

# NON OBSERVED ECONOMY IN ROMANIA

## *Statistical point of view*

By Clementina Ivan-Ungureanu

National Institut of Statistics and Economic Studies

At the beginning of nineties, the hidden economy become a problem for Romania too. A sharp increase of the number of enterprises and own account workers, unreliable financial reports of economical actors, uncertainty about what are the active economical actors in the country, the inexistence of adequate system of taxation, a lack of well functional government-bodies like the taxation-and custom-bodies, are some of the reasons of the growth of the hidden economy.

Starting with 1990 a new statistical information system in our country should be adapted to new economic circumstances, characterised by a rapidly growing number of small and medium-sized enterprises and their high rates of birth and death, and by the decreasing importance of the public sector covered by the obligatory statistical reporting system. The frequent changing of legislation in economic field has also its impact on the statistical data collection.

Rapid institutional and structural changes in transition economies give rise to such problems as non-registered activities of economic units, underreporting, high non-response rates. In these conditions the share of the economy not covered by statistical or administrative sources become more and more large and it's impact on the level of GDP very significant. The scope of the estimation of non-observed economy is to ensure the exhaustiveness of GDP, according to the methodological concepts of SNA 93 and ESA 95.

### **1. Definition in SNA/ESA of the non-observed economy**

The non observed economy (NOE) is the total of relevant economic activities which are hidden from statistical observation. This is something else than hidden and illegal

economies. In order to establish its share, it is useful to start with a conceptual framework that illustrates the phenomena under discussion.

According to SNA 93, production is an activity in which inputs are used to produce outputs. Inputs are restricted to labour, capital, goods, and services; outputs are goods and services. Economic analysis of production is mainly restricted to "economic production", which is production carried out under the control and responsibility of an institutional unit.

The following concepts and terminology are used in the SNA 93 and ESA 95 in relation to the non-observed economic activities of production units: **illegal, underground and informal**

**Illegal production** includes:

- the production of goods and services whose sale, distribution or possession is forbidden by law;
- production activities which are usually legal but which become illegal when carried out by unauthorised producers (unlicensed medical practitioners).

The most important illegal activities (in terms of value added) are production of and trade in drugs, prostitution, the production of (some kind of) pornography, gambling without licences, the production of and trade in copies of films, sounds - records, books and computer software without paying copyrights, smuggle, theft, bribery and blackmail. Part of these types of production fall within the production boundary of the national accounts. However, for practical reasons and a severe lack of data, it is not included in national accounts estimates. A general methodology to measure the illegal activities is not yet available, taking into account that the situations are very different from one country to another.

**Underground economy** stands for productive legal activities but deliberately concealed from public authorities for such reasons as: to avoid the payment of income, value added or other taxes; to avoid the payment of social security contributions; to avoid having to meet certain legal standards; and to avoid complying with certain administrative procedures, such as completing statistical questionnaires or other administrative forms.

The underground economy can be regarded as consisting of:

- all those activities which are deliberately hidden in order to reduce costs of production by non-respecting administrative standards ("**economic underground**");
- activities not covered because of deficiencies in the statistical system ("**statistical underground**").

The latter case implies that the statistical office is aware of the existence of respective productive units, which are considered as non-respondents. It should be stressed that not all non-reported productive activities from statistical point of view can be considered as underground for economic reasons referred to in the 1993 SNA.

The **informal sector** consist , according to ILO definition, of productive units characterised by a low level of organisation, with little or no separation between capital and work, and by work relations based on kinship and/or social relationships, rather than formal contracts. These units belong to the household sector. The owners of such units are totally responsible for all financial and non-financial obligations undertaken for the production process.If the activity of these recorded units is deliberately hidden they enter in the sphere of economic underground.

