

QUESTIONS OF METHODOLOGY

STATISTICAL UNITS OF PRODUCTION IN THE SYSTEM OF NATIONAL ACCOUNTS

Andrey Tatarinov

Author affiliation: Federal State Statistics Service (Rosstat) (Moscow, Russia). E-mail: tatarinov@gks.ru.

The article considers a problem of statistical production units used in estimation of gross value added - a key indicator of economic growth and efficiency assessment, and their implementation in statistical practice. Relevance of the problem is stipulated both by the necessity to improve the quality of statistical data, and the leading role of production account that is typical for the Russian national accounts.

Author highlights that there's no statistical unit which could be equally applied in compilation of all the accounts of SNA, because units used for description of distribution and redistribution of income and assets transactions, on one hand, and production of goods and generation of primary incomes, on the other, should bear different properties.

With the respect to the recommendations of international organisations it is proposed to use establishment, or local-kind-of-activity unit as a basic statistical unit of production analysis and evaluation. Establishment is a statistical unit with a high homogeneity of output product and localised in one geographical point. Thus introduction of establishment in statistical calculations will foster formation of statistics on the basis of most homogeneous statistical units, and will permit to obtain comparable national and regional estimates at a detailed level of industries.

Author with the use of conditional patterns considers impact of statistical units on national and regional indicators of production, as well as on transfer prices of internal flows of enterprises with vertically integrated production structure.

As a result author draws a conclusion that application of establishments in national accounts of Russia will permit to exclude divergence in composition of industries of national and regional level and increase the level of their homogeneity. The work on introduction of these statistical units is presently carried out in Rosstat.

Keywords: System of National Accounts, statistical unit, establishment, local unit, transfer price.

JEL: E01, E23, C82.

SELECTED PROBLEMS OF INDEX THEORY IN INTERNATIONAL COMPARISONS OF GDP

Yuri Ivanov

Author affiliation: Lomonosov Moscow State University (Moscow, Russia). E-mail: yni1937@ mail.ru.

The article presents issues of the theory of price and quantum indices used in the international multilateral comparisons of GDP at purchasing power parities carried out by the World Bank in accordance with the decision by the UN Statistical Commission. It applies to the following indices: Fisher, EKS, Geary-Khamis and Walsh. Relative advantages and limitations of these indices have been discussed for decades on different forums and on pages of special literature including SNA 1993 and SNA 2008. However, this discussion can hardly be considered finished due to the complexities of these problems and the need to dig deep into the essence of somewhat opposite points of view of the experts (R.Stone, I.Krevis, P.Hill, E.Dievert).

The author reviews the major tests of axiomatic theory of indices such as: transitivity, additivity, factor reversal, base country invariance, etc., as well as the degree to which they are satisfied to the above mentioned indices. In this context it is noted that in international comparisons of GDP the difference between Laspeyres and Paashe indices are much larger as compared with traditional indices and this complicates economic interpretation of Fisher index (averaging Laspeyres and Paashe indices), which above all does not satisfy the requirements of additivity. For illustration purposes are presented the figures from international comparison of national income

of the USSR and other countries of the Council of Mutual Assistance and Cooperation for 1988. The author also draws a conclusion that the difference in economic potentials between these countries was very substantial and therefore the span between Laspeyres and Paashe indices was very significant as well.

The attractiveness of Geary-Khamis formula is argued. The basis of it is formed by the valuation of GDP of countries at average international prices; this formula is satisfied by the major tests of axiomatic theory of indices. One of the advantages of this formula, in the author's opinion, is that the use international prices in comparative analysis have clear economic interpretation.

Keywords: axiomatic theory, transitivity, additivity, test, comparison, limitation, Fisher index.

JEL: C43, E01, P52.

THE ELABORATION OF SATELLITE ACCOUNTS FOR ANALYZING OF SOCIO-ECONOMIC DEVELOPMENT

Aleksandra Lyapina

Author affiliation: Lomonosov Moscow State University (Moscow, Russia). E-mail: lyapina@econ.msu.ru.

