation in individual countries, chief among these divergencies are:

(a) a classification system in some countries which uses the head of the household as the "reference person" for determining the socio-professional group of the entire household.

(b) the use of time-allocation rather than income as a way of determining the occupation group of the "reference person" or, in some situations, a subjective assessment by the head of household of his main occupation, a process that may involve both time and income in some unspecified combination.

(c) the use of a household concept which is narrower than the target definition, mainly in that countries which depend on tax records as a major source will typically have information relating to "fiscal households" which will usually be restricted to farmer, spouse and dependent children.

(d) in the definition of income certain items may present difficulty. This applies, in particular, to net payments to and from insurance agencies, where for simplification it may be necessary as an interim expedient to assume that the two balance at sector level.

It is assumed that these, and other, divergencies from the methodology set out above will eventually be corrected.

### Applying the methodology

Estimates of the total disposable income of agricultural households can be achieved in broadly two ways. Firstly, the elements in the calculation, shown in the first part of this Chapter, could be taken from macroeconomic sources in much the same way that the income of the branch agriculture is built up in national accounts. Hence the interest paid by farmers might be assessed from the returns from banks on loans outstanding to agriculture. The aggregate income from agricultural activity might be derived from the national accounts for the branch and adjusted for that part of income accruing to non-personal producers (public institutions and public companies) and households that are deemed to be non-agricultural. This is a macroeconomic approach which statisticians based in organisations responsible for national economic accounts might choose instinctively. The advantages of such a procedure, among others, are that the estimation of income of agricultural households is integrated into the system of national accounts and is reconciled with other economic aggregates, that there is the possibility of comparison with the incomes of other socio-professional groups, and that the estimates can be produced in a shorter period of time than other methods, important for incorporation into policy-making.

There are also disadvantages and practical problems. The possibilities for analysis are restricted, and generally only an average group picture can be presented. The macroeconomic path assumes that adequate data are available for the calculation to take place. However, the difficulties are more than when estimating the accounts for the branch agriculture. The products of the industry are what defines that industry; they are fairly distinct and relatively easily measured, both in physical units and, with the use of price information, their values estimated. Similarly, though perhaps with somewhat less sureness, the inputs to the branch agriculture can be identified. But the elements in the income calculation for a sector of the population - the flows to and from agricultural households - are not so readily quantified. Often macroeconomic data sources will not distinguish between payments to or receipts from people who form part of agricultural households from those involving members of other households. For example, banks will not generally record the occupation of people to whom they pay interest, still

less on the class of household in which they live. Aggregate agricultural income will be earned by households that are both deemed to be agricultural and non-agricultural and there is no means for distinguishing produce coming from holdings operated by households which have other sources of income from that from full-time agricultural ones. Incomes accrue to agricultural households from self-employment in agriculture and in other branches, from employment, as owners of property and as recipients of transfers. The complexity of this income mix aggravates the problem of identifying income flows using macroeconomic sources.

Often a distribution agent (or key) is used to allocate an economic aggregate between classes of recipient; as will be described in Chapter 4, information from a survey of tax records is sometimes used to distribute an aggregate income estimate in national accounts between different groups of households. The overall quality of this sort of 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 distributing agent; in the present context it is the latter which poses the bigger problem.

An alternative is to base the estimates on a survey of agricultural households, grossing up (raising) the results to national levels; this is the microeconomic path. Such a source has many advantages, offering a rich and flexible data base. Apart from enabling averages and dispersions to be calculated, it is usually possible to redefine groups within an overall field in order to carry out a more detailed analysis and to identify more clearly any differences in behaviour and other characteristics. Making national estimates from microeconomic information suffers from the problem of needing results that relate to a representative sample and which are capable of being raised within acceptable degrees of error. Some forms of data are difficult to collect in surveys which depend on voluntary cooperation, or are beyond the knowledge of willing respondents. When the aim is to construct an indicator which is compatible with national accounting methodology, as is the case here, there may be items that would not normally be covered in a survey approach which may prove problematic; these will be elaborated

later. There is also the problem of verifying at the individual level the accuracy of the data. This approach is typically costly and frequently involves delays before results are available; if collected as part of some other administrative exercise (such as taxation) the data may not be of the required form and, if mounted specially, cost tends to restrict the number of cases and hence the range of possible analyses.

In practice, full information using the macroeconomic approach is rarely available from aggregate sources and recourse is made to microeconomic data to fill in the gaps. Income tax records are often used in this way, sometimes for all taxpayers and sometimes using samples grossed up to national level. The use of survey information to distribute an economic aggregate has already been mentioned. Mixing data sources, at macro or micro levels or both, has to take care that the same concepts, conventions, coverage and time periods are adopted. In some countries this is possible; in Denmark, for example, tables are published on the income of full-time farms in which macroeconomic estimates of agricultural income are combined with raised survey data on non-farm incomes.

In reviewing the methodologies for generating the required income indicator three alternatives were considered:

Model 1: grossing up survey findings from samples of agricultural households.

Model 2: using macroeconomic sources for all the components in the income calculation, augmented only where necessary by microeconomic sources.

Model 3: using national economic accounts as the starting point for estimating the income of agricultural households from agriculture, by using appropriate distribution agents, but drawing on surveys to estimate all the other items in the calculation.

The aim of the present exercise is to generate estimates of the total disposable income of agricultural households on an annual basis, expressed in absolute terms and with the numbers of households and individuals to which the estimates relate placed alongside. However, it was recognised that primary data would not always be available for successive years. Large-scale surveys tend to take place only occasionally - typically 5 to 7 yearly in the case of household budget surveys - so some means of updating between survey (base) years would be required. Information from additional sources might be used to monitor changes in individual components in the income calculation and thus the change in disposable income estimated. This change estimate was termed Model 4 in the discussions; in countries where annual estimates of incomes in absolute terms prove possible, a separate Model 4 becomes redundant.

In discussion between Eurostat and the statistical offices of Member States no strong preference emerged for one model over the others. The choice depended very much on the available data and present practices. However, it was recognised that, where possible, the method used should not only be capable of tracing the incomes of agricultural households but should also facilitate the drawing of comparisons with other socio-professional groups. For some countries more than one approach seemed feasible whereas elsewhere the constraints imposed by data availability, actual or potential, limited consideration to one. Chapter 3 discusses the primary data to be found in Member States. Chapter 4 describes the methodology used in those countries which currently publish estimates (the Federal Republic of Germany, France, Denmark and the Netherlands), and Chapter 5 examines the proposals for each country to move towards the common methodology for the production of the new income indicator.

### CHAPTER 3 MICROECONOMIC SOURCES OF INFORMATION ON AGRICULTURAL HOUSEHOLD INCOME IN EC MEMBER STATES

This Chapter examines the sources of microeconomic information on the total incomes of agricultural households in Member States. Microeconomic data, relating to individual agricultural households or farms defined in a variety of ways, are important because in many countries they form the basis (or an integral part) of proposals to establish indicators of aggregate disposable income. Even in those Member States which at present construct estimates primarily using macroeconomic methods (the Federal Republic of Germany, France, the Netherlands) microeconomic data play a prominent role in the distribution of economic aggregates. Thus it is important to have a clear understanding of what information is available at the individual household level, country by country, and the limitations of existing sources. This review also serves to identify where significant gaps occur in the data required to construct an aggregate indicator of disposable income.

A catalogue of microeconomic data sources is also important in that policy interest is not confined to aggregates. As was pointed out earlier, many of the current questions about the income objectives of the CAP demand detailed household-level information on the dispersion of personal incomes, both in agriculture and in other sectors of the economy. Though not the main purpose of this macro-orientated Study, users of the aggregate indicator will also wish to know of the availability of micro-information. Some of this is already published in national reports but much remains the subject of further development and analysis.

#### Types of microeconomic information

In the national reports which formed an important initial input to this Study each country provided details of the possible sources of information by which the requirements of Eurostat might be met. Among these there was mention of farm accounts surveys, income surveys and household expenditure

surveys, social security records, multiple activity surveys, farming structure surveys, income tax information and VAT returns. These sources were further discussed in bilateral meetings. Important features to note concerning these sources include:

- a) the representative nature of the source and whether grossed-up national estimates are possible;
- b) the unit used (farm, farming couple, household etc.);
- c) the nature of the information collected and, especially, the correspondence of the income concepts used (and the components in its calculation) with the requirements of Eurostat for the proposed indicator of disposable income;
- d) the frequency with which information is collected.

Two forms of microeconomic data are to be found in all Member States - farm accounts surveys and family budget surveys. For the former the Farm Accountancy Data Network (FADN or RICA) has developed a harmonised methodology across EC Member States and publishes results annually. The methodologies of family (more properly termed household) budget surveys are not yet fully harmonised, but the various approaches are similar and details are published by Eurostat, together with comparative tables. However, neither sources of data are universally appropriate for the present Study. The Structure Survey, while giving some indication of the frequency with which the operators of holdings, their spouses and other family workers engage in other gainful activities, is not directed at quantifying the amounts of income that flow to the households from these sources.

Table 3.1 indicates in summary form the data sources in each country which cover the disposable income of agricultural households, to a greater or lesser extent. Here we will firstly review the sources by type and then proceed to consider each country in turn. Evidence from microeconomic sources on disposable incomes is presented in an Annex to this Chapter.

Table 3.1

Summary table: sources of microeconomic information on the incomes of agricultural households (1987)

Farm accounts surveys	Family expenditure surveys	Taxation data	Other
<b>Belgium</b> (1)	Yes, but few agricultural cases	Yes, but farm income not on an accounts basis	VAT returns
<b>Denmark</b> Accounts of 1 Farmers Association (19,000 raisable) 2 Smallholders Association (4600) 3 Institute of Agricultural Economics (2,000)	Yes, but only 126 cases of farmers	Income Statistics Register System, of all taxpayers.	
<b>Federal Republic of Germany</b> Test holdings (11,000), raisable with some data on other incomes	EVS, 5-yearly survey of incomes and expenditures	Yes, 3-yearly	Micro-census (annual, 1%) Surveys on rent and housing, and on accommodation
<b>Greece</b> (1)	Yes, but problems with income from self-employment	Yes, but agric coverage small	Pensions and some insurances
<b>Spain</b> (1)	Yes, but problems with incomes from self-employment		
<b>France</b> Special 1978 CERC survey of 3,000 household- holdings  (1)	Yes, with some 500 households	Two levels of sample; general and agricultural agricultural	ERDEXA (survey of income and expenditure of agricultural holdings. INRA studies of part- time farming

Table 3.1 (continued)

Farm accounts surveys	Family expenditure surveys	Taxation data	Other
<b>Ireland</b>			
National Farm Survey (1,500); no data on non-farm incomes but linked with HBS in 1987	Household Budget Survey, including 1,306 farmer-households. 7-yearly. Not raised but weighted	Agriculture not well represented	Social Assistance records: not analysed and of limited coverage
<b>Italy</b>			
(1)	Major source	-	-
<b>Luxembourg</b>			
Special analysis for one year covered non-farm income. Information incomplete	Yes, but few agricultural cases (66)	Data for single year. Most farm incomes not on an accounts basis	Pensions and child benefits CEPPPS survey of households
<b>Netherlands</b>			
CBS survey (3,000) used to build national production account (raised) LEI survey (1,500), of RICA	-	Regular 2-yearly, but special 1982 disposable income study. Now an panel study.	-
<b>Portugal</b>			
(1)	Major source	Few farmers covered	
<b>United Kingdom</b>			
Non-farm income only covered in special small farms survey; not collected for main sample	Yes, but very few agricultural cases	Survey of Personal Incomes (2,200 cases)	Single survey of holdings with an OGA

## Note:

- (1) These Member States all have surveys of farm accounts which contribute to RICA, but data relate only to the farm business. Other forms of income are not covered.

This covers all the significant information that appears to be published in the EC, as mentioned in the national reports which formed the starting point of this Study; it will be seen that only a minority of Member States are represented.

(a) Farm accounts surveys

Member States all contribute to RICA (FADN), drawing cases of farm accounts from national surveys. At present RICA does not require information other than on the farming business to be collected. However, for national purposes Member States may collect information on a broader basis, covering income derived from non-farming sources, taxes and other outgoings, or may hold additional surveys for this purpose. In the present context farm accounts systems are important only if they cover the field of agricultural households adequately (so that small holdings which form the sole or major source of livelihood of their operators are covered even though they might not be considered as strictly commercial) and are capable of yielding information on more than just the income of the farming business. Without such comprehensive income information the estimation of totals and the classification of households are not possible.

Only in Germany, Denmark and the Netherlands do farm accounts surveys regularly extend beyond the farm business and collect information by which disposable income can be calculated. The first two are capable of being raised to national levels, the last within the limitation imposed by cut-offs which exclude the smallest and largest holdings. In other countries farm accounts surveys are not a present source of information. In Luxembourg, however, a special supplementary study for a single year has incorporated other forms of income, though the way that the data are collected from farms means that not all non-farming income was covered. Similarly, in France the regular series on farm accounts does not cover other income. However, a special survey in 1978, covering 3,000 household-holdings, embraced agricultural and para-agricultural income, most non-agricultural income and certain other items (investment, sales of

capital, changes in real estate capital and levels of debt). In the United Kingdom a special study of the income position of small farms has also extended questions into the subject of non-farm income, though these do not as yet form part of the main survey. While some Member States are considering the introduction of additional questions into the national parts of their farm accounts surveys, others have decided not to do so (at least not yet) because of concern about the impact on the willingness of farmers to continue to provide data. Table 3.2 describes the present position.

#### (b) Family budget surveys

All member states of EC undertake household budget or expenditure surveys, generically referred to as family budget surveys. These surveys frequently use concepts of income close to the definition required by Eurostat, though expressed in a format appropriate for microeconomic collection and analysis. Furthermore, the unit tends to be the household rather than the farmer and spouse only. They usually classify households according to the occupation of the head of households, although alternatives are sometimes possible, at least in Germany. Raising to national levels seems to be possible in many countries but results are usually presented on a per household basis. An important feature is that these surveys are typically periodic rather than annual exercises, requiring some reliable updating procedure if annual figures are to be generated.

Though these surveys cover both expenditure and income, the latter is viewed with less confidence and under-recording is suspected in many countries. Often only broad indications of income levels are required, adequate for classifying households into income bands. There is a general problem of measuring the incomes of self-employed people, aggravated in the case of farmers by lack of book-keeping in many countries, frequently associated with systems of taxation that exclude farmers or which apply a flat rate ("forfait") rather than one which takes accounted profit into consideration.

Table 3.2 Farm accounts surveys

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Country	Disposable income information
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**Belgium**  
Not a suitable source. The survey does not cover non-farm income.

**Denmark**  
At present the major source for disposable income. There are three accounts surveys, the third drawing its cases from the first two.  
a) Farmers' Association (19,000, weighted to be representative). Excludes horticulture and fruit growing. Covers non-farm income, taxes and insurance data. No data on social benefits and payments or damage payments received.  
b) Smallholders Association (4,600 cases) Also covers horticulture and fruit growing. Information collected as in a) above.  
c) Institute of Agricultural Economics (2,000 cases, selected from a) and b) above) which contributes to RICA. Disposable income calculated close to Eurostat definition. Gaps in insurance data and social security contributions. Other household members are covered if they are declared as members of the household, but these are not numerous. Disposable income figures published.

**Federal Republic of Germany**  
Agricultural Report Test Holdings (some 11,000). Collects information on holding related income, other income, certain details of taxes and social contributions paid. Farmer and spouse is taken as the unit; income earned off the farm by other family members is not collected. Classification into full-time farms, part-time main income farms and supplementary income farms is on the basis of estimated standard income rather than actual income. Grossed up estimates are possible using agricultural statistics.

**Greece**  
Not a suitable information source. Covers about 7,200 holdings but does not ask questions on non-farm income. These have been tried in the past with poor response.

**Spain**  
Not a suitable information source.

**France**  
Not a regular information source. There was a one-off 1978 survey (CERC, 3,000 household-holdings) which covered agricultural and para-agricultural income, most non-agricultural income and investment, sale of capital, changes in real estate capital and debt.

Table 3.2 (continued)

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Country	Disposable income information
<b>Ireland</b>	Not a suitable information source at present. National Farm Survey covers about 1,500 holdings but only farm business income information collected. Agricultural cases in the periodic Household Budget Survey are now drawn from this survey.
<b>Italy</b>	Not a suitable information source. RICA only covers about 10 per cent of holdings, deemed to be the commercial sector.
<b>Luxembourg</b>	Not a suitable source. Accounts relate only to full-time farms. Information on non-farm income is obtainable only for those who do not maintain other personal bank accounts. Non-farm income of other household members is not covered. There has been a special one year voluntary analysis of disposable income along Eurostat lines.
<b>Netherlands</b>	At present there are two surveys, soon to be amalgamated: a) Central Bureau voor de Statistiek (CBS) Production Account survey with 3,000 cases drawn from the 35,000 holdings which use accountants. Data is provided by these accountants. Sample omits the small (below about 14 ESU) and very large, but raisable within these constraints. Components available which lead to disposable income close to Eurostat definition. Only farmer and spouse covered. b) Institute for Agricultural Economics (IAE, 1,600 cases directly surveyed, part of RICA). Higher lower size limit than CBS survey (17 ESU) and split made between agriculture and horticulture. Non-farm income and tax data missing for 10% of sample, and restricted to household members who work on the farm. Components are available by which disposable income close to the Eurostat definition can be calculated.
<b>Portugal</b>	Not a suitable source. RICA is still in an establishment phase, rising from 171 holdings in 1981 to about 3000 in 1990. At present no information is gathered on non-farm income.
<b>United Kingdom</b>	Not a suitable information source at present. The regular Farm Business Survey does not collect data on income arising from outside the holding, although a special survey of small farms is now underway which covers these sources.

