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**Policy Requirements in the EU and the  
Existing Array of Indicators – Problem  
Definition, Policy Performance and the  
Implications of Reform**

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Its importance in agriculture and implications for statistics

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# Policy requirements in the EU and the existing array of indicators – problem definition, policy performance and the implications of reform

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## *Summary*

*Policies involving agriculture require information about production of commodities and about the firms that produce them. Understanding the behaviour of the family-firm is central to many issues and increasingly relevant as objectives evolve and the pluriactive nature of farm households is recognised. Policy reform is likely to concentrate interest on the welfare of the agricultural household and the various sources of income that accrue to it. However, statistics that have the household-firm at their centre are poorly developed compared with those on agricultural activity. Reasons are explored and opportunities identified to correct this imbalance.*

## **1 Policy requirements**

Policy involving agriculture comprises a range of separate but related issues. Over time these issues evolve and the balance between them on the policy agenda alters, reflecting *inter alia*, technological advance, demographic change, political dynamics, and historical happenings. To remain relevant, suppliers of official indicators and statistics must respond to changes in problems and policy concerns, or run the risk of obsolescence.

The principle official statements of the aims of the EU's Common Agricultural Policy (CAP) are given in Figure 1. The formal statement of objectives contained in the Treaty of Rome clearly reflected the problems of low productivity and insufficient security of supplies that characterised the founding Member States in the immediate post-War decade. The *Agenda 2000* reformulation, while having less force than a Treaty, was nevertheless agreed by Member States at the highest level and reflects both evolving policy problems and a larger EU membership. Comparison between the two statements shows that some aims have withered (productivity, availability of supplied). Some have continued; the assurance given to the fair standard of living of the agricultural community is carried over, word for word, to *Agenda 2000* from the Treaty of Rome, but with no attempt at a greater precision of how these terms should be interpreted, though the mention of stability registers the Commission's concern with one of the fundamental problems facing agriculture. There is no difficulty in assembling a large body of quotations from commentators on the CAP that the support of farmers' incomes has been the strongest strand in shaping EU agricultural policy, and the severest brake on CAP reform (see Hill, 2000a).

An important addition is the reference to the creation of alternative job and income opportunities for farmers and their families, a recognition that diversification will be necessary to assist with the aim of ensuring fair living standards. This aim is closely linked in *Agenda 2000* with the intention to pursue in a more active way rural development policy – to form a “second pillar” to the CAP. *Agenda 2000*'s rhetoric declared that the rigid distinction between sectors (agriculture, industry, and services) was out of date, a view long held by many outside the Commission. In practice, it seemed that (at least at the outset) support to farm families comprised the centre of this pillar and accounted for the bulk of spending, with programmes to protect the environment (paying incentives to farmers for less intensive production methods, management of land and natural resources, biodiversity), financial help to farmers for early retirement by elderly farmers and for entry by young ones, incentives to modernisation of potentially viable farms and diversification, for afforestation, and the continuation of payments to farmers in less favoured areas (in particular mountainous regions and areas with specific

**Figure 1 Official statements of agricultural policy aims**

<i>Treaty of Rome (1957)</i>	<i>Agenda 2000 (1999)</i>
<p>The Treaty states that “The common agricultural policy shall have as its objectives:</p> <ul style="list-style-type: none"> <li>(a) To increase agricultural productivity by promoting technical progress and by ensuring the rational development of agricultural production and the optimum utilisation of the factors of production, in particular labour;</li> <li>(b) <i>Thus to ensure a fair standard of living for the agricultural community, in particular by the increasing of the individual earnings of persons engaged in agriculture</i> (emphasis added)</li> <li>(c) To stabilise markets.</li> <li>(d) To assure the availability of supplies;</li> <li>(e) To ensure that supplies reach consumers at reasonable prices.”</li> </ul> <p>The Treaty also required the following factors to be taken into consideration when working out and applying the CAP:</p> <ul style="list-style-type: none"> <li>(i) The particular nature of agricultural activity, which results from the social structure of agriculture and from structural and natural disparities between the various agricultural regions;</li> <li>(ii) The need to effect any appropriate adjustment by degrees;</li> </ul>	<p>The objectives for the CAP were, as set out in <i>Agenda 2000</i>:</p> <ul style="list-style-type: none"> <li>• (To) “increase competitiveness internally and externally in order to ensure that Union producers take full advantage of positive world market developments;</li> <li>• Food safety and food quality, which are both fundamental obligations towards consumers;</li> <li>• <i>Ensuring a fair standard of living for the agricultural community and contributing to the stability of farm incomes</i> (emphasis added);</li> <li>• The integration of environmental goals into the CAP;</li> <li>• Promotion of sustainable agriculture;</li> <li>• <i>The creation of alternative job and income opportunities for farmers and their families</i> (emphasis added);</li> <li>• simplification of Union legislation”.</li> </ul>