## **2. The non-observed economy from statistical point of view**

The figure from the annex 1 presents the different non- observed economy typologies than can be identified, and the main problem from the statistical point of view. In the share of NOE it can exist:

### **a. Non- registered activities**

The existence of non-registered production activities implies that there are missing institutional units from statistical and administrative data sources. This situation can arises in the following cases:

- the activity performed by one institutional unit is illegal;
- production units in “ informal “ sector may be missing when they are not requested to be registered at all by any kind of legislation ;
- among the enterprises belonging to the "formal" sector, some units are missing due to the deliberate intention to avoid the existing obligations to register. The main reason can be to avoid the additional costs of various kind taxes ( value added taxes, social security contributions, etc. );
- the units are not registered in statistical register ( independent from their will ) because of the lack of efficiency in the statistical system, the lack of a reliable business registers, etc.

### **b.Underreporting**

This occurs when data provided by units are not consistent, because the cost components are over-reported. The final result is an underreporting of the enterprise's profits, highlighted by an underestimation of the value added. Such underreporting can be identified both within formal and informal sector and within the underground economy.

c. Non response

This problem is related to the statistical sensitivity, the capacity of the statistical system to ensure a normal rate of non response for the surveys carried out.

d. Lack of update information

Usually this is due to the fact that the registers used by statistical institutes are not reliable . In general, that is the problem related to out of date information on production units inside the statistical or administrative registers The lack of updating can be due to various kinds, such as: enterprises that do not exist any longer, but still are considered as "active" ones; changes in the structure or size( in terms of employees or turnover); changes in economic activity, etc.

### **3. Identification of non-observed economy in Romania**

For the identification of the NOE , the whole economy is splinted into two sectors: formal and informal.

The **formal sector** in Romania include corporations and cvasi corporations and public institutions.They are productive units recognised as legal entities and established according to the Law 31 /1990 , Law 36/1991 and various Government Decisions for the public institutions. The following units belong to the formal sector : government owned units with independence of decision making (quasi-corporate enterprises such as those engaged in energy, railways, metro, etc.); enterprises; banks; insurance companies; trade unions, political parties, religious organisations and various other NPISHs.

According to the Law of Accounting no.82/1991, all these units are required to keep a full set of accounts. This law also applies to those units which are not independent legal entities and which have their headquarters in another country, or with headquarters in Romania but belonging to natural or legal persons from abroad. In general, the accounting statements for corporations and cvasi corporations cover the profit and loss account, the balance sheet assets and liabilities by type, and certain annexes covering inventories, provision for losses, assets

and liabilities and distribution of profit. The accounting statements are submitted to the Ministry of Finance. These cover information at the enterprise level. The Ministry of Finance compiles aggregated accounting statements by ownership and by sector, at the two-digit level of CAEN.

All the units from formal sector are registered in the Fiscal Register ( maintained by Ministry of Finance), Trade Register ( maintained by Chamber of Commerce ) and Statistical Register ( maintained by National Commission for Statistics) . Public institutions have a specific set of accounts and their data are incorporated in the general government budget , which comprise separate information for the central government budget, the social security budget, local government budgets, and the budgets of funds established for special purposes.

The **informal sector** includes family associations and self-employed which activity is settled through specific law ( Decree Law 54/1990). They lay an annual income declarations to the Ministry of Finance . These declarations cover gross income, taxable income and tax on income by activities and by regions. The data is aggregated by the Ministry of Finance, first at regional and then at national level. These units are registered in the Fiscal Register , Trade Register and in the Statistical Register.

Taking into account the methodological framework of non-observed economy presented below , the situation in Romania is the following:

a. Non-registered units

From the legal point of view , to develop a given activity requires the inscription in the Fiscal Register and Trade Register. This legislation has been applied since 1993. Considering the existing situation in Romania and the laws and settlements in the field of registration of units, it was established that non-registered units ( in one of the three registers) , developing a legal activity, only can exist in the informal sector. In this category are included: dressmakers, tailors, workers who repair cars, house painters, teachers who teach private lessons, people who rent the house in holiday time.

b. Underreporting

In both sectors ( formal and informal ) can exist registered units who underreport their activities, in order to avoid taxes, social security contributions, etc. These represent an important part of the non-observed economy and a specific methodology is build up to estimate it.