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Table 3.3 Family expenditure (budget) surveys

Country	Disposable income information
<b>Belgium</b>	Not a practical source. Definition of household is broad and disposable income conforms with Eurostat definition except in small details. However there are only 169 agricultural households participating.
<b>Denmark</b>	Not a practical source. Disposable income definition in close accord with Eurostat, but only contains 126 self-employed agricultural households.
<b>Germany</b>	A major source; 5-yearly survey of household incomes and expenditures. Income components defined largely as in national accounts and therefore largely compatible with Eurostat definition. Classification of households based on an appropriate survey subject (head of household) but alternatives are possible.
<b>Greece</b>	The major source. Latest surveys 1982 and 1987/8. Comprehensive list of components but income from self-employment not reliable. Classification by employment of head of household but alternatives are possible.
<b>Spain</b>	The major source. Latest survey 1981 and next in 1989, but reduced-form surveys annually from 1985. About 3,200 agricultural cases (out of 32,000) but grossing-up is a problem. Occupation classification on the basis of administrative interpretation of the sources of income. Reliability of consumption items acceptable but income information less so, especially income from self-employment. Tax and other transfers out not covered.
<b>France</b>	There are about 500 cases of households headed by an independent agricultural operator out of a total of about 11,000. Income levels are often not exact, and agricultural self-employment incomes are understated. Net disposable income is not estimated. Latest year available, 1978-79.
<b>Ireland</b>	The only major source. Conducted at about 7-year intervals (1973, 1980, 1987); 1980 survey covered 1306 rural households headed by a farmer. Weighted. Self-employment income details recorded by book-keeping (in 1987 as part of the farm accounts survey).
<b>Italy</b>	This survey is not seen as a main source of data, though with about 36,000 cases in total there would seem to be some potential.

Table 3.3 (continued)

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Country	Disposable income information
<b>Luxembourg</b>	The official survey is not considered a significant data source in the present context. It contains few agricultural cases (66) and the last large-scale survey was in 1963-65. A 1985-86 survey is now being analysed. Additionally there is a semiofficial annual panel survey of living standards covering all forms of income but not taxation; currently there are 62 agricultural cases (in a total of 2100) but this is capable of expansion to form the main data source.
<b>Netherlands</b>	The household budget surveys are reweighted by making use of the official income statistics (tax-based) and contain therefore no additional information with regard to income.
<b>Portugal</b>	The major source. Latest survey was for 1980/81 and the 1989 survey is in preparation. In 1980/81 there were 1067 agricultural cases (out of a total 8040 households). Classification is according to the self-declared main source of income of the reference person (usually the highest income contributor). Self-employment income figures understated.
<b>United Kingdom</b>	There are only about 60 cases headed by a farmer, so the source is of little practical use

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In four countries (Belgium, Denmark, Luxembourg and the United Kingdom) the surveys contain too few agricultural households to be representative of this sector. Taking an overall view, in only five countries (Germany, Ireland, Greece, Italy, Portugal and Spain) does this form of survey seem to offer substantial information on the disposable income of agricultural households or to be capable of yielding reliable data on components of income, such as the non-farming income of agricultural households, welfare benefits received, pensions and so on. The overall position is summarised in Table 3.3.

(c) Data from taxation sources

Most countries above have information derived from tax sources (see Table 3.4), but there is wide divergence on the degree to which this can be used to provide meaningful information on the disposable income of agricultural households or its component parts. In those countries where farmers are adequately represented in tax records, the elements of income are usually available in detail, so that the definitional requirements of Eurostat could generally be approached. In practice, however, many difficulties are experienced, largely because tax records are primarily maintained for taxation purposes, not for income studies.

A major problem with this source is that in many countries (Greece, Italy, Spain, Belgium, Ireland, Portugal) farmers are poorly represented in tax statistics; only a small proportion of farming households are covered, typically those with the largest farms. Another characteristic of this source is the widespread preference by tax authorities for the individual or couple as the basic unit (rather than the household); farming couples are distinguished from others usually on the basis of the main source of income. Another problem is the delay which often occurs between the time that profits are earned and when tax becomes payable, and therefore when income data are collected.

Table 3.4 Taxation information on income

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Country	Disposable income information
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**Belgium**

Tax data is a possible source for estimating certain components of income (wage income, pensions, unemployment benefits and income from fixed assets, and taxes). However the income from agricultural activity is not on an accounting basis and interest and dividends (taxed at source) are not covered. The fiscal unit is the farmer and spouse and dependent children.

**Denmark**

Generalised Income Statistics Register, based on tax records but incorporating other sources, covers all persons who have to pay taxes on income or assets. Individuals are grouped into households for the Register. Most required information is available except insurance claims (and some premia) and some non-taxed social benefits. Selection according to several criteria of household are possible; a link with the agricultural census is feasible though not yet executed. Breakdown by socio-professional group is not yet published.

**Federal Republic of Germany**

There are 3-yearly surveys of incomes and taxes. Incomes of self-employed farmers assessed for income tax can be identified, both those with incomes mainly from agriculture and forestry and all those with such taxable incomes. The taxable unit is the farmer and spouse. Various types of taxable income are covered, along with fixed income tax.

**Greece**

Tax returns are only required from farmers who have gross incomes above a given value. Consequently only about 2% of holders appear in tax information. Non-farmers are not required to declare small incomes received from agriculture.

**Spain**

Tax information is not considered a useful source in the present context.

**France**

Two samples of tax data for farmers; one of 2,500 drawn from the general (tax) survey of households at 4-or 5-year intervals, the other of 6,000 from the agricultural census (1971, 1975, 1979). Non-taxable forms of income are ignored. Self-employment income of farmers are not thought reliable because of the flat-rate assessment system.

**Ireland**

Following recent changes in legislation, farmers are now in theory taxed in the same way as other self-employed persons. In practice, however, many farmers on low incomes will fall outside the tax net and thus tax records will not provide meaningful information on the personal income for farmers as a group.

Table 3.4 (continued)

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Country	Disposable income information
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**Italy**

At aggregate level statistics are available (latest for 1981) on the source of income (including agricultural income) and the branch of economic activity by which taxes are paid. However, tax information is not cited as a major source of data on the total incomes of agricultural households.

**Luxembourg**

Not published on a regular basis. A study for 1971 analysed tax data and distinguished (broadly) farmers; non-taxable welfare receipts were omitted and incomes below the taxable threshold disregarded. This analysis was repeated for 1983 (not yet published). However, about 90 per cent of farmers are taxed on the "forfait" system; tax records might be a source of information on the other components of disposable income.

**Netherlands**

Tax information has recently undergone a change. Up to 1983 there was a regular 2-yearly analysis of personal incomes, largely based on a 3% sample of tax returns. This is replaced by a panel system with incomes looked at annually; in 1987 there were about 15000 cases of which about 750 were agricultural. Household groups can include members in addition to farmer, spouse and children. Occupational classification is on the basis of socio-economic indicators to determine the head of household, and then according to this reference person's main source of total income. Under the former methodology a special study in 1982 of total and disposable income covered members of the household in addition to husband and spouse, and divided households by industrial class on the basis of the most important income component of the head of household. The components of income covered correspond to the Eurostat requirements, except there is no information on indemnity insurance payments and their premiums.

**Portugal**

Not a significant data source. Farmers are largely outside the tax net, with only 11 000 declarations (of which 6 000 are companies and non-personal bodies) compared with some 800 000 holdings.

**United Kingdom**

The annual Survey of Personal Incomes contains some 2,200 cases from agriculture and horticulture, classified on the industrial classification of the normally-major source of self-employment income. The unit is the couple (husband and spouse) or unmarried single person. The operators of farms arranged as companies do not fall into this sector. Some types of non-taxed income (such as certain social security benefits) are not included. Disposable income as defined for this project is not currently calculated.

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Agriculture in many countries has a history of being taxed in ways different from the general population. In France, Belgium and Luxembourg the flat-rate tax ("forfait") on agriculture renders tax data of little value, at least that on the income from farming. Despite this problem, in France tax information is useful for indicating the levels of non-farming income. In none of these countries would grossing-up of disposable income to national levels be appropriate.

In Luxembourg the main taxation information source is a one-off study for 1971, now obviously out of date; a repeat study (for 1983) has not yet been published. In the Netherlands an interim survey on incomes based on tax information seems to have been of particular value; the regular series is now undergoing a substantial change in methodology to become a panel survey and may well be a useful source in the future. In the United Kingdom the survey of tax records requires substantial development before it can provide the sort of information required for the indicator of disposable income of agricultural households proposed by Eurostat.

In Germany and Denmark tax information seem to be at its most highly developed. In the latter the annually-updated Income Statistics Register System allows a definition of disposable income close to the requirements of Eurostat (except in the matter of insurance claims and premiums and some social benefits) and different concepts of households are possible, including selection of cases according to marital status and the presence of children. As will be described later, in Denmark it is also possible to select for those people covered by the agricultural census, though not exactly. This link makes feasible the establishment of income-related explanations of changes in agricultural structure etc..

#### (d) Other sources of information at the micro level

The other sources of information on the incomes of agricultural households are less commonly found than the three dealt with above.

VAT returns in Belgium are a possible source of information on the self-employed activities of farmers in other branches, though elsewhere it is not regarded as of significance. Social security payment records are suggested as potentially useful by Belgium, Luxembourg, Greece and Ireland, mainly as a means of checking estimates derived in other ways, and only in the last are they considered a significant but as yet undeveloped source for the purpose of income study. One problem with such sources is that analysis does not normally seem to be carried out by socio-professional group of recipient; only with explicitly agricultural pensions and other sector-specific benefits does this seem common, as in Greece and Ireland. Luxembourg has a special survey of the living standards of households (separate from its family budget survey) aimed at the study of poverty; it covers incomes, but at present the number of agricultural households is small and results have not been published by occupation group.

The EC Farm Structure Survey, carried out across all Member States, can cast light on the frequency with which other gainful activities are encountered but the amounts of income arising are not assessed nor are non-earned sources (from investment, property, pensions or other transfers) covered. The 1983 Survey included questions on whether the holder, spouse and other member of the holder's family who worked on the holding had any other gainful activity and whether this was the main or subsidiary occupation. "Main" in this context was intended to be interpreted normally in terms of time spent rather than income derived, though the self-declaration by the respondent would most probably reflect some subjective balancing of time and income. (Denmark treated the questions on other gainful activities differently). Related to structure, both France and the United Kingdom in their national reports to the present study mentioned information coming from research studies of part-time farming, and similar work is known to have taken place elsewhere; however these tend to be economic studies of the situation found at any one time rather than being designed to generate series of income statistics. Germany has a micro-census, an annual 1 per cent sample of the population. Not only does it collect personal and socio-economic characteristics, but it also provides data on net income

for individuals and households (in the form of frequencies) for net income size classes, and on characteristics relevant to the distribution of income, such as the number of children, types of health insurance and multiple payment of pensions to individual persons. The main source of income of each member of the household is collected. Independent farmers using family labour form the only population group not supplying information on their level of income in this way, an important feature in the present context. The micro-census also provides the basis for extrapolation of the results of the income and expenditure survey.

### Microeconomic information by country

#### Belgium

Belgium has a variety of income information sources, but none provide a satisfactory complete picture of the total income of its agricultural households. The farm accounts survey does not cover non-farm income, and the household budget survey has few agricultural cases. Tax records are of limited use since agricultural incomes shown are not on an accounts basis, a narrow fiscal household unit is adopted, and income forms taxed at source (interest and dividends) are only incompletely recorded (declaration only being made if there is an opportunity of claiming tax back). However, there is no legal bar to linking tax records with other data sets in which individuals appear. VAT records are classified into trade groups by self-declaration (appearance in more than one is an indicator of multiple self-employed activity) but other income is not covered. Rather than develop one of the existing sources, it is thought preferable in Belgium's situation to mount a special survey of the non-agricultural components of disposable income, starting from a sample drawn from the agricultural census which classifies the occupational status of the head of the holding. Income from agricultural activity could be taken from national accounts and combined with the grossed up survey findings to calculate aggregate disposable income.

## Denmark

Denmark has two sources of information on the total incomes of its agricultural households:

- (a) farm accounts surveys, and
- (b) the Generalised Income Statistics register (largely based on taxation statistics)

The Consumer Survey (household budget survey) contains too few cases of agricultural households to be useful.

The accounts of farms in the Farmers' Association and the Smallholders' Association, which each publish results, are drawn upon by the Institute of Agricultural Economics (IAE) to produce a sample that can be raised to national levels. Thus the information from farm accounting can be discussed in terms of the IAE survey, covering some 2,000 accounts. The composition of the household depends on the declaration of the farmer; it would normally consist only of the farmer, spouse and dependent children. This nominal departure from the Eurostat preferred definition of a household does not pose a serious problem as in Denmark the tradition is for children when leaving school and taking employment also to leave home. At the other end of the age range, elderly parents also tend to maintain separate homes; the extended family is not common. There is a fairly comprehensive coverage of incomes from all sources and outgoings, giving a disposable income figure similar in definition, though presented in microeconomic form, to the Eurostat preferred concept. Grossed-up national estimates are published for agricultural holdings (not including horticulture) which absorb 1,800 hours of annual labour (treated as "full-time" farms), though this process could be extended to include the smaller units. These grossed-up estimates are compatible with the aggregate accounts for the branch agriculture of the Danish economy, and tables drawing from both sources are presented in the annual agricultural report of the IAE. The field of study essentially corresponds to operators of holdings rather than to agricultural households, although in

the Danish context the two might be expected to hold a close relationship. Estimates of disposable income from the IAE survey are presented in the Annex to this Chapter.

The Generalised Income Statistics information draws mainly on tax records but also other sources. The series covers a long run of years but the present extended and combined form dates from earlier in the 1980s. Very detailed income information is available, but it reflects tax conventions on items such as depreciation. Individuals are grouped into households in this source. The results are raised to national levels and are used to give details on, for example, the geographical pattern of income used by retail organisations for planning and by public administrators in allocating funds between municipalities. For persons with self-employment income, the industry group of the main source is noted, of which agriculture will be one. At present no breakdown of total income by occupation group is published. However, as will be shown in Chapter 5, this source is regarded as the main means by which Denmark would prefer to generate the information required to meet Eurostat's requirements for an indicator of the disposable income of agricultural households.

#### Germany

The Federal Republic of Germany has several data sources which reveal information on the total income of agricultural households, the most important of which are:

- (a) the income and expenditure survey (EVS)
- (b) the annual micro-census, a 1 per cent sample of the population
- (c) farm accounts from test holdings
- (d) taxation records

The income and expenditure survey, or EVS (the equivalent of a household budget survey) is carried out every 5 years and relates to almost the entire population of private households (with exceptions, such as households headed by foreigners, persons living in communal accommodation and some households with very high incomes). In 1983 (the latest EVS for which results are available) some 50,000 households were covered, representing about 23.5 million households nationally. It is used in conjunction with the annual microcensus; this provides the sampling frame for the EVS and a means of updating between its base years. The EVS asks comprehensive questions about both income and expenditure, though income from self-employment for agricultural households is found indirectly by deduction from known levels of expenditure. Within households information is collected on income sources for separate members. Classification of households into socio-professional groups is on the basis of the main source of total income of the reference person. The annual micro-census provides information for assessing the distribution of income by being the main source of data on numbers of households and their composition and frequencies (in size classes) of net incomes for individuals and households and other factors relevant to the distribution of income, such as types of health insurance and multiple payments of pensions to individuals. As noted earlier, independent farmers with family helpers are the only population group not supplying information on their level of income in this micro-census. For national estimates the size of income components are typically taken from the EVS and combined with frequencies of occurrence estimated from the microcensus. The way that these two sources are used to generate a macroeconomic income estimate for agricultural households is described in Chapter 4.

In Germany the farm accounts survey covers some 11,000 test holdings and forms the basis of the Federal Government's annual Agricultural Reports. This income data is raised to form the most important basis for current calculations of the entrepreneurial income of agricultural households in the National Accounts. In addition to incomes from the farm business, questions extend to details of holding-related income, other income of the holder and spouse, and to certain details of taxes and social contributions paid. Test holdings are broken down into three main

categories on the basis of the relative importance of off-farm income; full-time holdings, part-time main income holdings, and supplementary income holdings are those on which off-farm income constitutes less than 10 per cent, between 10 per cent and 50 per cent, and more than 50 per cent respectively of the total income of the farmer and spouse. For this purpose income from the farm is not actual income or profit but a 3-year average standardised income figure from agricultural activities. At present information about incomes earned off the farm by other household members is not collected, and there are doubts about the legal situation regarding the recording of data and about the reliability of the information on off-farm activities. Disposable income estimates from this source are presented in the Annex to this Chapter.

Germany also has a 3-yearly survey of incomes and taxes. In this the incomes of self-employed farmers can be identified, both those with incomes mainly from agriculture and forestry and all those with incomes subject to income and property tax. In common with tax sources in most countries, the taxable unit is the farmer and spouse and only that income subject to taxation is covered.

Taken together, and augmented by other surveys on, for example, rents and accommodation, the information in Germany already enables national estimates of the total income of agricultural households to be estimated, though not precisely according to the definitions preferred by Eurostat.

#### Greece

The farm accounts survey (part of RICA) covers about 7,200 holdings but does not measure income from non-farm sources; previous attempts to move in this direction have received a poor response. Tax records do not cover most farmers, and non-farmers are not required to declare small incomes they may receive from agriculture. The most useful microeconomic source is the Family Budget Survey; the latest available is for 1982 and a new survey is taking place in 1987/8. Various ways of classifying households into socio-professional groups are now possible, including according to

the occupation of the head of household or the income composition of the entire household. In Greece it is common for households to be of an extended type, with some members having full-time off-farm jobs. This makes the definition of the limits of the household unit of particular sensitivity. Within the survey information on expenditure is regarded as being of higher reliability than that on incomes. There is the common problem of reaching accurate estimates of the income from self-employment; in the Greek household budget survey this is collected by self-declaration and is unsupported by book-keeping in most cases. When compared with national accounts it seems that agricultural incomes are under-recorded by about one quarter and non-agricultural self-employed incomes by a little more. In the case of farmers' incomes this probably arises from a lack of real knowledge of their income position; there is little point in under-declaring to avoid tax as most farmers would still fall below the tax threshold. Consequently, while the family budget survey, suitably grossed up, remains the main data source for the future estimation of many items in the calculation of disposable income at sector level, it is not an appropriate source for estimates of the income from agriculture. This also applies to other items (interest and rent for example).

