

Session Number: **3**

Session Title: International Standards for Income Distribution Statistics

Paper Number: 1

Session Organiser: Paul van der Laan

Discussant: ...

*Paper prepared for the 26th General Conference of  
The International Association for Research in Income and Wealth  
Cracow, Poland, 27 August to 2 September 2000*

## **OVERVIEW OF THE PROPOSED STANDARDS FOR INCOME DISTRIBUTION STATISTICS**

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## OVERVIEW OF THE PROPOSED STANDARDS FOR INCOME DISTRIBUTION STATISTICS

***Summary:*** *This paper is a draft of the first substantive chapter of international guidelines on the preparation and analysis of income distribution statistics, the main output of the Canberra Group. It sets out an overview of the conceptual issues which have to be resolved before statistics of income distribution can be compiled.*

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# OVERVIEW OF THE PROPOSED STANDARDS FOR INCOME DISTRIBUTION STATISTICS

## 1 Introduction

This paper seeks to establish conceptual ground-rules for the production of household income statistics. At this stage the practical difficulties of data availability are generally not addressed: the aim rather is to determine what, in an ideal world, it would be desirable to be able to define and measure as 'income'.

However, it is important to recognise at the outset that different measures of income may be the most appropriate or the best available for different analytical purposes. Different uses may include analysis of the extent of income inequalities between groups within a population, the extent of poverty in absolute or relative terms, and the impact which government intervention has through social assistance and taxation on income distribution and poverty. Changes in distribution over time may be of interest, as may differences between countries. In addition, the impact of alternative government policy actions may be the focus of attention. The practical issues of choosing appropriate definitions in the light of the use to which the statistics are to be put, the particular national economic circumstances, and the availability of data will be discussed elsewhere in the guidelines.

Although the paper concentrates on defining the income concept, a number of other conceptual issues have to be resolved before income statistics can be compiled. It is necessary to decide which statistical units are to be used and the length of the accounting period to which the statistics refer. And if comparisons are to be made between countries or over time it is necessary to take account of price differences in some way. These issues are addressed briefly in section 7 but will be explored in more detail in papers 4 and 5 of this session, together with how they may be resolved in practice.

## 2 Economic well-being and income

The main motivation for the production of household income statistics is the measurement of economic well-being. However, income is not the only way in which the concept of economic well-being can be characterised, and it is therefore useful first to consider the broader conceptual issues underlying its nature.

A household's economic well-being can be expressed in terms of its access to goods and services. The more that can be consumed, the higher the level of economic well-being. Measuring consumption might therefore be a way of measuring economic well-being. However, a household may be able to choose not to consume the maximum amount it could in any given period but to save at least some of the resources it has available. By saving, households can accumulate wealth through the purchase of assets which will both generate income at a later date and serve as a 'nest-egg' for spending at a later time when income levels may be lower, or needs higher, than now. In addition, possibly to earning a return for the household, ownership of wealth also affects their broader economic power and is another aspect of economic well-being. For example, wealthy households may find it easier to gain credit to finance their consumption.

Thus to capture fully the extent of a household's economic well-being it is desirable to look at a number of different aspects of their economic situation including not only income but also levels of wealth (hereafter referred to as level of net worth - assets minus liabilities) and changes in the value of that wealth.

Analysis of economic well-being is usually primarily concerned with the comparison of the actual or potential living standards of different groups in society, and sometimes between groups in different societies, at a point in time and also over a period of time. Policies to address problems of living standards usually focus on income in some form or other. In other words, income is normally the most important element of economic well-being for policy purposes. Therefore the focus of this report is on measuring household income. But to be able to define income, and as a reminder that income is not the only element of economic well-being, the remainder of this section provides an overview of the relationship between economic well-being and income, change in the value of net worth, and value of stock of net worth. In later sections, there are again brief references to the non-income elements of economic well-being and the conceptual framework is extended to show the relationship of income to consumption and the accumulation of capital, or wealth.

## ***2.1 Income***

In broad terms, income refers to regular receipts such as wages and salaries, income from self employment, interest and dividends from invested funds, and pensions or other benefits from social insurance and other current transfers receivable. Large and irregular receipts from inheritances, and the like are considered to be capital transfers because it would not be prudent to spend them all immediately on receipt, that is, they would not be “spent today”.

Income presents a partial view of economic well-being and represents the regular or recurring receipts side of household economic accounts. It provides a measure of resources available to the household for consumption and saving. On the disbursements side of household accounts, consumption expenditure represents the day-to-day purchases that may be financed not only by regular or recurring income but also by savings from previous years or by incurring debt. For some households, such as retired households, the running down of capital for consumption may represent a deliberate attempt on their part to even out consumption over a life time. Other groups in the population, such as farmers, may also average out their consumption over a number of years while their incomes may show quite wide fluctuations over the same period. In such cases, consumption expenditure may represent a better estimate of the household’s sustainable standard of living.

There are difficulties in collecting data on both income and consumption expenditure in household surveys. Income is a sensitive issue for many respondents and non-response or misreporting of some income components may be significant. On the other hand, data on consumption expenditure is often onerous and costly to collect. In fact, the choice between the income or the consumption expenditure approach to measuring economic well-being is often made for the analyst by the fact that income data may be more frequently available than data on consumption expenditure.

## ***2.2 Change in value of net worth***

Whether data on income or on expenditure are used for measuring economic well-being, the data should ideally be accompanied by some assessment of the change in the value of the household’s net worth during the accounting period. If the level of net worth has increased, the increase will have resulted from saving (the difference between income and consumption expenditure), from the receipt of capital transfers, or from other changes in the value of assets, including capital or holding gains. Such a household is likely to be better off in the long term than a household with a similar level of consumption that has financed this consumption by dissaving, that is, running down assets or incurring a liability. The question of whether the dissaving has been involuntary or has been planned by saving in earlier periods is important in this context.

## ***2.3 Value of stock of net worth***

The value of the stock of net worth owned by a household is the value of accumulated assets less liabilities. As already noted, as well as possibly earning a return for the household in the form of income, those households with high levels of net worth may find it easier to gain credit for

consumption or investment and may be able to optimise the choice of timing for different types of consumption. High levels of net worth can also influence living standards by offering the potential for dissaving for consumption either now or at a later date. For these reasons, it is important to ascertain, if possible, the value of the household's net worth to give a complete picture of the household's command over economic resources or economic well-being.

At a practical level, the collection of microdata on the assets and liabilities of households can often be problematic. Such information may be even more sensitive to the respondent than that on income and, because transactions are relatively infrequent, misreporting may be more prevalent. There are also considerable difficulties in using data on stocks of wealth and data on transactions or flows in a combined measure of economic well-being. One option is to annuitise the net worth held by the household and add this (notional) annuity to the flow of income and other receipts (see ABS 1995). However, annuitisation of net worth requires a large number of value judgements and assumptions in relation to, for example, the period over which the net worth should be annuitised (life of the householder or spouse) and the interest rates to be used. This is not a simple matter, and the complexity suggests that the issue of incorporation of the value of stocks of household net worth into a broader measure of economic well-being might be best treated in a separate study. The measurement of these stocks is therefore not considered any further in these guidelines. However, the last section of this chapter shows a framework in which income, consumption and accumulation can be related to each other.

### **3 Towards a definition of income**

#### ***3.1 Historic background***

There has been a long history of debate on the boundaries to be set for the definition of income. Much of the debate has centred on whether:

- income should include only receipts that are recurrent (that is, exclude large, irregular or capital receipts);
- income should only include those components which contribute to current economic well-being, or extend also to those which contribute to potential well-being; and
- whether the measure of income should allow for the maintenance of the value of net worth.

The debate has benefited from theoretical insights from a number of prominent economists. J R Hicks proposed that '...it would seem that we ought to define a man's income as the maximum value which he can consume during a week, and still expect to be as well off at the end of the week as he was at the beginning.' (Hicks 1946, p.172). Put another way, income may be defined as 'the maximum amount of money which the individual can spend this week, and still expect to be able to spend the same amount in real terms in each ensuing week' (Hicks 1946, p.174). The Haig-Simons definition of personal income is that it comprises the sum of consumption and change in net worth in a period, therefore making no distinction between regular and irregular receipts. (For a discussion on the differences in the Hicks and Haig-Simons approaches, see Goode (1977).)

