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**EXHAUSTIVENESS OF NATIONAL ACCOUNTS AND HIDDEN ECONOMY IN POLAND**

Submitted by the CSO of Poland <sup>1</sup>

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## I. The meaning of exhaustiveness

1. Exhaustiveness of national accounts can be understood in different ways.

2. First, accounts may be regarded as exhaustive when all units, both registered and non registered (including individual persons), are included in the estimates. But this seems not to be enough. Also all kinds of economic activities should be included in the compilation. Which activity is to be treated as economic activity in practice may be a matter of discussion. According to the SNA recommendation both legal and illegal activities should be included in the calculations (however, it may be questioned if we really want to include such activities as e.g. murder for hire and similar ones in GDP calculations). As far as we know not all countries follow this recommendation; at least it is not followed by the Polish CSO where illegal activities are not included in GDP estimates in principle (there are, however, a few exceptions relating not to those kind of activities but to activities performed by non authorized persons, e.g. in construction).

The next question which may be put forward relates to non market household activities within the household sector. These activities consist, on the one hand, of the production of certain goods which are to be consumed by households. (These are marginal values in the developed economies. However, in some countries production of wine for own consumption may be important and production of meat from own livestock<sup>2</sup>. Not to mention narcotics in non-European countries). On the other hand, there are non market service activities such as cooking, cleaning, small repairs, looking after children etc. According to the SNA recommendation - if we are not mistaken - only the first type of household non market activities should in principle be included in the GDP calculation (if it is of some importance). Thus, the SNA recommendations accept a certain lack of exhaustiveness.

3. Another problem relates to the estimates of the value of activities. Are national accounts exhaustive if the full, true value of activities is not included in the estimates but only reported values (whether values are based on full reporting or based on samples)?

It is well known that some economic units, mainly of small and medium size, under-report the value of their activities (e.g. the problem of tax evasion). Is the difference between the true value of an activity and the reported one by a registered unit to be treated simply as measurement error, or as a value created in the hidden economy which should be included in the estimates of GDP in the same way as value created by an unregistered unit which does not report anything to Statistical Office (typical hidden economy which should be included

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2 In practice it is a problem of prices used for the valuation of production destined for own consumption - retail prices or producer (basic) prices of agricultural products.

in the GDP estimates)? According to our experience under-reporting is a widespread phenomenon and hidden values of activities in the registered units should be added to the reported ones if we are to speak about exhaustive national accounts. A special case relates to *non profit institutions*, which in some countries may have no obligation to report to the Statistical Office on the value of their activities, e.g. churches, political parties and trade unions. Omission of estimates of the value of their activities, and treating them as part of household sector (on net basis), seem to be against the SNA principles.

4. Looking on exhaustiveness from another angle one could say that *national accounts are not exhaustive if certain accounts* (eg. financial accounts or balance sheets) *are omitted* from compilation. The same relates to quarterly and regional estimates of GDP. In a step further, exclusion of input-output tables and social accounting matrices as recommended calculations could also be regarded as non exhaustiveness.

## II. Exhaustiveness and reliability

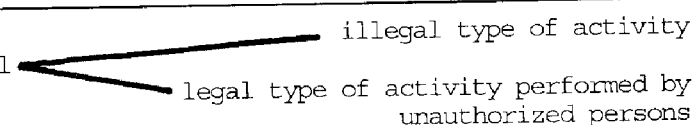
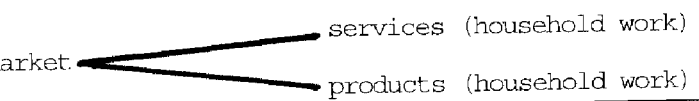
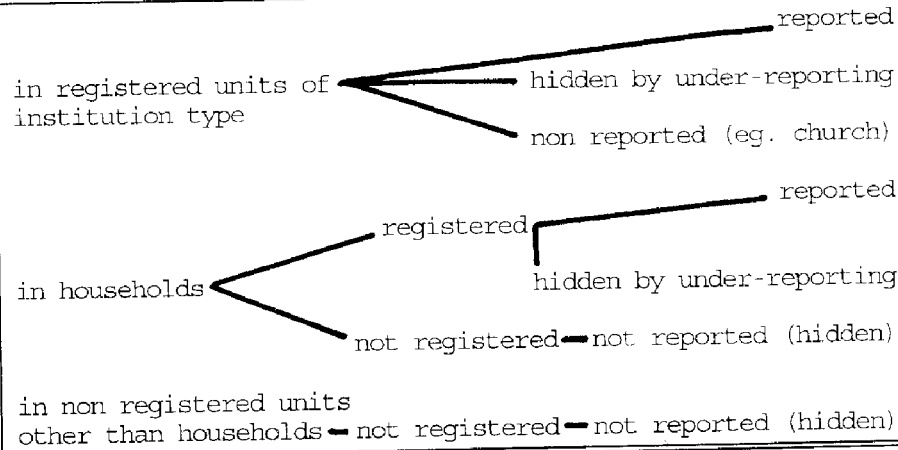
Exhaustive national accounts, in which all economic units, all kind of economic activities and full values of such activities are taken account of, give information which is better suited for economic analysis than information which is based on partial, non exhaustive data. As Keynes has said it is better to be approximately right than totally wrong.

Nevertheless, it has to be admitted that *the more exhaustive national accounts the lower the reliability* of data. In that sense the MPS, in which non market service activities were not included in GDP (national income), was more reliable than the SNA. The old SNA, in which illegal activities or hidden economy activities were not included in GDP estimates, was more reliable than the new SNA which covers all such activities.