The international conference on the Future of the System of National Accounts (SNA) held in April 2015 in Paris underlined the benefits of satellite accounts for analyzing different aspects of socio-economic development. Its participants highlighted the use of satellite accounts for analyses of human well-being, human capital, environment protection, non-market services and some other aspects of social-economic processes that are not reflected in the central framework of national accounts. Satellite account indicators are sometimes computed on the basis of definitions that may be different from those adopted in the central framework of the System of National Accounts, thus broadening analytical boundaries. The satellite account data are aimed to meet the needs of different groups of macroeconomic data users. The design of external and internal supplement satellite accounts is described. The authors give some examples of satellite accounts with a view to exposing alternative interpretations of the some economic transactions and activities such as ancillary transportation activity of the producing units, health expenditure, non-market household services, etc. The views of national account specialists are presented on ways of supplementing and extending the framework of macroeconomic statistics.

Keywords: national accounts, environmental-economic accounting, satellite accounts, extension of capital concept, wellbeing, natural assets, health satellite accounts.

JEL: C82, E01.

STATISTICS OF MIGRATION

ADMINISTRATIVE STATISTICS OF INTERNATIONAL MIGRATION: SOURCES, PROBLEMS AND SITUATION IN RUSSIA

Olga Chudinovskikh

Author affiliation: Lomonosov Moscow State University (Moscow, Russia). E-mail: migrstat@yandex.ru.

The article explores general questions of implementation of administrative data for the needs of statistics on international migration production. It reviews the main sources of such data as: systems of population registration at a place of residence, data collection systems at the borders; and it also lists and explains the main advantages and disadvantages of administrative data on migration. The situation in the Russian Federation is analyzed through the prism of statistics produced by Rosstat and the Federal migration service of Russia. The dependency of the quality of state migration statistics on primary data coming from administrative sources is illustrated with an example of statistics of migration flows. The paper also explains the consequences of Rosstat's

transition to a new methodology of data collection. The types and capacities of administrative statistics of the Federal migration service of Russia are described; the author also provides examples to explain the shortcomings inherent to certain types of these statistics. The conclusion of the article summarizes the main problems of administrative data implementation to produce national statistics on international migration and possible ways to improve the situation are identified.

Keywords: migration, migration statistics, administrative data, population registers.

JEL: J61, R23.

DATA ON EXTERNAL MIGRATION IN RUSSIA BY DIFFERENT SOURCES: SIMILARITIES AND CONTRADICTIONS.

Marina Lifshits

Author affiliation: Moscow, Russia. E-mail: lifmarina@yandex.ru.

In the article data on the external migration in Russia, by different sources, are analyzed and compared. «Advent» of migrants, according to the official Rosstat data, is to a large extent a process of manifestation in the official statistics of the number of foreigners already in the country. That is why, comparison of official data on population growth by migration with of FMS data on the presence of foreign citizens in the Russian Federation by the length of their stay allows one to approximately estimate the potential of «migration population growth» based on the number of foreigners who are already in the country (at present the figure amounts to 2,8 million persons). This «potential» will be changing depending on the economic environment.

The new rules of national migration control, introduced in 2011, have further aggravated the problem of underreporting of retirement, especially with the countries of the EAEC. This is indicated, in particular, by the dynamics of personal money transfers to Kazakhstan, according to the Central Bank of Russia. Therefore, the number of «permanent» population at present, calculated by the application of the new rules is likely to be overestimated. To make evaluation of labor migration between Russia and the EAEC more efficient may be used the data on personal cross-border money transfers. The article also compares the updated data on the presence of foreign citizens by nationality in the Russian Federation as presented by the Federal Migration Service with those of the Border Service of Russia.

Consequently, the author shows the way expert comparison of data from various existing sources makes it possible to give the most adequate representation of external migration to Russia.

Keywords: international migration, net migration, labor migration, personal remittances.

JEL: C19, J61.