However, whilst these definitions can give general guidance they are open to more than one interpretation. Typically, the choices to be made in constructing household income have been approached by macro and micro analysts from rather different perspectives, which has resulted in different definitions for measuring what is essentially a single concept.

The macro-analyst is interested in the aggregate of household income as it fits into to the macroeconomy as a whole, and approaches its construction in a top-down manner. Exhaustiveness of the definition is important, as is its consistency with the definitions of income of the other institutional sectors: no theoretical gaps can be left unfilled, even if in practical terms imputations and estimations have to be widely employed when actually compiling the statistics.

The micro-analyst on the other hand is primarily interested in the distribution of income between households. Conceptually, this means that the definitions are driven mainly by what the individual perceives to be an income receipt of direct benefit to him or herself, which results in a bottom-up approach to the construction of a definition. Practically, definitions have also to be constrained by what it is feasible to collect in household surveys or what is available at the household level in relevant administrative sources. In fact these two considerations – the conceptual and the practical – will usually result in the same choices, since if individuals perceive a receipt to be of direct benefit to them they are much more likely to be able to provide reliable data on it.

### 3.2 *The micro approach*

The approach of the micro analyst begins by addressing the question: “Is the income receiving unit better off today as a result of this receipt (able to consume more goods and services)?”. Such an approach implies that it is *current* economic well-being which is of interest. Components which contribute to *potential* economic well-being include employer contributions to pensions and other forms of social insurance, interest earned on retirement-based assets and unrealised capital gains. The recipient may be scarcely aware of these, certainly at the time they are ‘received’, even though the individual usually benefits from them in some way, if not at the time of payment then in the future. This means that in addition to the conceptual difficulties the micro-analyst may have in accepting their inclusion, there are severe problems in collecting micro level data.

Having chosen current economic well-being as the organising principle, there are three other dimensions along which further choices of income components have to be made. These are: cash (ie monetary) versus non-cash income; regular versus irregular income; and maintenance of the value of net worth. Decisions on what to include and exclude along these dimensions are governed by the extent to which the component may be ‘spent today’.

#### 3.2.1 *Cash income*

The most basic component of income is cash earnings. This is the income component most familiar to income analysts and perhaps the most easily and accurately measured in household surveys. Cash earnings may arise from employment or self-employment. In the case of self-employment, earnings are measured as receipts from the business less operating expenses.

For the most basic of analyses, there may be little need to venture beyond cash earnings. However, the micro analyst would normally consider the following categories as essential to the construction of reasonably complete income distribution statistics:

- property income
- cash transfers

These are considered in turn below.

#### Property income

People receive income in return for providing land and capital for production, just as they do for providing their labour. Examples which the micro-analyst would include in their income definition include:

- interest income receivable
- dividends
- rents, royalties, and income from estates and trusts.

One important issue is whether to express interest income net of payments, such as interest payments on credit card debt. Current practice in collecting income microdata invariably covers only interest income receivable, not interest payable.



### *Cash transfers*

People may receive cash transfers from government or from charities. Generally speaking, the largest category is likely to be from government.

There are two main types of transfer. The first are those to which entitlement has been secured by previous contributions made by individuals, or by employers on their behalf. Schemes of this sort controlled and financed by government are known as social security schemes, and together with private schemes are collectively known as social insurance schemes. The second type of transfer is that for which no previous contributions are required to acquire eligibility. These are referred to as social assistance benefits. Social assistance benefits may be means and/or assets tested – that is, eligibility may depend on the recipient having less than a certain level of income or assets - or they may be universally available to all or to a particular type of citizen (for example, child benefits). Social assistance benefits and social insurance benefits are collectively referred to as social benefits.

People may in addition receive transfers from other households. Examples include cash gifts, payments of alimony or child maintenance, and cash inheritances. This is one of the most difficult areas in which to decide what should and should not be included in the definition of income. In trying to remain true to the starting question – can the receipt be spent today? – the micro-analyst may wish to exclude receipts which are irregular and/or ‘large’, regarding these as ‘windfall’ income more likely to be saved than spent. However, this begs the question of what is large and what is irregular. One distinction that some find useful is whether these transfers are mandatory (eg as a result of a legally binding agreement) or voluntary, though determining such a distinction accurately is difficult and will also be affected by institutional differences between countries.

Whatever decisions are taken about which, if any, inter-household transfers are to be included, they must not only be added to the income of recipients but also be deducted from the income of donors. Otherwise double-counting will take place at the aggregate level.

### *Taxes*

The sum of the elements described above may be referred to variously as gross cash income or total cash income. However, there is an issue as to whether to express income before or after the deduction of direct taxes. The individual may not regard such involuntary deductions as part of their income because they reduce their capacity to consume, and if tax is deducted at source they may have little idea of the amount paid. It is therefore common to present income distributions both gross and net of direct taxes, even though in some countries data are only collected on a net basis and grossed up to pretax levels using simulation models.

#### *3.2.2 Beyond cash income*

As one moves beyond the elements of cash income briefly described above, the inclusion of further income components becomes more controversial.

### *Income in kind*

There can be in-kind counterparts to most of the elements of cash income listed above. For example, an employer-provided car may form part of a total remuneration package; in many countries households produce goods for their own consumption as well as for sale or for barter; some social assistance payments may be non-cash such as food stamps or payment of rent; gifts between households may be goods rather than cash.

In addition, there is a class of components known collectively as social transfers in kind. These are government-provided goods and services which benefit the individual but are free, or mainly free, at the point of use. Examples include health care and education.

The main conceptual difficulty in including in-kind income is that the benefit received may not be clear to the individual because they are not able to influence directly the way in which this part of

their 'income' is spent. They may even feel that they do not receive any benefit from it: they do not 'feel better off today'.

There are also considerable difficulties in valuation: imputations have to be made and the greater extent of the imputation the more risk there is of the resulting statistics being vulnerable to statistical artifact. It may only be possible to make imputations less frequently than cash-based estimates are available. They may also be produced with less timeliness, if the modeling can only be done after cash-based estimates have been compiled.

On the other hand, some items such as food stamps have a clear cash value and there is some discretion in how they are spent. Some analysts may decide to include such items in a broader measure of income. In developing countries, incomes of many households would be seriously understated if a valuation were not to be made of the goods which they produce for their own consumption: in this case the issue is not whether to value this income, but how.

### *Changes in net worth*

Many households receive capital transfers and benefit from capital gains which they may or may not realise. Decisions have to be made as to whether any or all of these should be included in a definition of household income. Selling assets or realising capital gains can sometimes enable a household to meet its everyday needs for food, clothing and shelter which would argue for their inclusion. Section 4 addresses these issues.

### **3.3 Reconciling the micro and macro approaches**

The main framework developed for analysis of income at the macro level is the System of National Accounts (SNA). The SNA has been evolving over decades and is a comprehensive system for expressing in statistical terms most elements of a country's economy in a way which articulates the roles of, and interrelationships between, the various sectors of the economy. The household sector is one such sector. Clear definitions based on economic theory have been set out most recently in the 1993 System of National Accounts (SNA93) and the 1995 European System of Accounts (ESA95). Some components of the conceptual definition are more straightforward to define and measure than others, and there continues to be discussion about the treatment of some components. Nevertheless the SNA represents an international standard which is widely accepted and applied.

One way of expressing the difference between the micro approach and that of the national accounts is that in the national accounts income is categorised according to the type of transaction which gives rise to the flow, whereas the micro approach categorises income according to the means of payment (eg cash versus kind).

However, notwithstanding these differences of approach there are several reasons to try to maximise comparability between income distribution statistics and household income as defined for the national accounts. First, there is a greater likelihood that any datasets collected can be used for multiple purposes. Second, statistics compiled under the different frameworks can be compared as part of a mutual checking process, and users can be confident that different sets of statistics can be brought together if so required for analytic purposes – indeed, it may be a considerable dis-service to users if two sets of statistics both labeled 'household income' appear to produce quite different results and, possibly, different implications for social policy. Many of the conceptual difficulties encountered in drawing together the guidelines on household income distribution statistics are the same or similar to those faced in developing related guidelines such as the SNA. While the decisions made about how or how not to treat specific situations might sometimes be relatively arbitrary, it is sensible to adopt a consistent treatment across frameworks if possible.