### c. Non response and lack of update information

The Statistical Register is the unique source for providing unit nomenclatures in order to carry out the surveys. The main characteristic of the Statistical Register (REGIS) is its full compatibility with the other registers used in the economy (Trade Register, and Fiscal Register). The Statistical Register is updated on a monthly basis. The main information sources for updating the statistical register are:

- the Trade and Fiscal Register used on a monthly basis;
- semi-annual and annual accounting statements (profit and loss statement and balance sheets) and declarations of income of self-employed and family associations submitted to the Ministry of Finance;
- statistical surveys, in particular the structural enterprise survey conducted annually by the NCS is used to update basic information for units on the register.
- a quarterly survey entitled AM-REGIS which was developed by the NCS for tracking newly established enterprises in order to improve the quality of the information held on the statistical register.

The information covered by the Statistical Register is structured on two levels: legal units (enterprises); and local units (establishments). Legal units include enterprises with legal personality, self employed and family associations registered to carry out economic activity.

The main problem to up-date the Statistical Register are the dead units, because there is not a reliable procedure to eliminate the non-active units from the registers ( including Fiscal or Trade Registers). In Romania, according to the bankruptcy law, only few units are declared dead, but a lot of them continue to be recorded, without activity.

In the annex 2 is presented , in a schematically approach, the share of non-observed economy in Romania. The method used to estimate this part of economy, must taking into account the availability of data sources and the practice to compile the direct observed activities.

## **4. Estimation of NOE**

The Romanian economy , in the last ten years , are characterised by the increase of private sector and of the small and medium productive units, on one hand and on the other hand by a rapidly and, sometimes incorrect and confuse , change of economic legislation in order to ensure the background for the market economy. Under these circumstances , it is normal that part of economy which is not directly observed is growing, this fact affecting the

quality of economic indicators. The methodology used by national Commission for Statistics for the estimation of non observed economy was improved every year, according with the new available data sources . Since 1996 NCS apply the some methodology and the figures are comparable.

## **4.1 Formal sector**

### **4.1.1. Estimation of black labour**

The activities which are underreporting are evaluated based on estimation of input of labour , procedure recommended by SNA 93. Using this approach , it is possible to evaluate the irregular labour within the productive process and the under-declaration of the production obtain by means of regular labour. The **valuation of black labour** is worked out. This represent the most important part of the underground economy. The method used is based on the comparison between the **labour force supply** and **demand** in order to identify the persons who carry out a legal activity in a unit from formal sector , but are not declared to authorities.

#### **a.The valuation of labour force supply**

The estimation of labour force supply is made using data from the household survey , AMIGO .

#### ***Household Labour Force Survey***

The Household Labour Force Survey (HLFS), known by its acronym AMIGO, is the main data source for information on active employment and unemployment ; it was conducted for the first time in 1993. During 1994 and 1995 the HLFS was held annually , in March. Since 1996, it has been held quarterly.

The population for the survey is persons permanently resident in Romania, and the survey collects information on all members of selected households. The interview of persons aged 15 years and over from selected households constitutes the basis of information recorded in the survey questionnaires. The reference period is the entire week (Monday to Sunday) preceding the survey week.

The survey offers information about the number of persons who declared they had paid an activity in the reference period of time, the number of persons who worked full or part

time, who has a second job, by branches of activity, by kind of enterprises or by professions and also the persons who occasionally worked. From the survey it is possible to obtain information about the unemployment, according to ILO methodology, about the structure of inactive population and other characteristics on the labour force market.

The estimation of the labour force supply is made by homogeneous branches of activity at two digit levels of CAEN (Classification of Activities from the National Economy, which is compatible with international classifications, NACE-rev.3 and ISIC), without agriculture and public administration. The agriculture production is compiled using quantitative data, and for general government is made the assumption that in the units which belong to this institutional sector it is not an underreporting activity.

