

## ASPECTS ESTIMATING THE LEVEL OF THE INFORMAL ECONOMY

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### **Abstract:**

This paper synthesises the estimation and evaluation methods of level of the informal economy. Regarded directly, the evaluation of the informal economy can be accepted to be the difference between the real economy and the economy officially declared. At a more detailed evaluation, the process proves more complicated because its approach must consider specific aspects such as the statistical identification of activities carried out, and the possibility of using standard time and the evaluated standard value. Of the many methods used, we highlight the following: the gap between expenditure and revenue method, the physical input method, the analysis of the transaction's volume method (Feign method). The estimation and evaluation methods take into account the values obtained in the Romanian informal economy, with applications in several years. The paper refers to three main groups of methods: the analysis of time series based on cash demand, the estimation based on the discrepancy between the aggregate total revenue and total expenditure, the estimation based on discrepancies between income and expenditure at the micro-economic level. In the structure of the informal economy, this paper highlights the main ways of committing tax fraud and smuggling, which are manifested in various forms.

*Keywords: official income, informal income, tax evasion, informal economy estimation-model*

## **1. THE INFORMAL ECONOMY: DEFINITION AND FEATURES OF THE PHENOMENON**

The concept of the informal economy is a legal economic activity, but hidden by the authorities to avoid certain taxes.

The term informal economy is known as underground or hidden economy. International comparisons are based on a definition-guide, adopted in 1993, which recognizes as belonging to the informal sector activities producing goods and services that the primary objective of providing jobs and income to those involved and that they often take place in household-enterprise features. This means that the units engaged in production of goods and services can not define as separate independent legal units of household, where there is generally division between labor and capital as factors of production. Outside the household enterprise can subscribe here and small productive units 1-2 run in the same household owners or separate households, or those which employ the long run, one or more workers without a contractual basis. Furthermore, the accounts of the production activity can not determine the expenditure of the household, even as -clădiri capital goods, transportation or work-you can not define the property of those in the household. Where capital-labor division still exists, labor relations develop in connection with occasional employment, personal relationships or social type. In general home economics activities which are excluded, ie productive, taking place in a family setting where there is commercial equivalent. "The international definition therefore includes tax and labor" black ". Both refer to legal productive activities. The first consists in the understatement of income results, and the second in activities clandestine units. Along with moonlighting, illegal activities such as smuggling, drug production and marketing, etc forming what is called criminal or illegal economy" (Elijah 2015).

Although there is no universally accepted definition of the informal economy, because its forms reveals many differences, even within countries, we can say that considered informal economic activities are those that produce unreported income from the state authorities that measures and controls normally the formal economy. Sharing in the informal economy is made in cash, or barter, as none of the forms should not be recorded in documents and thus can not be prosecuted by the authorities (Benach et al. 2007).

### *Method gap between expenditure and revenue*

In developing countries, such as Romania, the informal economy has grown rapidly, following the abandonment of a social system, politically and economically highly centralized, dictatorial in some cases, which required a low degree of freedom for the informal sector. It is necessary to create a new system to replace the existing one based on market forces and social balance – economic.

## **2. METHODS OF ESTIMATING AND EVALUATING THE LEVEL OF THE INFORMAL ECONOMY**

Appraisal and valuation models economy differs from the micro to the macro recording medium and is based on accounting, tax and sometimes taking into account the statistical data.

Directly affects the informal economy can accept that assessment is the difference between the real economy and declared ocial economy. At a more detailed evaluation process proves more complicated, because there are a number of problems related to obtaining reliable data and to define correctly the real economy.

In most cases, valuation models are based on the calculation of PIB; more precisely calculate the share of the economy has in PIB.

In economic theory there are a variety of methods to estimate the size and dynamics of the informal economy. Among the most important ones: the gap between spending and revenue method, the method imput and natural sites Feige method (analysis of transaction volume). These methods are part of indirect methods are methods that use macroeconomic indices on the evolution of the informal economy.

## **2.1. Method gap between expenditure and revenue**

It is a method used to estimate the size of the informal economy and refers to the difference in PIB calculated by the method of production costs and the PIB calculated by the method of totalization income.

In statistical terms the amount of expenditure is less than the sum of revenues from consumption, but differences arise not only because of informal economy but may occur due to errors during statistical processing.

The difference between expenses and income is used in carrying out studies that provide information about the informal economy gospodariilor. Baza budget of calculation of the size of the informal economy can be the difference between the aggregate income and aggregate indicator of expenditure.

