AMENDMENTS REQUIRED TO BE TAKEN INTO CONSIDERATION WHEN CALCULATING GROSS DOMESTIC PRODUCT (ON THE BASIS OF SYSTEM OF NATIONAL ACCOUNTS – 2008)

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Abstract. This article is devoted to the system of national accounts (SNA) and peculiarities of its amendments required to be taken into consideration. On the basis of the research results the authors have developed relevant conclusions.

Key words. System of National Accounts, the method of formulating the GDP by the production, using revenue and expenditures.

Introduction. The standard 2008 of the System of National Accounts (SNA) has been developed under direction of the the Statistics Committee of the United Nations Organization with the account of the recent trends of the world economy. The System of National Accounts (SNS) represents an internationally agreed standard set of recommendations for calculating indicators of economic activities in accordance with clear rules for handling accounts and accounting at the macro level, based on the principles economic theory. These recommendations are formulated in the form of a system of concepts, definitions, classifications and accounting rules that constitute generally-accepted at the international level the standard for calculating such indicators as Gross Domestic Product (GDP). It should be noted, that the European Union, the USA, Canada have completely introduced this system in their practice. Thus, the countries –

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members of the Commonwealth of Independent States (CIS) have a number of plans and activities which can be undertaken to introduce this standard in practice.

In comparison with the SNA-1993, a newly developed standard implies innovating interpretations of several significant economic operations. In particular, they reflect such important aspects as expenditures on research and development, expenditures on civil affairs, financial intermediary services, expenditure on housing and public utilities (System of National Accounts, 1993).

Up to present time, the international standard SNA-93 has constituted as a methodological basis for the national system of accounts of the Republic of Uzbekistan. Introduction in practice of the new innovating System of National Accounts - 2008 to a certain extent has made some impact on the GDP formulation method by the production method, by the method of the revenues use and by the expenditures method.

According to the SNA – 93, calculation of expenditures related to the research and development activities, market production of the research activities and their use is included in the intermediate consumption.

However, in the SNA-2008, the classification of assets changes and the results of research and experimental developments which can be used in the production process several times are classified as gross savings. Only the results of the research and experimental developments which cannot be used more than once, are included in the intermediate consumption. In addition, if their owner (developer) does not intend to get an economic benefit, for example, in case of results of social researches, these results can also be included in the intermediate consumption (System of National Accounts, 2012).

Main part. According to the method of the GDP production, intermediate consumption decreases and gross added value increases.

When calculating the GDP by the method of final consumption or expenditures, expenditures of the public administration sector on the final consumption decreases and the gross capital savings increase. The impact of this change on the GDP has led to an average of 0,5 percent of the GDP growth over 3- years period of time.

In this regard, it is highly recommended to classify the SNA system of military hardware – 2008 as a fixed asset. Thus the expenses on the military hardware with the use over a period of more than one year should be transferred from the intermediate consumption to the gross savings. Herewith, it is possible to achieve the GDP growth (System of National Accounts, 2012).

Stages of flow of the Gross Domestic Product calculated in the republic can be characterized as it follows: as a production category (total amount of goods and services produced by economic units); as a distribution category (consolidation of factorial and non-factorial revenues); as a category of use (expenditures made on the final consumption and gross savings).

Regarding the methodological approach, the GDP calculated by the final consumption method, consists of expenditures, investment volumes and net exports of all domestic economic entities operating in the republic. The GDP calculated by the final consumption method if expressed in the form of the following formula:

$$Y = C + I \pm N_{Ex} \quad (1)$$

here, Y – **Gross Domestic Product; C – consumption expenditures; I – volume of investments; N_{Ex} - net export.**

Expenditures incurred by all economic entities throughout the country, together with the amount of expenditure incurred by households, include the amount of gross public expenditure and the cost of non-profit organizations serving households. The formulation of all expenditures incurred by the economic entities in the national economy looks as follows:

$$C = C_d + C_g + C_{NPO} \quad (2)$$

Here, C_d —expenditures of households; C_g — expenditures of the public administration authorities; C_{NPO} — expenditures of non-profit organizations rendering services to households.

Final consumption expenditures of the public administration authorities are primarily driven by the need to meet the consumption of separate households and, secondly, meeting the needs of the general public (or the needs of the major part of the public). The main part of the production volume in the public administration system is obvious in the form of non-marketed services. Healthcare, education, defense, environmental protection, culture and religion, social security, housing and communal services and other services in the national economy are determined as the amount of non-marketed production in the public administration system, which is defined as the cost of public expenditures on production. Hence, the volume of production in the public administration system is comprised of the aggregate amount of both non-marketed values and marketed values.

The final consumption expenditures of public administration authorities is included in the cost of goods and services purchased by the government for social needs and contributions.

The final consumption expenditures of the public administration authorities are determined by the following formula:

$$C_g = Cg_g^{out} - C_{gv.out}^{own.acc} - C_{g.sgs}^{ei.s.pr} + Cg_{todom}^{cSgsfr.i.pr} \quad (3)$$

Cg_g^{out} —production volume of various types of the public administration authorities;

$C_{gv.out}^{own.acc}$ —volume of goods and services produced by the public administration sector for its saving needs;

$C_{g.sgs}^{ei.s.pr}$ — value of goods and services sold at economically significant prices and economically insignificant prices.