natural handicaps). At the same time revisions to the Structural Funds and the Cohesion Fund were to take place. “The new policy explicitly recognises that farming plays a number of roles including the preservation of the rural heritage, while emphasising the creation of alternative source of income as an integral part of rural development policy” (Press notice *Elements of the political agreement of the Agricultural Council* 22/02-11/03/1999).

These official lists are a major though not a complete account of what policy is attempting to achieve. There are broader aims in which these are nested (such as economic growth, and the promotion of trade and international relations). Policymakers also have *operational objectives* such as making the market more important to producers’ decisions, the elimination of surpluses and containing support costs. And *political objectives* (such as enlargement) will have important connotations for agricultural policy. National governments will also have their own agendas that they will try to superimpose on those of the EU.

Viewed in the light of these objectives, at the start of the 21<sup>st</sup> Century indicators on the situation of agriculture appear to be required for two distinct sets of purposes. The first is to do with ***agriculture as an economic activity***. Purposes include measuring the contribution that agricultural production makes to the broader economy (as reflected in National Accounts), and how it changes with movements in commodity and factor markets. For this purpose, statistics are required on *inter alia* the agricultural industry’s output in total and in disaggregated form (by type of crop and livestock etc.), the inputs it uses (with particular emphasis on land and labour) and its value added. These economic entities can be linked together in *activity accounts*. Information is increasingly required on the environmental and health (human and animal) aspects of agriculture. It is important to recognise that production is not a disembodied activity but takes place within institutional units, of which the household-firm is of major significance in agriculture. Knowledge of how these household-firms operate – their structures and objectives – is key to explaining how they respond to signals, including those given by policy instruments. The significance of this will be returned to later.

The second purpose is to cast light on the ***well-being of the agricultural community***, in particular as they cope with the intrinsic problems faced by the farming industry. Again, the most appropriate social unit by which these problems can be assessed and studied is the household. Problems include the low incomes that may be found among farm households on farms of particular sizes and types (the *poverty* issue) and variability of incomes from year to year, in large part resulting from unpredictable influences such as weather (the *instability* issue). These issues often concern the distributional characteristics of economic variables such as income (OECD, 1964; OECD, 1995). Comparisons of agricultural policy aims in OECD countries shows that the EU’s stance is part-way along a spectrum that stretches from the explicitly social approach of some European countries, that includes the setting of specific target income levels, and the environment-creation of North America and Australasia (Hill, 2000a). Among the latter group, while there is a deep concern with the living standards of the agricultural community, there is not the detailed articulation of these aims that the European countries share.

With the withering away of concern over the adequacy of agricultural production in the wake of the spread of new technology, the incomes of the agricultural community became the central issue in shaping policy. Market management, carried out primarily to support incomes, took on a life of its own, so that the influence of income support was indirect. In the 1990s environmental issues rose rapidly to prominence. An overall view of the economic issues of policy concern is given in Figure 2.

Though the focus of attention here is on farm household-firms, it should not be forgotten that the broadening of agricultural policy into rural policy, seen both in the EU and in some other OECD countries, implies that information will be increasingly demanded on the economic activities found in rural areas and the living conditions of households found there, many of which will not be involved in agriculture except marginally, or not at all.