### Spain

The main source of microeconomic information on the total income of agricultural households in Spain is the household budget survey, of which the most recent was in 1981 and the next will be in 1989. However a reduced-form of survey started in 1985 and could be used to update the main surveys. The 1981 survey covered some 32,000 households and was representative of the 10 million households in Spain. The sample included some 3,200 agricultural households; classification is determined not by a self-declaration of main occupation by the head of household but is interpreted from the survey return on which there are questions on the sources of income. In making national estimates from the survey the main problem is to find satisfactory raising multiples as the total number of agricultural households is not known. The agricultural census records about 2.3 million holdings but the population census gives only about

800,000 agricultural entrepreneurs; many of the holdings are clearly run together. However, this raising problem is not insoluble.

The main purpose of the survey is related to the estimation of retail price indices, to which questions on tax and incomes are not directly relevant, and information on these items is either not gathered or is considered not reliable. While data on consumption is firm, that on the money-income side suffers from the general problem of imprecision in the amounts of self-employment income when levels are declared by farmers who do not keep accounts. Consequently at macro-level some combination of raised survey data with estimates derived from national accounts for agricultural income and other sources for taxation may be preferable.

### France

A characteristic of microeconomic data sources in France is that they tend to cover only parts of the agricultural population or to apply to only parts of income. There is a general problem of measuring the income from agricultural activity in a country in which a flat-rate tax (forfait system) is the norm. However, these sources, combined with macroeconomic information, enable a picture of the total income of farmers to be estimated at national level (see Chapter 4). The main microeconomic sources are:

(a) fiscal surveys undertaken by INSEE (Institut National de la Statistique et des Etudes Economiques)

(b) a special study undertaken by the Centre d'Etude des Revenus et des Coûts (CERC) in 1978.

These are augmented by other surveys, including those on the external incomes of agricultural holdings and on the incomes (agricultural and non-agricultural) of holders on small farms. RICA does not cover information on incomes received from outside the holding. The household budget survey (which is a direct survey) suffers from a high non-response rate, especially among high-income earners, thus creating bias.

Information on self-employment incomes in agriculture is not very exact, and significant understatement is suspected.

The fiscal studies are undertaken periodically (approximately 5-yearly, the latest being 1979 and 1984) by INSEE and take two forms, one a general survey of the taxable income of all households, of which agricultural households form a group, and the other using a sample drawn from the agricultural census. The general survey employs a typology of households (in which self-employed in agriculture forms one, although the group also includes forestry and fishing) which classifies according to the main activity of the head. This classification system applies across a number of surveys which cover households, making them comparable and consistent. The fiscal household is usually narrower than the Eurostat preferred household definition, although it may include offspring in addition to the farmer and spouse if they wish to be included with their parents. As will be shown later, tax information forms a fundamental part of the aggregate income estimates that are constructed for France. However there are substantial reservations about the reliability of that part of household-level income arising from agricultural activity, and it is recognised that income amounts declared for tax purposes may differ quite substantially from real amounts, either because of misrepresentation or because they are calculated from flat-rate tax contributions.

The 1978 CERC survey, of some 3000 household-holdings, provided a rich source of information, giving details at an individual level and allowing agricultural income to be estimated accurately. The field of income study was wide, covering incomes from the holdings and from outside, and sales and purchases of assets. The concept of the household was broader than in other agricultural censuses and surveys, included all close relatives living in one dwelling (or several dwellings situated near each other) and working on an agricultural holding; in some instances the household unit would account for several holdings which appeared separately in agricultural statistics. However, the sample was relatively small and has not been repeated.

## Ireland

Ireland has one substantial source of information on the total income of agricultural households, its Household Budget Survey (HBS). Its National Farm Survey (which contributes to RICA) does not ask questions on non-farm sources of income, and a significant proportion of Ireland's farmers are, in effect, outside the tax net. Other data derived from welfare payments to farmers, though possibly a potential source of information for a limited number of farmers, have not been developed and analysed.

The HBS, in which a substantial number of self-employed agricultural cases appear, was conducted in 1973, 1980 and 1987. The definition of household (essentially those who share common catering arrangements) is in accord with Eurostat preference. This also applies to the definition of personal disposable income, though there are some small differences resulting from the microeconomic approach of the HBS. The system of household classification uses the self-declaration of who is the head of the household and what is his principal job. One feature of Ireland's HBS is that the households of retired farmers are classed as farmers' households if farming is still carried on by other members of the family. Results are published on a per-household basis and for a range of socio-professional groups; grossing up elements of the income calculation to national levels presents problems, mainly because of disparities in definitions between micro and macroeconomic methodologies and in coverage. Information from the HBS is presented in the Annex to this Chapter.

In 1987 for the first time the HBS was integrated with the National Farm Survey so that agricultural cases selected for the HBS were not required to keep accounts specifically for the HBS. Instead, substitute cases were drawn from cooperators in the Farm Survey. Thus for these farms there is both the detail concerning the farm business plus the additional information required by the HBS. This integration also opens up the possibility of continuing the link and, through the insertion of key indicator questions into the National Farm Survey, a means of updating the HBS between base years.

## Italy

Italy has a number of microeconomic sources (a household budget survey which is linked with a labour survey, population census and agricultural structure survey) which cover agricultural households. They share a common typology; respondents are required to self-declare who is the head of the household and the nature of his occupation group. In addition to official surveys, the Bank of Italy conducts a survey of households, and this is to be combined with the household budget survey.

There is a substantial number of agricultural cases in the household budget survey (covering in total 36,000 cases). One problem is that households headed by a pensioner are not classed as agricultural even if substantial farming income is earned and it is the only source of earned income. A related problem is that a holding may be operated by the son of a retired farmer, but the retired person is still regarded as the head. Steps are being taken to identify situations where agriculture is the main occupation of other members of the household. In the household budget the existence of a secondary income source accruing to the head is noted but not the occupation group of this source. Hence it is not possible to identify households in which the head is a farmer in addition to his non-agricultural main occupation.

## Luxembourg

Data sources on the total income of agricultural households in Luxembourg are not strongly developed. They amount to two special studies, one related to the farm accounts survey and one to tax records. As mentioned above, a special enquiry was undertaken in 1984/5 as 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). The sample was not representative, not adequately covering the small and part-time holdings and for that reason it was not possible to extrapolate the microeconomic data to the macro level. The provision of this extra information was not compulsory. The farm accounting system is

organised through two institutions which reconcile farm book-keeping with bank accounts. Through these accounts the personal incomes of farmers could be assessed, but only for those who chose to keep their personal and business accounts in a combined form, but it was evident that some farmers purposely maintained a separate personal bank account. Even where accounts were not split, other members of the farm household were not covered so long as their bank accounts had nothing to do with the running of the holding. Bearing these problems in mind, the constituent elements of income in the special exercise seem to be in accord with Eurostat requirement, and estimates of disposable income per farm household are available.

Some information has been obtained from tax records, but again only in the form of a special study for a single year (1971). This analysed tax records and broadly distinguished farmers. However, non-taxable welfare receipts were excluded and incomes below the taxable threshold were disregarded.

It should be pointed out that about 90 per cent of farmers are taxed on the "forfait" system rather than on accounting profits, so that the income figures are not a guide to real income levels. This exercise was repeated in 1983, and results should be available in late 1988.

A potentially valuable source of data is the recently-established annual survey of households, aimed mainly at assessing poverty, carried out by the Centre D'Etudes de Populations, de Pauvreté et de Politiques Socio-Economiques (CEPPPS). This is a panel survey, and covers a wide range of income sources, though not at present taxation payments. All members of the household are covered separately, enabling data to be presented in a variety of ways. Of the 2100 households in the 1985 survey (the first year of the series and the only one yet available), only 62 were classed as agricultural, though this could be expanded in future surveys. At present an analysis of income by socio-professional group of household is not published.

## The Netherlands

The Netherlands has two main types of data covering the total and disposable incomes of agricultural households. They are:

(a) farm accounts surveys, and

(b) taxation records

There are two types of farm accounts surveys, one carried out by the Central Bureau voor de Statistiek (CBS) using a sample of about 3,000, drawing information from accountants acting for farmers, and the other by the Institute for Agricultural Economics (LEI) with a sample of 1,500, collecting more detailed information using visits to farms. Both use samples drawn from the Structure Survey, and share the intention to cover farms where the head is mainly occupied in agriculture. Relatively high minimum size thresholds are used. Soon these two are to be combined into a single survey. The CBS sample omits both the very small holdings and the very large (below 50 Standard Farm Units (SFU) and above 1500 SFU, with 3.5 SFU approximately corresponding to 1 European Size Unit (ESU); the former represented 25% of total numbers in 1982/3 and the latter 0.2%. The CBS figures do not, therefore, correspond to the entire national agricultural industry, taken to embrace agriculture, horticulture and market gardening as a whole. The disposable income concept used includes the farming and other forms of income (including transfers) and takes account of taxes paid (though these will relate to earnings in previous periods) and contributions to social security schemes. The income elements are those of the farmer and spouse only, which means that the figures only refer to part of the agricultural household. In particular, the earnings of other members from off the farm are missed. In terms of the income elements required by Eurostat, many are collected, though there are disparities in the treatment of insurance payments and claims and other details. Within the field of study results are raisable to national levels, but the exclusions and slightly different definition of what constitutes agriculture means that these are not directly comparable with the national economic accounts for agriculture.

The Institute of Agricultural Economics (LEI) survey forms part of RICA. There is relatively high lower limit to the sample (17 ESU for horticultural and market gardening and 20 ESU for agricultural holdings). The income consists of all types accruing to the farmer, spouse and family members working on the holding; other family members are included only in that they may pay board and lodging, which counts as subsidiary income to the family. The components of income go part-way towards the Eurostat definition, the omissions being mainly those of an occasional nature (gifts, damage compensation etc.). However, details of non-farm income, taxes etc. are not available for about 10% of the sample. One feature is that net rental value of the dwelling is taken as income from outside the holding. At present it is not possible to give overall weighted averages or to raise to national levels from this survey.

Taxation statistics are undergoing a substantial change. Up to 1983 there was a regular 2-yearly analysis of personal incomes, largely based on tax returns, in which it was technically possible to breakdown households by the industrial class of the head of household. A special study in 1982 of total and disposable income covered members of the household in addition to husband and spouse, and divided households by industrial class on the basis of the most important income component of the head of household. With minor exceptions, the concept of disposable income corresponded with the definition preferred by Eurostat. This system is being replaced by a panel approach in which an individual is selected for inclusion at 15 years old and is followed from year to year. Households are defined in a broad way to include other family and non-family members. The classification of households into socio-professional groups is on the basis of the main source of income of a reference person (the head), the nature of whom is determined administratively using socio-economic indicators (as opposed to self-declaration). At present the industry origins of minor sources of income cannot be identified systematically, so it is not possible to identify all households where some self-employment income is derived from agriculture. The Annex to Chapter 3 presents information in the income situation of farmers in the Netherlands drawn both from taxation sources and from farm accounts surveys.

## Portugal

The only significant source of information on the income of agricultural households is the Family Budget Survey. Taxation statistics are of little importance as farmers are largely outside the tax net; there are only about 11,000 agricultural tax declarations of which 6,000 are companies and non-personal bodies compared with about 800,000 holdings. RICA is still in its establishment phase, growing from 171 farm accounts in 1981 to about 3,000 in 1990, but it does not ask any questions about the non-farm incomes of the operators of its holdings. It is worth noting that the 1979 Structure Survey included an additional national question on the main source of income of the whole family taken together.

The latest Family Budget Survey was carried out in 1980/81. This period corresponded with a number of major censuses and surveys (including the Population Census). Raising the results of the FBS to national levels is possible. The 1980/81 FBS covered 8040 households, of which 1067 were agricultural. Classification was according to a reference person; who this person was was decided by a number of criteria, of which the highest income contributor within the household was the most important. Classification into socio-professional groups was on the basis of the reference person's self-declared main source of income. Information was collected both on expenditure (extrapolated from one week to a year) and income (the whole year preceding the survey). No information on savings seems to have been collected. Analyses of the findings on expenditure have been published by socio-professional group, of which the households of farmers form one, but not of incomes. The declared levels of incomes from agriculture and other independent activity are taken at face value and are not supported by book-keeping; they are generally believed to substantially understate the real incomes of farmers. They are also gross of capital consumption. With this qualification, the FBS is capable of yielding much of the information required in the present context to estimate disposable income for agricultural households and to enable comparisons to be made with other groups. The next FBS will take place in 1989.

## United Kingdom

In the UK the only regular source of information on the total incomes of agricultural households comes from a survey of tax records. The farm accounts survey which contributes to RICA (the Farm Business Survey) does not ask questions on incomes arising from outside the farm business and does not record levels of current outgoings of a private nature (such as personal tax and social contributions). The household budget survey contains too few cases of self-employed agricultural households to be of any meaning. There is a research study of the incomes of holdings run by occupiers who have another gainful activity, but this is of limited application here.

The tax records source (the Survey of Personal Incomes (SPI)) involves a sample (about 1 per cent) of tax returns. The agricultural subset of the SPI is identified according to the industry group of earnings from self-employment. However, the SPI suffers from features which seriously reduce its usefulness for the present Study, at least in its current state of development. The unit is the husband and spouse rather than the entire household. The period to which income figures relate is not consistent across types of income, and there is a lag of some 2-3 years before the data become available. Classification into socio-professional groups is undertaken at local tax office levels and will reflect the main source of self-employment income over a run of years, but there may be other substantial forms of income (such as salary or pensions) which form the major source of the husband and wife's income. The concept of income in the SPI is income assessed for tax and this is substantially different from the Eurostat concept of disposable income. Another substantial problem is posed by farmers who arrange their businesses as companies (some 10,000), typically the largest farms, and who will be missed from the SPI agricultural subset because they are treated as employees of their own businesses. These, and other factors, at present make difficult the use of the SPI as a suitable information source for this exercise on the disposable incomes of agricultural households, though it appears to be a possible source of information for the UK in the longer term.

### Annex to Chapter 3

#### Information on household disposable income in microeconomic sources

Detailed information on disposable income is available from microeconomic sources for Denmark, Federal Republic of Germany, Ireland and the Netherlands (two sources). Although not part of the main thrust of the present Study, a brief account of the main findings lends powerful support to the desirability for such information to be more widely available throughout the EC.

#### Denmark

The results shown in Table 3.5 are from the survey of the Institute of Agricultural Economics. This covers just under 2,000 cases and is essentially concerned with holdings rather than households; in Denmark the two more or less coincide. The threshold for inclusion is 5 ha and at least half the holding's standard gross margin has to come from agricultural and horticultural production, two criteria which exclude what might be interpreted as non-commercial farms. As reported earlier, the household unit is the farmer and spouse.

Despite the exclusion of very small holdings, income from farming only accounted for a third of the total income of Danish farms in 1984/5. In the previous year, when agricultural profitability was much reduced, it was only 6 per cent. The farm's relative contribution was lowest on the smallest farms and, in 1984/5, reached a plateau of just under a half of the total income at a holding size of about 30 ha. The contribution from off-farm earnings of the holder declined with increasing farm size, but the income of the rest of the family (mainly the spouse) was fairly constant across the size spectrum. Welfare payments (pensions and daily allowances) were more important among small farms.

Disposable income per holding was overall more than double the income from self-employment (mainly arising from agriculture but with a small contribution from other activities), more so on the smaller farms. The impact of non-farm income and welfare transfers is to diminish the disparities of income between the households operating farms of different sizes. For example, the ratio between the self-employment incomes on farms in the 10-19.9 ha and 100 ha and over was 1 to 11; for total incomes the ratio was 1 to 3.4, with a closely similar figure for disposable incomes. The importance of assessing the incomes of farm operators on the basis of their total or disposable income, rather than just the fraction arising from their farming activities, is obvious from these findings.

#### Federal Republic of Germany

Results from the farm accounts survey (test holdings) appear in the annual Green Report (Agrarbericht). As part of the income measures, total income (including transfers) and disposable income are calculated, broken down by status (full-time, part-time main income, and supplementary income) on the basis of the proportion of income coming from off-farm sources. The

Table 3.5 Denmark

Income and disposable income (1984/85) by source and size of holding ('000 Kr per holding)

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	Size of holding (ha)															
	5-9.9		10-19.9		20-29.9		30-49.9		50-99.9		100+		All		All 1983/4	
	Kr	%	Kr	%	Kr	%	Kr	%	Kr	%	Kr	%	Kr	%	Kr	%
Operating surplus																
agriculture	26		72		150		231		390		892		174		110	
other	3		4		2		3		8		34		4		4	
Less interest	25		44		75		129		221		458		97		92	
rent & other charges	3		5		9		17		43		181		18		15	
Income from self-employment	1	1	27	18	68	40	88	45	134	49	287	46	64	34	7	6
Net appreciation on farmers accommodation	14	10	16	11	18	10	19	10	21	8	24	6	17	9	17	14
Income from employment																
holder	54	38	35	24	17	10	12	6	10	4	15	4	26	14	25	21
other family	27	19	25	17	23	13	20	10	24	9	19	5	24	13	22	18
Pensions and daily allowances	27	19	19	13	12	7	9	5	6	2	8	2	15	8	14	12
Unearned income	13	9	13	9	16	9	17	9	26	10	87	22	18	10	18	15
Other	6	4	14	10	17	10	28	14	53	19	65	16	23	12	19	16
Total income	141	100	148	100	172	100	194	100	273	100	504	100	186	100	119	100
Taxes and annuities for previous owners	35	25	34	23	40	23	41	21	52	19	110	22	41	22	34	29
Disposable income	106	75	114	77	132	77	153	79	221	81	394	78	145	78	85	71

Source: derived from Statens Jordbrugsøkonomiske Institut, Landbrugsreguskabsstatistik, 1984/85

income unit is the farmer and spouse, and information on the non-farm incomes of other household members is not collected. As described in the main text, the income component coming from the farm for this classification is estimated according to standards rather than actual income. This is compared with actual income earned by the farmer and spouse from other gainful activities; income from property and welfare transfers are not used in the classification, though they are counted when estimating total income. Within the total it is recognised that some forms of income may not be adequately reported, such as social transfers. Full-time farms (those with less than 10 per cent of income from off the farm) are classified into small, medium and large by the size of their standard incomes (see footnotes to Table 3.6). On average, full-time farms are larger in area than part-time main income farms, with supplementary income farms being smallest.