In SNA93, the theoretical view of disposable income is defined as:

**‘.. the maximum amount that a household or other unit can afford to spend on consumption goods or services during the accounting period without having to finance its expenditure by**

**reducing its cash, by disposing of other financial or non-financial assets or by increasing its liabilities.’ (SNA93 para 8.15).**

It can be seen that the definition of income developed in the previous section is very similar to this. It is also closely aligned with that described by Hicks. Thus the Canberra group felt that the SNA definition could be accepted for household income distribution work also.

Nevertheless, there are good reasons in some areas for departing from the recommendations embodied in the SNA, reflecting the different purposes of the statistics to be compiled. The definitions developed below therefore differ from the SNA in several respects. Income distribution statistics are primarily concerned with a particular set of micro-economic issues and require the construction of statistics which reflect the circumstances of individual households. The SNA is concerned with macro-economic issues and the household sector is but one sector of interest. It follows, for example, that some recommendations in the SNA that are targeted at non-household sectors but impact on the household sector in aggregate are better ignored in compiling household income distribution statistics.

The second paper in this session discusses these issues in detail and shows how the macro and micro approaches may be reconciled.

## **4 Income versus capital accumulation**

### ***4.1 Current and capital transfers***

Capital transfers usually refer to an addition to, or disposal of, capital or net worth. Current transfers, on the other hand, can be expected to be mostly available for consumption during the accounting period. If a transfer is treated as current rather than capital, it will of course increase the receipts available for consumption and saving.

The SNA notes that ‘a prudent household will not treat a capital transfer that happens to be received during a particular period as being wholly available for final consumption within the same accounting period.’ (SNA93 8.31).

In practice, it is not always simple to differentiate between current and capital transfers received by households. Micro-analysts usually make the assumption that ‘capital transfers tend to be large, infrequent and irregular, whereas current transfers tend to be comparatively small and are often made frequently and regularly’, which is in fact the SNA advice.

An example adopted in these guidelines is in relation to termination and redundancy payments made by employers to employees. These payments have been included in the measure of employee income, as they are in the SNA. However, they will vary in size for different households and also vary in the manner in which households regard them. For some households, they may represent a means of financing consumption expenditure for a period while the recipient looks for another job. For other recipients, they may be large enough to be viewed as a worthwhile addition to the household’s assets.

### ***4.2 Capital/holding gains***

The theoretical argument for including capital gains in an extended measure of income is that this would be in line with the definition of income leaving a household as well off at the end of the accounting period as at the beginning. Capital gains do have an affect on the economic power of households and may affect their decisions on consumption.

There are several possible different measures of capital gains and arguments can be made for the inclusion or exclusion of most of them. The details of the measures and the rationale for the suggested solution is dealt with in the second paper in this session. In brief, though, the position is that capital gains should be treated as a memorandum item which may, optionally, be added to income measures for certain analyses.

## 5 The components of income and its aggregates

### 5.1 Introduction

This section provides an overview of the components to be included in various measures of income. Table 2.1 is a tabular summary and the Appendix provides more detailed information. Note that the lower level of detail shown in Table 2.1 is not necessarily exhaustive.

**Table 2.1 Definitions of income**

<b>1</b>	<b>Employee income</b>
1.1	Cash wages and salaries
1.2	Tips and bonuses
1.3	Profit sharing including stock options
1.4	Severance and termination pay
1.5	Allowances payable for working in remote locations etc, where part of conditions of employment
1.6	Goods and services provided to employee as part of employment package
1.7	Employers' social insurance contributions
<b>2</b>	<b>Income from self-employment</b>
2.1	Profit/loss from unincorporated enterprise
2.2	Income less expenses from rentals, except rent of land
2.3	Royalties
<b>3</b>	<b>Property income receivable</b>
3.1	Interest receivable
3.2	Dividends receivable
3.3	Profits from capital investment in unincorporated businesses
3.4	Rent from land
<b>4</b>	<b>Current transfers receivable</b>
4.1	Social assistance benefits in cash from government
4.2	Social insurance benefits in cash from government schemes
4.3	Social insurance benefits from private schemes
4.4	Scholarships and other educational assistance, excluding loans
4.5	Regular family support receivable
4.6	Regular support received from charities
4.7	Regular transfers from the rest of the world
<b>5</b>	<b>Imputed income</b>
5.1	Goods produced for home consumption
5.2	Household services produced for home consumption
5.3	Income less expenses from owner-occupied dwellings
<b>6</b>	<b>Total income</b> (sum of 1 to 5)
<b>7</b>	<b>Current transfers payable</b>
7.1	Employers' social insurance contributions
7.2	Employees' social insurance contributions
7.3	Regular family support payable
7.4	Taxes on income
7.5	Regular taxes on wealth
7.6	Compulsory fees and fines for hunting, shooting and fishing
7.7	Regular transfers to rest of world
<b>8</b>	<b>Disposable income</b> (6 less 7)
<b>9</b>	<b>Social transfers in kind (STIK) receivable</b>
9.1	Social security benefits in the form of reimbursements
9.2	Other social security benefits in kind
9.3	Social assistance benefits in kind
9.4	Transfers of individual non-market services in kind
<b>10</b>	<b>Adjusted disposable income</b> (8 plus 9)

## **5.2 Total income and its components**

The first measure of aggregate income to be built up is 'total income'. It is called 'total' because it is the gross measure assembled before netting off the components required to derive 'disposable income'. Total income includes a number of subaggregates.

### *5.2.1 Employee income*

Employee income is the sum of remuneration received from an employer in both cash and non-cash form. It includes payments made by the employer on the employee's behalf, for example into a private or government pension fund.

### *5.2.2 Income from self-employment*

Income from self-employment is the return to the labour and the capital of the proprietors working in their own unincorporated businesses. It is called 'mixed income' in the SNA.

### *5.2.3 Property income receivable*

Property income is the receipts less expenses accruing as a result of the ownership of land and financial assets for which there is usually a monetary return.

### *5.2.4 Current transfers receivable*

Transfers are payments and receipts made without a "quid pro quo". The most common are payments of taxes to government, the payments of social insurance contributions and receipts of social benefits. All of these tend to be regular and predictable in certain circumstances. There are other transfers which are sporadic and less predictable for example gifts between households or donations to charities.

A distinction is made between current and capital transfers as explained above and at this point the concern is with current transfers only. Moreover, it is with only those transfers which can be regarded as "regular" and often are compulsory either under law or some similar obligation. The most important transfers to include in addition to taxes and social benefits transactions are alimony and child support paid either under a court order or with similar obligation. These are referred to as "regular family support".

For income distribution statistics, it is not desirable to count all transfers receivable as income. Only those which are compulsory or regarded as regular family support are so treated. Other transfers, usually relatively insignificant, are treated in this manual not as transfers on income but as transfers of expenditure and are taken up in the second paper in this session.

### *5.2.5 Imputed income*

Households not only consume goods and services which they purchase or receive from others, but also goods and services which they produce themselves. It is important that household production for own consumption is included in measures of income when it is a significant element of economic well-being. If it is omitted, comparisons between countries, over time or between income groups are likely to be deficient.

Imputed income includes goods produced for home consumption, household services produced for home consumption, and income less expenses from owner-occupied dwellings.

### *5.2.6 Total income*

Is the sum of all the above

### **5.3 Disposable income**

#### *5.3.1 Current transfers payable*

This item is the counterpart of current transfers receivable above and includes taxes paid on income, social insurance contributions and payments of regular family support.

#### *5.3.2 Disposable income*

‘Disposable income’ is derived from total income by deducting current transfers payable.

### **5.4 Adjusted disposable income and social transfers in kind**

Disposable income can be augmented to include social transfers in kind (STIK) receivable, thereby creating the measure ‘adjusted disposable income’.