**Figure 2 Concerns within agricultural policy and information requirements**

Centre of policy concern	Degree of detailed specification of objectives	
	Aggregate	Microeconomic
Production of agricultural commodities and its use of inputs – essentially an economic problem	<ul style="list-style-type: none"> <li>* Contribution to national and regional income; output, inputs and value added.</li> <li>* Concern with the rate of factor return, and that agriculture is an efficient user of national resources</li> <li>* Ability of agriculture to maintain its productive capacity (capital stock) and how this is financed</li> <li>* Stability of commodity markets</li> <li>* Security of supply and trade issues</li> </ul>	<ul style="list-style-type: none"> <li>* Contribution to the aggregate agricultural activity from farms of different types, sizes and regions.</li> <li>* Factor rewards and productivity by farm type, size and region – level and stability</li> <li>* Land use characteristics (linked to environmental policy)</li> <li>* Response at farm level to market signals</li> <li>* Residual entrepreneurial income remaining to the owners of factors of production by farm type, size and region. – level and stability</li> <li>* Ability of types and sizes of farm to maintain their capital stock, how this is financed, and the pressure of servicing debt.</li> </ul>
Wellbeing of the agricultural community – essentially a social problem	<ul style="list-style-type: none"> <li>* Concern with the standard of living of the agricultural community and that it is fair, implying when group averages are compared with other occupation groups. By convention, the two main proxies for well-being are current income (disposable) and personal net worths.</li> </ul>	<ul style="list-style-type: none"> <li>* Poverty (low incomes) among agricultural households and its location (farm size, type, region, socio-economic characteristics of farmer and household)</li> <li>* Groups feeling most pressure to leave agriculture</li> <li>* The way that low incomes can be combined with high or low wealth</li> </ul>

## 2 Available statistics

An outline of the sorts of economic statistics needed to throw light on the various policy issues set out in Figure 2 is given in Figure 3. The first row relates to the activity of producing agricultural commodities, with an array of indicators of the residual rewards to the factors of production engaged in it. The second row relates to the households that undertake this production; households are the most important form of institutional unit in EU agriculture, other forms being the corporation and government. Both can be viewed at aggregate level (the agricultural industry, and the agricultural households sector) or microeconomic level (the farm firm and the agricultural household).

What is currently available at EU level is shown in normal type; what is conceptually possible but not yet developed is shown in *italics*. Among the indicators of the rewards from agricultural production, most attention at aggregate level is given to the Economic Accounts for Agriculture (EAA) and the estimates derived from them of Net Value Added per Annual Work Unit of (total) labour (NVA/AWU). Entrepreneurial Income (after deducting costs of hired labour, rent and interest payments) assumes a lower profile<sup>1</sup>. At farm business level, the standard income indicators are Farm Net Value Added and Family Farm Income (the equivalent of Entrepreneurial Income), though a wide range of other measures are possible, given the richness of the physical and financial data collected annually from the 60,000 or so sets of accounts. Though the concepts at the two levels are similar, there are methodological differences. Of course, neither coincides with the complete incomes of businesses that are engaged in agricultural production or to the personal incomes of farmers and their households.

<sup>1</sup> For detailed definitions of the indicators, see Eurostat (1997) and subsequent revisions

The main issues in indicators for the agricultural community are (a) what constitutes an agricultural household for inclusion in the statistics and (b) what is the definition of net disposable income that is most appropriate.

**Figure 3 Type of available agricultural economic statistics**

Centre of policy concern	Level of aggregation	
	Aggregate	Microeconomic
Activity of producing agricultural commodities, its use of inputs, and the residual rewards they earn – essentially an economic problem	<p><b>CURRENT ACCOUNTS</b></p> <ul style="list-style-type: none"> <li>* National accounts (NA)</li> <li>* Industry activity accounts (e.g. Economic Accounts for Agriculture (EAA) from Eurostat, These are satellites of national accounts</li> <li>* Income Indicators derived from the EAA (Net Value Added/Annual Work Unit; Entrepreneurial Income; Entrepreneurial Income per AWU of unpaid labour)</li> <li>* Price, labour and land statistics</li> </ul> <p><b>CAPITAL ACCOUNTS AND BALANCE SHEETS</b></p> <ul style="list-style-type: none"> <li>* Partial capital accounts.</li> <li>* <i>Balance sheets for the “industry” (only some national estimates, including UK)</i></li> </ul>	<p><b>CURRENT ACCOUNTS</b></p> <ul style="list-style-type: none"> <li>• Farm accounts statistics (EU’s Farm Accountancy Data Network FADN/RICA);</li> <li>• Income Indicators from FADN/RICA (Farm Net Value Added, and Family Farm Income, both per holding and per unit of labour input)</li> </ul> <p><b>CAPITAL ACCOUNTS AND BALANCE SHEETS</b></p> <ul style="list-style-type: none"> <li>* Partial capital accounts (FADN/RICA)</li> <li>* Balance sheets for the “farm business”</li> </ul>
Wellbeing of the agricultural community – essentially a social problem	<p><b>CURRENT ACCOUNTS</b></p> <ul style="list-style-type: none"> <li>• Agricultural household sector distribution of income account (IAHS statistics in the EU, <i>not available for the UK or some other countries in recent years</i>)</li> <li>• Derived Indicators: Total Income and Net Disposable Income per household, per household member, per consumer unit</li> <li>• Comparable figures generated for other socio-professional groups</li> </ul> <p><b>CAPITAL ACCOUNTS AND BALANCE SHEETS</b></p> <ul style="list-style-type: none"> <li>* <i>Assets (wealth) accounts for this sub-sector. (Not available at EU level; some national estimates)</i></li> </ul>	<p><b>CURRENT ACCOUNTS</b></p> <ul style="list-style-type: none"> <li>* <i>Distributional statistics on agricultural household incomes – not available in EU except in fragmentary form</i></li> </ul> <p><b>CAPITAL ACCOUNTS AND BALANCE SHEETS</b></p> <ul style="list-style-type: none"> <li>* <i>Distributional statistics on household balance sheets. Few examples (Norway)</i></li> </ul>