STATISTICAL METHODS IN THE STUDY OF SOCIAL AND ECONOMIC PROCESSES

INDICATORS OF MONEY INCOME AND EXPENDITURES IN THE STUDY OF THE LIVING STANDARDS OF THE RUSSIAN POPULATION

Igor Belyayevskiy

Author affiliation: Moscow, Russia. E-mail: bellrita@mail.ru.

The article presents the statistical characteristics of the well-being of Russian population, its role in the economy and social life. At the present time, the Russian economy experiences a difficult socio-economic situation associated with a steep drop in oil prices which was reflected a sharp fall of the ruble value and strengthening of inflationary processes. The consequences of sanction standoff between Russia and several Western countries were also affected. This determines a need to expedite the processes of import substitution and abandonment of the consumption of certain products that have a negative impact on the quality of life.

The author updates the statistical and social characteristics of the categories of «poverty» and «wealth», and presents the estimates of population being behind «poverty line or threshold». It is noted that, if in the pre-crisis period of 2008–2009 occurred the contraction of the poverty range, then in 2010–2015 the proportion of population which can be classified as poor, once again increased.

The generalizing characteristic of welfare is the monetary income of population, which is usually calculated per capita. Dynamic models reflecting the trends of nominal and real incomes of population were constructed. At the same time, welfare is characterized not so much by incomes, as by expenses of population, by purpose of these costs, and degree of their rationality. In this case, a demographic pressure on Russian residents associated with the process of the ageing of population increases. A sharp discussion on raising the retirement age, as well as on the procedure for payment of income to working pensioners was started.

The well-being of the Russian population is characterized not only by a mean value of the satisfaction of needs, but also the degree of social inequalities. It should be taken into account that the degree of social stratification in Russia is significantly higher than that in the developed countries of Europe. If before the crisis of 2008–2009 some growth in living standards has been observed, then in the period after 2010, there was trend of its slowing down, followed by the subsequent recession.

Keywords: income of population, average per capita income, real incomes, wages, social benefits, wealth, poverty, absolute poverty, relative poverty, standard of living, quality of life, poverty line, demographic pressure, ageing of population, social justice, pension provision, social stratification, social inequality, Gini coefficient, incomes differentiation funds ratio.

JEL: E01, I31, I32.

IN THE COURSE OF DISCUSSION

ON THE ISSUE OF APPLICATION OF THE GINI COEFFICIENT AND OTHER INEQUALITY INDICES

Konstantin Gluschenko

Author affiliation: Institute of Economics and Industrial Engineering, Siberian Branch of the Russian Academy of Sciences, and Novosibirsk State University (Novosibirsk, Russia).
E-mail: glu@nsu.ru

This article discusses a problem posed by G.L. Gromyko and I.L. Matyukhina in their publication «On the use of the Gini index in economic and statistical studies» (*Voprosy statistiki*, 2015, no. 9), and states a viewpoint regarding calculation of the Gini coefficient with the use of average, relative, and some other values.

As the author points out, the Gini coefficient is merely one of many inequality measures; thus the statements regarding the Gini coefficient equally well relate to other indices having the same essence (e.g. the Theil index, Atkinson index, Herfindahl–Hirschman index, Hoover index, etc.). The author states that the criticism of the application of the Gini coefficient bases on fallacious premises, first of all, on erroneous interpretation of the notion of distribution in statistics. The distribution is interpreted as a way of dividing a good (with positive or negative utility) between some units (individuals, firms, regions, etc.). However, the statistics uses a different notion of distribution, empirical probability distribution. Besides, in author's sight, the publication under consideration absolutizes the interpretation of the Gini coefficient as 'concentration ratio' and its connection with the Lorentz curve.

The article provides specific examples that illustrate the adequacy of the use of the Gini coefficient and similar indices calculated from average and relative values for measuring inequality (differentiation, unevenness, dispersion, etc.).

Keywords: inequality measurement, distribution, Gini index, Lorentz curve, per capita indicators, pooling of data.

JEL: D31, D63.