#### *5.4.1 Social transfers in kind*

In all countries, government provides some services to individual households, usually targeted towards meeting specific needs such as education, health and social welfare. These services are referred to as individual services since they are identifiable as being consumed by individual households. In general the extent to which one household benefits affects the extent of the benefit which can be offered to other households. In addition, government provides services such as public administration, law and order and defence services. These are available to all households collectively and no allocative process is involved. Such services are referred to in the national accounts as collective services and often by economists as pure public goods.

The level of well-being of households is affected by the level of collective services provided by government. Since the range and level of services provided differs between countries, it could be argued that in cross-country comparisons some allowance could be made for the extent of collective services provided. However, it is difficult to find a metric by which it would be possible to say by how much greater expenditure on defence or on road-building increased the well-being of the inhabitants. Because of this difficulty, it is not usual to involve the level of government collective services in income comparisons.

By contrast, the level and distribution of individual services does affect comparisons across different groups of households, where levels of entitlement may vary from one to another and across countries where the extent of state provision differs markedly. STIK therefore may be included to allow for a fuller allocation of individual consumption expenditure to households.

STIK are defined as benefits provided by government and non-profit institutions serving households (NPISHs) to individual households either free or at greatly reduced cost at the point of use. They are subdivided into four categories.

- Social security benefits in the form of reimbursements
- Other social security benefits in kind
- Social assistance benefits in kind
- Transfers of individual non-market goods and services

Social security benefits in the form of reimbursements cover the reimbursements that households receive from social security funds for specified types of expenditure. They typically include medical and dental expenditures. The social security fund is regarded as providing the benefit directly to the beneficiary in kind, with the beneficiary acting as the agent of the fund in the purchase of the item concerned.

Other social security benefits in kind are typically also medical or dental in nature, but involve the provision of goods and services direct to the recipient and thus do not require reimbursement. Social

assistance benefits in kind are also similar but are not provided through a social insurance scheme, for example food vouchers for low income families.

Transfers of individual non-market goods and services includes expenditure on behalf of individual households by government and NPISHs for goods and services such as education, housing, cultural and recreational services.

There are a number of ways in which social transfers in kind can be allocated. One basis is that of entitlement to the benefit; depending on the household characteristics, the value of the entitlement is calculated such that the total of all entitlements across all households is equal to the value of the services provided. This method begs two rather important questions. The first is that it is commonly observed that actual take-up of social benefits falls below the level which would be observed if everyone took up their full entitlement. However, since the amount of services distributed reflects the extent of non-take-up, we simply assume that the global level of entitlement is scaled back to the total value of take-up. The second and very vexed question refers to the value to be placed on the services provided without direct cost to the beneficiaries. This matter is taken up again and at length later in these guidelines. Here we follow the national accounts convention that the value of the service is equal to the cost of providing it. Under this assumption, all households with equal entitlement are assumed to be equally better off by the provision of the state of the services in question, regardless of whether they actually avail themselves of the entitlement or not. One could regard the entitlement as equivalent to an insurance premium guaranteeing that the service would be provided if needed.

Conceptually it would also be possible to allocate the services on the basis of actual take-up. For some purposes, as discussed further below, this may give very useful information but it is not necessarily appropriate when thinking of the income equivalent of services provided. It may seem acceptable when considering a parent opting out of the government provided education system and choosing instead to send children to fee-paying schools, but it is less acceptable in the case of health services. It is difficult to see when it would be desirable to reclassify a poor household to a rich category simply because they had the misfortune to require extensive medical services.

There is a third alternative for allocating social transfers in kind, frequently referred to as the insurance basis of allocation. Under this, there is no specific allocation to individual households but instead an allocation is made to a group of households depending on the average take-up for the group as a whole. Normally, this means of allocation will give a distribution fairly close to an allocation by entitlement but may show some drift if the level of take-up is strongly correlated with the groups of households being considered – for example, in the case of health services the distribution may be skewed towards the elderly. Note also that if the grouping of households is changed, the allocation by insurance principle would have to be redone. As a result, the implicit allocation for an individual household will change if the previous and new groups of households with which it is associated have different patterns of take-up of the service in question.

## **5.5 *Choosing between income measures***

### **5.5.1 *Total, disposable and adjusted disposable income***

Total income is the broadest measure of income. Because it is measured after the receipt of property and transfer receipts but before any payments are made, at the aggregate household level there is a degree of double counting. The extent of this will vary from country to country depending on institutional arrangements. The more extensive are the social insurance schemes, for example, the higher total income will be relative to, say, income from employment. On the other hand, total income may be easier to measure than some of the other aggregates and thus be felt to be more reliable.

Disposable income is usually the preferred measure for income distribution analysis. It is freer of the impact of institutional arrangements than total income and provides a closer approximation to the

receipts that are available for consumption during the accounting period. Given that most income tax regimes are intended to be progressive, measurement of income after tax is likely to be more equally distributed than income before tax.

Adjusted disposable income takes this “income levelling” one stage further since a major objective of government in making essential services available via social transfers in kind is normally to effect a more equal access to the services.

Measuring the value of social transfers in kind received by individual households, or even groups of households, will generally only be possible indirectly via simulation models.

### *5.5.2 Cash only or cash and non-cash income*

Cash income allows the recipient to choose between spending and saving the income. It also allows them to decide how that money will be spent and the type of consumption items to be purchased.

However, despite the attraction of the convenience of using cash income data only, this measure falls short of valuing the economic resources enjoyed by the household. Of particular concern is that the relative mix of cash and non-cash income may differ significantly across population groups.

The relationship between cash and non-cash income may also differ between countries and within a country over time. While the majority of income receipts in developed countries may be in cash, for people in developing countries, a very large proportion of income may be received in a non-cash form. The most important form of non-cash income in developing countries is subsistence agriculture.

Similarly, within a country, there may be changes over time to the cash and non-cash mix of remuneration of employees. This may occur, for example, when ‘salary sacrifice’ is used to gain fringe benefits or employer contributions to pension funds. Changes to tax regimes within a country may make either cash or non-cash receipts more attractive and result in distortions in time trends if the measure of cash income only is used.

## **5.6 Accounting for indirect taxes**

Adjusted disposable income is the preferred measure when the topic of interest is the total redistributive effect of government intervention in the form of benefits and taxes on income distribution. In such studies it may also be desirable to impute the value of indirect taxes embodied in consumption expenditure to complete the picture. It is then possible to contrast the value of social transfers in cash and in kind with the total value of taxes paid, both direct taxes which are included in transfers payable and indirect taxes which form part of consumption expenditure.

## **6 Extension to consumption and accumulation**

### **6.1 Introduction**

In previous sections, there has been discussion about the boundaries between income flows and capital flows, and about household consumption and saving. Table 2.2 shows how the various concepts are brought together in an integrated way, building up to a measure of the change in net worth due to saving and net capital transfers which is called ‘Net accumulation of capital’. It includes both financial and non-financial capital, but excludes holding gains and losses.

Most of the items included in Table 2.2 have been discussed in earlier sections of this chapter, especially Section 4, Income versus capital accumulation, and so only household consumption expenditure and holding gains and losses are discussed further here.



## **6.2 Household consumption expenditure**

Household consumption expenditure includes the value of all goods and services provided in kind from employers or as a result of home production (including the value of imputed rent for owner-occupied dwellings) which have been included in total income. It should not include costs incurred in generating income from self-employment. Nor should it include costs incurred in generating imputed rent from owner-occupied dwellings or other home production if those items contribute to the measure of income. However, if in practice they do not, then the input costs should be included in household consumption expenditure so that the appropriate value of household saving can still be derived.

Aggregate expenditure may be disaggregated in different ways to support different types of analysis.

First, as mentioned in Section 5.6, Accounting for indirect taxes, it may be desirable to identify the indirect taxes included in the value of consumption expenditure if the full redistributive effect of government intervention in the form of benefits and taxes on income distribution is to be analysed.

Second, consumption expenditure is sometimes broken down by type of expenditure. For some analyses it is of interest to know what proportion of expenditure is related to undertaking paid employment. For other analyses it is useful to have housing costs separately available so that a measure of income minus housing costs can be derived. This measure can be especially important if the implemented version of total income does not include income less expenses from owner-occupied dwellings. More comparable proxies for income can then be produced by taking total income less housing costs, where housing costs include the input costs of owner-occupied dwellings.