$Cg_{todom}^{cSgsfr.i.pr}$ —value of the goods and services purchased for social transfers (distributing at very low prices or even free-of-charge) by producers to households.

The volume of the net export volume represents the difference between the volume of exported and imported products (goods and services) and is determined in the form of the following formula:

$$\text{(4)}$$

Here,

g   volume of the national export;

f   volume of the national import.

According to the final consumption method of the GDP calculation, the amounts of the final consumption on the goods and services of the households, public agencies, non-profit organizations serving households, illustrate the residual balance between the gross savings and export-import of the goods and services (Table 1).

The final consumption method promotes providing the required data on the GDP structure, meeting the final consumption requirements, as well as determining the value of the goods and services consumed to enhance national welfare of the country. In addition, it enables to analyze basic trends and correlations between the areas for the final consumption of the GDP.

In terms of current prices, the biggest share in the GDP consumption structure belongs to the final consumption expenditures. Regarding final consumption expenditures, the biggest share belongs to the household expenditures and over the period of 1991-2017 this indicator increased from 44% to 63%. During the analyzed period, expenditures of public agencies on the final consumption have changed significantly. In 1991 this indicator constituted 20,7%, however, in 2017 this indicator decreased to 16,7%. The share of non-marketed services rendered by non-profit organizations to the households in the GDP accounted for on average 1,1%.

Table 1

Structure of the GDP according to the final consumption areas[1]

Indicators:	1991	1995	2000	2005	2010	2016	2017
GDP - total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**
Final consumption expenditures	**77,0**	**72,9**	**80,6**	**64,3**	**64,8**	**72,6**	**68,4**
Households	54,9	50,1	60,9	47,4	47,9	54,5	50,8
Public administration authorities	20,7	22,3	18,7	15,9	15,8	17,1	16,7
Non-profit (social) establishments rendering services to the households	1,4	0,5	1,0	1,0	1,1	1,0	0,9
Gross savings	**26,8**	**24,2**	**19,6**	**28,0**	**26,6**	**27,4**	**29,0**
Gross savings of the fixed assets	25,1	33,0	24,0	22,0	27,3	26,4	26,6
Changes in the reserves of the tangible funds circulation	1,7	-8,8	-4,4	6,0	-0,7	1,0	2,4
Export-import net balance of goods and services	**-3,8**	**2,9**	**-0,2**	**7,7**	**8,6**	**0,0**	**2,6**
Export	35,3	31,6	26,5	37,9	33,1	18,1	29,4
Import	39,1	28,7	26,7	30,2	24,5	18,1	26,8

Funds established on the basis of the gross savings and circulating tangible assets demonstrate the tendency of growth. Over the period of 1991-2017, the share of the gross savings were increasing steadily and their share in the GDP structure amounted to 26,5%. The basic part of the gross savings constitutes the gross saving of the fixed assets, thus, demonstrating the investment attractiveness of the economy. The share of these indicators increased from 25,1 in 1991 to 26,6% in 2017. During the analyzed period, the share of net exports of the goods and services in the GDP accounted for 2% on average (export 30,5%, and import 28,4%). During the recent years the basic element of the GDP have been demonstrating the tendency of the table growth.

The financial intermediary service which is measured in an indirect (additional) way, in the SNA-93 is divided into separate parts of economic activities. However, in the SNA-2008 the financial intermediary service is included in the intermediate or final consumption due to its large volume and new methodological approaches. When the GDP is calculated according to the

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[1]Calculated by the authors on the basis of the data of the State Statistics Committee of the Republic of Uzbekistan.

SNA-2008, the volume of the financial intermediary service included in the intermediate consumption decreases, which, in turn, will cause the GDP growth.

Moreover, a new approach used to account services by private residential property also leads to the GDP increase. If according to the methodology of the SNA-93, the residential property of individuals used to be evaluated on the basis of the total area and the expenditures on its use, in compliance with the SNA-2008 the method of accounting expenditures of residents of the private property is used to calculate conditionally determined amount of payment for private housing.

In the framework of improving the NSA indicators a particular attention has been paid to the methodology of calculating non-observed economy. In the system of national accounts according to the international standards in order to provide further coverage of goods and services, additional calculations (recalculations) are implemented in the non-observed economy. It evaluates *non-observed economy* in terms of the *shadow economy*.

According to the statistics of Belorussia, the volume of the non-observed economy accounted for 11% from the GDP in 2013. Thus, in compliance with new methodological approaches, the absolute value of the GDP of this country increased by 3,4% in relation to 2012 (Gayibnazarov, 2015).

Currently in the majority of countries which have introduced the SNA-2008, the illegal activities have also been added in the GDP amount. These activities involve drug production and distribution, prostitution, alcohol and tobacco smuggling. In conditions of the Republic of Belorussia the selection of the reliable information sources is considered to be the main problem and obstacle to analyze this area. According to the official data of the Internal Affairs departments and assumption of experts, these illegal activities constitutes a small portion and therefore they haven't been reflected in the structure of the GDP as illegal activities.