Over time a polarisation has been occurring, with a concentration into farms where the income is very largely farm-derived or where it is predominantly from off-farm sources. Part-time holdings in which the off-farm income accounts for 10-50 per cent of the total have been shrinking in relative importance. Over the period 1976 to 1987 this last group fell from 15 per cent of total holding numbers to 10 per cent, whereas full-time holdings rose from 46 to 49 per cent and spare-time ones from 39 to 41 per cent, all within a declining total number of holdings of 2.3 per cent per year (1976-86).

In view of the method of classification it is not surprising that full-time farms are found to receive a large majority of their total income from the farm, but even so in 1986/87 12 per cent of the total came from non-farm sources. Of greater significance is the finding that the low levels of farm profit found on part-time main income and supplementary income farms (which together account for half the total number of holdings) is no guide to the total or disposable incomes of these groups. The average disposable income of part-time farms was 18 per cent higher than the full-time all-size average, and double the figure for small full-time farms. Even on spare-time holdings, with very little income from farming, the average disposable income was similar to that for all full-time holdings and substantially above that of small ones. Lowest disposable incomes were found on small full-time farms. This combination mirrors findings in other countries which suggest that low incomes tend to be associated with small scale full-time farming whereas those farm where there are other sources of income seem to be receiving relatively high total incomes.

These farm accounts are also used in an official estimate of the comparability of agricultural incomes with those of non-farmers (this is in addition to the macroeconomic comparison described in Chapter 4). The exercise takes the form of a comparison of the profit on full-time farms (adjusted to allow for consumption of own production) with the earnings received by other business proprietors, also adjusted. There are methodological reservations concerning this form of comparison, but it forms part of the official income monitoring procedure.

Table 3.6 Federal Republic of Germany

Characteristics of full-time, part-time main income and supplementary income farms 1986/87

	Full-time <sup>1</sup>			All	Part-time main income	Supplementary income
	Small <sup>2</sup>	Medium	Large			
Numbers ('000) (1987) (1 ha and over)	176.7	79.7	79.6	336.0	64.8	280.2
Average size (ha) (1987) (1 ha and over)	17.1	29.1	49.2	27.5	16.4	5.4
Farm profit (DM)	29,455	42,048	61,542	39,653	26,209	5,648
Total income (DM)	34,828	46,841	67,446	44,992	53,205	52,193
Disposable income (DM)	27,359	37,323	50,489	34,938	41,157	35,556

1 Full-time farm = operator-and-spouse earnings from off-farm sources less than 10 per cent of total income.

Part-time main income farm = off-farm earnings 10-50 per cent of total income.

Supplementary income farm = off-farm earning more than 50 per cent of total income.

(Income figures relate to farms of 5000 DM standard income and over)

2 Small = under 40,000 DM standard income.

Medium = 40,000 - 59,999 DM standard income.

Large = 60,000 DM standard income and over.

Source: from Agrarbericht 1988

## Ireland

Information from the Irish Household Budget Survey (HBS) permits both a description of the composition of the household income of farmers and comparisons to be drawn with other socio-professional groups. Income from farming in 1980 constituted just over half (52 per cent) of gross income of farmer households, income from employment 21 per cent and most of the remainder coming from state transfers. There were wide differences in dependency on such transfers; on small farms (under 30 ha) they made up over a third of gross income. They also reduced the relative income gap between small and large farms and cushioned the impact of a widening disparity seen in the income from farming between 1973 and 1980.

Table 3.7 shows average household incomes in rural areas by socio-professional group for 1980. The direct income of farm households was lower than other groups but the inclusion of state transfers reduces the size of the gap. When tax and social insurance were also taken into account the effect was to put the disposable income of farmer households above the all-household average and on a level very similar to that of agricultural workers. The HBS also shows that the tax burden falling on farmers in Ireland was noticeable lighter than other employed groups; only 6 per cent of their gross income was taken in tax in 1980 as opposed to 9 per cent for other self-employed households, 14 per cent for agricultural worker households and 17 per cent for other employee households.

## The Netherlands

The Netherlands has a particularly low proportion of its farmers declaring an other gainful activity, in the 1983 Structure Survey only 19 per cent compared with 33 per cent for the Community as a whole. All other Member States, with the exception of Luxembourg, also with 19 per cent, had higher figures. Only about 5 per cent of farmer's wives in the Netherlands are thought to have jobs outside the farm, mainly part-time, and their impact on the income situation is therefore likely to be small. Taking these factors together, it is not surprising that the income from agriculture is relative important to farmer-households in the Netherlands.

Table 3.8 is derived from tax statistics and uses a classification based on the main source of income of the head of the household. The main tax information is on a farmer-and-spouse basis (rather than by household), although a special survey of 1982 found that these together accounted for four-fifths of total disposable income. Table 3.8 uses the narrow fiscal household. Income from self-employment is clearly the main source even in 1981 when farming incomes were much lower than in 1977.

Table 3.9 draws data from the farm accounts survey of the Centraal Bureau voor de Statistiek (CBS); the nature of this survey has been described in the main text. Off-farm incomes are again shown to be of low importance relative to what is found in other countries where information exists (in the EC and elsewhere) and was in the range 16-20 per cent of total income in the years 1979/80 to 1982/3. In 1982/3 the off-farm income share fell from 28 per cent among the smallest farms to 10 per cent in the largest categories. Off-farm income seemed less volatile than that from the farm, and the tax and welfare system operated, as would be anticipated, so that disposable income formed a higher share of total income among small-farm/low-income groups than among larger farms.

Table 3.7 Ireland

Average weekly income of rural households by livelihood status of head of household, 1980

	(IR. £)						
	Farmers	Other self- employed	Agricultural workers	Other employees	Out of work	Retired	All Rural Area
Adjusted no. of households in sample	1152	177	57	740	179	360	2906
Direct Income	90.5 (84%)	130.4 (95%)	114.3 (96%)	138.9 (96%)	24.2 (36%)	30.8 (51%)	90.7 (84%)
of which							
from self-employed	56.6	111.3	5.3	2.9	0.8	1.6	30.9
from employment	22.5	12.6	104.9	131.5	19.1	11.9	50.6
State transfer payments	16.3 (15%)	6.5 (5%)	4.8 (4%)	5.7 (4%)	43.6 (64%)	30.1 (49%)	16.7 (16%)
of which							
children's allowances	1.8	2.5	1.9	2.6	2.5	0.3	1.8
old age retirement pensions	7.1	2.0	1.1	1.1	1.2	25.2	7.2
Gross income	106.8 (100%)	136.9 (100%)	119.1 (100%)	144.6 (100%)	67.7 (100%)	60.8 (100%)	107.4 (100%)
Disposable income	100.6 (94%)	124.6 (91%)	102.5 (86%)	119.4 (83%)	64.1 (95%)	57.2 (94%)	96.2 (90%)

Source: 1980 Household Budget Survey

Table 3.8 The Netherlands

Components of income of recipients belonging to the class agriculture, horticulture and market gardening - self employed. Tax information.

	1977		1981	
	M.gld	%	M.gld	%
Self-employment profit	4,577	85	4,471	73
From employment	161	3	179	3
From assets and other incomes	274	5	445	7
Income transfers from government or social insurance	372	7	485	8
Other incoming transfers	6	-	523	9
Total gross revenue	5,389	100	6,104	100
Social insurance	485	9	563	9
Other	101	2	135	2
Tax on earning, income and capital	1,032	19	966	16
Disposable income	3,771	70	4,441	73

Table 3.9 The Netherlands

Income account for all types of agricultural, horticultural and market gardening holdings ('000 Gld per holding)

	1979/80		1980/81		1981/2		1982/3		Size group (1982/3) Standard farm unit (sfu)							
	'000 Gld	%	50-130		130-250		250-350		350-1500							
Self-employed	36.1	82	37.7	80	54.6	84	57.5	84	34.1	72	56.9	86	81.2	89	106.9	90
Other income	7.7	18	9.7	20	10.7	16	11.0	16	13.2	28	9.5	14	9.7	11	11.5	10
Total income	43.8	100	47.4	100	65.3	100	68.5	100	47.2	100	66.4	100	90.8	100	118.4	100
Taxation and social security contributions	10.9	25	11.6	24	11.9	18	14.5	21	8.8	13	8.2	12	23.0	25	28.0	24
Disposable income	32.9	75	35.8	76	53.3	82	54.0	79	38.4	87	58.2	88	67.8	75	90.4	76

Source: Centraal Bureau voor de StatistiekNote: 10 ESU = about 35 sfu

## CHAPTER 4 EXISTING ESTIMATES OF THE AGGREGATE DISPOSABLE INCOME OF AGRICULTURAL HOUSEHOLDS

Three EC Members States already calculate and publish on a regular basis the aggregate disposable income of their agricultural households (the Federal Republic of Germany, France and Denmark). A fourth (the Netherlands) has made an estimate for a single year as part of a research project. This Chapter describes the methodology used in these countries and comments on the principal findings.

Both the German and French income estimates are made within the framework of their respective national accounts, and form part of a disaggregation of the household sector account into a number of socio-professional household groups, of which agricultural households form one. Both use methods that have as their starting point the aggregate income estimate for all households and use a variety of means to distribute this income between socio-professional groups. Such an approach facilitates comparison between agricultural and non-agricultural household sectors in the movements shown by their income aggregates and in the composition of their disposable incomes. The approach used in the Netherlands is similar, though as the figures relate only to one year the implications which can be drawn from the findings are limited. Of the alternative models put forward in Chapter 2 for the estimation of disposable income, these countries correspond to Model 2. The method in Denmark, in contrast, is a grossing-up of survey results for agricultural households alone, corresponding to Model 1.

### Federal Republic of Germany

The household incomes of self-employed persons in agriculture, forestry and fisheries are shown in the national accounts in the course of reporting on incomes by socio-economic groups of households, of which agricultural households form one of eight classes. At present the sector is broader than agriculture (in the ESA sense) and some 15,000 households

represent forestry and fishing out of a sector total of 417,000 in 1982, though there are plans to exclude these. Estimates of the household income of self-employed persons in agriculture were first published in 1982 (in *Wirtschaft und Statistik*) and are available for 1972 to 1984, when a revision of the national accounts took place. Earlier years are not calculated as the data are not of the required form. Later estimates calculated in accordance with the revised version of the national accounts (1985) will be available at the end of 1988.

The main reason for examining the incomes of agricultural households is to enable a comparison to be made with the non-farm part of the population. Since 1985 the disposable income of self-employed households in agriculture (broadly defined) has been compared in the *Agricultural Reports (Agrarbericht der Bundesregierung)* with the disposable income of other groups of households taken from national accounts data, thereby throwing further light on agricultural incomes.

In the socio-professional typology households are classified according to the way in which the reference person (normally the person contributing the most to the income of the household) earns most of his income. Consequently, as carried out at present, households of full-time farmers are included in the income assessment of agricultural households but those of part-time farmers mainly dependent on non-farming earnings are not included. Some 90 per cent of agricultural output is thought to originate from "main-living" farms, that is where more than 50 per cent of the head's income comes from agriculture. About 12 per cent of holdings are run by persons who are not the reference person of the household. The income components used are in close agreement with those laid down by Eurostat for the proposed common methodology for the indicator of disposable income. Only casualty insurance benefits and net premiums and interest paid on (personal as opposed to business) debt present difficulties.

The basic data sources were described in Chapter 3. The estimation of an aggregate figure of household income for the agricultural sector represents a combination of these sources. The principal ones are the

5-yearly EVS (general survey of incomes and expenditure), the annual micro-census of population (with adjustments), and the surveys of farm businesses (test holdings). In addition, a number of other statistics, which need not be described further here, are used. The EVS collects details of all sources of income for the separate members of the household, permitting a flexible analysis, but it uses the micro-census as a raising frame.

The first step is the calculation of disposable income for the household sector of the whole economy; the breakdown of types of income and transfers is not totally identical to Eurostat's requirements for the common methodology but it results in the same disposable income. This process includes an estimation of the income transactions of non-profit-making private organisations (churches, political parties, sporting clubs and so on) and their separation from private households in the narrower sense. Once the basic figures for private households in total have been calculated, the components in the income calculation leading to disposable income are distributed separately between the household groups, of which agricultural self-employed households form one, using distribution indicators from a number of surveys (see Figure 4.1).

In the distribution exercise the main source for statistical information on incomes by groups of households is the EVS; it is relied on for average quantities which are combined with frequencies, estimated with the aid of the micro-census, in order to build estimates of totals. The EVS does not collect information on income from self-employment directly but estimates it from known levels of expenditure and other income. Hence, for the distribution of self-employment income from agriculture the preferred source is results from the test holdings, whose profits are grossed up according to the number of holdings in agricultural statistics which fall into the full-time, part-time main income and supplementary income categories, and also taking into account the household group indicated in the micro-census.

Figure 4.1

Federal Republic of Germany

Stages in the calculation of the disposable income of the agricultural household sector.

<u>Stages</u>	<u>Comment</u>
1 System of national accounts	That part of the national income arising from agricultural households comes from test holdings and the breakdown into full-time, part-time main income, and supplementary income holdings.
2 Disposable income for all private households	Allowance is made for the non-profit making private organisations.
3 Distribution between groups of households (such as agricultural households)	Distribution indicators are used and harmonised with the basic figures of national accounts. Each component of income is distributed separately.
4 Criterion for distribution (main components only) agricultural income (profit)	Agricultural Reports give numbers of full-time, part-time main income and supplementary income holdings. Holdings classified by household group based on the micro-census. Net income (profit) from test holdings is grossed up and co-ordinated with National Accounts
other entrepreneurial and property income	EVS, micro-census, tax and other surveys
wages and salaries	EVS, micro-census and other surveys
social benefits	EVS, micro-census, Federal Labour Office, other surveys
tax	income tax statistics, test holdings, EVS

In contrast with the income from agricultural activity, income from other sources relies heavily on the EVS. In the case of other entrepreneurial activity the EVS is supplemented by the corresponding incomes of households it does not cover - the micro-census for foreign households and persons living in communal-type dwellings and income tax statistics for particularly high incomes. For wage earnings again the main source is the EVS, suitably adjusted for its non-coverage; the accord of the EVS and national accounts figures for this item is excellent. Property income (actual and imputed interest, rents and receipts from patents etc., dividends and other distributed income from corporate enterprises) of individual household groups, including agricultural households, is classified largely according to property holdings as found in the EVS. Emphasis is placed on comparisons with independently calculated global figure, such as interest receipts with payments by banks. Social benefits similarly rely largely on the EVS, supplemented by the micro-census which gathers information on, for example, receivers of types of pension. Further supplements are the Federal Labour Office and other sample surveys. Information on the social security organisations, claim frequencies and average sums paid for various types of benefit are of great importance in the distribution calculations and can be used for correcting under or over-recorded data in sample surveys and for plausibility checks. Interest payments on debts by private households (business debts having been taken care of in the estimation of business income) are derived from the EVS estimate of debt outstanding. Information on the taxation of incomes is taken from tax statistics, though this is also available for agricultural households through the test holdings; EVS is a source for other taxes.

#### Results for Germany

In 1982 about 680,000 households were operators of agricultural holdings, but only about 420,000 of these were classed as agricultural households in the sense that the reference person's (head's) main source of income was from farming. In 1984 agricultural households formed 1.6 per cent of all private households. The number of agricultural households has been dropping steadily, and has fallen from 534,000 in 1972 to 405,000 in 1984,

a fall of 24 per cent. In contrast, the total number of households rose by 10 per cent over the same period. Agricultural households were on average larger than households in general, with 4.32 persons in 1984 compared with 2.42 for all private households and 3.00 for households headed by a person in paid employment. These differences underline the need to take household composition into account when making comparisons between the household incomes of farmers and other groups.

In the German statistics the income accruing to agricultural households is usually shown on a per household basis in order to allow for the changing numbers in this socio-professional group. If 1972 is chosen as the base year, disposable income per household rose by about 50 per cent up to 1984, corresponding to an annual average growth rate of 3.4 per cent. By comparison, the disposable income of all private households increased by 86 per cent over the same period, or 5.3 per cent per year. Before too much is read into this difference note should be taken of the sharp fluctuations in incomes of agricultural households, largely stemming from the farming component of their income, which means that the figures are sensitive to the particular base year chosen.

Estimates for agricultural households and other socio-professional groups for the period 1973 to 1984 are shown in Table 4.1 (from Statistisches Jahrbuch über Ernährung Landwirtschaft und Forsten 1987) and in more detailed form for 1980 to 1984 in Table 4.2. In 1984 the average disposable income of agricultural households was DM 44,318, corresponding to an income per person of DM 10,264. The largest single contribution came from self-employment income (DM 31,600); wages were DM 13,172, property income accounted for DM 5,728, social benefits DM 6,067 and other receipts DM 5,329.