Two major paradoxes present themselves, both involving the farm household-firm. The first is the contrast between the apparent importance within policy objectives of the welfare of agricultural households and the lack of knowledge about their economic situation. The second is that, though the industry comprises real institutional units (mainly household-firm) the production accounts do not relate to them but to fictional units, a situation that imposes severe constraints on the ability to cast light onto the behaviour of farm businesses.

### 3 Imbalance in statistical provision

The EU (and most OECD countries) has given primacy to accounts for the activity strand (Hill, 2000a). At both aggregate and microeconomic levels activity accounts are well established, with methodologies and data collection systems going back at least fifty years. In contrast, statistics related to the economic situation of the agricultural community, comprised of agricultural households, are relatively weak. In the EU, accounts for the agricultural households sector (including their disposable income) of Member States based on a harmonised methodology have only appeared regularly since the mid-1990s and are not fully developed (for example, the UK is not yet included, figures for Germany stop in 1993, and no estimates for the EU as a whole are calculated)(Eurostat, 2000). At microeconomic level there is no working EU system for generating results for agricultural households<sup>2</sup>; what exists at national level is patchy and incomplete, some countries (again, including the UK) having no satisfactory source of basic data. The situation outside the EU is generally better (Blandford, 1996).

In part as a consequence of this uneven development, in the EU discussion of issues that relate to the economic situation of farm households (the second group above) is often conducted using statistics based on the accounts for the activity of agricultural production (the first group). The two strands are conceptually separate. For example, relatively low factor returns in agriculture do not necessarily mean that the personal or disposable incomes of farm households are low; much will depend on the absolute quantities of resources at the disposal of the households (most importantly, farm size). Furthermore, accounts that only cover agriculture ignore a substantial part of the overall activities of farmers and their families. The consequence is that misunderstandings are perpetrated about the levels and stability of the incomes of farmers and their households. This sort of problem has been identified at least as long ago as Peterson (1933).

Explanation for this paradox (Hill, 2000a) include:

- *Lack of political demand:* The Council (of agricultural Ministers) and Parliament have not called loudly for a full picture of the income situation of agricultural households. In steering agricultural policy Ministers seem content with a small number of indicators that relate solely to agricultural production. As national politicians with an interest in supporting their farmers, they have not been keen to expose information that conflicted with their perception of the need for support. An element of national interest may affect some countries' demands for information at EU level.
- *Lack of demand from the Commission:* The Directorate-General for Agriculture (DG-AGRI) has chosen not to interpret the aims of the CAP in a way that needed this information. Commodity markets and support have dominated activities. While pluriactivity has been recognised for many years, interest in the total income of agricultural households has only been sporadic, relatively recent, and not universally shared.
- *Bureaucratic agendas:* As with many national departments of agriculture, DG-AGRI could be expected to not welcome information that might lead to a more explicitly social

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<sup>2</sup> EU-wide systems that study households (such as the European Community Household Panel and the network of household budget surveys) either throw up too few agricultural cases to be useful (northern Member States) or suffer from poor data quality on incomes (southern Member States).



role for the CAP and which might threaten the need for its current activities, budgets and staffing. Where statistical agencies are dependent on funding from the policy sections of the Commission, a danger arises that their independence to generate the statistics appropriate to declared policy aims is compromised, causing a failure in the information system.