Even though this new methodology has caused the growth of the GDP volume, there is no impact on its growth rates because the amount of the impact of methodological changes of the GDP volume in the basic period corresponds to the same amount in the reported period.

It should be noted that a number of activities aimed at introduction of the SNA-2008 are implemented in the system of statistics of the Republic of Uzbekistan, however, this process hasn't been accomplished yet.

Crucial significance of this issue and necessity for its implementation has been emphasized by Sh.M.Mirziyoyev, the President of the Republic of Uzbekistan in his message to the Oliy Majlis: "In the period of the transitive economy its is particularly important to arrange an accurate handling of statistic reports and ensure a true economic potential of the country.

Thereby it is possible to achieve a fair evaluation of the GDP. In this regard it is required to ensure fully introduction of the System of National Accounts of the United Nations Organization and the International Monetary Fund in our republic since January 1, 2020" (Mirziyoyev, 2018). The execution of the assignment set forth by the President of the Republic of Uzbekistan imposes a great amount of responsibility to the officials engaged in the statistics system.

In particular, one of the methods used by the countries when calculating the amount of the GDP is the method of calculating by expenditures which is connected with the improvement of the final consumption method. In this regard it is advisable to take into consideration direct relation of some recommendations with the basic rules of the SNA-2008 for the CIS countries. They are the following:

- the amount of the GDP, its structure and changes affecting the growth rates of the GDP are demonstrated when interpreting expenditures related to the   research activity and military hardware.

According to the SNA-93, the production in the research activity is reflected as the intermediate consumption, which, in consequence, causes inadequate evaluation of the GDP.

However, in the SNA-2008 the expenditures on the research activities are transferred from the intermediate consumption to the gross savings. This results in the increase of the absolute

amount of the GDP, thus providing the GDP growth rates due to the rise of the expenditures on the research and development.

In the SNA-93 expenditures on the military sphere were not included in the fixed assets, and these expenditures were reflected in the accounts of public administration sector as an intermediate consumption.

On the contrary, in accordance with the SNA-2008 expenditures on the military hardware in terms of their compliance with the general criteria of the SNA are reflected as the aggregate of fixed assets.

Consequently, it will be necessary to differentiate the systems of military hardware and the military reserves.

It should be noted, that the Central Bank of the Republic of Uzbekistan has referred the amendments occurred in the process of determining banking services, financial services and insurance services to the new modern trends appeared in this particular sphere.

Pursuant to the SNA-93 the charges and commission fees received from the services rendered by the Central Bank have been recommended to account as financial intermediary services. Such method sometimes has caused irregular either positive or negative evaluation of the production. However, the SNA-2008 has determined various functions of the Central Bank regarding storage, evaluation and use of the production. In this regard it is required to distinguish the companies producing marketed and non-marketed services. With respect to the current expenditures, the evaluation I applied to the non-marketed services. Their use is reflected in the aggregate services rendered by the public administration sector. In addition, the public administration sector is reflected in the expenditures of the intermediate consumption, production and final consumption which, in turn, leads to the GDP growth.

According to the SNA-93, financial services are interpreted as financial intermediary. However, over a period of time, this interpretation has become less used, and the importance of managing portfolio of financial assets has increased with the aim of obtaining holding revenues.

The SNA-2008 provides a more accurate definition of the financial corporation to enhance the significance of these services; in particular, a margin presented in the certain form has been introduced in the financial services payments by the agreements on securities and foreign exchange.

Relatively big amount of insurance pay-outs (life insurance excluded), in particular, huge amount of insurance indemnities used to cover losses from damages and accidents require proper evaluation of insurance services.

Pursuant to the SNA-93, production of insurance services is calculated by the difference between insurance premiums and insurance pay-outs (calculated funds).

When determining the insurance production, according to the SNA-2008 it is recommended to use the adjusted amounts of insurance premiums and additional insurance premiums for the calculation of insurance product. This technique will facilitate avoiding unfavourable fluctuations. Like direct insurance, reinsurance should also be reflected directly as a current insurance gap.

In our opinion, amendments aimed at improving non-observed economy in the GDP and enhancing analytical significance of the data of the shadow business should be introduced.

The SNA-93 possesses international statistical description of the unofficial sector. However, this description is not sufficiently developed and hasn't been implemented in practice yet.

Conclusion. The SNA-2008 contains the recommendations developed on the shadow economy and as a consequence relevant descriptions have been clarified. It provides an integrated approach to the informal sector that reflects the particular interest of all economic activities in

the SNA and represents a particular interest of the household sector in terms of the economic policy.

A unofficial production, as well as perfect description of the non-observed sector of the economy, as well as informal employment are currently occurring throughout the world. This, in turn, promotes clarification of the "unofficial sector" concept and application of international systems of comparison, which, in turn, will lead to the GDP improvement.

In the process of improving calculation of the GDP by the final consumption method, above-mentioned recommendations and other relevant aspects should be taken into account.

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