Compared with households in general, the estimates produced by the German methodology show that the average household disposable income in agriculture does not seem particularly low. In the period from 1973 shown in Table 4.1 the incomes of agricultural households were above the all-household levels in all but one year, the exception being 1983. Figures for 1984 were DM 44,318 in agriculture as opposed to DM 41,983 for

Table 4.1 Federal Republic of Germany

## Disposable income by household group

Year	Self-employed		Employed			Not employed			All private households
	Agriculture	Other	State employed	Salaried	Waged	Unemployment benefit	Pension	Other	
DM per household									
1973	32,609	58,678	29,607	27,642	21,318	15,009	15,748	15,799	23,822
1974	30,431	62,275	32,891	29,913	23,046	16,544	17,272	16,807	25,557
1975	36,595	68,039	35,926	32,535	25,645	17,660	18,992	18,386	27,983
1976	41,088	78,783	36,948	33,816	26,709	17,310	20,100	18,980	29,594
1977	41,295	82,914	38,909	35,627	28,350	17,696	21,627	19,621	31,272
1978	42,187	92,800	41,275	37,764	30,451	18,256	22,667	20,360	33,387
1979	39,690	101,185	43,717	40,405	32,245	18,632	23,584	21,147	35,409
1980	37,972	101,130	46,353	42,446	34,258	19,289	24,987	22,531	37,028
1981	40,731	96,479	48,945	44,540	35,914	20,694	25,989	23,646	38,031
1982	49,615	104,636	49,596	45,596	36,449	20,594	26,981	24,033	39,252
1983	39,499	122,653	50,637	46,846	37,270	20,570	27,231	24,174	40,579
1984	44,318	132,222	51,473	48,113	37,988	19,916	28,127	24,653	41,983
DM per person									
1973	7,118	18,022	9,319	9,831	6,705	5,253	9,194	8,238	9,028
1974	6,655	19,261	10,500	10,678	7,264	5,768	10,113	8,609	9,773
1975	8,081	21,196	11,599	11,657	8,014	6,120	11,133	9,214	10,755
1976	9,161	24,370	11,916	12,202	8,397	6,352	11,885	9,647	11,525
1977	9,332	25,708	12,570	12,930	8,943	6,653	12,769	10,032	12,263
1978	9,516	28,977	13,379	13,790	9,636	7,030	13,364	10,405	13,160
1979	8,922	31,884	14,359	14,897	10,260	7,324	14,033	11,162	14,092
1980	8,572	32,035	15,253	15,730	10,998	7,671	14,901	12,083	14,840
1981	9,349	30,719	16,152	16,542	11,582	8,248	15,535	12,743	15,358
1982	11,384	33,636	16,379	17,092	11,843	8,248	16,163	12,640	16,002
1983	9,102	29,573	16,773	17,608	12,161	8,236	16,355	12,729	16,659
1984	10,264	42,836	17,142	18,179	12,472	8,028	16,968	13,038	17,361

Table 4.2 Federal Republic of Germany

Composition of income of private households by household group (DM per household)

Year	Wages	Self-employment	From capital	Regular transfers	Total	Deductions	of which		Disposable Income
							Direct tax	Social payments	
Agricultural households									
1980	14063	27086	3832	9860	54841	16869	2996	8360	37972
1981	14870	27934	4878	11227	58908	18177	3086	8933	40731
1982	15847	36481	5265	11229	68823	19208	3235	9619	49615
1983	16178	27146	5121	11161	59606	20107	3306	10102	39499
1984	16744	31600	5728	11396	65469	21151	3458	10470	44318
Other self-employed households									
1984	15135	143337	14620	13146	186238	54016	29367	12194	132222
State employees									
1984	74102	1506	4342	6839	86790	35317	10667	18804	51473
Salaried									
1984	76541	1482	4980	4994	87997	39884	11976	23127	48113
Waged									
1984	62261	1338	2828	5479	71906	33918	7375	22085	37988
Unemployment benefit									
1984	7470	1355	1026	23006	32857	12941	810	9775	19916
Pensions									
1984	4199	1415	2670	26583	34867	6740	1128	2181	28127
Other									
1984	6223	4581	2566	17403	31773	7120	2092	3199	24653
All households									
1984	37631	10477	4057	14546	66710	24727	7146	13359	41983

Source: quoted in the Report by the Federal Republic of Germany

all households. Agricultural households had a higher average disposable income than households of wage earners, a position maintained even in years of low agricultural incomes, though the gap has narrowed. For 7 years out of the 12 in Table 4.1 agricultural household incomes were also above those of salaried people, but mainly in the earlier part of the series. However, agricultural households have had average disposable incomes consistently and substantially below the incomes of other self-employed households.

The relative income position of agricultural households, as revealed by these figures, is of obvious interest to policy-makers, though no comment is offered here on the choice of the appropriate socio-professional group(s) with which to compare the incomes of agricultural households. A more complex picture emerges if the size of households is taken into account. On the basis of disposable income per household member, incomes in agriculture have been consistently below the all-household average, with a decline in the relative position of agriculture in the more recent years. However, this simple division by the number of household members does not take into account the differing composition of households, which would require adjusting by some equivalence scale to allow for the number of children and other types of member.

### France

For a number of years calculations of sector incomes using a macroeconomic approach have been made within the framework of national accounts. As part of this, an income account of households in the socio-professional group "farmers" has existed since 1956, and it is considered by the national statistical authorities as being relatively reliable and very consistent. The definition of the agricultural household sector is not identical with the requirements of Eurostat and there is the problem of whether the classification system (which depends on the self-declaration by the head) is appropriate. Nevertheless, this system forms part of a general framework which allows comparisons to be made with other social groups.

Apart from differences in presentation, the gross disposable income for farmers is calculated in essentially the same way as in the overall account for the household sector, with the minor change that of the re-introduction into disposable income of interest paid on consumer credits and current transfers (e.g. contributions to associations). The disposable income concept corresponds to the aggregate required by Eurostat for the common methodology proposed for the new income indicator, with the important difference that the French methodology estimates incomes gross whereas the proposed Eurostat indicator is a net one, that is after deducting capital consumption.

Two series of accounts of agricultural household income trends are available. The earlier series provides assessments for 1956, 1962, 1965 and 1970. The more recent, established in base 1971 of national accounts, provides assessments for 1970 and 1979 (with a non comparable set for 1975). Between these base years extrapolations are made. The latest estimates relate to 1983 and are based on the 1979 data. Figures for 1984 will be calculated on a new base and should be available (with an update to 1988) by 1989. Changes in methodology between the two series prevent direct comparisons, although the overlap allows an indication of the overall trend to be obtained. The earlier series involved ten socio-professional groups, the later one, eight. Farmers and agricultural employees appear as two groups in both series, and comparison in the overlap year indicates the same number of households, though the amounts of disposable income are different. Since 1982 agricultural employees have not been shown separately but have been incorporated into the worker socio-professional group. In interpolating for years between the bases, the principle is to find not a single source but rather sources which give information on the distribution of a type of income between the various groups. It follows that the accounts by socio-professional group, such as farmers, are interpreted within France less in terms of value than in terms of structure, level or trends.

The starting point for calculating the income of agricultural households is the household sector income account. This account constitutes a reference, not because it provides a perfect measure of actual income but because it is a national accounts operation and forms a complete, consistent and relatively sure system of measuring income. The objective is to break down this account into a number of sectors, corresponding to different socio-professional groups of households. The household is defined as consisting of individuals occupying the same dwelling, and the criterion for inclusion is that the person (head) states that they are primarily active in agriculture or horticulture. The criterion on which the reference person decides what is his main occupation cannot be known precisely, but it is felt that time rather than income is the predominant factor in the minds of the household head. This system is common to all the household surveys conducted by the Institut National de la Statistique et des Etudes Economiques (INSEE), including the population census, and therefore has the virtue of consistency though perhaps not that of precision of interpretation. This means that a large number of sole agricultural proprietorships (or, which almost amounts to the same, agricultural holdings within the census definition) are not covered, mostly those where agriculture is a subsidiary activity. The difference is numerically large; in 1979 there were 860,000 agricultural holder households against 1,250,000 family agricultural holdings, suggesting that about one third of the total number of holdings were operated by households where the head felt that his main occupation was not in farming. This gap closes considerably if only full-time holdings, i.e. those with a labour input of at least 1 ALU (Annual Labour Unit), are counted. As was noted earlier, this difference highlights the necessity of clarifying which households are covered by the income indicator under development by Eurostat; the methodology described in Chapter 2 clearly refers to only those who are classed as professional farmers.

The main source used to break down the overall account is the survey of incomes declared for tax purposes; this provides the key for the breakdown of a large part of income (wages and salaries, pensions, income of sole agricultural proprietorships and non-agricultural proprietorships). However, tax information inevitably incurs a lag between income receipt and the data becoming available.

Figure 4.2

France

Stages in the calculation of the disposable income of the agricultural household sector.

<u>Stage</u>	<u>Comment</u>
Classification of households by socio-professional group of the head of household.	
1 Household sector income account; contains components and Gross Disposable Income	One component is the Income from Production of Sole Agricultural Proprietorships (see below)
2 Distribution of components between household groups on the bases of a survey of tax returns. "Agricultural holder" is one household group	Income from sole agricultural proprietorships distributed in proportion to taxable agricultural profits.

Estimation of the Income From Production of Sole Agricultural Proprietorships

Gross Value Added of the agriculture branch  
less wages, salaries, employers' contributions  
taxes on production and factors of production  
= Gross Operating Surplus of agriculture branch  
less agricultural GOS of corporate and quasi-corporate enterprises  
= Agricultural GOS of households  
less GOS of kitchen gardens of non-farmers  
= agricultural GOS of sole proprietors  
plus processing of agricultural products (e.g.. cheese making)  
commercial margins (on direct sales)  
self-supplied fixed capital formation (non-agricultural goods primarily farm buildings)  
= GOS of sole agricultural proprietorships (stricter sense)  
[plus GOS of forestry and fisheries sole proprietorship  
= GOS of agricultural proprietorships (wider sense)]  
minus interest related to the activity of the proprietorship  
rents and crop-sharing outgoings  
holders' social contributions  
cooperatives' payments to their members  
= Income from Production of Sole Agricultural Proprietorships

One component in the income account of particular importance to farmer households is the income from production of sole agricultural proprietorships. It is derived from the Gross Operating Surplus for agriculture in the manner shown in Figure 4.2. This income is then distributed between household groups in proportion to taxable agricultural profits. This distributive mechanism can be questioned on at least the following grounds. Because of the system of assessment used, taxable income is not a reliable indicator of actual income from farming; even though it is acknowledged that the absolute levels are understated this would not matter if there was a uniformity of understatement across household groups, but this is not the case. Rents are assumed to be paid when they are not, leading to an understatement of agricultural income. Imputing the amount of kitchen garden production, and the valuation used, is a problem which can affect significantly the income of farmers. Changes in stocks and own-account capital formation is treated as income, which is debatable in this context. Depreciation is not deducted, though at least in the case of working capital (including machines) it could be argued that this is a form of "forced saving". These latter items cause conceptual problems when comparisons are attempted with other household sectors dependent primarily on wages and salaries.

France is concerned over the poor quality in making the transition between the branch accounts for agriculture and the sector income account, affecting the overall quality of the agricultural household income account. This has given rise to a desire to estimate incomes of sole proprietors directly, perhaps involving the joint use of RICA (to be made more representative) and tax statistics, the quality of which is bound to improve with the extended assessment of 'real profits'.

#### Results for France

Results of the methodology described above are contained in Tables 4.3 to 4.5. According to the conventions applied, the results show that agricultural income represented 62% of the gross income before tax of farmers' households in 1979 (the latest available base year of

Table 4.3 France

Average income per household by socio-professional group of head 1983

	Francs							
	Farmers	Businessmen (non-agricultural)	Higher management	Middle management	Salaried	Wage earners	Retired	All households
Salaries	13,530	57,640	188,000	119,950	89,040	79,430	12,710	66,580
Entrepreneurial income*	110,580	175,300	11,040	4,980	2,720	2,690	4,390	21,670
Property and other production	19,670	64,960	36,060	9,200	7,650	4,630	23,570	18,760
Transfer income	36,730	26,480	31,220	32,030	32,660	40,940	86,780	51,680
of which								
social transfers	34,860	25,460	27,530	28,340	30,510	38,780	84,660	49,330
of which								
pensions	8,570	6,700	6,110	3,600	4,820	2,600	55,280	20,680
Total income before tax*	180,510	324,380	266,320	166,160	132,070	127,690	127,450	158,690
Direct taxes	-15,930	-43,600	-40,150	-14,540	-9,070	-6,000	-8,070	-13,460
of which								
income tax	-6,360	-33,080	-30,480	-10,800	-6,040	-3,750	-5,440	-9,430
Disposable income*	164,580	280,780	226,170	151,620	123,000	121,690	119,380	145,230
No. households (m.)	805	1,544	1,163	2,738	2,267	5,081	6,443	20,040
No. persons per household	3,68	3,14	3,03	2,99	2,64	3,37	1,86	2,73
Grossed up income (m. francs)*	132,420	433,590	262,960	415,180	278,840	618,310	769,110	2,910,410
Disposable inc./person*	44,723	89,420	74,644	50,709	46,591	36,110	64,183	53,197

Note: \* gross before deduction of depreciation

Table 4.4 France

Disposable income of the household sector by socio-professional group  
(based on 1962 National Accounts)

		1956	1962	1965	1970	N = (Millions)
Farmers	Sector income (MFr)	20,330	33,415	37,090	48,031	
	per household (Fr)	12,108	22,085	26,896	46,905	1.024
	per person (Fr)	2,925	5,564	6,809	12,275	3.913
Agricultural workers	Sector income (MFr)	2,670	4,246	4,903	5,116	
	per household (Fr)	5,804	10,331	13,929	22,243	.230
	per person (Fr)	1,578	2,755	3,717	6,134	.834
Owners of other businesses	Sector income (MFr)	28,184	47,665	57,900	97,716	
	per household (Fr)	19,862	36,110	44,402	72,922	1.340
	per person (Fr)	5,910	10,880	13,240	22,108	4.420
Senior management and liberal professions	Sector income (MFr)	13,590	29,147	41,038	60,247	
	per household (Fr)	27,622	46,486	56,371	76,748	.785
	per person (Fr)	7,550	12,711	15,657	21,417	2.813
Middle management	Sector income (MFr)	11,882	24,590	32,373	56,471	
	per household (Fr)	16,277	27,111	30,454	44,222	1.277
	per person (Fr)	5,216	8,607	9,669	14,160	3.988
Salaried employees	Sector income (MFr)	9,218	17,001	22,951	49,065	
	per household (Fr)	9,454	16,145	20,221	31,594	1.553
	per person (Fr)	3,142	5,361	6,678	10,439	4.700
Workers (wage earners)	Sector income (MFr)	33,787	64,067	86,363	129,955	
	per household (Fr)	8,847	15,022	19,849	29,875	4.350
	per person (Fr)	2,520	4,161	5,416	8,097	16.050
Domestic staff	Sector income (MFr)	2,318	3,978	5,949	10,393	
	per household (Fr)	6,738	11,237	15,822	24,002	.433
	per person (Fr)	2,883	4,781	6,556	10,140	1.025
Others	Sector income (MFr)	2,608	5,411	7,080	9,810	
	per household (Fr)	9,731	17,016	21,920	31,748	.309
	per person (Fr)	2,766	4,746	6,114	9,100	1.078
Non- employed	Sector income (MFr)	19,408	37,803	56,127	103,561	
	per household (Fr)	5,700	9,408	12,918	21,088	4.911
	per person (Fr)	2,702	4,590	6,366	10,973	9.438
Total	Sector income (MFr)	143,995	267,323	351,774	570,365	
	per household (Fr)	10,595	18,080	22,908	35,182	16.212
	per person (Fr)	3,368	5,830	7,426	11,819	48.259

Table 4.5 France

Disposable income per household 1970, 1979, 1983

Socio-professional group	In constant Francs*			Average annual change %		Index (all categories = 100)		
	1970	1979	1983	1970-1979	1979-1983	1970	1979	1983
Farmers	43,231	51,209	49,070	+1,9	-1,1	125	119	113
Self-employed (non-agricultural)	70,977	86,367	83,715	+2,2	-0,8	206	200	193
Higher management	68,654	74,594	67,433	+0,9	-2,5	199	173	156
Middle management	41,835	47,711	45,207	+1,5	-1,3	121	111	104
Salaried	31,495	37,294	36,674	+1,9	-0,4	91	86	85
Wage earners	28,464	36,395	36,265	+2,8	-0,1	83	85	84
Retired	20,771	31,696	35,593	+4,8	+2,9	60	73	82
All households	34,500	43,169	43,300	+2,5	+0,1	100	100	100

\* Deflated by the consumer price index in national accounts, base 100 in 1970.  
Value in 1979: 215,7; in 1983: 335,4.

calculation). Incomes from non-agricultural activities (wages and salaries and from non-agricultural businesses) made up 11% and non-agricultural primary income about 9%, of which 4% was primarily actual or imputed rents. Transfer income represented 17%. Using the extrapolated figures for 1983, in that year farms generated 61 per cent of pre-tax income, other primary income (wages and property income) 19 per cent, and transfer income 20 per cent. Pre-tax income in 1983 was 10 per cent higher than disposable income.

The breakdown by socio-professional group shows some interesting differences between farmers and other types of households, though care must be exercised over making oversimplified comparisons based on sector averages. In each of the years for which information is available in France, the per household disposable income of farmer-households was above the all-household mean; the implications for agricultural policy of this finding is obvious. Differences in household size and composition also should be taken into account but, as with the estimates for Germany given above, this is subject to discussion on the appropriate weighting to be given to various types of household member, especially to children. For the early years the income per person in the agricultural household sector (simple average, not weighted) was below the all-household average, but by 1970 it was above it. For 1983 the average farmer household income was 13 per cent higher than the overall average, but disposable income per person was 16 per cent lower.

According to the earlier series, in 1970 the average household income of farmers, and income per person, was substantially above that of employed workers in the economy, both those on salaries and wage-earners; these two formed the largest occupational groups. Farmer-household incomes were on a par with those of middle management, though not surprisingly lower than senior management and the professions. There was also a substantial gap between the incomes of farmer-households and those of agricultural employees; farmer incomes were about double that of the employees. Agricultural worker households were the group with the lowest income of households where the head was in employment, and had an average income which was only undercut (in the new series) by the non-employed sector.

Though the present Eurostat study is directed only at the farmer-households, the existence of such disparities between farmers and agricultural employees should be a matter of interest to administrators of the Common Agricultural Policy, which is generally interpreted as extending to the entire agricultural population.

In 1983 the average disposable income of farmer households was again above that of other socio-professional groups except those of upper management and proprietors of non-agricultural businesses, though the relative position of farmer households had declined with respect to the all-household average, from 25 per cent above in 1970 to 19 per cent in 1979 and 13 per cent in 1983. This narrowing of income disparities was a general feature of the French economy over the period, which also witnessed a remarkable rise in the relative position of retired households. In the 1983 tables hired agricultural workers have been incorporated into the general wage-earner group.

Related to these differences in absolute income levels, observations are possible on the way that incomes have developed over time. The accompanying tables show that disposable income in France for the agricultural household sector as a whole failed to keep abreast with the general rise in the total household sector, but this must be modified by changes in the numbers of households involved. On the basis of disposable income per household, in the period 1956-70 (drawing data from the old series) farmers' incomes grew by more than those of households in general. Between 1956 and 1970 the mean income of farmer-headed households rose by a factor of 3.87 whereas the all-household figure was 3.32. No other socio-professional group exceeded the rise shown by farmer-households; they fared better than self-employed operators of other businesses and substantially better than management groups. The households of agricultural employees experienced almost the same income rise as did farmers but, as was pointed out above, the absolute levels of income were substantially lower. An extension of the data to the 1980s would be highly desirable.

