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MEASURING THE NON-OBSERVED ECONOMY IN NATIONAL ACCOUNTS.

SERVICES PROVIDED BY PRIVATE ENTREPRENEURS: AD HOC SURVEYS

**ISSUES RELATED TO ESTIMATING NON-OBSERVED ECONOMY
IN THE REPUBLIC OF BELARUS**

Note by the Ministry of Statistics and Analysis, Belarus¹

Summary

The paper gives an overview of methods used to estimate the non-observed economy in Belarus. The scope of this phenomenon in Belarus is lower than in other CIS countries because the statistical surveys have a full coverage and reporting is obligatory. The purpose of estimating hidden and informal economic activities is to minimize a likely error in GDP compilation. The main method used is the balancing method (input-output tables, income and expenditures of population, etc.). The commodity-flow method, comparison of data from different sources and analysis of ratio of costs and output in different types of enterprises are also used. Data from household sample surveys are used for imputations for some types of services provided by the informal sector.

¹ This paper has been prepared at the invitation of the secretariat.

1. As can be seen from the world experience, the volume of non-observed economy grows under the conditions of transition to market relations. The process is typical for the Republic of Belarus as well. But, comparing with Russia and other CIS countries, its scope is somewhat lower. It can be explained by the fact that, as before, the complete statistical surveys are conducted in the country (including tight control over the registration of legal entities). For large enterprises, the response rate is almost 100 %, and for small enterprises this figure is around 90%. Besides, pursuant to the “Law on State Statistics”, state statistics authorities have the right to control primary accounting and to make officials accountable in case they distort statistical data. Since 2008, individual entrepreneurs must re-register as private individual enterprises, and the latter are legal entities that should submit statistical reports (according to the Law).

2. Nonetheless, the non-observed economy in the Republic of Belarus is taken into account in the macroeconomic estimates. The methodology of the System of National Accounts (SNA) provides for the reflection within the indicator “Gross Domestic Product” (GDP) of any activity falling under the definition “economic”.

3. A big part of the production included, according to this definition, in the non-observed economy is quite legal, but it is either deliberately underestimated by the producers, or it is impossible to obtain information about it using regular methods because the production units are not registered due to the informal organization of the production.

4. The purpose of estimating missing characteristics of hidden and informal economic activities is to minimize a likely error while constructing an economic indicator. This means that, where there is a lack of the requisite statistical information, all considerations are taken into account and an adjustment with the definite degree of likely error is made; this is preferable to ignoring the problem in general. This is why, in most cases, adjustments for hidden and informal economic activity have a probabilistic nature.

5. The best method for defining unknown parameters of economic activity is the balancing method. The balancing method is successfully used in macroeconomic estimates in compiling national accounts, input-output tables, the balance of monetary incomes and expenditures of the population, etc. Good results for estimating the required parameters are received using available indirect measures, i.e. data on the area of personal subsidiary and dacha (holiday home) plots, average yield of agricultural crops, etc. Additional sample surveys can be used to obtain the required information on the parameters of informal economic activity.

6. In a number of cases, expert estimates are effective. For example, customs data are used in the compilation of the balance of payments to impute for the quantity of certain products illegally imported into the Republic of Belarus in the form of raw materials.

7. In 1995-2000, the Research Institute of Statistics (RIS) was engaged in the development of the methodology of the estimation of non-observed economy and related monitoring issues; the RIS also carried out experimental estimates. In accordance with the UN and Eurostat SNA recommendations, the conceptual system and classifications of the phenomena of non-observed economy were developed, and its boundaries were defined. The main methods for estimating non-observed economic activity at the macro level (discrepancy method, “sensitivity” analysis methods, monetary methods, methods based on employment indicator, expert estimates of

incomes of individual market producers) and at the level of individual branches, i.e. industry, trade, construction, agriculture, science, public health and transport, were specified and tested.

8. The non-observed economy is currently estimated by the Ministry of Statistics and Analysis of the Republic of Belarus at three stages:

- (a) In estimating GDP with the production method by branches of the economy;
- (b) At the stage of adjustment (balancing) of the main NA indicators;
- (c) In constructing input-output tables.

9. To estimate the non-observed economic activities in defining the output of goods and services by branches of the economy, the following methods are applied:

- (a) Commodity flow method (on the basis of the input-output tables and balances of selected products);
- (b) Indirect methods – based on the comparison of data from different sources (data of complete observations, household sample surveys, and data from administrative sources);
- (c) Methods of comparative analysis based on the estimation of ratio between the costs and output in different enterprise groups.

10. In defining the hidden output of goods and services, imputations are made for the output of non-reporting small enterprises. The imputation is based on the data on the number of small enterprises recorded in the statistical register, actual number of small enterprises that submitted reports, and productivity of labour per employee at the enterprises that submitted reports.

11. To measure the output of the informal sector of the economy, data on the number of natural persons engaged in the officially non-registered activity within a certain branch (based on the data of the household sample surveys) and labour productivity (at small enterprises) in this branch are used.