## **6.3 Holdings gains and losses**

As described briefly in Section 4.2, Capital/holding gains, holdings gains and losses are not regarded as income, and the following paragraphs elaborate on that explanation.

For a start, there is a language problem with the terms ‘holding gains’ or ‘capital gains’, stemming from the number of complicated ways of reckoning capital gains. (These are described as holding gains in the SNA to make clear that they refer not only to gains on fixed capital but also, and more importantly, to gains on financial and other assets also.) It is easiest to explain with a simple example.

Suppose I buy an asset for 100 and five years later it is worth 500. Over five years there has been a nominal holding gain of 400. If I sell the asset, I have a realised holding gain of 400. If I do not sell the asset I have an unrealised gain of 400. This gain, however, relates to the five year period and for our income calculations, we would only want the gain within the relevant accounting period, say a year. Suppose at the end of the previous year the asset was worth 450. During this year, the nominal holding gain is 50. Suppose the rate of inflation in the year is 10 per cent. Then 45 of this 50 is needed simply to maintain the real value of the asset. This 45 is called the neutral holding gain. The real holding gain is the remaining 5.

What should be included in income? The SNA says none of them because income must be measured on the same basis as production where holding gains are rigorously excluded. It can be argued that for some analyses one might want to include the real holding gain of 5. This accords with the income definition of being as well off at the end of the period as at the beginning. For some purposes one might conceivably want to include the whole of the 50 (though never the 400), but this may also represent a form of double counting. For example, if the value of a share increases because of the increased performance of the company concerned, the increase in the share will be related to the increase in dividends expected in the coming years. To count both as income would be to count the same income flow in two periods.

The treatment adopted in these guidelines is to exclude all holding gains and losses from both income and the measure of net accumulation of capital, and to record them as a separate memo item.

**Table 2.2 Extension of definition of income to consumption and accumulation**

<b>11</b>	<b>Household consumption expenditure</b> (incl. consumption in kind except STIK)
11.1a	Work related expenses (travel, childcare, etc), excluding indirect taxes
11.1b	Indirect taxes on work related expenses (travel, childcare, etc)
11.2a	Housing consumption (actual rent, housing subsidies, imputed rent of owner-occupiers), excluding indirect taxes
11.2b	Indirect taxes on housing consumption
11.3a	Other household consumption expenditure, excluding indirect taxes
11.3b	Indirect taxes on other household consumption expenditure
11.4	Interest payable on consumer debt
<b>12</b>	<b>Social transfers in kind receivable</b> (equals 9)
<b>13</b>	<b>Household actual consumption</b> (11 plus 12)
14	<b>Household saving</b> (8 less 11, or 10 less 13)
<b>15</b>	<b>Capital transfers receivable</b>
15.1	Inheritances
15.2	Lottery winnings and other windfall gains
<b>16</b>	<b>Capital transfers payable</b>
16.1	Tax on inheritances
16.2	Periodic taxes on wealth (including taxes on holding gains and losses)
<b>17</b>	<b>Net accumulation of capital</b> (14 plus 15 less 16)
<b>18</b>	<b>Memo item: Holding gains and losses</b>

## 7 Other conceptual issues

### 7.1 Statistical units

In compiling income statistics for the analysis of economic well-being, there are a number of statistical units that could be used, including persons, families and households.

Economic well-being is an individual rather than a collective experience. However, the use of the individual as the primary unit for income distribution analysis is not recommended because individuals often share income with others with whom they live. To use the individual as the statistical unit would mean that economically dependent spouses, for example, would be seen as living in poverty when they may in fact share substantial income received by their partner and children. Thus to attempt to make an accurate estimate of individual income would require data on transfers made within the living unit, a virtual impossibility.

The statistical unit for analysis of economic well-being therefore has to be one where assumptions of sharing of economic resources are most plausible. Ideally, the unit should be one where an assumption can be made that the well-being of any individual in the unit can be assessed on the basis of the combined economic resources of all members. There are two main choices: the family (all related members sharing the same dwelling unit) or household (all members related or unrelated who share the same dwelling unit). The family might seem the most natural unit for sharing, but its use would ignore unrelated individuals living together who may share common household goods and who will share economies of scale associated with living together. While the extent of sharing of resources within these units may also be extremely variable, the household is usually adopted as the unit for analysis of economic well-being. As well as best capturing the true level of living of all persons, it is also the unit for which the full accounting of income, consumption and accumulation can most easily be made.

The statistical unit may change, however, for different types of studies. For example, the individual will be a more appropriate unit in a study of income where the return to labour is of interest and the

focus is on the wages and salary component of income, which can be reliably ascribed to the individual.

### *7.1.1 Equivalence scales*

One complication posed by use of the household as the statistical unit is that households vary in size and composition and such differences between households mean that their relative needs will be different. For example, a large household will have a lower standard of living from the same income as that received by a small household, all other things being equal. Costs incurred by household members also differ according to their age, student status, labour force status and so on. The different needs of household members may be taken into account by use of equivalence scales, whereby household incomes are recalibrated according to the household composition. In practice, the weighting pattern underlying equivalence scales usually only takes into account the number of people in the household and whether they are children or adults. Various weighting patterns have been proposed for use in equivalence scales, but they mostly yield similar results.

Further discussion on statistical units and equivalence scales is provided elsewhere in these guidelines.

## **7.2 Accounting period**

There are some types of receipt such as interest, dividends, and income from seasonal activities such as agriculture and tourism, which tend to be received on an annual cycle. As they are essentially 'regular' receipts and should contribute to the measure of income, a year is the minimum accounting period that should be used for them.

A twelve-month reference period is also the usual period for which owners of small enterprises derive a measure of profit or loss for their business. If income statistics are compiled from administrative records such as income tax data, the data for wage and salary earners are also likely to be only available with a twelve-month reference period.

While a one-year reference period is both the desirable and practical accounting period in many situations, there are other circumstances where this may not be so. If income data is collected by means of household surveys, wage and salary income and any regular transfers received will normally be reported more easily and more accurately if information is only sought with respect to the previous week or month. For practical purposes it may therefore be best to collect different types of data with different accounting periods and standardise them for analytical purposes, even though an element of non-comparability is introduced. Also, the shorter period used for some components will not always be typical of the full period.

It should also be noted that different accounting periods may suit different types of analysis. For example, studies of income distribution within the population would produce larger measures of inequality if income were measured for a twelve month period than if income were measured as an average across a person's lifetime. Students, for example, may be poor this year, but be building up skills to provide for an above average income across their working life. On the other hand, life-time average income will not be a very useful measure for governments and other organisations concerned with assisting those in poverty today.

## **7.3 Cross-country comparisons**

The difficult task of producing cross-country comparisons of income distribution has been greatly assisted by work carried out by the Luxembourg Income Study group in the 1990s. Most cross-country studies of income inequality and poverty produce income data in relative terms, that is, poverty studies will describe the fraction of persons with income less than some fraction of the average or median. However, analysts and policy makers are also interested in the relative standards of living in different countries in real terms. They are interested, for example, in the 'real' living

standards of the poor in one country compared to the 'real' living standards of the poor in another country.

### *7.3.1 Purchasing power parities*

Macroeconomists have for some time used purchasing power parities (PPP) to transform relative incomes expressed in different countries' currencies onto a common base. PPPs have been developed from National Accounts data coupled with cross-country surveys of 'average' market baskets of goods and services relevant to the whole economy. The PPPs compiled for private final consumption expenditure assist international comparison of the purchasing power of disposable income. They may not be so appropriate for the comparison of social transfers in kind receivable, and elements of government final consumption expenditure could be considered here. Paper 4 in this session, Cross-country comparisons, examines PPPs in more detail.

Differences in household structure and institutional arrangements between countries need to be taken into account for cross-country comparisons. The use of equivalence scales, as discussed in the section on statistical units, should help to address the former problem. The latter problem will normally be best handled by implementing a definition of income that is as comparable as possible.