- *Precedence:* Once production-linked indicators have been established and made operational, there is a reluctance to shift to a new system.
- *Administration of support:* Information on household incomes, wealth etc. is not an established element needed to administer support (with small exceptions).
- *Inadequate basic data:* Basic microeconomic data relating to agricultural households in many EU Member States is extremely weak or non-existent (See Figure 4). Consequently, no EU-wide system can be established. All the three main sources of data (tax records, family budget surveys and farm accounts surveys) have problems associated with them (numbers of cases, data quality, representativity etc.). Consequently, only in a few countries (Denmark, Sweden, Finland, Netherlands) is the basic data reasonably satisfactory. The situation at micro-level has implications for aggregate indicators too. In part the lack of basic data is a reflection of the points made about the general situation about household statistics

#### 4 Basic units in the several types of accounts and indicators

The second main paradox is that in the EU the agricultural household-firm is not at the centre of the way in which even the information on agricultural production is generated. This touches on an important principle in statistics. Indicators need to relate to basic units of observation that are meaningful in terms of the policy aims and objectives they are attempting to service. As the US's AAEA Committee on Economic Statistics stated in 1972

*“Only when the basic economic structure of the industry can be described accurately by our data system will analytical accuracy be possible in dealing with the performance and behavioral characteristics that are the focus of most economic analyses”.* (AAEA, 1972)

In the EU the agricultural “industry” covered by the EAA does not comprise the complete activities of a collection of real businesses (farm household-firms and corporations). Rather, it is an aggregation of fictitious units (agricultural Local King of Activity Units - **LKAUs**) that have a very limited role in distributional statistics.<sup>3</sup> This is one of the bases of accounting provided for in the System of National Accounts (SNA) 1993, the main alternative being institutional units (households, corporations etc.) that comprise “sectors” (UN, 1993).

In agricultural accounting at microeconomic level in the EU, use is made of the **agricultural holding or farm business** (Figure 5). While superficially “real”, this unit is quite artificial in many circumstances. It does not have its own legal status but has to be carved out from the activities undertaken by real institutional units.

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<sup>3</sup> The use of the LKAU also means that, in its series of current aggregate accounts, the EAA can only include the *production account* (balancing item Net Value Added) and the *Generation of income account* (balancing item Mixed Income). The next in the series (*Entrepreneurial Income account* with its balancing item of *Entrepreneurial Income*) can only be constructed by making assumptions about the relationship between the agricultural LKAU and the household (or corporation) that owns it. These assumptions are increasingly unsafe. For a complete list of accounts see Eurostat 1996.

**Figure 4. Data sources on the overall income situation of agricultural households in EU Member States and other selected OECD countries**

EU Member States	Farm accounts survey	Family (household) Budget Surveys	Taxation records	Other
Belgium				
Denmark	*		*	
Germany	*	*	*	*
Greece				
Spain				
France		*		(*)
Ireland		*		(*)
Italy				*
Luxembourg	(*)			*
Netherlands	*		*	
Austria	*	*		
Portugal				
Finland	*	*	*	
Sweden	(*)		*	
United Kingdom	*		*	(*)
<b>Other OECD Countries</b>				
USA	*	*		*
Canada	*	*	*	
Australia	*			(*)
Japan	*			
Mexico		*		
New Zealand	*			(*)
Norway	*		*	
Switzerland	*			

\* potential or actual regular data source on household income

\*\* occasional data source

Summarised from OECD (1997) and derived from Hill (1988) and OECD (1995)

**Notes:**

- Farm accounts surveys do not collect this information in many Member States. At present there is no requirement to supply data on off-farm incomes to FADN/RICA.
- Though Household Budget Surveys exist in all EU Member States, the number of agricultural household cases in northern countries is generally too small to be of use. In southern countries, where sufficient numbers exist, the quality of income information is often weak.
- Farmers in some countries are not taxed on actual incomes but on a standard basis, or they fall outside the tax net. Tax conventions also reduce the relevance for income studies. Consequently, even where tax records, exist, they may not be a suitable source for statistics on the income situation of farm households.

