

Statistical practice of estimations of population latent salary (latent incomes) and issue of estimations reliability

Nadezhda V.SUCHKOVA

Department of living standards statistics and population surveys

Goskomstat of Russia

Before transition of Russia to market economy the basic source of population incomes were wages. The share of remuneration in total amount of the incomes was estimated as 75-80%. The share of social transfers (pensions, grants, scholarships) was 12-15%, the property incomes (basically it means interest on deposit) - 0,5-2,5%, entrepreneurship incomes (basically incomes gained from sale of private subsidiary plot products were there) - 2,5-4%, other incomes - 3-5%.

In 1999th there occurred essential changes in population incomes structure: widening of population employment in the informal sector of economy entailed rush growth of entrepreneurship incomes, and also appeared opportunity to gain the incomes as dividends, interests on bank deposits, shares, securities objectively reduced the role of salary in formation of population incomes.

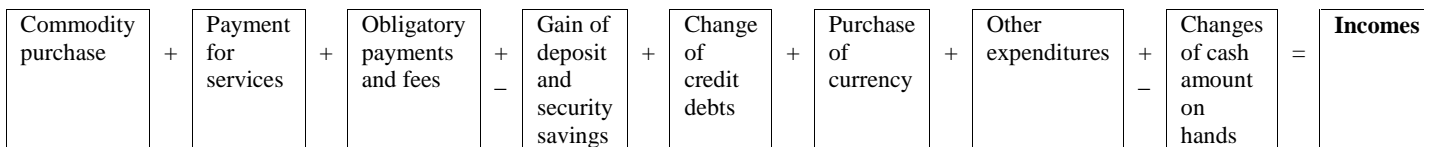
On the other hand wages the enterprises and organizations paid to workers, began to get “iceberg” outlines: visible part recorded to accounting documents and estimated by official statistics and invisible part concealed from the taxation and paid in the various forms (from cash receipts with no recording in the payroll sheet, in foreign currency, as purchase of the real estate, durables, aids, credits, for the workers, wage payments by insurance system and bank deposits etc.).

One of the ways of definition of latent wage volumes is indirect estimation of population expenditures and savings.

For this purpose let's consider the scheme of population money incomes estimation.

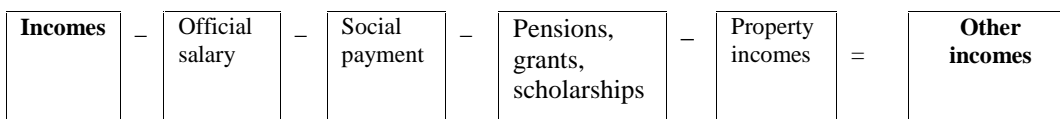
Total population incomes are calculated as the sum of all expenditures and savings of the population and changes of cash amount on hands on the following algorithm:

1).



Then officially registered incomes are subtracted from the total amount of the incomes.

2).



In the performing period other incomes included payments to donors, disbursements to citizens for house demolition and plantings termination, and some other incomes not recorded in the statistical reports due to irregularity of payments and insignificance. Other incomes could be attributed to a category of statistical divergence between the officially accounted incomes and people expenditures. This parameter was the basic indicator of balance between incomes and expenditures. Excessive growth of this indicator or its minus value showed as a rule overestimation or underestimation of any income and expenditure items, if it was not economically justified.

According to Table 1 since 1991 the other incomes have been mushrooming. This was first of all caused by incomes underestimation, including military men money allowances from all force authorities, entrepreneurship incomes.

Therefore to calculate value of the latent wage it is necessary to "clear" other incomes from and military men money allowances from all power authorities and to define acceptable rate of statistical deviation.

3).

$$\boxed{\text{Other incomes}} - \boxed{\text{Entrepreneurship incomes}} - \boxed{\text{Military men money allowances}} - \boxed{\text{Statistical deviation}} = \boxed{\text{Latent salary (hidden income)}}$$

At present the first aim is seemed to be most simple, because Goskomstat of Russia has developed a method to estimate population entrepreneurship income. This method was approved and coordinated with Ministry of Economic Development and Trade, Ministry of Finance, Ministry of Labor and Bank of Russia on July 1, 1998 and sent out to territorial statistical committees to calculate this parameter for 1998.

The basic problem linked to the parameter of military men money allowances is how to distribute total amount by regions. Data for Russia as a whole have been presented in the Report on budget execution in Russian Federation in chapters «National Defense» and «Law-enforcement activity» since 1997. One of information sources, on which basis the distribution is possible to do, are the data on budget execution in Russian Federation subjects and local budgets execution, and also some other indirect data.

Regarding «other incomes» or statistical divergence: the parameters of this indicator can vary from 1 to 5% and be adjusted in regions on dynamics available for few years.

Latent salary (hidden income) estimation with using balance (residual) approach has the following defect: the correctness of estimation of latent salary total value depends

in many respects on reliability of data used for calculation of revenue and expense items and this especially concerns the population expenditures for goods and services. Calculation of these parameters is based on both methods of total state statistical survey and sample surveys methods, adjustments and expert estimations.

Thus there are two goals:

- development of methodology for estimation salary including latent salary by direct calculation. It could give opportunity to check balancing method estimations;
- additional checking data reliability.

From our point of view it is perspective to use information collected by the Ministry on Taxes and Revenues. At the same time developed reporting is obviously insufficient: there are no data by types of activities; only persons of private notarial practice is selected from entrepreneurs. It seems this issue should be discussed at the seminar.

On the other hand for checking the latent and informal activity parameters in trade and services (these data is used in calculations of consumer expenditures of population) it is necessary to use the household budget surveys data more widely.

Problem mentioned above could be also solved basing on updating of methodology and practice of budget surveys, not only for estimation of expenses, but also for estimation of revenue item of household budgets.

Table1. Structure of population money incomes in Russia

| | Salary | Social transfers | Property incomes | Entrepreneurship incomes | Other incomes |
|------|--------|------------------|------------------|--------------------------|---------------|
| 1970 | 80,6 | 12,6 | 0,6 | 2,5 | 3,7 |
| 1975 | 78,1 | 14,0 | 1,2 | 2,7 | 4,0 |
| 1980 | 77,4 | 15,0 | 1,2 | 2,2 | 4,2 |
| 1985 | 74,8 | 16,4 | 1,5 | 2,7 | 4,6 |
| 1990 | 74,1 | 14,7 | 2,5 | 3,8 | 4,9 |
| 1991 | 59,7 | 16,3 | 12,8 | 4,1 | 7,1 |
| 1992 | 69,9 | 14,3 | 1,0 | 8,4 | 6,4 |
| 1993 | 58,0 | 15,0 | 3,0 | 18,6 | 5,4 |
| 1994 | 46,4 | 13,5 | 4,5 | 15,9 | 19,7 |
| 1995 | 37,8 | 13,1 | 6,5 | 16,4 | 26,2 |
| 1996 | 40,7 | 14,2 | 5,4 | 13,7 | 26,0 |
| 1997 | 38,2 | 15,0 | 5,8 | 13,0 | 28,0 |
| 1998 | 38,7 | 14,1 | 5,9 | 14,8 | 26,5 |