Mechanisms for Ensuring Sustainable Development of Society

Wydawnictwo Wyższej Szkoły Technicznej w Katowicach, 2019

Mechanisms for Ensuring Sustainable Development of Society

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Series of monographs Faculty of Architecture, Civil Engineering and Applied Arts

Katowice School of Technology

Monograph 29

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Applied Arts Katowice School of Technology
Monograph · 29

ISBN: 978-83-955125-4-4

Editorial compilation
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1.3. Analysis of key macroeconomic indicators and features of economic growth of Ukraine

The situation in the national economy of each country is determined by a set of specific macroeconomic indicators, each of which characterizes the economic situation in its own way. The main macroeconomic factors that characterize the socio-economic development of the country include gross national product, gross domestic product, national income indicators, inflation index, unemployment rate, external and internal government debt, foreign investment and others.

The main criteria for assessing economic development are production volume, price stability, employment and international trade, which are extremely important for describing and understanding the economic situation in the country.

The study of the basic macroeconomic indicators makes it possible to evaluate the main processes that take place in the socio-economic life of any country. Understanding the macroeconomic results obtained, which reflect the tendency and dynamics of the functioning of the economic system, contribute to a more effective and informed management decision-making, improvement of planning and forecasting of economic development [1].

Defining the key indicators of the domestic economy, we start with GDP as one of the most important indicators of its development. Gross domestic product reflects the final consumption value of goods and services produced in the country over a period, usually a year.

Gross domestic product indicator is a significant indicator of the socio-economic development of the country. In calculating GDP, it is possible to estimate the output of production and consumption, the rate of economic growth, labor productivity, as well as to form an idea of the general welfare of the nation [2, p. 804].

Table 1. GDP dynamics of Ukraine from 2005 to 2018

Years	Nominal GDP	Nominal GDP (in UAH) per capita		GDP (in USD) per capita		Population (thousand)
2005	441452	9371.6	+2098.7	1828.7	+461.4	47105
2006	544153	11630.2	+2258.6	2303	+474.3	46788
2007	720731	15496.5	+3866.2	3068.6	+765.6	46509
2008	948056	20494.9	+4998.4	3891	+822.4	46258
2009	913345	19832.3	-662.5	2545.5	-1345.6	46053
2010	1082569	23600.4	+3768.1	2974	+428.5	45871
2011	1316600	28813.9	+5213.4	3570.8	+596.8	45693
2012	1408899	30912.5	+2098.6	3856.8	+286.1	45577
2013	1454931	31988.7	+1076.2	4030.3	+173.5	45483
2014	1566728	35834.0	+3845.3	3014.6	-1015.7	43722
2015	1979458	46210.2	+10376.1	2115.4	-899.2	42836
2016	2383182	55853.5	+9643.3	2185.9	+70.5	42668
2017	2982920	70224.3	+14370.8	2640.3	+454.4	42277
2018	3558706	84192.0	+13967.7	3095.2	+454.9	42269

**Source: [14]*

As can be seen from the table 1 Ukraine's GDP from 2005 to 2018 was growing, with the country's economy booming. In 2019, a similar trend continued. The exceptions were 2008-2009, a downturn caused by the global economic crisis and a decline in GDP. The uplifting begins with 2010; in 2012, the improvement was due to the holding of the Euro 2012 World Tournament of Football. In 2014-2015, indicators dropped slightly (the start of the Counter-Terrorism Operation in the east of the country), and from 2016 to the present, there has been an increase in nominal and GDP per capita, despite the loss of part of the industrial potential that was in the occupied territories. Ukraine's nominal GDP has also been increasing over the past six years, which is primarily due to an increase in the average price level.

GDP per capita is closely linked to the economic well-being of citizens [4, p. 49]. Analysis of its change confirms trends like GDP dynamics. Yes, nominal GDP per capita is steadily increasing, while real GDP per capita is declining. If in 2010, it amounted to 24798 UAH per person, in 2013 – 26 719 UAH / person, in 2016 the real GDP in prices of 2010 decreased by 5.8% to 23 346 UAH / person, which indicates the impoverishment of the nation. In 2018, this figure has grown to 57 908.6 UAH / person, but in dollars, the average income has decreased [5].