### *7.4 Comparisons over time*

Intra-country comparisons over time face similar difficulties as cross-country comparisons. They too can be addressed by using equivalence scales and implementing a definition of income as comparable as possible. Where price changes over time are of interest, most countries can draw on suitable consumer price indexes, analogous to PPPs in the international sphere.

## **Appendix: Definitions of the components of income**

### **1 - Employee income**

Employee income is the sum of remuneration received from an employer in both cash and non-cash form.

#### ***1.1 - Cash wages and salaries***

*Includes:* Wages and salaries paid in cash for time worked or work done in all jobs  
Remuneration for time not worked (such as annual holidays)  
Overtime  
Fees paid to directors of incorporated enterprises  
Piece rate payments  
Sums paid for fostering children, even though the payments may be made out of a government assistance programme (regarded as payment for labour)

#### *Additional comments*

Sums paid for fostering children is included because it is viewed as being more akin to a payment for services provided by the household, rather than a social transfer.

#### ***1.2 - Tips and bonuses***

*Includes:* Tips and gratuities  
Thirteenth month payment  
Bonuses paid in cash

#### ***1.3 - Profit sharing including stock options***

*Includes:* Benefits based on profit sharing, excluding cash bonuses

#### ***1.4 - Severance and termination pay***

*Includes:* Payments designed to compensate for employment ending before the employee has reached the normal retirement point for that job.

*Excludes:* Lump sum retirement payments, which are included in social insurance benefits receivable.

#### *Additional comments*

The normal retirement point is likely to vary between jobs. For example, it is common for members of the armed forces and police forces to be entitled to retirement pensions and other benefits at a relatively early age. Severance pay may be payable before retirement age depending on contractual arrangements.

#### ***1.5 - Allowances payable for working in remote locations etc, where part of conditions of employment***

*Includes:* Allowances paid to cover expenses such as living in special quarters when relocation is part of the conditions of service of the job.

*Excludes:* Allowances for purely work-related expenses such as those for travel and protective clothing (regarded as a cost to the employer)

#### *Additional comments*

If the income estimates are being compared to expenditure estimates, the expenditure estimates should exclude the corresponding purely work-related expenses met by the employer.

### ***1.6 - Goods and services provided to employee as part of employment package***

*Includes:* The receipts from employers often called ‘fringe benefits’, including transport, telephone bills, housing, medical expenses, low interest subsidy on finance, child care, subsidised vacations, etc.

Where employee expenditure is subsidised, rather than paid for in full by the employer, only the employer’s contribution is included here.

*Excludes:* Employer’s social contributions, which are included as a separate item

Purely work-related expenses (regarded as a cost to the employer)

#### *Additional comments*

In some cases, the employee may receive cash payments under this item, but it will normally be as reimbursement or part-reimbursement for expenditure on a specific form of good or service, and therefore the benefit can be seen as the provision of goods and services by the employer. Thus the item covers all the items which may be given to an employee as part of the employment package but which cannot be translated into money that is freely available for any purpose of the employee’s choice.

### ***1.7 - Employers’ social insurance contributions***

*Includes:* Employers’ contributions to private retirement (pension) plans  
Employers’ contributions to private health insurance  
Employers’ contributions to life insurance  
Employers’ contributions to other employer insurance schemes (e.g. Disability)  
Employers’ contributions to government social insurance (social security) schemes (including payroll taxes levied for social insurance purposes)

#### *Additional comments*

Some employers, especially government employers, operate unfunded social insurance schemes, that is, they pay out pensions and other benefits on an as-required basis without explicitly setting aside appropriate funds at the time the liability arises. In such cases, this item requires a notional liability to be estimated.

The potential economic well-being of employees for whom social insurance contributions are made is clearly greater than for those for whom contributions are not made, but whose income is identical in all other respects.

The item is included in the definition of total income, but a corresponding amount is subtracted as a transfer payable when deriving disposable income.

#### *Practical implementation*

Employees for whom employers are making social insurance contributions often do not know the size of the contributions, and so cannot provide the information in household surveys. This is certainly the case where the employer operates an unfunded scheme. Therefore this item will often have to be estimated by simulation modelling and/or by obtaining data from the social insurance funds directly. For successful modelling to be undertaken, it may be necessary to collect certain indicative data items from respondents.

Given the difficulties of estimating this item, it may not be possible to do so with the same frequency with which some other income components are estimated. However, it is an important item when analysing income distributions. Firstly, it is likely that including this item will increase the spread of the income distribution because it is a form of remuneration likely to be favoured by those who already have relatively high cash incomes. Secondly, it is likely that this item is becoming more

important over time as so-called ‘remuneration packaging’ increases. Thirdly, the extent of this form of remuneration packaging is likely to differ between countries because of differing taxation and other institutional factors.

## **2 - Income from self-employment**

Income from self-employment is income which is in part a return to labour, but is not employee income. It also often includes a significant proportion of income that is a return to capital invested in unincorporated enterprises (and hence is called ‘mixed income’ in the SNA).

### ***2.1 - Profit/loss from unincorporated enterprise***

*Includes:* Net operating profit or loss accruing to working owners of, or partners in, unincorporated enterprises  
Income less expenses of home production for barter transactions

*Excludes:* Directors’ fees earned by owners of incorporated enterprises, which are treated as employee income  
Dividends earned by owners of incorporated enterprises, which are included in property income  
Profits from capital investment in unincorporated businesses (by ‘sleeping partners’), which are included in property income  
Rental and royalty income, which are included as separate items

#### *Additional comments*

Net operating profit or loss is gross revenue minus operating costs, wages and salaries paid to employees, including social contributions, taxes paid on production and imports, interest paid on business loans, and depreciation of fixed assets. Net operating profit includes in kind goods and services taken out of the enterprise by the owners or partners. Gross revenue includes subsidies received.

A loss is treated as negative income.

Some countries find it useful to distinguish the income of farmers from other self-employed income.

#### *Practical implementation*

Interest payments should always be recorded as a separate item if at all possible to maximise the scope for editing and reconciling data internally and reconciling at an aggregate level with national accounting data and the like.

It may not always be possible to obtain estimates of interest payable that distinguish between interest relating to business loans (which is to be regarded as an operating cost in deriving profit or loss), interest relating to mortgages on owner-occupied housing, and interest relating to consumer credit. If interest payable on business loans cannot be estimated separately from other forms of interest payable, the combined item should be included as negative property income, thereby offsetting interest earned in the property income aggregate. Separate estimates of interest receivable and interest payable should be made if at all possible, however.

In practice, bartered production may not be easily distinguished from own account consumption and the bartering process may be recorded as gifts between households. Further practical difficulties may arise if bartering involves a mix of final consumption and intermediate consumption, for example, if milk is bartered for seeds for planting.

## **2.2 - Income less expenses from rentals, except rent of land**

*Includes:* Rentals from dwellings, business buildings, vehicles, equipment, etc not included in profit/loss of unincorporated enterprises  
Receipts from boarders or lodgers

*Excludes:* Rent from land

### *Additional comments*

Rental income other than for land is regarded as income from self-employment because of the significant entrepreneurial effort usually required to create and maintain the rented items. In contrast, rent from land is regarded as property income.

Also see discussion on interest payable under 2.1 above.

### *Practical implementation*

In practice, the rent of land that has buildings on it cannot usually be separated from the rental value of the buildings themselves. Therefore this item will normally include all rental income except rent for agricultural land.

In practice, it may not be possible to obtain estimates of rental income for some unincorporated enterprises separately from aggregate profit or loss. If this occurs, the problem is not significant as it can still appropriately be aggregated to income from self-employment.

## **2.3 - Royalties**

*Includes:* Royalties earned on writings, inventions and so on not included in profit/loss of unincorporated enterprises

### *Additional comments*

Royalties are regarded as income from self-employment because they are a return to the royalty-holder for effort expended.

## **3 - Property income receivable**

Property income represents the receipts less expenses accruing as a result of the ownership of assets for which there is a usually a monetary return. The non-monetary return accruing to owners of owner-occupied dwellings is therefore excluded here, but there is a separate category for it under imputed income.