**Figure 5 Types of units in EU accounts (actual or proposed)**

<b>Account</b>	<b>Basic unit</b>	<b>Comment</b>
National Accounts / Economic Accounts for Agriculture	The agriculture “industry” is comprised of agricultural Local Kind of Activity Units (LKAUs) – fictional units that only produce commodities deemed to be agricultural	In reality, a farm may have both an agricultural LKAU and a LKAU belonging to another industry. Non-agricultural activities of real farms are excluded from the agricultural “industry”, except where they are inseparable secondary activities (e.g. farm shops). Assumes that agricultural activities of LKAUs belonging to other industries can be separated off and covered in these accounts
Industry balance sheet (not yet drawn up at EU level, but nationally by some Member States)	“Industry” of agricultural LKAUs, but also includes landownership as part of agriculture.	Covers assets that are deemed to be agricultural; tenanted land included at present. Assumes that the liabilities of households that operate farms can be split into agricultural and other parts – a dubious process.
Farm Accountancy Data Network (FADN/RICA)	The Agricultural Holding or Farm Business (the latter if different), concerned with producing agricultural commodities.	Requires the splitting off of (most) non-agricultural activities undertaken by the household/corporation, whether or not they are closely related in behaviour of the basic units. A little less narrow in the definition of agriculture than the aggregate accounts (above).
FADN balance sheets	The agricultural holding or farm business	Requires the separation of agricultural and non-agricultural assets and liabilities, the latter particularly dubious.
Agricultural Household Sector distribution of income account (IAHS statistics) - balancing item, net disposable income	Real institutional units, in the form of the agricultural household (defined in “narrow” way to include only those where farming is the main income source of the head)	Covers all types of income accruing to the household members and compulsory expenditure (e.g. current taxes). Farming is only one of several sources of income. Assumes that the household represents a realistic single unit for income and expenditure purposes. Alternative coverage could include households in which any member has income from farming, however minor it might be.
Agricultural household micro income statistics (not yet drawn up at EU level)	As above for the sector	As above for the sector
Agricultural household capital balance sheets (sector or micro)(not yet drawn up at EU level)	Real institutional units – the agricultural household	Covers all assets and liabilities of the household members. Definitions of household and coverage of households as in the income accounts above.

It is increasingly recognised that the production of agricultural commodities is frequently carried on by firms in combination with other activities. About a third of the people regarded as EU “holders” have other gainful activities, and probably a substantially larger share of farming couples. Households that run their farms as unincorporated businesses do not draw any impermeable boundary between their agricultural and other gainful activities, or between their functions as units of production and of consumption. They will be engaged in a range of economic activities, possibly within the same set of enterprise (business) accounts<sup>4</sup>, and in forming an account for the farm business the agricultural production element somehow has to be separated off from the rest.

Partition is particularly difficult when inputs are used both by the agricultural and non-agricultural activities (energy charges<sup>5</sup>) or where fungibility is an issue (for example, interest charges). In theory the consumption activities of the household should also be excluded from the holding’s accounts (such as interest on loans for the purchase of consumption goods), though in practice this may be difficult and lead to an over-estimate of the inputs used in agricultural production.

The creation of an artificial unit in statistics that forms part of a larger (real) whole runs the danger of reducing the ability of analysts to explain how agricultural production responds to economic signals, as important variables that would assist explanation are being excluded. For example, empirical evidence on things like the intensity of land use, margin generated per hectare, viability to economic stress, investment level, spending on environmental protection and so on are all affected by the presence or absence of income from outside the holding. Indeed, it could be expected that the adequate explanation of many phenomena would need information on the overall activities and interests of the economic unit.

Capital balance sheets are a good illustration of the problems of using an artificial unit; though not currently part of the aggregate EU system, they are calculated by some national statistical authorities (including the UK) and a farm business level within FADN/RICA. There are problems in separating assets into agricultural and non-agricultural and excluding the latter (vehicles being the classic example) but in particular on the liabilities side the isolation of agricultural debts is both practically difficult and theoretically objectionable because of the fungible nature of borrowing. As a result, balance sheets that purport to relate only to farming are near to meaningless (Hill, 2000b).

Explanation of why the artificiality of present situation has arisen seems again to be a matter of history combined with bureaucratic convenience. When EAA were first calculated (during the Second World War in the UK – a development that took place alongside national accounting) the concept of the “national farm” and the agricultural “branch” were adopted, largely for speed and convenience. An approach that covered all production of agricultural commodities, irrespective of what type of unit produced them, was in line with the contemporary interest in output and was conceptually quite easy to grasp. These concepts were taken over in the methodology applied by Eurostat from 1964. The revised EAA methodology of 1997, by adopting an “industry” concept composed of LKAUs, retained an approach close to that of the previous “branch” composed of Units of Homogeneous Productions (UHPs). It is worth noting that the coverage of agriculture in the (revised) EAA differs from that of agriculture in national accounts (for details see Eurostat, 1997).

