

International Comparison Program

Ensuring the Consistency of National Accounts for the ICP

Discussion Paper



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ENSURING THE CONSISTENCY OF NATIONAL ACCOUNTS FOR THE ICP¹

1. Introduction

One of the issues that emerged from the 2005 ICP round was the lack of consistency in the national accounts between some countries. Even though virtually all countries claimed to be compiling their national accounts in accordance with either the 1968 or 1993 SNA, it became obvious that there were some significant discrepancies between some countries' accounts because their estimates did not fully cover everything in some important basic headings. The basic heading for imputed rents of owner-occupied dwellings stood out as being a major source of inconsistencies between countries, with a range of estimates from zero to more than 10% of GDP. Other important components were also affected by having less than the full coverage recommended in the SNA. For example, large variations between countries at similar stages of economic development in the levels of own-account production and consumption indicated that some countries' estimates were not completely in accord with the scope defined in the SNA.

2. Some problem areas

Over the past few months the Global Office has identified several basic headings that are not compiled well by many countries. The main reason for the poor estimates in these basic headings is the lack of data on which to base the estimates and the reluctance of the national accountants in some countries to make the assumptions that are necessary to compile reasonable estimates. An important point that needs to be made, though, is that having an estimate that does not fully cover the basic heading (or is even zero in some extreme cases) also involves making an assumption – namely, that the part that is not directly measured is zero, which clearly is a very poor assumption.

In some cases, the omissions and poor coverage affect more than one basic heading (e.g. several basic headings within household final consumption expenditure on food may be affected by not completely covering own-account consumption). Therefore, this paper identifies the problem areas broadly rather than concentrating on them basic heading by basic heading.

The so-called “exhaustiveness” of the national accounts is critical to comparisons of activity levels (as in the ICP) but it is also important in the time series national accounts. As a country's economy develops over time, the share of subsistence production (and consumption) to GDP declines while that of the market sector rises. If the level of subsistence production is understated then the impact of the shift from subsistence production to marketed production will result in the growth in GDP being overstated. Therefore, it is in each country's interest to ensure that its national accounts completely cover the activities defined by the SNA's boundary of production (i.e. that they are exhaustive).

Apart from a general description of the issues associated with exhaustiveness, the national accounts components considered in this paper are:

- own-account production/consumption (particularly focussing on subsistence production);
- income in kind;
- imputed rents;
- consumption of fixed capital by government;

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- FISIM.

In addition, the adjustment in household final consumption expenditure for net expenditures by residents abroad is covered because of the different treatments required to take into account the effects of the various data sources used in compiling HFCE.

3. Exhaustiveness

Exhaustiveness means that all economic activities have to be included in the national accounts, whether legal or not. Experience has shown that the following areas are often under estimated in (or even omitted from) countries' accounts:

- consumption of crops and livestock products that households have produced for themselves;
- food, clothing and household goods sold by street traders or in village markets;
- goods and services that are provided to households by “informal” or “unregistered” producers, such as:
 - food and drinks sold on the street by itinerant vendors;
 - services of unregistered taxi drivers;
 - plumbing, electrical, repairing vehicles, and other household maintenance services;
 - house-cleaning and child-minding;
 - private teaching lessons; and
 - personal services such as hair-cutting and shoe-cleaning;
- goods that have been smuggled into the country from abroad without payment of customs duties and without being recorded in the international trade statistics;
- all government expenditures, including expenditures on the military forces, expenditures by municipal and local authorities, and expenditures by the head of state;
- dwellings that people build for themselves; these may be constructed with traditional materials such as sun-baked rather than fired bricks and with palm fronds and similar thatching materials but they nevertheless constitute gross fixed capital formation and they also provide dwelling services to the owner-occupiers, which are included in household final consumption expenditure;
- illegal activities that contribute significantly to production, such as prostitution and drugs.

Not all these items are necessarily important in all countries, but the national accountants must carefully review their basic source data to ensure that, if any are significant, they are adequately covered in the estimates of final expenditure on GDP.