GDP is the basis for the study of socio-economic development of the country. The analysis of its dynamics in Ukraine in combination with other macroeconomic indicators gives grounds to conclude that the domestic economy is in a stage of deep crisis, which is accompanied by stagflation [5].

Comparing the dynamics of macroeconomic indicators of Ukraine with other countries, in general in the European Union the level of GDP per capita is more than $ 35 thousand, the number of people living in its territory more than half a billion, from the number of 28 countries of the European Union according to estimates of the European Bureau of Statistics (Eurostat). On average across the European Union in 2016, the average GDP growth rate is 2.3% (Latvia – 4.8%; Lithuania – 3.9%; Netherlands – 3.8%; Spain – 3.1%; Austria – 2.9%; Germany – 2.1%). Non-EU countries also show strong growth rates: Romania – 5.7%; The Czech Republic – 5.5%; Poland – 4.4%; Sweden – 3.9% [6].

GDP per capita is one of the most accurate ways of assessing a country's economic development. The latest Heritage Foundation's Index of Economic Freedom indexes GDP and GDP per capita. In 2017, this indicator in Ukraine amounted to $ 2205, compared with the leading countries of the world GDP of Ukraine is far behind and places our country in 133rd position among 187 countries for which the survey was conducted. According to IMF data, Burundi, Malawi and Madagascar showed the lowest rate among the countries considered [7].

A strong influence on the GDP of Ukraine has a scientific backwardness of the country from the leading countries of the world and mainly extensive type of development. Because of this, Ukraine is characterized by the development of only certain industries that are costly, the production of mainly raw materials, and finished products do not always meet world standards. A high level of corruption is also a strong influence on the country's GDP.

After the Euro Square residents of Ukraine have become several times poorer, there was a devaluation of the national currency, which led to a decrease in real incomes of the population.

An increase in output due to an increase in the productive potential of the economy can only occur if the dynamics of aggregate demand corresponds to the dynamics of potential GDP.

An important indicator of the development of any country is economic growth. Economic growth is one of the major macroeconomic problems that is being explored by all countries seeking to achieve higher economic performance. Economic growth is the main indicator that characterizes the economic development of any country, on a scale of all social production, represented by an increase in the annual volume of production of goods and services.

Economic growth means an increase in the output of goods and services, that is, an increase in real GDP. Production can be increased in two ways: 1) on the conditions of closing the recessionary gap, which causes a gap between aggregate demand and potential GDP; 2) on the conditions of increase of potential GDP.

This is a long-term increase in output due to an increase in potential GDP and an adequate increase in aggregate demand.

Economic growth is measured by two indicators: the average annual growth rate of real GDP; the average annual growth rate of real GDP per capita. The economy of most countries in the world annually grows by several percent. Thus, over the past five years, real GDP growth rates in the EU countries have averaged over 2%.

The economic growth and product growth rate ($\Delta У$ / $У$) of all sources is determined by all sources equal to the sum of the three components of the right-hand side of the equation:

- capital growth rate (ΔK / K) multiplied by the share of capital in the manufactured product (α);
- rate of increase in the volume of labor (ΔL / L) multiplied by the share of labor in the manufactured product ($1 - \alpha$);
- the rate of increase in aggregate productivity of factors of production that reflect the contribution of technological progress to product growth [8, p. 470].

Economic growth reflects an increase in the volume of goods and services produced over a period, typically one year. This is influenced by several factors, the most important of which are the factors of demand, supply, distribution.

These factors are interrelated and affect economic growth, for example, if labor resources are not fully utilized, this will slow capital accumulation and low innovation and investment attraction will increase unemployment [9].

In addition to these factors, there are also factors that influence economic growth: social, institutional, political, cultural, but the factors of demand, supply and distribution are key. At the same time, an increase in production in the country (economic growth) is achieved by increasing the number of factors of production and increasing the efficiency of their use. Given these factors, there are extensive and intense types of economic growth. The first is due to the increase in the production of goods and services on the basis of an increase in the number of factors relative to technology, the second - an increase in production occurs on the basis of resource efficiency, productivity increases.