The preference for the fictional “agricultural holding” or farm business at micro level again seems to have its roots in history. In the UK, when farm accounts surveys were set up in the 1930s questions about other forms of income were not considered necessary. The focus seems to have been on commercial farms, which were assumed to be full-time. The legislation setting up the European Commission’s FADN/RICA (EEC Regulation 79/65) refers to the requirement for “relevant information on incomes in the various categories of agricultural holdings and on the business

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<sup>4</sup> No attempt is made here to define what constitutes a single business, though common characteristics might be a single accounting system and a single capital base.

<sup>5</sup> A similar problem concerns the treatment of housing services provided to tenants in property previously occupied by farm workers but no longer deemed to be part of the farm

operation of holdings coming within categories which call for special attention at Community level”. The Farm Return (questionnaire) is a legal document and restricted in its coverage to data on agricultural production and the use of farm resources. Attempts to expand questions to off-farm activities and other sources of income flowing to the household-firm have been resisted and, so far, largely blocked.

## **5 Proposals for rebasing agricultural statistics on real institutional units – the agricultural household-firm and corporations**

A case can be made for the development of a full set of accounts and associated indicators based on households, as real institutional units, to run alongside the activity accounts as they currently stand (or restricted to the production account and calculation of NVA, beyond which assumptions need to be made that are increasingly difficult to defend). This applies both to aggregate accounting and to microeconomic survey-based statistics. This is a prime feature of the FAO’s 1996 *System of Economic Accounts for Food and Agriculture* (SEAF96)(FAO, 1996). The use of the household as the basic unit has the following advantages:

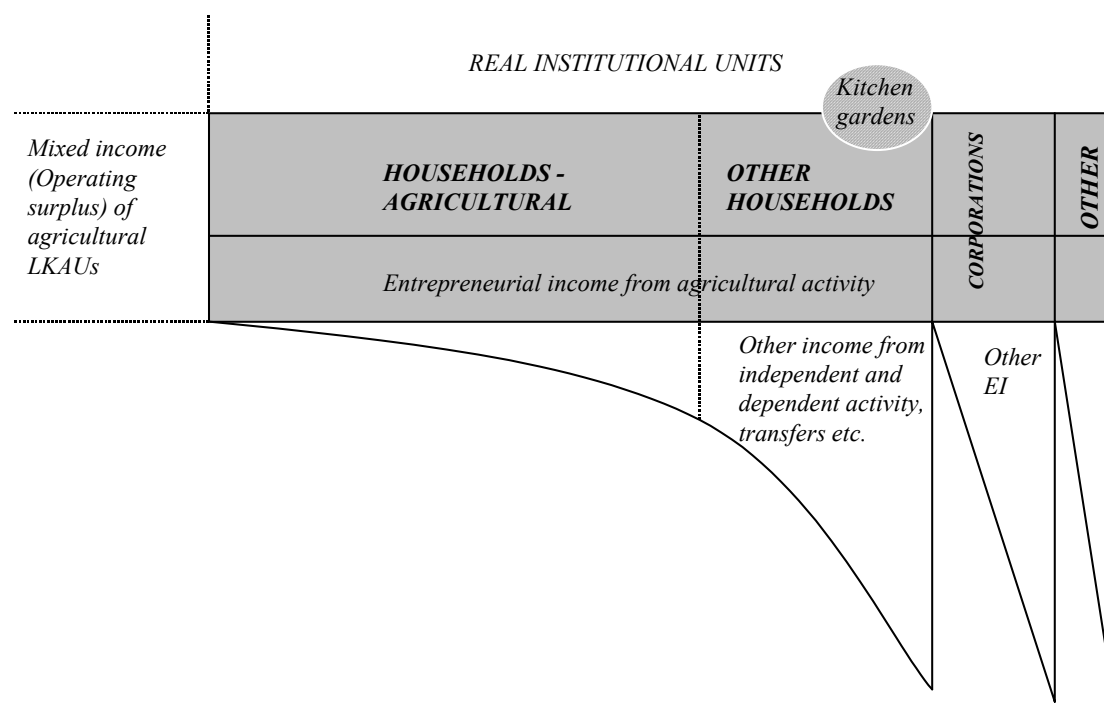
- It permits a complete and consistent series of accounts to be calculated, covering activities of households as producers, their rewards from employment, from property and other sources. Thus what is currently generated separately in the activity accounts and the distribution of income accounts can be supplied together<sup>6</sup>. The series extends (in theory) beyond disposable income to the estimation of spending on consumption and on savings.
- Artificial partitioning of inputs between agricultural and non-agricultural activities (in the calculation of *Entrepreneurial income*) is avoided.
- Capital accounts and balance sheets could be developed that are valid.
- The generation of a coherent range of indicators appropriate to monitoring policy is possible. In addition to production-related indicators (which could be supplemented from those from accounts of corporations and other institutional forms), in the households sector the disposable income indicators are highly relevant in the context of the “standard of living” aim of agricultural policy.
- Ease of interpretation, in that non-specialists can be expected to grasp more readily statistics for the industry that relate to a collection of firms which are (largely) engaged in agricultural production, rather than to a collection of fictional units (LKAUs)..
- Improved compatibility and complementarity between aggregate and microeconomic statistics, as they would be based on the same household unit.
- In dealing with the essential aspects of the “income problem” in agriculture (instability, low incomes, poor comparability), the microeconomic unit is the one that is of relevance to these issues.
- There is a greater ability to explain aspects of agriculture that depend on the whole institutional unit. This would include farm viability, intensity in the use of land, level of income generated from agricultural holdings, investment levels in fixed capital etc..