Eurostat has developed a systematic method (the “Eurostat tabular approach to exhaustiveness”) designed to identify potential sources of understatement in the national accounts due to omissions from the statistical source data used in compiling the accounts. It provides a consistent and complete conceptual framework by classifying adjustments into seven types of “non-exhaustiveness”. It also links the available compilation methods (such as the employment method, fiscal audits, VAT comparisons, etc.) to the non-exhaustiveness types. The distinction between the seven different categories is not important because some things could potentially be classified under more than one heading. Rather, the important aspect is to ensure that all potential sources of omission from the

accounts are identified and included in one of the categories and that there is no duplication across categories.

A detailed description of the Eurostat approach is provided in “The National Accounts Framework in the ICP” (please refer to the Operational Material on the ICP website), together with a set of forms to assist countries in making the adjustments required to ensure their accounts are exhaustive.

4. Own-account production/consumption

The SNA production boundary includes production of all types of goods for own use. In practice it is almost impossible to cover the production of everything that farm households may produce and consume themselves but two types of subsistence are usually important in countries with a large agricultural sector. They are food crops (such as grain, fruit and vegetables) and livestock products (meat, eggs, milk etc).

There is no point in having countries trying to cover subsistence production and consumption of every last type of crop and livestock product but they should be encouraged to include estimates for all the main ones in their country. It is important from both an ICP (activity level) point of view as well as a time series one (changes in activity) because of the potential for own-account consumption to decline in importance over time as the share of market production increases.

5. Income in kind

Employers sometimes partly pay their employees indirectly, through income in kind, which means the employees receive goods and services free or at very low prices as part of their compensation. For example, railway workers may have the right to free train travel, coal miners may receive a regular ration of coal, and members of the armed forces may be provided with free meals. In the national accounts, goods and services provided as income-in-kind are recorded as part of compensation of employees and the same amount is included in individual consumption expenditure by households.

The importance of income in kind may vary significantly across countries. Any countries in which it is potentially important should be encouraged to include appropriate estimates in their national accounts for all major items of income in kind.

6. Imputed rents

The general rule is that rents of dwellings occupied by their owners should be imputed by reference to rents actually paid for similar dwellings. “Similarity” in the case of dwellings is usually judged by considering the type of dwelling (single-family or multi-family), location (city centre, suburban or rural), and facilities (floor-space, running water, indoor toilet, electricity, central heating, etc.). The recommended approach is to complete a matrix of prices showing the average rents actually paid for a number of different types of dwelling. The number of owner-occupied dwellings of each type is then distributed over the same matrix to obtain, by multiplication, the imputed rents of owner-occupiers for each type of dwelling, which are then aggregated to a national total. Problems arise in countries that do not have a well-developed and broadly based rental sector (e.g. the rental sector might be mainly confined to the higher-priced part of the rental market, such as for expatriates working in the country for a relatively short time).

The experience in previous ICP rounds has been that major inconsistencies have arisen between the prices underlying the imputed values of rents for owner-occupied dwellings and the prices supplied for calculating PPPs in the ICP. As a result, a different approach was attempted in the 2005 ICP,

using a questionnaire to obtain details of the numbers of dwellings, classified by type, size, locality, region and facilities available (electricity, inside water, private toilet) underlying the national accounts values of rents of owner-occupied dwellings. However, while such an approach is useful in obtaining better estimates of the real expenditures on dwellings, the cost is that the PPPs have to be derived implicitly. As a result, they will contain any errors that arise from inconsistencies between the prices and the quantities underlying the national accounts values and from any differences between those quantities and the quantities reported in the ICP questionnaire.

It is clear that some countries do not correctly estimate the current value of owner-occupied dwelling rents, with the most likely reason being a lack of the necessary data. An alternative method to the “equivalent rents” approach is the “user cost” method. User cost simulates rents by adding up the costs of renting a dwelling as an alternative to the equivalent rents method. The costs involved are:

- repairs and maintenance;
- insurance;
- taxes on dwellings;
- consumption of fixed capital;
- operating surplus.

Possible data sources are household expenditure surveys for repairs and maintenance, the national accounts estimates of premiums less claims for insurance and the government accounts for taxes on dwellings. Estimates of the dwelling stock at current market prices are required for both consumption of fixed capital (in conjunction with a depreciation rate for dwellings) and operating surplus (together with an estimate of the rate of return).