### **3.1 - Interest receivable**

*Includes:* Interest receivable not included in profit/loss of unincorporated enterprises  
Interest paying assets include bank accounts, certificates of deposit, bonds and the like

### *Additional comments*

If interest payable on business loans, on loans used to purchase owner-occupied dwellings or on consumer debt cannot be estimated separately from other forms of interest payable, the combined item should be included here as negative property income, thereby offsetting interest earned in the property income aggregate. Separate estimates of interest receivable and interest payable should be made if at all possible, however.

### *Practical implementation*

In principle, interest should be recorded on an accruals basis, that is when it is due to be paid and not when it is actually paid. This difference can sometimes be significant, but at a household level it is likely that only interest paid can be estimated.



### **3.2 - Dividends receivable**

Dividends represent the return to someone who has invested in an enterprise but does not work in it themselves. For incorporated enterprises they will simply be called dividends. For other enterprises they are referred to by national accountants as withdrawals from non-corporate enterprises. This latter term should include payments to sleeping partners.

*Includes:* Dividends paid by incorporated enterprises  
Income received from stock holdings and mutual fund shares  
Withdrawals from non-corporate enterprises

#### *Practical implementation*

In principle, dividends should be recorded on an accruals basis, that is when they are due to be paid and not when they are actually paid. This difference can sometimes be significant, but at a household level it is likely that only dividends paid can be estimated.

### **3.3 - Profits from capital investment in unincorporated businesses**

*Includes:* Withdrawals from non-corporate enterprises that are not included in income from self-employment, such as payments to ‘sleeping partners’

### **3.4 - Rent from land**

*Includes:* Rent from land not included in profit/loss of unincorporated enterprises

*Excludes:* Rental income from buildings on land

#### *Practical implementation*

See discussion under 2.2 - Income less expenses from rent, except rent of land

## **4 - Transfers receivable**

Transfers relate to payments and receipts which are made without a “quid pro quo”. They tend to be regular and predictable in certain circumstances, and often are compulsory under law or some similar obligation.

### **4.1 - Social assistance benefits in cash from government**

*Includes:* Age, widows, unemployment, sickness, disability, etc pensions and allowances that are not employment related or dependent on direct contributions to an insurance scheme by the beneficiary  
Maternity, family and child benefits  
Tax credits (see discussion under 7.5, Taxes on income)

*Excludes:* Rental allowances (housing subsidies)  
Medical expenses reimbursed  
Other social benefits in kind

#### *Additional comments*

It may be useful for policy analysis purposes to differentiate between benefits which are means-tested and those which are not.

#### *Practical implementation*

When collecting data on social benefits in household surveys, it is advisable to have a comprehensive list of possible social benefit payments as a checklist.

#### ***4.2 - Social insurance benefits in cash from government***

Social insurance transfers are paid in return for contributions paid by, or on behalf of, the recipient or their beneficiaries. With unfunded employment related benefit schemes, the contributions may be notional but the main criterion is that there is an obligation to pay an employment related benefit.

*Includes:* Employment related pensions and other insurance benefits paid from government schemes  
Lump sum retirement payouts

*Excludes:* Payments from government schemes run entirely for benefit of government employees. They are treated as though they were private schemes (see 4.3).  
Medical expenses reimbursed, which are treated as social transfers in kind.

##### *Additional comments*

The benefits paid here correspond to the social insurance contributions covered by that part of 7.1, Employers' social insurance contributions, and 7.2, Employees' social insurance contributions which are paid into government social security schemes.

It might be argued that lump sum retirement payouts should be treated as capital transfers. However, they have been included as current transfers because in many schemes it is at the discretion of beneficiaries as to whether they take benefits in the form of a lump sum or as a pension. The social contributions which finance the pensions and payout normally have to be treated as one because there is no separate accounting for the two elements within the fund itself. The social contributions are included in transfers payable, and for consistency it is therefore necessary that they both be classified as a current transfer receivable.

##### *Practical implementation*

When collecting data on social benefits in household surveys, it is advisable to have a comprehensive list of possible social benefit payments as a checklist.

#### ***4.3 - Social insurance benefits from private schemes***

Social insurance transfers are paid in return for contributions paid by, or on behalf of, the recipient or their beneficiaries. With unfunded employment related benefit schemes, the contributions may be notional but the main criterion is that there is an obligation to pay an employment related benefit.

*Includes:* Employment related pensions and other insurance benefits paid from private schemes and government schemes run entirely for benefit of government employees  
Military pensions  
Unemployment, sickness, disability, medical, etc benefits paid from private insurance schemes that qualify as social insurance  
Lump sum retirement payouts  
Payments for education of employees' families

*Excludes:* Benefits from private insurance schemes where contributions to the scheme are not mandated by government or associated with employer contributions to the scheme, that is, the contributions are entirely at the discretion of the contributor

##### *Additional comments*

The benefits paid here correspond to the social insurance contributions covered by that part of 7.1, Employers' social insurance contributions, and 7.2, Employees' social insurance contributions, which is paid into private social insurance schemes. See also comment on lump sum retirement payout under 4.2 above.

#### ***4.4 - Scholarships and other educational assistance, excluding loans***

*Includes:* Scholarships and other educational assistance from both government and non-government sources  
Reduction in interest on student loans

#### ***4.5 - Regular family support receivable***

*Includes:* Compulsory alimony and child support receivable  
Voluntary alimony and child support receivable on a regular basis  
Other regular income support payments from relatives living in other households, such as received by children studying away from home or elderly relatives

*Excludes:* Payments from relatives that are not for income support, for example, repayment of a loan

#### *Additional comments*

While there will be an element of arbitrariness in determining whether voluntary support is provided on a regular basis or not, it is important to include the notion of regular voluntary payments because there are different institutional factors between countries governing what is likely to be court imposed and what is not. It would seem logical that payments should be covered even if not paid under a court order as long as it was regular and recognised by the donor as an exclusion from his/her regular disposable income and by the recipient as included in his/hers.

In principle it may be desirable to include also regular payments to children studying away from home and elderly relatives on the same basis, especially since different countries treat children studying away from home differently when defining households.

This item is the counter-entry to 7.4, Regular family support payable.

#### *Practical implementation*

Whatever practical implementation there is for this item, it is essential that the same implementation be used to collect data for item 7.4. If not, there will be double counting or undercounting of disposable income.

#### ***4.6 - Regular support received from charities***

*Includes:* Regular assistance provided by non-profit institutions serving households  
Strike benefits from unions

#### ***4.7 - Regular transfers from rest of world***

*Includes:* Pensions received from overseas governments or employers  
Regular support received from family members overseas

### **5 - Imputed income**

Households not only consume goods and services which they purchase or receive from others, but also goods and services which they produce themselves. Valuation of the goods and services is inherently difficult because there is no market place transaction to which reference can be made. However, it is important that household production for own consumption is included in measures of income where they are a significant element of economic well-being, as discussed below for the individual items. If they are omitted, comparisons between countries, over time or between income groups are likely to be impacted.

The items included in imputed income are goods produced for home consumption, household services produced for home consumption, and income less expenses from owner-occupied houses. Similarly treatment could be given to household durables such as vehicles and appliances. However, this has not been done because their value is not as great as housing, their life is generally not as great as that of a house, and there is not likely to be the same impact on income analysis if they were included.

### ***5.1 - Goods produced for home consumption***

*Includes:* Value of goods produced and consumed within the household less expenses incurred in production.

#### *Additional comments*

Inclusion of this item is particularly important in countries where subsistence agriculture is significant.

#### *Practical implementation*

There should be a corresponding item in any household expenditure estimates that are compared with household income estimates.

### ***5.2 - Household services produced for home consumption***

*Includes:* Value of services produced and consumed within the household less expenses incurred in production.

#### *Additional comments*

This item represents the value of services provided by unpaid household work. Inclusion of data on this item is useful when comparing income distributions over time to account for changes in labour force participation of women or for across country comparisons of economic well-being where labour force participation differences markedly between countries. However, there are real difficulties in estimating the time households spend on such work and in placing a value on the goods and services provided. Such data are often not available. Where data are available there are still considerable problems with interpretation of the broader measure of income derived.