An example can be considered national product comparison in terms of costs as an indicator of real annual income, where the total income declared to tax authorities. The result of this example is important activities whose revenues are not declared in accounting

## **2.2. Method physical inputs (method Kaufman)**

This method applies economic activities involving the use of "power". The difference between official PIB evolution and use of physical inputs consumer has an influence in the evolution of the economy, bringing significant changes.

In Romania the informal economy is less oriented towards the production of goods unregistered, being closer to the informal economy is rigged resources fueling public economy.

A variant of medodei physical inputs (electricity consumption) is used by Maria Lacko in three recent studies on informal economy in former socialist countries (Lacko 1996). Lacko says part of the informal economy is related to household consumption of electricity, including services unregistered activities on their own.

Electricity consumed in a given country at the household level is determined not only by the number of population, the geographical location, access to other sources of energy, etc. but also the informal economy.

In this way the economy is represented in terms of three variables, namely: the percentage of taxes in gross national product, the ratio between the active and inactive population and social public expenditure in relation to gross national product.

For the first two variables it follows that: the informal economy increases with increasing percentages. The high level of inactive population increases economic labor market and the high level of taxes lead to economic activities in the underground movement.

Regarding the third type of indicator, determine the size of the state to take stricter measures in terms of tax collection, deteminand reduction informal economy.

Household consumption of electricity is given by the following equation:

$$\text{Posed } C_{ij} = 1 + \ln + 4Q_{ij} 3G_{ij} 2A_{ij} + + + 6H_{ij} 5P_{rij}$$

where:

*i*: country, *j*: year,

Posed: electricity consumption per capita in a given country and in a year (Kwh)

*C<sub>ij</sub>*: energy consumption per inhabitant householders,

*A<sub>ij</sub>*: percentage of gross national product in agriculture,

*G<sub>ij</sub>*: climate differentiation coefficient

*Q<sub>ij</sub>*: percentage of energy sources other than electricity

*H<sub>ij</sub>*: informal economy output per capita

The equation that describes the effect of the factors that determine the informal economy is:

$$H_{ij} = 1T_{Lij} + 3D_{ij} 2T_{Cij} + + + 5E_{XIJ} 4l_{ij}$$

where:

$TLij$ : the tax on income from work

$TCij$ : low taxes on capital income,

$Dij$ : output decline compared with 1989:  $Dij = 1 - (PNBij / PNB1989)$

$Iij$ : annual inflation rate in consumer products,

$EXij$ : government spending, percentage of gross national product.

The study refers to the former socialist European countries that have submitted transaction economy to the market economy. The analysis shows that the level of taxation on income from work not only affects employees to offer their labor market, but also of employers engage in the official economy.

### 2.3. Analysis volume (Feige method; Feige 1989)

The model is based on transactions in careactivitatilenereglementate and are paid through bank deposits; its base is the relationship between the total turnover and income in an economy measure. The transaction value includes not only the value of intermediate and final as in the case of PIB.

The problem is finding a reference period in the informal economy is zero.

Report  $\frac{PT}{piy}$  called transaction rate ( $Rt$ ) where we  $P$ - average price of the transaction;

$PI$  included in the  $PNB$  price index;

$T$ -total transactions of a period,

$y$ -real PNB

The report may change from three causes

Changing the price ratios  $\frac{P}{pi'}$ ,

structural change in the economy affecting Report  $\frac{T}{y}$

change the scale of transactions in the informal economy

Feige used to determine the total value of transactions in the economy, Fisher's identity (Tudorel 2008):

$$MXV = PXT$$

Where:  $M$  stock of money,  $V$ -velocity of money,  $P$ -average price of transactions  $T$ -total transactions.

Atranzactiilor total value of a period is given by the following equation: demand deposits stock multiplied by the average rate of return of their currency in circulation plus stock multiplied by its average rate of return (Constantin & Ion-Capanu 2004)

$$PXT = MXV = DdxVxDx + CxVc$$

Total value of transactions compares the statistical value of PNB, resulting transaction rate that compares to the transactions in the year under review. The yield compare to PNB officially published in the same year, and the difference is the value of the informal economy (Constantine, Vintila & Madalina 2006):

$$\frac{PT(0)}{PNB(0)} = RT(0); \quad \frac{PT(1)}{RT(0)} = PNB(1) \text{ estimated}$$

