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**CONFERENCE ON MEASUREMENT OF CAPITAL STOCK**

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**Methods for Evaluation of Capital Stocks and Consumption of  
Capital Assets in Russia**

## METHODS FOR EVALUATION OF CAPITAL STOCKS AND CONSUMPTION OF CAPITAL ASSETS IN RUSSIA

### 1. Methods in current use for evaluation of capital stocks.

A) A federal statistical observation is annually carried out in Russian statistics regarding the availability and movement of capital stocks at all enterprises by the following main kinds (types): buildings (other than residential), residential buildings, structures, machinery and equipment, means of transportation, and others. For each type of capital stock, the reporting organizations annually submit data according to the following indicators: availability of each type of stock at the year's beginning, annual increase (including new stocks), decrease (including full liquidation), availability at the year's end, as well as residual value (less wear and tear). The source of information about the capital stocks of enterprises is represented by their bookkeeping reports where stocks are evaluated with the help of methods principally not much different for individual types of stocks.

The capital stocks belonging to households are annually calculated basing on the results of sample surveys. However, there are problems connected with the evaluation of households' property: part of it is not evaluated.

Natural resources are not evaluated.

B) Updating of data on the volume of stocks is based on regular statistical reports (para. 1.A), and the updating of their value with account taken for inflation - with the help of revaluation of capital stocks, effected regularly (and annually - at times of high inflation). The revaluation is a single country-wide action obligatory for all enterprises and mainly carried out in the interests of taxation. Enterprises reevaluate their own stocks either at current market prices or with the help of average co-efficients centrally developed by the Goskomstat of Russia, and use them in their own bookkeeping as well.

C) The capital stocks are taken account of in various terms of appraisal: by their book ("balance") value and replacement value (cost), by full value and value reduced by wear and tear.

The book value takes into consideration the cost of stocks at the time of their inclusion in the bookkeeping balance and reflects actual expenditure for erection of buildings and structures and for acquisition, delivery, mounting of machinery, equipment and other kinds of capital stocks in prices valid during the period of construction or at the time of acquisition of the capital stocks.

During the periods when revaluation results in a part of stocks being kept on the accounts of enterprises at their replacement value, whereas the capital stocks bought during the time period elapsed since the last revaluation are taken at their initial value, the book value represents a mixed appraisal of the capital stocks.

The replacement value is determined in the process of revaluation, proceeding from the actual current cost of analogous stocks.

D) While evaluating the availability and the movement of stocks, all the institutional sectors are taken into account; however, different information is used for different sectors.

E) Coverage of all the branches of economy is ensured.

F) There exist certain methodological and practical problems of differentiation and appraisal of individual types of capital stocks, depending on their specific features and bookkeeping traditions of long standing. In practice, conditional methods are used for differentiation.

G) Non-material assets are included in the Classification of Capital Stocks and have to be dealt with by enterprises that have all the necessary instructions to this effect. Accordingly, information relating to them should be submitted to statistical bodies. However, in real practice, enterprises may have considerable problems in connection with the appraisal of non-material assets.

## 2. Methods employed for evaluation of capital assets consumption.

A) The basis of the evaluation of capital stocks consumption is comprised of the "balance" (mixed) cost of the capital stocks involved (See para. I.C). Actually, the evaluation by the book ("balance") value is close to the evaluation by the replacement value. To calculate the indicator, the average annual value of capital stocks is employed.

B) Basing on the capital stocks data obtained as the result of the last revaluation, as well as on the data related to the increase and decrease (diminution) of the capital stocks during the year, there is calculated the average annual balance (mixed) value of the capital stocks.

Using the arrived-at average appraisal of the capital stocks and the co-efficients of normal depreciation, calculated for each kind of stocks, the value of the capital stocks consumption is obtained.

In a period of high inflation, the obtained value of capital stocks consumption is broken down into quarters and inflated with the help of price indices for capital investments in the respective quarters.

C) Calculations are carried out for all institutional sectors including the households sector. However, in the households sector, consumption is not calculated for the entire property involved.

D) Recalculation in constant prices is accomplished through price indices for the main types of capital stocks and for construction work. The indices are obtained as the result of statistical observation of prices.

## 3. Calculation of accretion (gain) of capital assets.

A) Time series for accretion (gain) of capital assets that were calculated by traditional methods have been available since the beginning of the 60ies. The series

calculated with the help of SNA methodology has been built since 1989.

B) Data are available by kinds of stocks and by branches. Out of the institutional sectors, only such stocks are so far distinguished that belong to households.

C) The accretion (gain) of capital stocks is simultaneously calculated in two ways:

- through measurement of investments in compliance with the SNA concepts.
- by data annually received from enterprises on increase (commissioning) and decrease (diminution) of capital stocks, - for traditional calculations in the framework of balance construction of capital stocks.

#### 4. Introduction of PIM

There is mainly used the traditional method of data collection from enterprises and regular execution of revaluations. The data on the duration of service of capital stocks are received on the basis of long-term observations and expert appraisals. They constitute the basis for the calculation of depreciation co-efficients and regular consumption of capital assets.

5. The majority of the most significant problems stand in connection with the fact that the market for certain kinds of assets in Russia has not yet been fully formed, or does not exist at all. Thus, land is not the object for sale or purchase, there is still absent an all-Russian market for realty (real property) and housing. Therefore, it is complicated to determine market prices for these types of assets.

Inflation makes it highly difficult to calculate the gain of capital stocks and material current assets. To eliminate the influence of inflation on the cost of capital stocks, there is employed periodic revaluation of stocks carried out by enterprises: and to combat the influence on the cost of current stocks gain, a special technique is used for determination of holding profit at the time of a respective indicator being formed in statistical bodies.

Privatization is not yet reflected in Russia's national accounts.

6. The Goskomstat of Russia is getting down to pilot linkage of the currently used indicators of national wealth (calculated and published in accordance with the traditional methodology) with indicators used in SNA for the capital account and other accounts (consumption of capital assets, holding profit, etc.). It should result in the beginning of practical work for construction of input-output tables of the national wealth, as well as construction of revaluation account and other changes in the assets.

Effective from the next year, the Goskomstat of Russia intends to renounce the practice of annual revaluations of capital assets carried out directly by enterprises, and to introduce the system of statistical revaluation, that is, a mechanism similar in its essentials with PIM.