#### *Practical implementation*

There should be an equivalent item in any household expenditure estimates that are compared with household income estimates.

### ***5.3 - Income less expenses from owner-occupied dwellings***

*Includes:* The imputed value of the services of the services provided by a household's residence after deduction of expenses, depreciation and property taxes.

#### *Additional comments*

The treatment of housing presents difficulties in compiling data for comparison either over time or across countries. Some people own a house outright and thus have no regular outgoings for housing. Others live in subsidised housing and have comparatively small outgoings. Often it is some of the poorest households who live in rented accommodation and have to face the highest rental costs.

In order to even the treatment of housing, the SNA treats every house owner as an unincorporated enterprise which leases the house back to household. The value of the lease is set at the market rent for a similar house and the imputed income is equal to this value less the costs incurred by the household in their role as landlord.

#### *Practical implementation*

The value of the rent of owner occupied dwellings should in principle be the market rental value of an exactly similar house. As the rental values of houses depends critically on location and the rental market may be very shallow in many areas because few houses of the same type or in a particular region are rented, it can be difficult to determine appropriate market rents to be used in estimating this item. Particular problems can be expected in remote rural areas and also in shanty dwellings around the large urban areas of developing countries.

The value of the income from the rent is estimated as the imputed rental value less input costs, including maintenance. As with the costs of material for own-account production, the input costs of expenses, depreciation and property taxes should be excluded from consumption expenditure. While it is not likely that estimates of consumption expenditure would include depreciation, care has to be taken that they do not include expenses incurred by owner occupiers such as the purchase of repair materials from hardware stores.

If interest payable on loans used to purchase owner-occupied dwellings cannot be estimated separately from other forms of interest payable, the combined item should be included as negative property income, thereby offsetting interest earned in the property income aggregate. Separate estimates of interest receivable and interest payable should be made if at all possible, however.

## **6 - Total income (sum of 1 to 5)**

Total income is the addition of all cash and non-cash receipts from entities outside the household, including government, enterprises, non-profit organisations and other households. It comprises income from employment, property income and transfers received. Total income also includes the imputed value of goods produced and services provided by the household for its own consumption.

### *Practical implementation*

Some elements of total income are much harder to estimate than others. The first aim should be to include all the elements that represent cash flows received by households. Priority should then be given to estimating the non-cash elements that are likely to have the biggest impact on income distribution analysis in the country concerned.

## **7 - Transfers payable**

This category of compulsory payments comprises mainly taxes on income and compulsory social contributions. These items (along with inter-household family support paid) are deducted from total income to provide a measure of disposable income.

### **7.1 - Employers' social insurance contributions**

This item is identical to 1.7. These contributions are paid by employers on behalf of employees and are treated as income from employment in the total income measure. They are deemed to be transferred immediately back to the employer for addition to the insurance or pension fund holdings of the household. In this way they are not available for consumption during the accounting period.

### *Practical implementation*

However item 1.7 is implemented, the same treatment should be used here.

### **7.2 - Employees' social insurance contributions**

*Includes:* Employees' contributions to government and private social insurance schemes (pension, health, etc.) where the contributions are mandated by government or complementary to contributions made by the employer

*Excludes:* Contributions to private social insurance schemes which are entirely discretionary on the part of the contributor

### **7.3 - Regular family support payable**

*Includes:* Compulsory alimony and child support payable  
Voluntary alimony and child support provided on a regular basis  
Other regular income support payments to relatives living in other households, such as children studying away from home or elderly relatives

*Excludes:* Payments to relatives that are not for income support, for example, repayment of a loan

#### *Additional comments*

This item is the counter-entry to 4.6, Regular family support receivable.

#### *Practical implementation*

Whatever practical implementation there is for 4.6, it is essential that the same implementation be used to collect data for the corresponding item under transfers payable. If not, there will be double counting or undercounting of disposable income.

### **7.4 - Taxes on income**

*Includes:* Income taxes less refunds

#### *Additional comments*

To reconcile exactly with national accounts figures, income taxes should be recorded on an accruals basis. The most significant accruals adjustment is the tax refund many households receive at the end of a fiscal year to rectify overpayment during the year. Other households may receive an additional tax liability statement if there has been an underpayment during the year. Such refunds and additional liability statements should be deducted from or added to tax payments. For self-employed persons, tax is sometimes payable on earnings in the previous year. In these cases it is the tax due in the current year which should be recorded, not the tax which would be due in the subsequent year on the current year's earnings.

Although tax credits are sometimes set against tax receipts, this is not always so and conceptually, and sometimes in practice, they should be treated separately from tax refunds. Tax credits, or tax allowances, serve to reduce the amount of tax payable. In macro data the amount of tax payable is given only after taking tax credits into account. For income distribution work, it may sometimes be desirable to calculate what tax would have been payable in the absence of tax credits and show total tax credits as an off-setting item in order to see the redistributive effects of different tax credit regimes.

There may be cases for some households where tax credits exceed tax liabilities. In some countries this remaining credit is simply lost to the beneficiary. In other countries, the remaining credit may be payable in cash to the beneficiary. In this case, the payments are shown as social assistance and included in item 4.5, Social assistance benefits in cash. It is possible that in such cases, the macro data may not show these credits as payable by the tax authorities who may net them against other tax receivable.

#### *Practical implementation*

The value of a household's income tax liability may not be directly available from the data used to compile income statistics, especially if annual data is not being collected. Estimates of income tax payable will then have to be simulated. There are also difficulties in estimating tax payable by a household when it is levied on individual income.

In some countries it is easier to collect post-tax earnings, in which case income tax liability has to be calculated and added to the earnings figures in order to estimate total income.

### **7.5 - Regular taxes on net worth**

*Includes:* Land taxes (excl those on land used for production)

### **7.6 - Compulsory fees and fines for hunting, shooting and fishing**

*Includes:* Compulsory fees and fines for hunting, shooting and fishing

#### *Additional comments*

Some fines and fees charged by government may be called taxes or commonly referred to as such. Because these vary so much from country to country and the extent of service which may be received in return for paying the fee vary so much, it has proved impossible to determine a persuasive criterion by which to determine what should be regarded as taxes and what as fees for a service. A convention has thus been established that fees paid for hunting, shooting and fishing licences should be regarded as taxes and all other fines and fees payable to government should be regarded as payments for a service. These latter will then form part of the consumption expenditure of the household concerned.

#### *Practical implementation*

In practice, if a distinction between these fees and other fines and fees cannot be made in household survey data sources, it is unlikely that major errors will result.

### **7.7 - Regular transfers to rest of world**

*Includes:* Regular support provided to family members overseas

## **8 - Disposable income (6 less 7)**

When aggregated across households, total income includes a considerable amount of double counting. It includes both social insurance contributions and benefits, and regular family support appears in the income of both the household paying and the household receiving this support. Disposable income is defined as total income minus direct taxes and compulsory transfers and inter-household family support payments. This concept of income provides a measure of those resources available for consumption and for discretionary saving.

## **9 - Social transfers in kind (STIK) receivable**

The items covered by social transfers in kind include individual services of government such as public health and education; provision of social security and social assistance benefits in kind (these are also sometimes referred to as consumer subsidies) and medical expenses which are initially met by individual households but are subsequently reimbursed by government. (This last is a very common means of financing medical services in some countries, particularly in continental Europe.)

### **9.1 - Social security benefits in the form of reimbursements**

*Includes:* Medical expenses reimbursed under government social insurance schemes

### **9.2 - Other social security benefits in kind**

*Includes:* Medical services provided under government social insurance schemes

*Excludes:* The value of any nominal payments made by households for the services

### **9.3 - Social assistance benefits in kind**

*Includes:* Rental allowances (housing subsidies)  
Food subsidies or vouchers  
Subsidy element of publicly owned housing

*Excludes:* The value of any nominal payments made by households for the services

#### *Additional comment*

The subsidy element of public housing should be estimated in a way analogous to the derivation of the rental value of owner-occupied dwellings.

*Includes:* Public education  
Medical services (where not provided under a social insurance scheme)  
Cultural and recreational services

*Excludes:* The value of any nominal payments made by households for the services

### **10 - Adjusted disposable income (8 plus 9)**



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