The supply of labour force represents all persons who have a paid activity, without family associations and self employed. This deduction must be done in order to ensure the same share with the demand labour force side.

The input of labour is estimated in terms of full time equivalence (the part time activity and the second job are converted in full time equivalence). We do the assumption that a full time equivalence represents 40 hours of work in the week. The annual figures of labour force represent an average of the four quarters data.

#### **b. The valuation of labour force demand**

The enterprise annual survey (EAS) is the data source that permits to evaluate labour force demand.

##### *The Enterprise Annual Survey*

The Enterprise Annual Survey, also called the Structural Survey of Enterprises, is the main source of annual structural data for enterprises in Romania. It was introduced in full pilot form during 1993 and has been conducted annually since then. The objectives of the survey are to:

- provide detailed information on the total activities of enterprises in all branches of the Romanian economy irrespective of type of ownership;
- facilitate the compilation of national accounts by being a major data source for estimation of production, intermediate consumption and gross value added by industries;
- provide the information required for updating the statistical register (REGIS) which is used as a list frame for surveys conducted by the NCS;
- provide information about labour force, used for the estimation of non-observed economy

The questionnaires of the structural enterprise survey were designed in accordance with the chart of accounts used for business accounting. Three main sets of questionnaires are used depending on the type of unit: non-financial enterprises covered by census; non-financial enterprises covered by sample, and; budgetary units, financial institutions and NPISHs covered by census in 1994 and sample since that date.

In order to compile the labour force demand, various data are used from the survey. One of them, represent the average number of employees, by homogeneous activity, at 4 digits level of CAEN.

The survey provides also information about the number of persons who worked in part time, who occasionally worked, and those who worked in a basis of an assistant agreement. For the part time, the information available is only about the number of people who worked a half full time and a quarter full time; the adjustment to convert in full time is made directly, without any other assumption. These figures do not represent an average for the whole year, but the situation at the end of the year and they are not split by homogeneous branches.

### **c. Estimation of black labour**

In order to estimate the black labour, the labour force demand and supply are compared each other by branch of activity. The difference between the number of people who declared to work in an enterprise and the number of people declared by the enterprises as occupied, represents the "black labour".

The production yielded by the black labour is estimated by multiplying "per capita" value for small private enterprises, for each activity, with the number of persons previously established by the difference between the labour force demand and supply. The intermediate consumption is determined using the same share in production like for the small enterprises from the respective branch of activity. In these conditions, the black labour is evaluated with the same components of legal situation (average gross wages, social security contributions). This assumption is under discussing, because, it is known that the "black economy" do not pay the salary at the level of legal one. But, on the other hand it is difficult to estimate the "black salary" for each activity of economy.

#### 4.1.2 Estimation for tax evasion

The estimation is made for the VAT evasion. One part of the VAT evasion represent the VAT for underground economy already estimated using methods presented above, and other part represent the VAT evasion of reported turnover. For the wholl VAT, the tax evasion is calculated by the difference between the theoretical VAT and the value received by State Budget. Theoretical VAT is calculated for intermediate consumption, final consumption of households, final consumption of general government and GFCF based on rates of VAT by products defined by the law. This fraud is included in output and GVA for each corresponding branch.

#### 4.2 Informal sector

This estimation for the NOE is calculated for all the activities performed by family associations and self-employed, whose data come from the Ministry of Finance. This estimation is not a pure case of underreporting, because the method concerns also the problem of non-register and lack of statistical surveys of those units. In fact, self employed and family associations are not covered by the AES, because they are considered as belonging to the informal sector.

From AMIGO it is estimate the information about the number of persons who work in family associations and self employed. The estimation made is based on principle according to which the incomes realised by non-wage workers ( persons from family associations and self-employed ) cannot be less that the average wage earned by employees in the same activity, in small units. The income declarations from Ministry of Finance of registered self employees and family associations are compare with the value of these calculations. As a result of this analysis, the incomes are adjusted, and the tax evasion of the units registered into the informal sector are completely removed.