The definition of the coverage of household units that form part of these accounts is, of course, highly important and requires careful choice in terms of relevance and data quality. At one extreme, all households that take part in agricultural production as entrepreneurs or as employees or for subsistence (kitchen gardens) might be included. At the other might be only those for whom entrepreneurial income in agriculture was the sole source of livelihood. These correspond with polar positions of a spectrum along the “households” block in Figure 6.

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<sup>6</sup> A parallel set of accounts for other institutional form is envisaged. Thus an aggregate comprising households and corporations could be assembled; this could be highly useful in policy discussion.

**Figure 6** Relationship between real institutional units and production in agricultural LKAUs. (From Hill, 1999)



In view of the aims of policy it seems likely that two types of coverage would be of particular interest:

- A “narrow” coverage comprising households which have entrepreneurial income from ***farming as their main income source*** (or some similar coverage, for example where it is the main income of the household reference person). These households could be assumed to be those mainly dependent on farming and thus the principle targets of agricultural policy.
- A “broader” coverage, containing all ***households which engage in significant agricultural production and land use***, irrespective of how significant farming is to their livelihoods.

A parallel classification of other institutional units (corporations etc.) is envisaged.

Though substantial progress in tackling conceptual issues of household-firm coverage has been made in the EU through the development of the IAHS statistics, where income from both farming and other sources is included, at present these statistics do not contain sufficient detail to constitute a full set of accounts. In particular, they only show net operating surplus (or entrepreneurial income) from agriculture and other self-employment; they omit the breakdown of the households’ resources flowing from independent activity in agriculture that lead to its calculation (values of output, intermediate consumption, value added, rewards to fixed factors) – in short, all the elements currently detailed in the EAA.

The practical problems of drawing up accounts on this basis of real institutional units must not be underestimated. It will be necessary to draw on a range of non-traditional data sources and to develop existing ones. In particular, data collection from surveys of farms would need to take a broader approach than is current in the FADN/RICA, though again progress is already being made in that direction.

However, the existence of better accounts and indicators based on agricultural households, at both aggregate sector and microeconomic levels, suitably complemented by accounts for other real institutional units, would provide a more rounded picture of agriculture. Activity accounts would be strengthened, as they would be able to concentrate on the purposes to which they are best suited. The outcome would be a set of statistics that arguably comes closer to answering many of the fundamental policy questions that face agriculture at the start of the 21<sup>st</sup> century.

## 6 Some questions for discussion

- Is the account of the objectives of policy and the way they are changing accepted?
- To what extent is the view shared that policy requires robust information on the well-being of agricultural households?
- Is there agreement that reliable statistics that use the agricultural household-firm as the basic unit are needed to adequately service policy?
- Is the European statistical system seen to be suffering from imbalance, and is the explanation for it reasonable?
- What steps might be advocated to improve the availability of basic data on agricultural household-firms in countries where it is clearly lacking?

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