From 1970 to 1979 the average disposable income of farmer households rose by an annual equivalent (in real terms) of 1.9 per cent, compared with an all-household figure of 2.5 per cent. From 1979 to 1983 there was an annual decline of 1.1 per cent while the national average showed a small increase of 0.1 per cent.

#### Income estimates from the study of the External Income of Agricultural Households

In France there is, in addition to the macroeconomic estimates of disposable income described above, a series of studies of the income of agricultural households (defined in a particularly broad way) which is directed at examining the relative importance of non-farm income to that from agriculture (the External Income of Agricultural Households, undertaken by the Service Central des Enquêtes et Etudes Statistiques (SCEES) of the Ministry of Agriculture). The aim is not to obtain total disposable income as assessed in national accounts but to measure certain specific items of income (wages and salaries, pensions etc. but not all the categories featured in the Eurostat definition) and to establish a relationship to agricultural income. Carried out by SCEES of the Ministry of Agriculture with the same frequency as the agricultural censuses and structure surveys (1970, 1975, 1977, 1979, 1981) and covering all holdings within their field, it involves drawing data from these censuses and surveys on the numbers of persons receiving pensions of various types and the numbers with an activity, divided into main or secondary activity and into kinds of activity. These numbers of income recipients are multiplied by the average unit amounts for the various non-agricultural income items derived from (mainly) surveys of income declared by households for tax purposes in order to build up a picture of the components of household income for representative groups of holdings (such as full-time holdings having at least one Annual Labour Unit, part-time holdings, those where the head is active mainly outside the holding etc.). Agricultural income is derived from the Gross Operating Surplus in national accounts. Heads of holdings and members of their families are covered; while these must work on the holding they do not necessarily all have to live together, a broader definition of the household than in other surveys.

This approach does not in its present form generate a measure of disposable income; its coverage of income sources is incomplete and assumptions are built in which make its use inappropriate in the present context. For example, if a survey respondent declares that he works half-time in a local factory, his remuneration is estimated at half the average weekly wage of a factory worker in the region. Nevertheless at the national level some interesting results are produced, for example, on the relative importance of external income. In 1979 this represented 24 per cent of the total income for full-time holdings (at least 1 Annual Labour Unit) and 20 per cent for the socio-professional group "farmers". Between 1970 and 1979 the share in both categories fell by 7 per cent.

### The Netherlands

A research project has presented a disaggregation of the household sector accounts for the Netherlands using a cross-classification of households by size, income source and income level. As part of this, information on the disposable income of agricultural households has been generated. While not yet fully established as part of the national accounts, the exercise seems likely to be the forerunner of a series of similar estimates. As such, both its methodology and results are worthy of note.

In response to demand for more information on the socio-economic situation of population subgroups, the Central Bureau of Statistics has embarked on the compilation of Socio-economic Accounts (SEA), intended to be a systematic description of income, consumption and savings of a range of household types. Figure have been produced for 1981, though there are plans to repeat the estimation. In total there are 52 household types, classed by a variety of characteristics including the main source of income of the household as a whole; agricultural households are those in which entrepreneurial income from agricultural activity forms the main source. Unlike households whose main income is from wages or transfer income (which are subdivided by income level, number of members, and the presence of household members older than 65 years), entrepreneurial

households whose main income comes from agriculture, trade, and other activities and property income are treated as single groups. In addition there are three categories of non-profit institutions which are not private households but which form part of the household sector of national accounts (medical consumption, pension insurance, and private non-profit institutions). Households in the SEA plus these non-profit institutions constitute the household sector in the national accounts.

The accounts are constructed by integrating macro-data from the national accounts and micro-data from the income register (mainly based on tax information) and the Family Budget Survey. The microeconomic sources are both based on surveys and, as is commonly found, the definitions tend not to correspond exactly with those in national accounting. As was the case in Germany and France, described above, the starting point of the calculation for individual household types in the Netherlands was the household sector of the national accounts. The components of income, consumption and saving to be included in the SEA were decided, and the amounts taken from the national accounts. Appropriate similar components in the microeconomic source were selected and, after allowance was made for definitional differences, the remaining unexplained (statistical) differences were distributed proportionally among the household types. Thus the final outcome is fully compatible with aggregates in the national accounts.

#### Results for the Netherlands

Figures are only available for one year (1981) and so caution must be exercised in drawing broad conclusions about the income situation of agricultural household in the Netherlands on this basis. The results show that in the Netherlands agricultural households in 1981 had an average disposable income which was over a third higher than the all-household average (which was dominated by non-entrepreneurial types), and higher than households whose main income source was entrepreneurial income from trade (Table 4.6). The overall average agricultural household income was above the third quartile for all households (hfl. 48400 compared with hfl. 46120). Unfortunately the average size of agricultural households was not

Table 4.6 The Netherlands

Socio-economic Accounts 1981 (average amount per household)

Type of household	Entrepreneurial				All households (1)
	Agriculture	Trade	Other	Property	
Number of households	80100	101900	67600	91500	5281500
Components (hfl)					
1 Wages and salaries	6300	4700	10300	7900	29400
2 Employers contributions	1700	1100	2500	1800	8500
3 Entrepreneurial and property income	58500	57000	104200	57400	6900
4 Primary income (1+2+3)	66500	62800	117100	67000	44700
Transfers from:					
5 government	1200	800	1000	1100	3300
6 social security funds	4500	3500	3900	5600	10300
7 pension funds	2000	1300	13200	8800	2600
Total of the above (sum 4 - 7)	74200	68400	135200	82500	60900
8 Transfers paid	600	500	1000	600	800
Premiums for:					
9 social security funds	9800	9700	10600	8400	12500
10 pension funds	2100	3000	18700	3700	3900
11 private health insurance	1800	1600	2300	1300	600
12 Direct taxes	11400	11100	38300	17300	8000
13 Disposable income (sum 4 to 7 - 8 to 12)	48400	42500	64400	51200	35100
Consumption expenditure					
14 Food	7500	6100	6900	6400	5100
15 Luxury food, beverages and tobacco	2500	2500	3000	2700	2300
16 Durables	9300	11100	14000	10500	8400
17 Other goods and services	17900	19100	24000	18000	15500
18 Contr. to non-profit institutions	900	400	800	500	1200
19 Expenditure abroad	1200	3700	3200	2500	1800
20 Total consumption expenditure	39200	43000	52000	40500	34200
21 Savings (13 minus 20)	9200	-500	12400	10700	800

Note: (1) includes households whose main source of income was from wages and salaries from the private and public sectors and from transfers

Source: simplified from Huigen, R., Van de Stadt, H. and Zeelenberg, K. (1987)  
Socio-economic accounts for the Netherlands Central Bureau of Statistics

given; this might lower their relative income position compared with all households but would still probably keep them above the entrepreneur household in trade and give them an income per household member above the all household average. (The 1979 Family Budget Survey showed the average number of members per household headed by a farmer or farm worker to be 3.8, compared with 3.8 for those headed by other self-employed persons and 2.9 for all households. However, these are not classified in quite the same way as in the SEA.) Some idea of the distribution of incomes within the group of agricultural households would also have been interesting. Despite the relatively low incidence of part-time farming in the Netherlands, the SEA estimates show that about one fifth of the total income of agricultural households comes from non-farm sources, a proportion in line with the findings from microeconomic sources quoted in Chapter 3,

The SEA also generates figures on consumption spending and saving. Agricultural households in 1981 spent more on consumption than households in general but less than other entrepreneurial types. They saved over ten times as much as the all-household average and contrasted sharply with trade households which were dis-saving. While of interest, such findings should only be viewed as indicative at this stage. Clearly a series of estimates are required over a run of years, and the detail of the methodology needs to be explored (for example, the valuation of own-consumption on farms).

### Denmark

At present Denmark does not construct an account for its household sector within the framework of national accounts and therefore there is not a possibility at present of disaggregation into socio-professional groups. Instead, Denmark makes estimates of the total and disposable income of agricultural households as part of its annual assessment of the situation of its agriculture. This is undertaken by the Institute of Agricultural Economics (IAE, or Statens Jordbrugsøkonomiske Institut) and is constructed from grossing-up the results from its farm accounts survey

(Table 5 of The Danish Agricultural Economy, annually). At present the table refers to "full-time farms", meaning those with at least 1,800 hours of labour per year, though a table could also be drawn up for all farms in the farms accounts survey. The IAE sample is drawn in terms of numbers from the Structure Survey and corresponding cases are selected from the register of farms which keep accounts with the Farmers' Association and Smallholders' Association (these sources were discussed in Chapter 3). Some 30-40 per cent of farms are in these Association account systems. The sample is thus not strictly random, but most of any bias can be removed by suitable weighting. There is a fairly detailed coverage of income and outgoings, giving a disposable income figure which is close to the requirements of Eurostat for its aggregate income indicator for agricultural households. The composition of the household depends on the declaration of the farmer, and would normally be the farmer, spouse and dependent children. However the Danish family structure does not make the use of such a narrow household concept a matter of concern.

Grossed-up estimates from the farm accounts survey are compatible with the macroeconomic accounts for agriculture, though the latter are based on a number of agricultural surveys and other sources without connection to the farm accounts survey. Tables are published which include estimates from both farm accounts surveys and national accounts (such as agricultural income from national accounts and non-farm income from survey results). Though the present method of generating estimates of disposable income corresponds to Model 1 of the alternatives described in Chapter 2, this integration of macro and micro estimates is a case of Model 3, though not in this instance leading to the estimation of disposable income.

#### Results for Denmark

The table for Denmark (Table 4.7, taken from a draft of the 1987 report on the Danish Agricultural Economy from the Institute of Agricultural Economics) relates only to "full-time farms" (those with at least 1,800 hours of labour per year) and approximates to a narrow definition of a household, not normally including adults other than the farmer and spouse. Being the product of a grossing-up, no comparable figures for

Table 4.7

Denmark. Current income and savings on full-time farms

Dkr 1000 per farm

	1981/82	82/83	83/84	84/85	85/86	86/87
1. Net income from farm :	193	248	214	323	289	269
(net of interest	60	105	68	162	121	89)
(index 1981/82=100	100	175	113	270	202	148)
2. Profit from other business	14	19	22	24	25	26
3. Off-farm salary	22	26	26	29	33	37
4. Total salary and net income (1+2+3)	229	293	262	376	347	332
5. Net interest payments	133	143	146	161	168	180
6. Pensions and supplementary benefits	3	4	6	7	10	11
7. Current income (4-5+6)	99	154	122	222	189	163
8. Family allowances and occ- asional payments, net	7	6	5	7	7	9
9. Personal taxes, including negative taxes	17	5	33	47	60	61
10. Disposable income (7+8-9)	89	155	94	182	136	111
(index 1981/82=100)	100	174	106	204	152	125
11. Private consumption	94	109	116	131	147	153
(index 1981/82=100)	100	116	123	139	156	163)
12. Current savings (10-11)	-5	46	-22	51	-11	-42
13. Own financing (12 + depreciation)	56	119	60	143	89	67

## Notes:

a) the table includes only farms with at least 1,800 hours of labour per year.

b) figures for 1986/87 are preliminary

c) indices are not in the source table

## Source:

Table 3 of draft of English summary of The Danish Agricultural Economy - autumn 1987 Institute of Agricultural Economics (Statens Jordbrugsøkonomiske Institut), Copenhagen.

non-agricultural households are generated. The absence of an equivalent all-households account prevents a comparison by deduction.

In the period 1981/2 to 1986/7 the net income from the farm (before interest charges) accounted for between 81 per cent and 86 per cent of all earned income (again, before interest charges). Important in this context is the difference between the income from farming alone and disposable income. On the assumption that all interest charges can be attributed to the farm business, enabling the estimation of net-of-interest income, disposable income is shown to be substantially greater than farm income in all years, and in the early part of the series it was more than a third larger. Disposable income also seems to be more stable.

Another interesting feature of the Danish results are the estimates of private consumption spending. It might be argued that this is a preferable parameter for the purpose of monitoring the standard of living of the agricultural population than disposable income. Consumption expenditure is far more stable than disposable income. In two years out of the six in the table consumption was less than disposable income, and positive saving took place. But in the remaining four years consumption exceeded disposable income, with dis-saving. However, the period as a whole almost certainly saw disposable income exceeding consumption expenditure (the table has not been deflated). The main point is that, on this evidence, fluctuations in disposable income, in turn more stable than the income from the farm alone, are not reflected in the short term directly in the amounts that farm households spend on consumption.

#### In conclusion

Four EC Member States (Germany, France, the Netherlands and Denmark) have estimated the disposable income of their agricultural household at aggregate level, and in the case of the first two this is a regular part of national accounting. There are substantial differences between the countries in the methodologies employed, though all except Denmark use a system which is based on the household sector in their national accounts,

employing distribution agents to disaggregate the account into various socio-professional groups, of which agricultural households form one. This method enables comparisons to be drawn between the income position of the agricultural household sector with that of the other socio-professional groups. Any comments on the findings are possibly premature. However, they suggest that agricultural households tend to have average incomes which are above the all-household average, though there are differences in the sizes of households which must be taken into account.

The most important finding in the context of the present Study, however, is that in these four countries it has proved possible to construct and publish estimates of disposable income for the agricultural household sector along the lines requested by Eurostat, though by using a variety of approaches and without at this stage adopting harmonised definitions. This suggests that the creation of an income indicator in the other EC Member States should be feasible, given suitable basic data. The potential for improvements in methodology in the four countries covered in this Chapter, and the proposals for steps in this direction by other EC Member States, are discussed in Chapter 5.



## CHAPTER 5 PRACTICAL PROPOSALS FOR DEVELOPING INDICATORS OF THE DISPOSABLE INCOME FOR AGRICULTURAL HOUSEHOLDS USING A COMMON METHODOLOGY

Three countries at present regularly generate estimates of the disposable income of their agricultural household sectors, though not to a common methodology. A fourth country has done so for a single year. Some changes will be required by them before the common methodology outlined earlier can be adopted. The other Member States in proceeding towards the harmonised indicator will need to consider the various ways by which estimates might be produced within the constraints imposed by the existing data sources or those which might be set up to augment existing sources. This Chapter examines the response of each country to the common methodology and the path that each proposes to take to generate the required indicator of disposable income.

### Alternative lines of development

Chapter 2 reviewed three main approaches by which harmonised indicators of the disposable incomes of agricultural households could be generated: micro-based estimates grossed up to national levels (Model 1); disaggregation of the household sector account within the national accounting framework into socio-professional groups, of which agricultural households form one (Model 2); and estimation based on the income of the branch agriculture for the agricultural part of household income but using a microeconomic data source for most of the other parts (Model 3). Each is capable of yielding an estimate in absolute terms of aggregate disposable income. Ultimately all three will need to be pursued if the requirements of policy makers are to be satisfied, though in the short or medium term it is hard to visualise progress in more than one of these in most countries. However, progress in one should not be in such a way that it constrains the future development of the others.

In view of the way in which information on disposable income is likely to be used, consideration should also be given to the generation of an indicator which merely shows the year-on-year change in disposable income,

without suggesting absolute levels. Such an index might be more easy to construct than absolute indicators, or at least might be more rapidly available. The notion of an index is termed Model 4.

Although for the purpose of developing the methodology agricultural households have been defined as those mainly dependent on their holdings for their income, or where most of the head's working time is spent the holding, opportunities to construct estimates for a broader field of households should not be ignored. In certain circumstances it might be of interest to know the total income of all households which operate agricultural holdings.

#### Proposals by country

Proposals are presented here country-by-country as they stood following the round of bilateral discussions between Eurostat and the national statistical authorities which extended over the period May 1987 to April 1988. A summary table at the end of this Chapter gives the position for each item in the calculation of disposable income. This does not imply that the calculations are undertaken at present, but rather that the basic information exists by which this should be possible.

#### Belgium

Currently in Belgium there are no estimates of the disposable income of agricultural households at either macro or micro levels. National accounts authorities are not intending to pursue a breakdown of the household sector account into socio-professional groups. Furthermore, there is no suitable microeconomic survey source from which a grossed-up indicator for all agricultural households could be estimated. The Belgian proposal is to combine information drawn from macroeconomic and microeconomic sources, in which the agricultural component of total income is taken, modified, from national accounts while information on the other components of aggregate disposable income, including non-farm income, welfare transfers and taxation, are the subject of a survey.

Rather than attempt to load additional questions onto an existing survey, the proposal is to mount a special one to collect the necessary information for a base year. The sample is to be selected from the agricultural census; this has seven categories of holdings of which two constitute the population of holdings occupied by agricultural families, and it is from these that a stratified sample would be chosen. The sample size has not yet been determined and would reflect the degree of detail required in the final income estimates. At present the agricultural census asks questions on the "main" source of income of the head of the household, but there is doubt over the way that this is interpreted at the holding level. This ambiguity would be removed in the new survey by asking separate questions on the time spent and income derived from the holding. Although interest would concentrate on those holdings where agriculture is the main occupation, corresponding to Eurostat's preferred definition of an agricultural household, the possibility would also exist of covering the incomes of all households operating a holding which qualifies for inclusion in the Structure Survey. In Belgium the inclusion threshold corresponds to that for the agricultural census. This new survey is also intended to cover persons in the holding household in addition to the farmer, spouse and dependent children. This would not be the case if existing taxation records were used.

An important feature of this survey would be that no attempt would be made to assess the income from agriculture of the survey households, the reason being the likely implications for the response rate and reliability of the non-agricultural components. Belgium's farmers do not generally keep accounts and taxation is on the "forfait" basis, not on actual incomes in most cases. Instead, at aggregate level the agricultural income would be derived from the economic accounts for the branch agriculture, taken from national accounts. In practice, there are good arguments for using not a single survey for non-agricultural income but a series of interlocking surveys of representative samples aimed at investigating separate items in the disposable income calculation, such as non-farm income, investment income and so on. No single survey would try to obtain a comprehensive set of information, and hence risk an unfavourable reaction from farmers.