The following indicators measure economic growth:

- increase of real GDP (NNP, ND) in absolute electors over a certain period;
- increase in real GDP (NNP, ND) per capita;
- increase in real GDP (NNP, ND) per employee per one period [8, p. 471].

The economy of most countries in the world annually grows by only a few percent, which is enough for developed countries. Dynamics of real GDP growth rates and projected levels in some worlds are presented in Table 2.

Table 2. GDP growth in some countries (in billions of 2010 dollars) [10]

Countries	2010	2015	2016	2017	2018	2019**
World	4,29	2,81	2,42	3,10	3,17	3,08
Canada	3,08	1,00	1,41	3,05	2,10	1,90
USA	2,53	2,86	1,49	2,27	3,05	2,86
Europe	2,09	2,27	1,93	2,38	2,14	1,87
The European Union 28	2,10	2,32	1,96	2,44	2,13	1,87
France	1,97	1,07	1,19	1,82	1,70	1,61
Germany	4,08	1,74	1,94	2,22	2,17	2,00
Greece	-5,48	-0,29	-0,24	1,35	1,79	2,34
Bulgaria	1,32	3,62	3,94	3,56	3,35	2,97
Estonia	2,26	1,67	2,06	4,85	3,52	3,53
Poland	3,61	3,84	2,86	4,55	4,60	3,25
Russia	4,50	-2,83	-0,22	1,55	1,70	1,80
Ukraine	4,20	-9,77	2,31	2,50	3,20	3,26
Belarus	7,79	-3,83	-2,53	2,42	2,05	1,38
Georgia	6,25	2,88	2,85	4,99	4,77	4,16
Moldova	7,10	-0,40	4,50	4,50	3,90	4,40
China	10,64	6,90	6,70	6,90	6,60	6,40
Japan	4,19	1,35	0,94	1,71	1,07	1,02
Bangladesh	5,57	6,55	7,11	7,28	7,10	7,19
India	10,26	8,15	7,11	6,62	7,25	7,50

** Source: USDA citing World Bank, IMF, IHS, Oxford Economic Forecasting*

*** Predicted level*

As can be seen from the Table 2 GDP growth rates in the represented countries are growing. Overall, the world growth rate is forecast to be 3.08% in 2019, compared to 4.29% in 2010 (United States Department of Agriculture Economic Research Service). A significant increase in GDP is observed in Asia and Africa.

In 2014, after the annexation of Crimea by Russia and the onset of the Donbas conflict, the Ukrainian economy contracted by 6.6%. In 2015, the fall was even deeper – 9.8%. However, since 2016 the economy of Ukraine began to recover – that year ended with a growth of 2.4%.

The leaders of global economic growth in 2018-2019 were: Syria, Bangladesh, Bhutan, India, Rwanda. Although not always high growth rates in the country indicate a stable economic situation, for example, Syria's leadership in the list of countries is associated with effective leadership and some control in the country, but while the Syrians have not become richer, high figures in 2019 indicate a deep decline of the country in previous years.

Six countries in 2019 will see GDP fall, not growth: Venezuela, Yemen, Iran, Equatorial Guinea, Argentina and Nicaragua. The Economist experts predict Venezuela's decline of 5.7% – the largest decrease in the world [10, 11].

According to the World Bank (WB), International Monetary Fund (IMF), Oxford Economic Forecasting [11], over the next 10 years, global economic growth will be stable (at 3% per year). In the Table 3 presents the forecast of growth of the largest economies of the world including Ukraine by 2030.

Table 3. Forecast of economic growth of the world [12]

Developed economies	2018-2020	2021-2025	2026-2030
India	7,8 %	7,6 %	6,8 %
China	6,1 %	5,4 %	5,0 %
Indonesia	5,2 %	5,0 %	5,0 %
USA	2,2 %	2,1 %	2,1 %
United Kingdom	1,6 %	1,7 %	1,8 %
Eurozone	1,7 %	1,2 %	1,1 %
France	1,6 %	1,3 %	1,2 %
Germany	1,6 %	1,1 %	1,0 %
Japan	1,1 %	0,8 %	0,9 %
Ukraine	2,7 %	3,4 %	3,4 %

** Source: USDA citing World Bank, IMF, IHS, Oxford Economic Forecasting*

According to USDA, developing countries will, in the long term (10-15 years), reduce the gap between developed countries and increase their share in world GDP by up to 50% (2030). Developing countries are driving the growth of the world economy and consumer demand in the world. According to analysts, the WB and IMF have been the fastest growing Indian economy in recent times [11, 12].