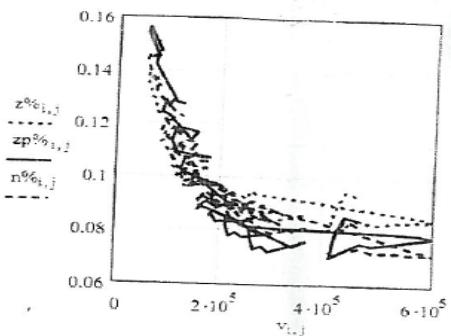
$GNP(1)$  estimat- published  $GNP = \text{informal economy}$

Below we have presented as a graph, where the group correlations households emerging categories, which are determined by the average per person in the household:  $vz\%$  and  $vn$ , the average number of gospodarii-  $n$ .

The result of this study is that the absolute level of income formal and informal incomes are directly related, where it can be seen that if the correlation is more complicated  $zp\%$ , demonstrating a minimum average income of 300,000 lei formal / person / month compared to prices in September 1996.

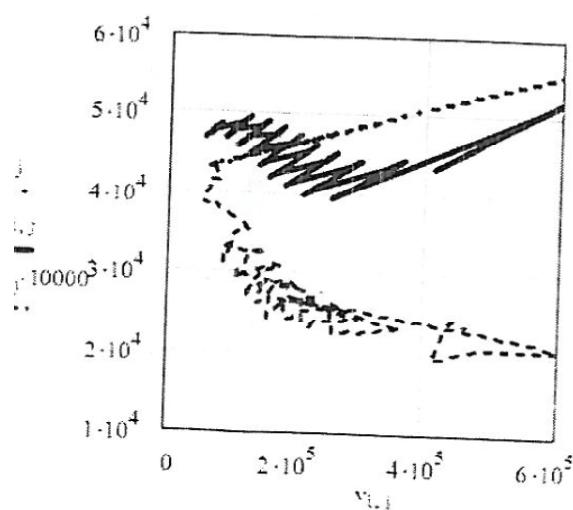
*Correlations emerging categories where the group of households in the survey of 1996*

**Figure 1**



Source: Albu Lucian- Liviu-, A model for estimating regional informal economy: Empirical Theoretical Investigation, "MPRA Edition No. 3760, MUNICH, 2007

**Figure 2**



Source: Albu Lucian- Liviu-, A model for estimating regional informal economy: Empirical Theoretical Investigation, "MPRA Edition No. 3760, MUNICH, 2007

### 3. THE MAIN WAYS OF COMMITTING TAX FRAUD

It is divided into the following categories according to their nature:

1. *Most tax deductible expenses*
  - Raw materials and Commodity are bought at prices higher than market prices between companies with the same owner.
  - Receivables related to granting of credit participatii- a greater or lesser interest between firms.
  - Interest expenses, transfer of cash funds from one company to another, in order modeling income and expenses.
2. *Transfer tax base*

It refers to the transfer of the tax base of the micro large SIF.  
Carrying out activities without legal documents or their failure to register in Accounting Following a study by the Financial Guard after 2003 that resulted in a high proportion romnesti sales companies are not accounted for. Fully-registration leads to the sale of goods without buying invoice.  
There is also joined by smuggling classic made in customs. Trade in goods smuggling is done excisable products.  
Smuggling. Represented and still represents an extremely profitable business for criminals elements, many economic agents becoming overnight multibillion from trade in goods smuggled from.
3. *Use of the companies of "screen-screen"*

They are frequently used to achieve large-scale tax fraud.

4. *The organization and management of double accounting activities*  
It is an activity that takes an accounting of all activities of tax fraud.
5. *Fakes and tax fraud*  
Fraudsters performs insertions false documents in the accounting firm. They are used in case you can not be proven false documents to the tax authorities.

#### 4. CONCLUSION

1. The methods presented in this paper covers only part of the valuation of the economy. Here it should be noted that the informal economy can not be measured accurately due to various reasons. • Statistics show that the informal economy grew between 1990 - 2000 by about 40%, and from 2000 to date increased by 4.2% annually. • Measurement methods covering only part of the harmful aspects that develop in the informal economy.
2. Current estimates made very wide limits notwithstanding that aims to converge to the conclusion that the invisible part of it, is in an unprecedented development, reaching values that affect the state budget revenues., In a great measure.
3. gaining more ground idea that, even if it be possible measuring the results obtained in the hidden economy can not give a clear answer to the question what clearly and disturbances produce these activities on the overall economy, and to what extent the economy would have looked the same in the absence of underground phenomena.

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