7. Consumption of fixed capital for government

The 1993 SNA requires that consumption of fixed capital be estimated for “... all types of structures, including those owned and maintained by government units, as well as machinery and equipment” (paragraph 6.186). The national accounts of some countries contain such estimates while those of others do not. Not including an estimate is equivalent to making an assumption that government consumption of fixed capital is zero, which is unlikely to be near the truth. Examining the accounts of a number of different countries shows that it ranges from about 5% of government final consumption expenditure in developing countries to around 10% in some OECD countries. Directly estimating consumption of fixed capital for government would be the ideal way to go but including an estimate of the order of 5-6% of government final consumption expenditure would be preferable to assuming it is zero.

8. FISIM

In the 1968 SNA, FISIM was considered to be entirely the intermediate consumption of a “nominal industry”, which meant that FISIM did not affect the level of GDP because the output of FISIM was completely offset by an equivalent value of intermediate consumption. The 1993 SNA introduced the concept of allocating FISIM across the users of the financial services for which no explicit charges are levied. FISIM can arise from the operations of both resident and non-resident financial institutions, so it is possible to have both exports and imports of FISIM. In practice, FISIM from resident financial institutions should be allocated to households (as final consumption expenditure), to government and businesses (as intermediate consumption) and to non-residents (as exports). Any FISIM from non-residents (i.e. imports of FISIM) should also be allocated. The convention adopted to measure

government output is to sum the costs and so FISIM allocated as intermediate consumption of government becomes part of government final consumption expenditure in the expenditure on GDP.

The 1993 SNA allows the 1968 SNA treatment to be used as an alternative to allocating FISIM. However, a mix of the 1968 and 1993 SNA treatments between countries will lead to biased comparisons of GDP (those countries with FISIM based on the 1968 SNA approach will always be lower than they would have been if FISIM had been allocated). Allocating FISIM across the users of financial services is important for both ICP purposes (because it will affect the level of GDP recorded in a country in 2011) and for time series purposes (because the growth in financial services will be distorted as the extent of direct charging for some financial services changes over time).

9. Net expenditure by residents abroad

If a household expenditure survey (HES) is used to estimate HFCE it is necessary to determine whether or not expenditures by residents abroad are in scope of the HES. If they are, then the amount that should be recorded in net expenditures abroad is zero, because the expenditure by residents abroad has already been recorded in the relevant components of HFCE and the expenditure by non-residents is not part of HFCE. If expenditures by residents abroad are not included in the HES then it will be necessary to add them into HFCE, either as a single line item “Expenditures abroad, residents” or allocated to the relevant components of HFCE. Once again nothing needs to be done for expenditures by non-residents because they are not part of HFCE. The situation in which it is necessary to record details of both residents’ expenditures abroad and non-residents’ expenditures in the country arises when a survey of retailers is used as the data source. In this situation, the data source does not include expenditures by residents abroad but it does include expenditures by non-residents. An adjustment is required to HFCE for both these in this situation. The simplest way of doing so is to use the details in imports and exports of goods and services (which should have been taken from the balance of payments).

The various situations are summarised in the following table:

Data source	Adjustment required to HFCE for expenditures by residents abroad	Adjustment required to HFCE for expenditures by non-residents in the country
HES (residents’ expenditure abroad in-scope)	No	No
HES (residents’ expenditure abroad out-of-scope)	Yes	No
Survey of retailers	Yes	Yes

The reason for the basic heading for net expenditures by residents abroad is to cater for the situations where “Yes” has been answered in the above table.

It is important to note paragraph 9.71 in the 1993 SNA. It makes it clear that “net expenditures abroad” is not an aggregate recognised in the SNA; rather the SNA states it is an adjustment item for the situation when the starting point for estimating HFCE is the total expenditure within the country made by all households, whether resident or not. However, this is not the starting point when the data source for HFCE is a HES with residents’ expenditure abroad being in-scope.

10. Issues for discussion

- (a) Do any INAG members have estimates that would assist in assessing the accuracy and the potential impacts of the national accounts components described above?
- (b) In what order of importance would INAG members rate the potential impacts of the above national accounts components?
- (c) Are there any other potentially important issues that should be added to this list?
- (d) What would be the best way for the Global Office and Regional Coordinators to minimise the problems caused by inconsistencies in the national accounts between countries?

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