WB and IMF estimates that by 2030 the list of the world's largest economies will not change significantly. Leadership will belong to countries that win global competition in technology and innovation, research. The ranking of countries by real GDP (forecast 2030) is shown in Fig. 1.

In terms of real GDP in 2018 (2010 steel prices), the largest economy in the world is the United States. The USDA estimates that the United States will retain its leadership by 2030. However, the gap between the US and China will be narrowed to a minimum. India ousts Germany from the top four, and Indonesia overtakes Russia. A new top ten economies will emerge, leaving France, Italy, Canada and the United Kingdom. New countries will emerge – Egypt, Indonesia and Turkey.

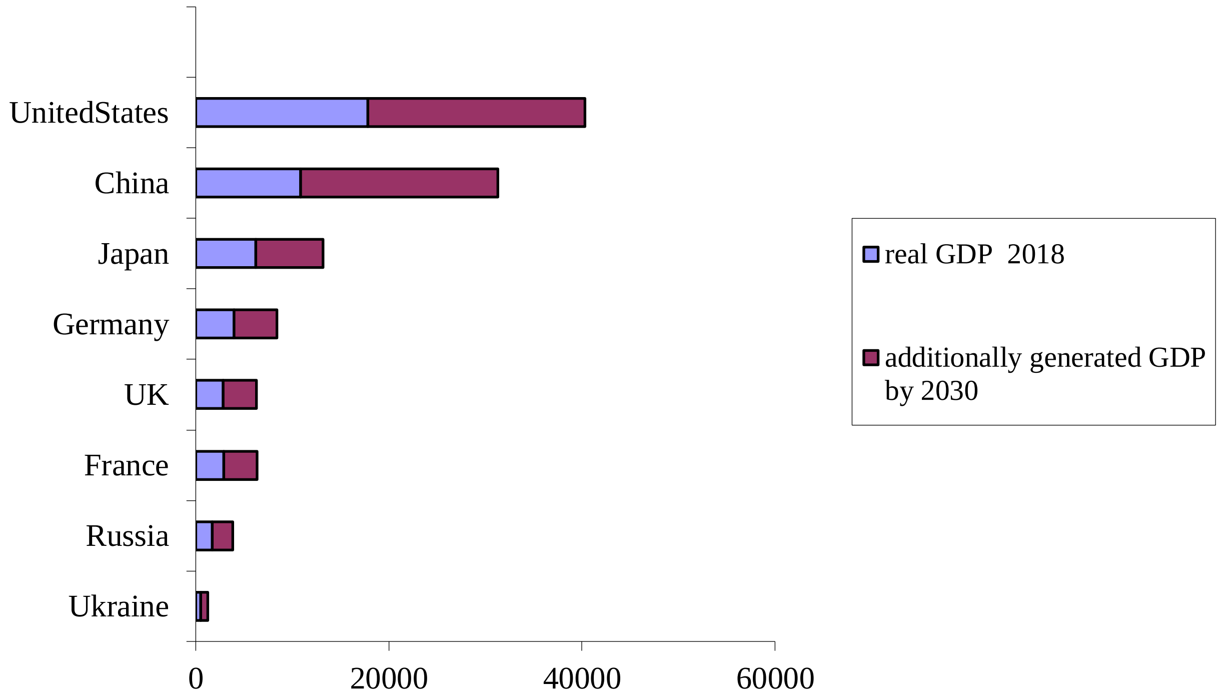

Fig. 1. The leading countries are projected to have real GDP in 2030 [10, 11]

The International Monetary Fund (IMF) has downgraded the global economic outlook for 2019 to 3.3%. Previously, the global economy was projected to grow to 3.5%. Monetary policy has softened in the world's leading economies.

The domestic economy is moving quite slowly: growth (after calculating all annual indicators) is expected at about 3.4% of GDP, so our country's task is to make economic growth truly sustainable, such rates are not enough to recover the economy after the recession that took place in the revolutionary 2014-2015.