12. The major information source for estimating the output of the informal sector is household sample surveys.

13. For the purposes of the household sample surveys, 6000 households, or 0.2 per cent of their total number in the country, are selected for the study. To ensure the stability of sample over the territory of the country according to the settlement, the households were sampled in urban and rural localities separately.

14. The survey pattern represents the sequence of four quarterly interviews covering the whole calendar year for the specified household sample, which then undergoes full rotation and is replaced with a new sample for the following calendar year.

15. The household sample surveys conducted in the country provide data on the household incomes and expenditures for a nationally representative sample and cover a wide range of goods and services.

16. Imputations for the informal sector of the economy for industrial services, such as repairs and custom tailoring of clothing and footwear, repairs of household and radioelectronic appliances, repairs and servicing of motor vehicles, repairs and manufacture of furniture, are made on the basis of data on the number of natural persons engaged in this industry without an official registration (based on the household sample surveys) and labour productivity at small enterprises in a similar industry.

17. In accordance with the SNA requirements, imputations are made for agricultural output produced in personal subsidiary plots, the major part of which is used for own consumption. Plant-growing output is measured based on the survey of personal subsidiary plots related to the sown areas under different crops, using the average yield of these crops per hectare and sale prices of agricultural products in this territory. Animal husbandry output is measured based on the household survey data on the livestock population by type, their average productivity, and sale prices of products.

18. In recent years, construction services provided by informal construction brigades or directly by individuals have been widespread in the territory of the Republic of Belarus. The volumes of such services are calculated based on the household sample survey data on the number of natural persons carrying out construction work, and labour productivity at small enterprises within the construction branch.

19. Individual entrepreneurship relating to cargo and passenger motor transportation is also widespread in the country. The volume of services rendered by natural persons engaged in passenger and cargo motor transportation is measured on the basis of the household sample survey data, labour productivity at small transportation enterprises, and the number of cargo or passenger transportation licences granted to natural persons by the Ministry of Transport. Minstat also conducts a special regular statistical survey of the activities of individual entrepreneurs engaged in a regular passenger taxi service.

20. A significant share in the informal sector of the economy belongs to the sales volumes of goods by licenced individual entrepreneurs as well as non-licenced natural persons trading at markets and not depositing their trade proceeds in banks. This imputation is made on the basis of the household sample survey data based on the percentage ratio of expenditure on purchase of goods at markets and from individuals in total expenditure on purchase of goods. During the years 2006-2008, the Department of Wholesale and Retail Trade Statistics has conducted a special survey of markets (trading places) and, as of 2009, imputations are planned to be made on the basis of this survey.

21. The volumes of paid medical services rendered to the population, tutoring, legal, arts and culture services are measured on the basis of the household sample survey data, data on the number of licences for a corresponding activity granted to natural persons, and expert estimates based on the advertising analysis.

22. Manifestations of the non-observed economy are not limited to production only. Economic units do not declare and are eager to shield informal and hidden production income from taxation. Participation in the transactions related to buying and selling prohibited goods and services is illegal for both parties. Therefore, hidden incomes as well as hidden or hidden economy-related components of GDP use with reference to consumption and accumulation are imputed.

23. Incomes received from the activities in the non-observed sector of the economy take the form of the hidden profit of enterprises or non-recorded wages and salaries, but – mainly – of a mixed income. Mixed income is an income of unincorporated enterprises, i.e. according to the definition, income from informal production activity.

24. As far as the final consumption expenditure is concerned, it is deliberately understated only when incurred in households wanting to hide income. If the data on expenditure are collected anonymously, they are normally not underreported. Therefore, the data received from household surveys are quite correct. However, the problem is that the households with high incomes and large final consumption expenditures generally do not participate in surveys. The sample is thus not random, but shifted, which does not allow for the data obtained to be extrapolated to the universe of households.

25. As noted earlier, hidden or illegal incomes can be spent quite legally, especially when the data on expenditure are collected anonymously. On the other hand, legal incomes can be spent in illegal transactions. Some situations can be considered when legal production serves as a source of hidden income, etc. All this results in the fact that the imputations in the sector of non-observed economy for production, incomes, and use of incomes generally do not match. However, imputations make the GDP estimates calculated with each method more consistent.

26. The best results for measuring the parameters of the non-observed economy are obtained with the balancing method. This method is successfully used in the country in adjusting household final consumption expenditure by comparing the survey data on household expenditures and the data on retail turnover by selected commodity groups.

27. Minstat annually compiles the input-output tables. The tables provide the basis for the consistency check of statistical data on the flows of goods and services obtained from different sources. As a result, weak points in the accounting of production and use of goods and services are revealed, and the indicators are adjusted. Adjustments are most often made with reference to the non-observed sector data.

28. In 2000-2006, the share of non-observed economy in the Gross Domestic Product of the Republic of Belarus was about 11%. Of this figure in 2006, the share of agriculture accounts for 3.7%, of trade and catering – 3.1%, of housing – 1.0%, of construction – 0.3%, and of services – 2.9%.

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