Nevertheless from the various surveys a representative picture could be assembled. Results would be raised to national level and, where possible, checks would be made against independent aggregate information. For example, tax records are felt to be a good source for wage income, pensions, unemployment benefit, and taxes paid. Child allowances and other social security receipts can be extrapolated on the basis of numbers in the population. However these sources are not sufficiently comprehensive in themselves to permit them to form the basis for the non-agricultural components of the calculation of disposable income. The influence of insurance transactions on disposable income is felt by national authorities to be slight and a simplifying assumption that they net to zero is proposed, avoiding the need to collect information on these items.

The distinguishing feature of the methodology for Belgium is the way that the agricultural income of households that satisfy the Eurostat definition of being agricultural is derived from national accounts. The procedure (Model 3, also called the Belgium model) may well be appropriate for other countries faced with the problem of inadequate microeconomic information on agricultural income but satisfactory data on other sources and outgoings. The basic principle involves taking Gross Operating Surplus for the agriculture branch of the economy from national accounts and deducting interest, rent and depreciation to give an aggregate (net) income figure for the industry. (Wage costs will already have been deducted in moving from Value Added to Operating Surplus).

Aggregate income for the agricultural branch of the economy will be the result of agricultural activity wherever it takes place. Some of this will be by non-personal institutions, and some will be by households that fall outside the definition of agricultural households. The problem is how to move from the Branch Agriculture income to the income from agriculture of the Agricultural Household Sector. This is done using the agricultural census and the standard gross margins (SGMs) for each type of holding estimated from the census; SGMs are considered the best distribution agent though others (such as standard income) might be considered. The same principle of distribution could be applied to derive

the income of agricultural households, as indicated from the "main" occupation of the head as recorded in the census or based on other income or time criteria emerging from the new special survey. There is also the possibility of distributing operating surplus (rather than income) and using the census to estimate rents (based on surface area) and other items in the income calculation. The precise procedure has not yet been settled, but the principle of it is clear.

There are some outstanding questions worthy of note because they are shared by some other countries. First, it is necessary to ensure that secondary agricultural households (in the narrow Eurostat definition) are covered adequately; these may be found particularly in larger farm businesses where two or more households (such as one headed by a father and another by a son) derive an entrepreneurial income from the holding. In the Belgium model their agricultural income will form part of the sector agricultural income, but the special survey of other income forms would have to extend beyond the household of the head of the holding in order to catch the other forms of income received by these secondary households.

Second, there is the problem that, while the estimation of the agricultural income is derived from an annual exercise of national accounting, the special survey is likely to be mounted only occasionally. Some means of updating, or extrapolating between years, would be desirable. For some items independent annual indicators may already be available (taxes, wages, pensions) for values or quantities or both. But the question remains over how this should be done and how frequently base-year surveys are required.

Third, there may have to be some flexibility in the way that the elements in the estimation of disposable income are presented. For example, the Eurostat pattern represents a macroeconomic approach in which Operating Surplus from agricultural activity is shown separate from flows out of interest and rents; an alternative, appropriate to a microeconomic presentation, would be to show an agricultural income figure (that is, Operating Surplus net of interest and rent).

Progress in Belgium is dependent on mounting the special survey, and the information contained in the summary table at the end of this Chapter assumes that it will take place.

### Denmark

Denmark already publishes annual estimates of the disposable income of its "full-time" farms of 1,800 annual labour hours and above, corresponding closely to agricultural households on holdings of this size and upwards. This is done by the Institute of Agricultural Economics using grossed-up survey results (Model 1) and in principle this could be extended to all holdings covered by the farm accounts systems. Tables are already published, by the same Institute, drawing on both survey results and national accounts for the branch agriculture, implying that Denmark is already using a form of Model 3.

However, the proposal from Denmark is to centre the estimation of disposable income of agricultural households on the Generalised Income Statistics (GIS) information. In Chapter 3 this was described as being largely but not solely built on tax returns. A very detailed set of information is available, but it reflects tax conventions on items such as depreciation. Sources of income not subject to taxation (some social benefits and payments and some other transfers) are not included, and it is not possible to separate self-employment income from agriculture and from other activities.

Individuals are grouped into households for the GIS. The definition of a household is narrower than the Eurostat preference (and the Danish Consumer Expenditure Survey), and adults in addition to the farmer and spouse are not usually considered as part of the household. The GIS covers about 90 per cent of all households. Those containing more than one generation are not included; the coverage of agricultural households seems to be similar to the overall position. Results are raised to national level.

For persons with self-employment income the industry group of the main sources is noted, but not that of minor sources. However no breakdown of income statistics by socio-professional group seems to have been published. The proposed method of grouping for the Eurostat income indicator is according to the main income source of the entire household, an "automatic" process that could cause households to shift into and out of the agricultural group from year to year. A more stable system taking a number of years into account was also technically possible.

Denmark sees substantial advantages flowing from establishing links between the GIS and other registers and data banks. Such links are within the powers of the Central Statistical Office. These include the census of agriculture and horticulture, the Structure Survey and the register of property ownership. The key to this linking is the civil registration number of each individual; apparently this also has an occupation group attached which is more stable than a classification on an arithmetic algorithm. Linking would allow incomes to be aggregated for variously defined groups (those with agriculture as the main income source, all those with holdings in the Structure Survey and so on). The number of cases would be greater than in the present methodology. However, resources would be required to set up this linking.

Essentially Denmark is currently applying the Model 1 approach. The proposed switch to the GIS would also use this grossing-up method but would result in an improved indicator. The forecasting currently used for income estimates emanating from the Institute of Agricultural Economics suggests that a simple change model (Model 4) would present few difficulties.

#### Federal Republic of Germany

Germany already calculates a disposable income figure for its agricultural households within a general disaggregation of the household sector. This corresponds with Model 2 of the alternative methodologies. Consequently

proposals take the form of modifying its present practice to accord with the proposed common methodology and, where this is not possible, of clarifying the nature of the necessary discrepancies. In national accounts the classification of households is based on self-declaration of the main source of total income (including pensions) of a reference person (normally the person contributing the largest income). Alternative systems are largely excluded because the micro-census (used for raising results from the income and expenditure sample survey (EVS)) does not ask the relevant questions. Thus a classification using the present system is strongly preferred.

The method of deriving an estimate of the income from agricultural activity of agricultural households, starting from the accounts for the branch agriculture, has already been described in Chapter 4. Most of the information required for the Eurostat definition of disposable income is available from the EVS or other surveys and data sources, and could be extracted with suitable computer programming. Although Operating Surplus from agricultural activity could be calculated, a more practical approach would be to estimate income net of interest and rent charges because, for self-employment income from other activities, only an income figure can be generated. Insurance receipts and payments are a difficult area, and a netting off of the two is proposed.

In addition to the definition of agricultural households assumed above, it would also be possible, though involving considerably more work, to make estimates of disposable income for the broad definition of agricultural households, corresponding to all households which operated a holding which qualified for inclusion in the Structure Survey.

#### Greece

At present no estimates of the disposable income of agricultural households are produced. Within the framework of national accounting there is not at present an account for the household sector and priority is not being attached to developing one; consequently the notion of

disaggregating into socio-professional groups along the lines of Model 2 is not relevant to the situation in Greece. However, Greece has the necessary data to allow estimates for agricultural households to be made using the Model 3 approach for years corresponding to those of its Family Budget Survey (FBS), with the possibility of extrapolating for intermediate years. The latest FBS available relates to 1982 but a 1987/8 survey is in progress. Classification of households is possible on both the occupation of the head of household and on the proportion of the household's income coming from agriculture. Although in some countries it may be desirable to have information on the incomes of all households that operate an agricultural holding, even if the income derived from it forms only a small proportion of total income, in Greece this is inappropriate because about one third of all households would be included. Consequently, only the narrow definition of an agricultural household would be pursued. However, the extended nature of many households make a classification according to income composition sensitive to whether or not the incomes of those adults who form part of the household (as defined in the HBS) but who are employed full-time off the farm are taken into account. While the requirement of Eurostat for these other household members to be included is clear, for comparative purposes calculations might also be made excluding these other adults.

The principal source of data for the construction of an aggregate income indicator is the Family Budget Survey. A comprehensive set of questions is posed, and the results can be grossed up to national level. For some items the FBS is a reliable source, and for others it can be supplemented by or checked against information gathered from stages in the flow to agricultural households from institutions or in the reverse direction (such as interest paid by banks, pensions, taxes). Most significantly, the figures for income from self-employment in the FBS are not considered very reliable, and it seems that agricultural incomes are under-recorded by about 25 per cent. The FBS does not ask the farmer to keep a set of accounts (as did Ireland in its 1980 survey) but relies on self-declaration. There is also a problem concerning capital consumption. The result is that, in the present exercise, Greece prefers to use national accounts as the basis for its calculation of the income

from agricultural activity, using the FBS as a means of distributing the aggregate branch income between agricultural and non-agricultural households. This is essentially the Model 3 approach.

Greece has some specific problem in the form of quantifying the current transfers to agricultural households from migrants and sailors, which are of significant proportions, and outflows to students studying away from home. In the definition of household adopted by the FBS they were excluded if they were away for a period of more than one month.

To cover years other than those in which the FBS takes place, Greece proposes to use a base-year-and-mover system. For some items in the calculation, annual estimates are possible - for example, the operating surplus from agricultural activity taken from the national accounts, pensions and interest payments. For others, changes in values may be accessible but there may be problems over changes in volumes; national changes in wage levels might be used as a proxy for the earnings from off-farm employment, but this would not capture changes in the number of jobs taken by household members. For others there are no sources other than in FBS years. Experimental estimates based on the 1982 FBS are possible (using the occupation of the head as the method of classification) but in late 1989 the results of the 1987/8 FBS should be available to be incorporated in the calculations.

### Spain

No estimates of the disposable income of agricultural households in Spain are made at present. Possible methodologies are only at the discussion stage. However, in principle the concept of a household, as set out by Eurostat for the proposed indicator, is felt appropriate to Spain, though the classification into socio-professional groups could only be on the basis of a reference person, not necessarily the head of the family in the social sense but the person whose regular contribution to the household budget is the most important. This classification is imposed by the main source of data by which an income indicator might be constructed - the

Household Budget Survey (HBS). The latest HBS took place in 1981 and the next is scheduled for 1989. The 1981 HBS did not distinguish agricultural self-employment income from that arising from other activities, although a question might be incorporated into the 1989 HBS for this purpose in a general way that could apply to all households. Income information is collected net of interest and rent outgoings, so if the HBS is the main source of information the form of calculation would not start from Operating Surplus but from income. As described earlier, grossing up is hampered at present by not knowing the national number of agricultural households. Some of the negative elements in the calculation of disposable income (such as taxes) are not covered in the HBS, and alternative sources of information would have to be sought. This implies that in Spain it will be easier to estimate gross income than disposable income (item 7 in the Eurostat presentation of the income calculation shown in Chapter 2).

While there is confidence in the reliability of the HBS with respect to consumption items, this is less so for the income components. As a way of overcoming the situation, at least in respect of the income from agriculture, it might prove possible to adopt a Model 3 approach (as proposed by Greece and Belgium above), taking Operating Surplus (or Farming Income) from national accounts and using the Structure Survey to distribute it. The Structure Survey identifies cases where the holding is the holder's main occupation, and it would be possible to estimate the Standard Gross Margin of these holdings and distribute the economic aggregate according to the share of SGM. Developments along these lines in Spain would need (a) an assessment of the degree to which these holdings identified in the Structure Survey corresponded to those operated by agricultural households as defined in the HBS, and (b) a means by which self-employment income in the HBS could distinguish between the agricultural component (to be substituted by the macroeconomic data source) and the part arising from non-agricultural activities, which would still be estimated from the HBS.

Though years in which the full HBS takes place are widely spaced, a series of annual reduced-form surveys started in 1985, and these could be used to update findings. If the Model 3 approach is selected, one of the major components will be available annually. However, the discussion of updating is premature at this stage.

### France

As described in Chapter 4, France already uses a macroeconomic method to generate estimates of the disposable income of agricultural households as part of a disaggregation of its household sector into socio-professional groups. Its concept of disposable income is close to the Eurostat preferred definition, though the grouping of items is different.

There is concern among French statisticians over the way in which the transition is made between the branch accounts for agriculture and the sector income account for agricultural household-holdings. This has an effect on the overall quality of the agricultural household income account. At the time the national report was written the way forward was seen as giving priority to calculating the income of sole agricultural proprietorships directly, possibly through the joint use of RICA (to be made more representative) and tax statistics, the quality of which is bound to improve with the more extended assessment of actual income in place of the "forfait" system. However, there would be a reluctance to include questions on non-farm income in RICA or in the Structure Survey.

The classification of households into agricultural and other categories is on the basis of the self-declared principal activity of the head, and there are substantial difficulties in attempting to change this to the household income composition criterion preferred by Eurostat. Most important, although some surveys based on fiscal information could be reprocessed using alternative algorithms, not all surveys covering households could be so adapted, and the useful ability to draw results from a range of surveys all using the same method of classification would be lost. It also follows that in France there are problems in attempting

to assess the incomes of all households which operate a holding; rather, the strong preference is for the narrower field of study covering only those households that fall into the socio-professional group of independent agricultural producers. It is recognised that this means excluding about one third (in 1979) of all holdings.

The cost of fiscal surveys (and household budget surveys) prevents them being undertaken at less than 5-yearly intervals. The results of the fiscal surveys are available only after a long delay; figures for year "n" are available in year "n+5". This means that when the results of the 1979 survey were published they were accompanied with an update to 1983. The 1984 survey results, with an update estimate for 1988, will be published in 1988/9. If changes were to be made to the current ways in which households are classified, moving it onto a household income composition criterion, the most likely way to approach this would be through the fiscal surveys. However, extrapolation (or interpolation) might be difficult, so that estimates could only be made for survey years.

### Ireland

Grossing up survey results (Model 1) is the only way by which estimates of the disposable income of agricultural households might be approached in Ireland, though there are problems in moving from a comparison of incomes between the households of farmers and those of other socio-professional groups to the estimation of income figures for the entire agricultural household sector which are compatible with national accounts.

The Household Budget Survey, which takes place at approximately 7-yearly intervals (1980 being the latest published and another taking place in 1987) distinguishes the households of self-employed farmers on the basis of the self-declared "principal job" of the head of the household. The special treatment of retired heads where agriculture is still carried on by members of the household should be noted (see Chapter 3). Integration of the latest HBS with the farm accounts system (National Farms Survey) should mean that the income from agricultural activity is assessed reliably (a problem in many other countries in their household surveys).

Despite a methodology which adopts a definition of a household in line with Eurostat preferences and a concept of disposable income which (although expressed in microeconomic form) is near the required income definition, there are problems in grossing-up the findings from the agricultural subset of the HBS for base years. The raised results would not produce an acceptable estimate of aggregate disposable income or its constituent parts which would be compatible with national accounts because of problems of differences in microeconomic and macroeconomic sources, definitions, sample size and so on. Substantial work needs to be done in order to bridge these definitional differences. Until that is achieved it will not be feasible to mix findings from the HBS with items in national accounts, as is the case with Model 3.

From the HBS it should be possible to explore the incomes of households in which some self-employment income from agriculture is received, corresponding to the broader field of study envisaged by Eurostat.

A major problem in Ireland is the estimation of disposable income for years between HBSs. No satisfactory indicators seem to be available for many of the components, and the necessary information could only be provided by some form of special survey. One way of doing this might be to add a few key questions to the annual National Farms Survey, but extra resources would be required for this.

### Italy

At present no estimates of the disposable income of agricultural households in Italy are made. Methodology is still in the discussion stage and calculations are only exploratory, depending heavily on working assumptions. The proposed approach in Italy towards forming an indicator is almost entirely a macroeconomic one, integrated with national accounts, and consists of disaggregating the household account into agricultural and non-agricultural households. The classification is to be on the basis of the head of the household as the reference person and the occupation group

that he puts himself into; the same criterion is used widely in surveys involving agricultural households (such as the household budget and labour survey, Structure Survey and agricultural census, and the population census). One problem is that households headed by a pensioner are not classed as agricultural even if a substantial farming income is earned by other household members and is perhaps the only earned income coming to the household. A correction may be possible using the household budget survey data but this might not be directly applicable to agricultural census information. Thus, within the given limitations, the indicator will cover households corresponding to the narrow definition of agricultural, and there is no obvious way that, using macro or micro approaches, one covering all households which operate a holding could be calculated.

The method for deriving an estimate falls between Model 2 and Model 3; it is not a complete disaggregation of households into socio-professional groups (only two - agricultural households and the rest) but draws on macroeconomic sources for non-agricultural income elements (unlike Model 3 which primarily uses a survey). The proposed methodology is consistent with the preferences of Eurostat both in its concept of disposable income and in the presentation of the components leading up to it. As part of the process, income figures for non-agricultural households are also generated, permitting a direct comparison with those in agriculture.

The method of calculation will involve disaggregating macroeconomic entities into the parts corresponding to agricultural households and to non-agricultural households. The income from agriculture accruing to agricultural households is to be estimated starting from the accounts for the branch agriculture. From the Gross Operating Surplus of the entire branch the GOS of corporate and quasi-corporate enterprises are to be deducted, leaving that belonging to households. This will then be distributed between agricultural and non-agricultural households on the basis of the proportions of agricultural production independently estimated to come from each. Figures for other major components of income, and deductions to give disposable income, are to be derived from other macroeconomic sources, though the household budget survey may also

play a part. The distribution of economic aggregates into components for agricultural households and for the others involves assumptions and suppositions about the agents used for the distribution which require careful assessment. The validity of these assumptions and suppositions is obviously critical to the outcome of the calculation. Where alternative information sources exist, such as the household budget survey, comparisons of estimates are obviously necessary.

Assuming that satisfactory distribution agents can be found, an annual calculation of the disposable income of agricultural households in Italy should be possible. Therefore there would be no need for a separate change model (Model 4).