The growth of the gross domestic product of Ukraine in the second quarter of 2019 was a record for the last year's 4.6%. In the second quarter, growth accelerated in several sectors at once. It is at least industry, retail and agriculture, where harvesting began earlier than 2018. Commodity prices that Ukraine produces have been rising and gas and oil prices have remained low.

Private consumption – the main factor in accelerating the economy – will remain the main driver of economic growth. At the same time, high rates of growth of real wages, which are stimulated by active migration processes, remain. Fiscal policy is also mitigated, including by further raising social standards.

Analysis of the structure of gross value added of manufactured goods allows to determine the economic-forming branches of the domestic economy. The preliminary step was to determine the overall economic downturn in terms of output, which also highlights changes in the overall structure of GDP revenue formation [13].

The main sectors that shape GDP are industry, trade and agriculture. In addition, in recent years there has been a decline in the share of GDP in industry – from 27.6% in 2010 to 24.8% in 2018, construction – from 3.7% to 2.7%, transport – from 12,7% to 7.6%. Instead, the share of agriculture is increasing significantly, from 8.4% in 2010 to 11.9% in 2018 (Fig. 2).

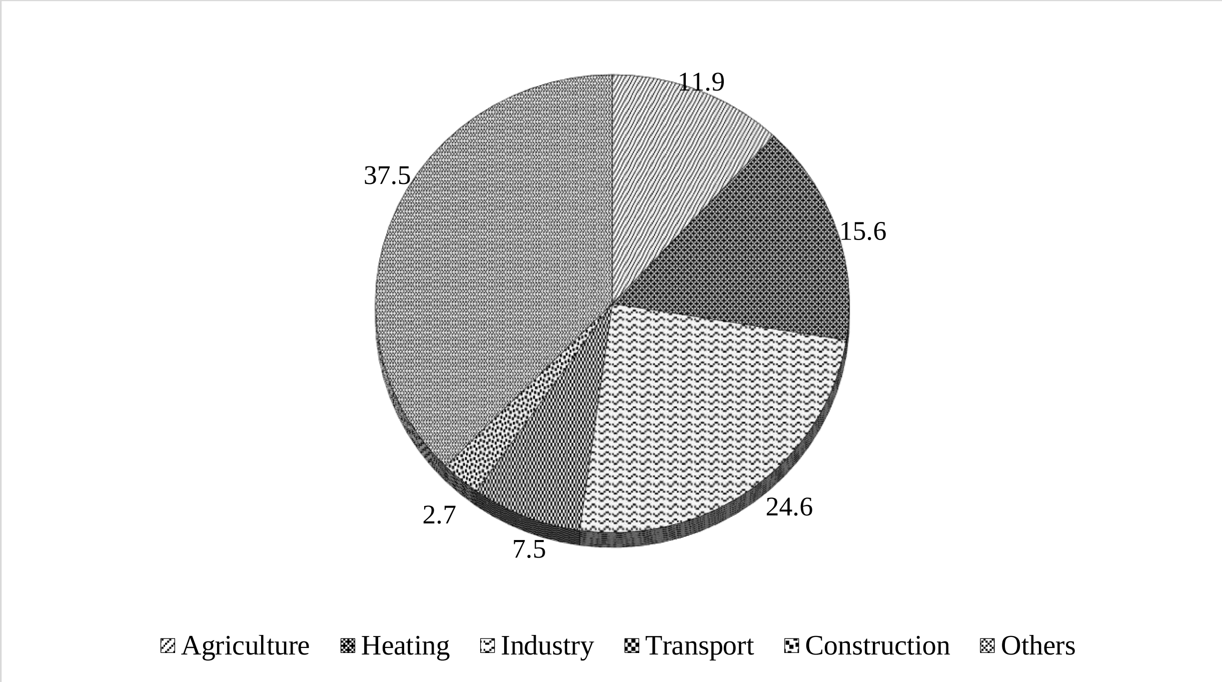

Fig. 2. Gross value-added structure by 2018 [10, 13]

The industrial sector plays a key role in the Ukrainian economy - its performance is a very important factor in socio-economic development. The industrial sector is important for managers as it influences the overall state of the Ukrainian economy and determines export potential [13].