Another important type of non-observed economy is represented by the activities carried on in **units non-registered**. In this category are included: dressmakers, tailors, workers who repair the cars, hairdressers, house painters, plumbers, teachers who teach private lessons, people who rent the house in holiday time. For such activities a distinct valuation is done using specific assumptions and available data sources from the statistical system. These data sources are specific to each kind of activity.

**Hotels:** the basic assumption is that the number of non-registered tourists is equivalent to 1/3 of the total registered tourists. The average values of the accommodation for a night, considering a number of 15 nights per year is, then, multiplied by the number of non-registered tourists. The result is considered as the output. The intermediate consumption is estimated by using the IC/GO ratio of the formal sector.

**Construction:** It is considered that 75% of the total self-employed registered in this activity carried out also a non-registered activity. That number multiplies the average gross salary of the construction activity and the result is considered as GVA. To calculate the production it is used the ration GVA/GO coming from the informal sector.

**Education:** it is considered that a half of the pupils registered in the last year of the secondary school as well those from the last year of the high school took meditations. Their numbers are multiplied by the average value of a lesson and the frequency of the lessons per week as well as by the number of weeks in a year.

These calculations are rough, due to the lack of any other informations. The assumptions made are based manly on the knowledge of social and economic phenomena. But the share of these estimations in the value added of underground economy is very small ( 1% in the last three years).

## 5. Conclusions

In the same time with the System of National Accounts implementation, the transition countries were preoccupied to improve the exhaustiveness and reability of macroeconomics indicators, especially as far as the underground economy is concerned. These countries are preoccupied not only to adjust the value of the GDP taking into account the NOE activities, but also to include them into the national accounts . A lot of countries have the intention to include these estimations into the official value of the GDP, even if they are not distinctly presented.

The methods for NOE valuation are based on some data sources and techniques (e.g. the turnover, the households incomes and expenses, resources and uses balances, customs statistics, data resulting from special surveys and labour force surveys, etc.). They are different from a country to another, depending on the specific of the economy and the statistical, financial and administrative system.

As a result of the experience gained by the transition countries , the **following aspects** appeared like very important:

- considering that there is no general method to estimate the non-observed economy it is quite difficult to obtain, through some other methods, figures that are comparable in time, on one hand, and with data coming from sources underlying GDP calculation, on the other hand;

- the lack of an adequate legislation is a very serious obstacle in creating a statistical system that allows to emphasize and quantify all the activities deployed within the economy;

- the activity of drawing up a detailed documentation on the methods used in each country to estimate the NOE become very important to understand what means non-observed economy for them;

- is very important to work out a reconciliation between different methods used to estimate NOE in each industry, in order to reach comparable values for the whole economy;

The final purpose of activity in the field of national accounts is not to work out separate estimation for macroeconomics indicators, but to ensure the GDP exhaustiveness. The work carried out to estimate the NOE is, in many fields, similar with that performed in developed countries concerned to ensure the exhaustiveness of indicators. The activity carry out in international organisations in ensuring the exhaustiveness and comparability of GDP estimates showed up the difficult problems that exist in each country.

In the present stage, the transition countries must consider the requirements of ensuring the GDP exhaustiveness and comparability when they act to adjust and improve their own statistical system, the responsibility on this matter lying not only with national accountants, but with the entire statistical office of that country.

#### **Reference:**

- SNA (1993), System of National Accounts, Commission of European Communities, IMF, OECD, UN, WB
- European System of Accounts 1995 (ESA), Commission of European Communities

- EUROSTAT (1999) , “Use of administrative sources for business purpose. Handbook of good practices”, Luxembourg
- Calzaroni, M. (2000) , “The exhaustiveness of production estimates:new concepts and methodologies”, Workshop on quarterly national accounts, Paris
- United Nations (1993) , “Inventory of national practices in estimating hidden and informal economic activities for national accounts”