We agree in principle that, if it is known that there are some hidden economy activities (legal ones) and some illegal activities, it is better - in order to be approximately right - to estimate some values of such activities than not to estimate such values at all. One has, however, to be rather cautious in the estimates since e.g. if the true (unknown) value of certain activities is 110 and reported value 100, then an estimate between 100 and 119 would give better information than reported values but estimates over 120 would give worse information.

*The low reliability* of data is especially true *for years in between base periods* when no special investigations concerning activities in hidden economy or illegal activities are undertaken. A very hazardous decision must then be taken, whether to estimate the volume of such activities as a constant percentage of other activities or to keep their level constant. It is an especially difficult problem in the Polish case since the volume of activities in the hidden economy - as we have estimated - was changing relative to GDP in the years 1989-1996 and is likely to change in the future (we did not dare to estimate the value

of illegal activities at all). Thus expected change in the relative values of activities in hidden economy should be estimated (but "how" is the question). It would be of great interest for us to be informed about the practice of other countries in the estimates of the value of hidden (legal) and of illegal activities for other periods than base year.

units	registered; non registered households; institution type units
kind of activities	legal; illegal  market; non market 
volume (value) of economic activities (measurement error)	

### III. Exhaustiveness of national accounts for 1995

1. As already mentioned, not all recommendations of the SNA concerning the activity which should have been covered in national accounts as economic activity were followed by Polish CSO.

The assessments of national accounts for 1995 have covered all registered national economy units which have entered into Polish REGON register (this excludes individual agricultural farms). These units are:

- legal units,
- organisational units without legal personality (i.e. budgetary units without legal personality, partnerships of the civil code, general /unlimited/ partnerships, limited partnerships),
- establishments of persons conducting economic activity.

In 1995 over 2.11 million entities have been registered in REGON of which about 80 per cent constituted establishments of the physical persons.

In addition, the national accounts contain individual agricultural farms.

2. Choosing of reporting units for surveys was conducted on basis on REGON .

Type of reporting unit was based on number of employed persons. According to this criteria the following types of enterprises were distinguished:

- large-sized, with number of employed persons exceeding 50 persons in sections C and D (NACE Rev.1). Over 20 persons in all other sections.
- medium-sized, with number of employed persons, in the range 6-50 in sections C and D. 6 - 20 persons - in all other sections,
- small-sized, with number of employed persons up to 5.

The coverage of reporting units regarding the large enterprises was assessed at approximately 95 per cent, the medium-sized - from 50 to 60 per cent.

For the purposes of national accounts, for these "non-response units" additional data assessments were made. The method used consisted of using the value of income from sales of products per unit and additionally per employee in such section of "response units" for the "non-response units". The number of "non-response units" was known from REGON.

The assessments of national accounts for small enterprises were based on generalising the results of representative reports from these entities.

Since these enterprises were not obligated to submit regular statistical reports the reported value of their activity, as well as of income, were not reliable. The large part of the results of their activity was concealed. Reported data were therefore increased by certain estimated values.

The basis of estimating these values were the counted worth of income, from sales of products per employee, of medium-sized units with number of employed persons from 6 to 10 in each section. The data for these medium entities were derived from a survey conducted on CSO questionnaires. The calculated values were used for the small units in each section.

For 1995, over 17 percentage of the additional value of gross output was assessed in small units.

This estimated value was not sufficient. It didn't cover the scale of hidden economy for the small registered units. So, in order to assess the dimensions of hidden economy for all small and medium registered units some units were surveyed directly (see point 5 below).

3. The data for the institutional units included in sectors "general government" and "financial corporations" were regarded as full and reliable.

As far as the units included in non-profit institutions serving households are concerned the problem with gathering data used for estimates is still not solved.

Statistical data referring to economic activity of these units were incoherent and incomplete. Gross output and intermediate consumption were estimated.

4. The assessments of national accounts for 1995 also included:
- the own-account production of all goods that were retained by their producers for their own final consumption (particularly production for consumptive self-supply of the agricultural population) or gross capital formation,
  - the own-account production of housing services by owner-occupiers.

5. At present, the revision of 1995 accounts is made by CSO. The revision mainly consists in an improvement of the data concerning the estimates of hidden economy.

Coming back to the table on page 4 the following units (conducting only legal activities) are covered by the present system:

- 1) registered units of institutions type:
  - reported (small and medium),
  - hidden by underreporting,
  - non reported (eg.church),
- 2) households:
  - registered; reported and hidden by underreporting,
  - not registered.

The method of assessment of the hidden economy for small and medium registered units is based on a pilot study conducted by the Voivodship Statistical Office in Kielce. The purpose of this study is to verify the data obtained from the reports carried out every year by the Central Statistical Office. In order to estimate the "true" volume of incomes arising in small and medium economic entities, and in order to estimate the earnings of the persons employed in these units, certain "normative values" are established. These „normative values" refer to the average incomes and earnings per employed person, with due account to the kind of activities (NACE Rev 1 sections), number of employees (1-2, 3-4 and 5 persons - for small units and for 6-10 for medium, 11-20 in all sections and in addition 21-50 persons in sections C and D) and the kind of locality (countryside, small town, large town).

6. Retrospective estimations.

In the work on the improvement of quality of the national accounts the problem of the back series (period and range) has not been considered. The improvements limited only to the current accounts, i.e. for the year of 1995.