Parts of individual industries in total industrial production in 2018 are presented in Fig. 3.

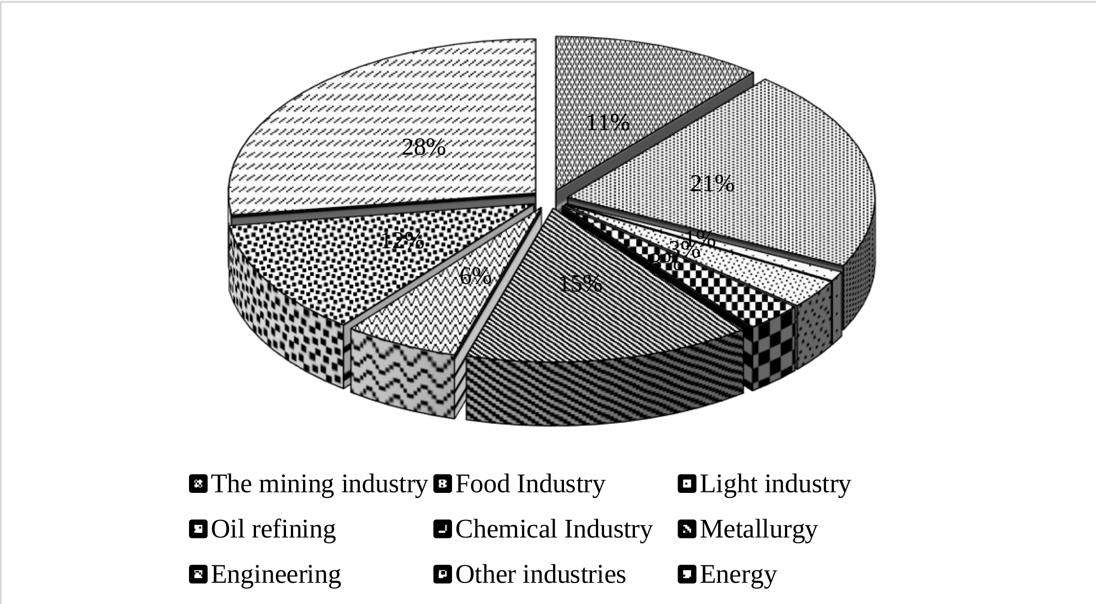

Fig. 3. Structure of sales in 2018 [10]

Mining, food, energy and metallurgy are key industries with a total contribution of over 70% to gross value added.

It should be noted that in recent years, the structure of industrial production has changed a lot – this is due to a general decline, not structural changes. Mechanical engineering and mining decreased by 13.9% compared to 2013, mechanical engineering – minus 7%, light industry – minus 2.3% [13].

The analysis of the contribution of individual industries to exports (by the results of 2018) shows that the industries are characterized by a rather high share of exports: metallurgy (63.6% of output is exported), mechanical engineering (51.9%), light industry (46,3%), wood industry (35.8%). Other sectors export less than 30% of their output. Commodity structure of foreign trade in 2018 is shown in Table 4.

Table 4. Commodity structure of foreign trade in 2018 [14]

Goods	Export		Import	
	thousand US dollars	in% to the total volume	thousand US dollars	in% to the total volume
Total	43266580	100,0	49598476	100,0
Agricultural products	14931094	34,5	2366170	4,8
Precious metals and articles thereof	10124248	23,4	3012037	6,1
Machines, equipment and mechanisms	4276996	9,9	9901671	20,0
Mineral products	3947735	9,1	12504582	25,2
Chemicals and related industries	1660672	3,8	6546516	13,2
Wood and articles thereof	1723977	4,0	1205329	2,4
Textile materials and articles	759566	1,8	1738254	3,5

The key industrial and export industries are metallurgy (23.4% of total exports in 2018). In addition, it is one of the few industries that we export more than we import into the country.

In 2018, Ukraine ranked 13th among world steelmakers, reducing production to 21.1 million tons (down 1.1% from a year earlier). In 2017, 21.3 million tons of steel was produced, which is 12% less than in 2016.