#### Luxembourg

Luxembourg proposes to gross up survey data to achieve the estimate of aggregate disposable income of its agricultural households (Model 1). The types of microeconomic data found in most Member States are not suitable for this purpose in Luxembourg; the farm accounts survey only partly covers non-farming incomes and relates only to full-time farms, taxation statistics do not adequately represent farmer's incomes and the Household Budget Survey is only carried out at long intervals. However, there is an annual panel survey of households (the CEPPPS survey, publicly funded but carried out by an agency which is currently independent), aimed primarily at the study of poverty, which gathers much of the relevant data. The survey method allows a flexible approach to be taken to the composition of households and their classification into socio-professional groups; at present this uses a reference person, but it could also be carried out according to the proportion of the entire household income coming from farming. Exploratory estimates of the average household income of farmers and some other groups have been made, though this was before the deduction of tax. The main opportunity for providing data for the new indicator of disposable income is through the extension of this survey in the form of adding questions on elements of income not yet covered (such as taxes paid) but primarily through enlarging the sample from the present 62

agricultural households (1985) to perhaps 200 cases. This survey also offers the possibility of studying the development of incomes of individual farmer households over time.

### Netherlands

An estimate of aggregate disposable income of agricultural households and a range of other socio-professional groups has been made using macroeconomic methodology (Model 2) for 1981. There is an intention to update this estimate. However, the discussion between Eurostat and the Netherlands on the practicality of providing information on an annual basis centred on the use of microeconomic data grossed up to national level (Model 1). There are two sources from which estimates for the agricultural household sector might be made (farm accounts and tax records). As usual with estimates derived from microeconomic sources, there is a preference for presenting the income from self-employment net of interest and rent, rather than as Operating Surplus with a separate deduction of these items.

Data collected as part of the farm accounts system is sufficient to allow a disposable income figure to be estimated which is close to the Eurostat preferred definition. The coverage would be of holdings on which the head declares his main occupation to be in agriculture, with time spent being the main criterion. However, using this source implies a restriction of the field of study to household members who work on the holding and, unless modified by a special study, to holdings above a size threshold (to be decided, but above the Structure Survey threshold and, if current practice is maintained, about 17 ESU). The non-coverage of small farms could lead to the exclusion of some households in which agriculture was still the main occupation of the head. Within these constraints raised estimates could be generated annually.

The alternative microeconomic source is the panel of tax records. This uses an algorithm for household classification that incorporates the main source of total income of a reference person (the head) and a broad

definition of the household (including adults other than the farmer and spouse). This source is seen as a valuable means of comparing the incomes of agricultural households with other groups.

At the time of discussion, the Netherlands was still exploring the various estimation options.

### Portugal

At present no estimates of disposable income of agricultural households are published. The preferred way of generating the necessary information is through the Family Budget Survey; of the other potential sources, taxation information does not adequately cover the income of farmers and RICA, not yet at its full size, does not cover non-farming income. The FBS collects information on incomes as well as expenditure though not on savings. The latest FBS was in 1980/81 and contained 1067 agricultural households; the next is planned for 1989. Raising to national levels is possible (Model 1). It will be necessary to explore the ways by which the base-year estimates provided by the FBS can be updated (Model 4). Possibly a few key questions could be added to the RICA survey for this purpose.

Much of the required information for the indicator of disposable income can be derived from reworking the FBS basic data, given appropriate resources. Analyses of income figures broken down by socio-professional group of household could be carried out. At present all forms of income from independent activity are grouped together, though the basic data exists for agricultural and non-agricultural income to be separated. The main area of difficulty lies in the accuracy of information coming from this survey on incomes from entrepreneurial activity in agriculture and other sectors. Agricultural incomes seem to be generally under-reported. It is therefore necessary to explore ways of correcting this part of the FBS by making comparisons with alternative estimates of the income from agricultural activity (RICA, national accounts). This will involve considering Model 3.

## United Kingdom

No estimates of disposable income as defined for this project are published for agricultural households in the United Kingdom. National accounts do not disaggregate the household sector into socio-professional groups. On the other hand, separate accounts are shown for the personal sector and the household sector; within the latter a disposable income concept is used which differs from the Eurostat definition but which is closer to the microeconomic approach used in household budget surveys. Income estimates drawn from taxation sources (the Survey of Personal Incomes (SPI)) are published in the official annual report on farm incomes, but the concept of income (income assessed for tax) is substantially different from the Eurostat definition of disposable income, and the coverage does not correspond with the preferred definition of agricultural household either in its breadth or in the classification used. Nevertheless, it is evident that the SPI will form an important part in achieving any indicator of disposable income for the UK.

An exploratory exercise has started along the lines of Model 3, using the agricultural accounts as the basis for estimating agricultural income and the survey of personal tax records for non-agricultural items. Priority is being given to achieve from the agricultural accounts estimates of income which are compatible with the agricultural components in the SPI. At this exploratory stage the coverage corresponds approximately to the broad definition of agricultural households, but there may be a later possibility of adopting the narrow approach, which is the target of the harmonised methodology. Farms run by companies and other corporate bodies are to be excluded, at least initially. Though these are too important to be ignored, they pose a particular data problem in the UK. In the longer term it is proposed that the Farm Business Survey (which contributes to RICA) may be extended to cover some aspects of non-farm income. This would provide additional information of a microeconomic nature.



Annex to Chapter 5

Table 5.1

Summary table of the availability of basic information for recording the total and disposable income of agricultural households, by country

	D	F
	<p><u>Assumptions:</u></p> <p>1. Reference person nominated by the household (head of household)</p> <p>2. 50% or more of total income of the head of household comes from his own agricultural holding</p> <p>3. The total income of all persons living in the household is recorded</p> <p>4. Definition of income in accordance with para 3 of Doc. E/LG/112</p>	<p><u>Assumptions:</u></p> <p>1. Reference person: head of household</p> <p>2. The head of household classifies himself on the basis of his main occupation in one of eight socio-occupational categories</p> <p>3. Coverage extends to the total income of all persons living permanently in the household whether or not they belong to the family</p> <p>4. Definition of income in accordance with para 3 of Doc. E/LG/112</p>
1. The net operating surplus including imputed rent	) Yes. Coverage extends to income from ) agricultural and non-agricultural ) activity (after deduction of interest ) payments and rents)	) Net income from agricultural and ) non-agricultural activity is ) composed of:
b) Net operating surplus from agricultural activity		) - gross operating surplus
b) Net operating surplus from non-agricultural activity		) - dividends and other corporate ) income ) less
c) Imputed rent for owner dwellings	Yes	) - interest paid on business loans ) - rents (plus other intangible ) assets) ) - social contributions for self- ) employed persons (members of the ) household) ) - depreciation
2. Compensation of employees from agricultural and non-agricultural activity	Yes	Yes
3. Property and entrepreneurial income received (interest and rents)	Yes	) Figures recorded for interest, ) rents and dividends paid
4. Accident insurance claims	Assumption: balancing figure for items 4 and 9	Balance of items 4 and 9. Separate recording is possible.
5. Social benefits	Yes	Yes
6. Other current transfers	Yes	Yes
7. <u>Current receipts</u> (1-6)	No (Not to be shown)	No
8. Distributed property and entrepreneurial income (interest and rents)	Yes, but only payments for private purposes (for others see 1a + b)	Yes
9. Net accident insurance premiums	see 4	see 4
10. Current taxes on income and wealth	Yes Source: Tax statistics	Yes
11. Social contributions	Yes, but difficult to record (only voluntary contributions). Source: EVS	see 1 Separate recording is possible
12. Other outgoing current transfers	Yes: church tax, maintenance payments, trade union dues, party dues, automobile club fees, contributions to private associations	Yes
13. <u>Disposable income</u> 7-(8 to 12)	Yes	Yes



	B	L
	<u>Assumptions</u> 1. The reference person is the head of the household 2. The head classifies himself according to the principal job 3. All household members are covered 4. Income definitions are close to those of para 3 doc. E/LG/112 A special survey has to be conducted to collect necessary data (except agricultural income)	<u>Main source :</u> CEPPPS annual panel survey  <u>Assumptions :</u> (1) Reference person is the head of the household ev. the entire household (2) Classification or main source of entire household income (but flexible) (3) All household members covered (4) Requires the increase in numbers of agricultural households
1) The net operating surplus including imputed rent a) Net operating surplus from agricultural activity b) Net operating surplus from non-agricultural activity c) Imputed rent for owner dwellings 2. Compensation of employees from agricultural and non-agricultural activity 3. Property and entrepreneurial income received (interest and rents) 4. Accident insurance claims 5. Social benefits 6. Other current transfers 7. <u>Current receipts</u> (1-6) 8. Distributed property and entrepreneurial income (interest and rents) 9. Net accident insurance premiums 10. Current taxes on income and wealth 11. Social contributions 12. Other outgoing current transfers 13. <u>Disposable income</u> 7-(8 to 12)	Yes  Yes  Yes, estimation based on the household budget survey  Yes  Yes  Assumption: items 4 and 9 cancel each other out  Yes  Yes  Yes  see 4  Yes  Yes  Yes, but voluntary contributions could be excluded Yes with some restrictions	) Yes, coverage of both agricultural ) and non-agricultural income, after ) deduction of interest payments and ) rent  Yes  Yes  Yes  Yes  Yes  Yes  Not covered at present but possible  Yes  Yes  Yes

	UK	IRL
	<p><u>Main source</u> : survey of tax records, and the agricultural accounts</p> <p><u>Assumptions</u> :</p> <ol style="list-style-type: none"> <li>1. Reference unit is the tax case (couples or single persons)</li> <li>2. Classification on income criteria</li> <li>3. Coverage limited to the tax case - other household members not included</li> <li>4. Broad definition of agricultural household adopted initially</li> <li>5. Still in an exploratory phase</li> </ol>	<p><u>Main source</u> : Household Budget Survey</p> <p><u>Assumptions</u> :</p> <ol style="list-style-type: none"> <li>1. Reference person is head of household</li> <li>2. Head classifies himself according to principal job; farmer is one class; retired farmers are included</li> <li>3. Coverage extends to the total income of all persons who reside together, who share catering arrangements</li> <li>4. Income definition are close to SOEC requirements</li> </ol>
<ol style="list-style-type: none"> <li>1) The net operating surplus including imputed rent <ol style="list-style-type: none"> <li>a) Net operating surplus from agricultural activity</li> <li>b) Net operating surplus from non-agricultural activity</li> <li>c) Imputed rent for owner dwellings</li> </ol> </li> <li>2. Compensation of employees from agricultural and non-agricultural activity</li> <li>3. Property and entrepreneurial income received (interest and rents)</li> <li>4. Accident insurance claims</li> <li>5. Social benefits</li> <li>6. Other current transfers</li> <li>7. <u>Current receipts</u> (1-6)</li> <li>8. Distributed property and entrepreneurial income (interest and rents)</li> <li>9. Net accident insurance premiums</li> <li>10. Current taxes on income and wealth</li> <li>11. Social contributions</li> <li>12. Other outgoing current transfers</li> <li>13. <u>Disposable income</u> 7-(8 to 12)</li> </ol>	<ol style="list-style-type: none"> <li>) Yes. Coverage will extend to income from agricultural and non-agricultural activity, after deduction of interest payments and rent</li> </ol> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">To be clarified</p> <p style="text-align: center;">Yes Yes (most items)</p> <p>Sum of available information above</p> <p>Yes, for business purposes (in 1 above) and domestic mortgages</p> <p style="text-align: center;">To be clarified</p> <p style="text-align: center;">Yes</p> <p style="text-align: center;">Yes</p> <p>Only if related to taxation</p> <p>Yes, with some restrictions</p>	<ol style="list-style-type: none"> <li>a) Yes, but in the form of income after deducting interest and rent. Own consumption valued at retail prices</li> <li>b) Yes - but as above</li> <li>c) Not included</li> <li>2. Yes, but note where social insurance deducted</li> <li>3. Yes</li> <li>4. Net off 4 and 9</li> <li>5. Yes - retirement pensions plus state transfer payments</li> <li>6. Equivalent to HBS other direct income</li> <li>8. Payments associated with self employment already deducted above. Some other items also collected in HBS</li> <li>9. See 4 above, though some HBS data available</li> <li>10. Yes - income tax</li> <li>11. See 2 above</li> <li>12. Yes - some from the HBS if reprocessed</li> <li>13. HBS conforms to SOEC definition with the exception of distributed property income not associated with self employment, and other outgoing current transfers. Some data on both available with reprocessing</li> </ol>

	DK	EL
	<p><u>Main source for present methodology:</u> Farm accounts survey</p> <p><u>Assumptions :</u></p> <p>1. Two fields possible a) all holdings in Structure Survey b) holdings of 1800 standard man hours (= "Full time farms") the income criteria possible e.g. agriculture is main source of household</p> <p>2. Household comprises farmer and spouse and dependent children</p>	<p><u>Main sources:</u> National Accounts and Family Budget Survey</p> <p><u>Assumptions</u></p> <p>a) Reference person is the head of household</p> <p>b) Classification is by the self-declared occupation of the head, but by main source of income of the entire household may be possible</p> <p>c) Coverage extends to all household members (note the exclusion of students studying away from home).</p>
<p>1) The net operating surplus including imputed rent</p> <p>a) Net operating surplus from agricultural activity</p> <p>b) Net operating surplus from non-agricultural activity</p> <p>c) Imputed rent for owner dwellings</p> <p>2. Compensation of employees from agricultural and non-agricultural activity</p> <p>3. Property and entrepreneurial income received (interest and rents)</p> <p>4. Accident insurance claims</p> <p>5. Social benefits</p> <p>6. Other current transfers</p> <p>7. <u>Current receipts</u> (1-6)</p> <p>8. Distributed property and entrepreneurial income (interest and rents)</p> <p>9. Net accident insurance premiums</p> <p>10. Current taxes on income and wealth</p> <p>11. Social contributions</p> <p>12. Other outgoing current transfers</p> <p>13. <u>Disposable income</u> 7-(8 to 12)</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes, rents received included here</p> <p>Yes, interest plus interest subsidies</p> <p>Not specifically, some are included in production receipts</p> <p>Yes</p> <p>Yes</p> <p>Yes, covers business and private</p> <p><u>Gross</u> on business assets already deducted under 1a</p> <p>Yes</p> <p>Yes, unimportant</p> <p>Yes</p> <p>Yes, already estimated and published</p>	<p>Yes - from national accounts, annually</p> <p>Yes - but as net income and only in base years of FBS</p> <p>Yes</p> <p>Yes - but net of tax</p> <p>Yes - from macroeconomic source (interest) and FBS (rents)</p> <p>Negligible - but covered elsewhere</p> <p>Yes</p> <p>Yes - with problems of identification</p> <p>Yes</p> <p>Yes - mainly from macroeconomic sources</p> <p>Negligible</p> <p>Yes - but tax on compensation of employees deducted at 2 above</p> <p>Not relevant</p> <p>Some items covered</p> <p>Yes, with some restrictions</p>

	E	P
	<p><b>Main source :</b> Household budget survey</p> <p><b>Assumptions</b> 1. The reference person is the person whose regular contribution to the budget covers the majority of the budget 2. The classification is not based on the self-declaration but on the HBS return</p>	<p><b>Main source :</b> Family Budget Survey</p> <p><b>Assumptions</b> (1) The reference person is normally the contributor of the highest income to the household total (2) Classification on main source of income (3) Coverage extends to all household members (4) Income definition close to SOEC requirement</p>
1) The net operating surplus including imputed rent	1)	
a) Net operating surplus from agricultural activity	) ) Yes, but only together ) (weak position)	Yes, but gross of capital consumption and self-declared
b) Net operating surplus from non-agricultural activity	) )	Yes, but with difficulty
c) Imputed rent for owner dwellings	Yes (derived from the expenditures)	Yes
2. Compensation of employees from agricultural and non-agricultural activity	Yes	Yes
3. Property and entrepreneurial income received (interest and rents)	Yes	Yes
4. Accident insurance claims	Yes	Not broken down
5. Social benefits	Yes	Yes
6. Other current transfers	Yes	Yes (includes insurance compensation)
7. <u>Current receipts</u> (1-6)	Yes	Yes
8. Distributed property and entrepreneurial income (interest and rents)	Yes 2)	Yes
9. Net accident insurance premiums	Yes	Not broken down
10. Current taxes on income and wealth	Yes (but only taxes for the entrepreneur, not for the rest of the household)	Yes
11. Social contributions	With modifications	Yes
12. Other outgoing current transfers	Yes	Yes (includes insurance premium)
13. <u>Disposable income</u> 7-(8 to 12)	Yes with some restrictions	Yes, with some restrictions

1) Net income (after deduction of interest and rents). But the interest and rents can be separated.

2) Interest and rents can be derived from item 1a+b. The importance of private borrowing is unknown.



## APPENDIX: DOCUMENTATION

The development of this exercise to form an income indicator can be traced in the following Eurostat working papers:

### Agricultural Statistics Committee:

E/ASA/148 Minutes of the ASC meeting, November 1985  
E/ASA/163 Total Income of Agricultural Households (document for the Agricultural Statistics Committee, November 1987)

### Working Party on the Economic Accounts for Agriculture:

E/LG/101 Total income of farmers' households (working paper for the November 1985 meeting)  
E/SX/81 Minutes of the November 1985 meeting  
E/LG/107 Total income of farmers' households (working paper for the December 1986 meeting)  
E/LG/109 Minutes of the December 1986 meeting  
E/LG/111 Interim Report by Wye College on the total income of agricultural households  
E/LG/112 Additional information on the project "Total Income of Agricultural Households" (working paper for the March/ April meeting)  
E/LG/113 Minutes of the March/April meeting  
E/LG/115 Total income of agricultural households (working paper for the June 1987 meeting)  
E/LG/122 New Community measures in connection with the introduction of aids to agricultural income: Consequences for agricultural statistics  
E/LG/124 Maastricht seminar on agricultural statistics in the nineties: Proposals in the framework of agricultural accounts (working paper for the June 1987 meeting)  
E/LG/127 Minutes of the June 1987 meeting  
E/LG/129 Total income of agricultural households (working paper for the December 1987 meeting)  
E/LG/138 Minutes of the December 1987 meeting

The following are also of direct relevance:

Eurostat (1979) European System of Integrated Economic Accounts  
Second edition  
Eurostat (1987) Manual on Economic Accounts for Agriculture and Forestry Theme 5, Series E  
Eurostat (1988) Agricultural Income 1987 Theme 5, Series D. Part V (Total disposable income of agricultural households)





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