It should be noted that the big impact on the economic downturn was caused by the problems in metallurgy, which have been going on since 2014. The loss of some of the industrial areas, the repeated rise in energy prices and the lack of government support have led to the situation. Even the uncontrolled devaluation, which had to reduce the cost of export, together with the above factors and the loss of key markets and logistics, did not allow domestic metallurgy to increase production.

The current decline in industrial exports confirms a general trend in the overall drop in exports over the past years. Thus, Russia's sanctions have restricted access to the key Russian market, which has created problems for many exporters, including industrial enterprises.

Equally important and in need of immediate solution are the following problems of the domestic industry:

- moral and physical deterioration of fixed assets;
- breach of supplies of raw materials between group companies located in the uncontrolled territory of Donetsk and Luhansk regions;
- high dependence on the global markets and excessive influence of external demand, underdeveloped domestic demand;
- high energy consumption of production;
- limited energy resources;
- production of products with low added value, etc. [13].

In the fall of industry, the main driving force was the agro-complex. The increase in the share of agriculture in the overall GDP structure from 8.4% in 2010 to 11.9% (+3.5%) partially kept the country's economy from default.

The agro-industrial complex occupies one of the leading positions in the national economy, forming the economic profile of the country. It should be noted that agricultural products have a low share of value added, which causes slow GDP growth, and is still import dependent. Seeds, fertilizers, fuel, machinery – most of these items are imported. As a result, virtually everything that is earned is immediately spent on purchasing what is needed to grow a new crop.

In recent years, Ukraine's agriculture has shown consistent growth and has shown good trends in some indicators, such as grain harvesting (70.1 million tons in the 2017/18 marketing year). In 2018, agricultural production in Ukraine increased by 14.7% compared to 2017. However, considering inflation and devaluation factors, real agricultural output increased by 7.8% compared to the previous year [13].

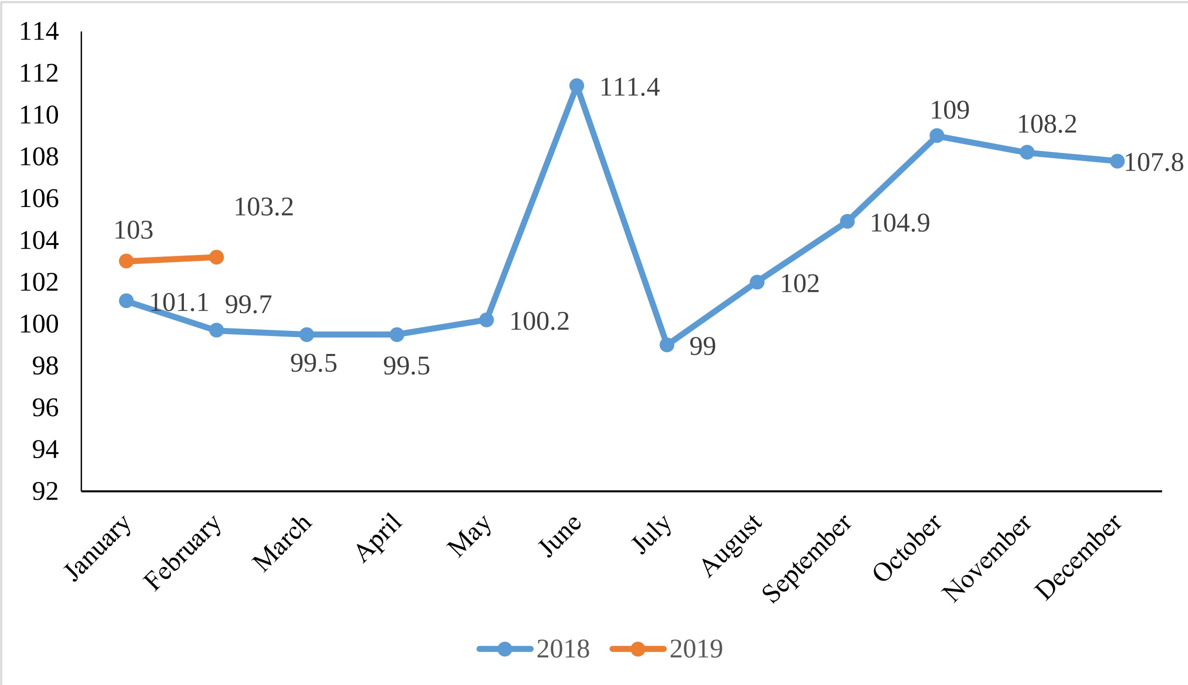

Fig. 4. Agricultural production indices, % (to corresponding period of previous year, increasing) [3]

The main contribution to the increase in the index of production of the basic industries was due to the increase in agricultural production, mainly due to the high volumes of corn, sunflower and berries. According to the data of the analytical department of the Food Export Council, exports of Ukrainian value-added products in 2018 decreased by 3.3%. That is, the main priority of the agro industrial complex today is the sale of finished products.

The increase in the agricultural production index in 2016 was caused by the uncharacteristically high volumes of late harvesting at the end of the year. According to the results of 2017, this trend has not been preserved, all categories of agricultural products showed lower yields due to lower yield of late cereals and industrial crops, in particular corn.

In 2018, despite the weather conditions, Ukrainian farmers managed to collect a record number of crops. According to the Ministry of Agrarian Policy, the grain yield reached 70.1 million tons. The total harvest of wheat was 24.5 million tons, barley – 7.3 million tons, rye – 407 thousand tons. Corn yield reached a maximum of 35.5 million tons, buckwheat – 130 thousand tons. In addition, farmers in the country harvested a record 13.6 million tons of sunflower and 4.4 million tons of soybeans. Gross rapeseed harvest also reached a maximum of 2.6 million tons.

It should be noted that in 2018, it was export of agricultural products that provided foreign exchange earnings, 42.5% of the total export structure. In particular, according to the results of the 2018/19 MR, the total exports from Ukraine of the three main crops (wheat, barley, corn) amounted to 18.3 million tons, which is 7% higher than in the same period of the previous MR. The main risk, as with industrial products, is the high impact of international product prices [13].

Lack of processing of agricultural products makes the domestic industry even more dependent on the international environment and does not allow receiving additional benefit from the sale of finished products.

The model of functioning of agricultural production is unable to make a significant qualitative leap in its development, to provide the solution of socio-economic problems, to fully realize the powerful natural-resource potential that the industry possesses. This is hampered by a number of systemic obstacles that have not been overcome during the long period of reforming the agricultural sector, the main ones being: 1) sectoral imbalances in agriculture, exports of unprocessed products, significant dominance in the production of certain types of agricultural products or large or small commodities; 2) scarcity of financial resources for stable management of agricultural producers, in particular due to lack of investment funds, difficult access to bank loans, and low level of state support for agriculture; 3) lagging behind the development of the agricultural logistics system from the needs of the market, resulting in the loss of agricultural products reaching up to 1/3 of its annual output; 4) the non-compliance of Ukrainian agricultural and food products with European standards is a significant threat to the development of the domestic agro-food sector: it restricts the supply of products to the markets of EU countries for the period of implementation of all necessary technical regulations and obtaining certificates of conformity. This leads to a decrease in the profitability of domestic small and medium-sized agricultural enterprises, as well as a weakening of the competitive position in the domestic market of certain types of Ukrainian products in comparison with the European, which is already duly certified.

GDP in Ukraine continues to remain at a rather low level, which is a significant problem, which is a strategically important challenge for the country. Ukraine needs to increase its level of production and export of finished goods, which will increase GDP in the future. Many factors offset the results of the government's actions aimed at increasing GDP, among them: monopoly in the market of important industries (alcohol, coal, fuel), corruption, market shadowing, war in the east. Significant and effective reforms are needed to overcome all these problems, which will help to achieve efficiency in the future [1].

A comprehensive balanced macroeconomic policy based on a comprehensive analysis of the dynamics of macroeconomic indicators will help bring Ukraine's economy out of crisis and improve its socio-economic situation.

Improving the standard of living of the population is the ultimate goal of economic modernization, an important basis for dynamic and inclusive growth. To improve economic growth in Ukraine, improving the conditions of doing business requires:

- create a favorable environment for business development and business in Ukraine;
- create favorable conditions for agricultural enterprises;
- to promote the development of the domestic industry
- to make the market as fair and transparent as possible;
- stimulating the use of innovation and technology;
- creating conditions for Ukraine to achieve energy independence;
- to provide state support to producers;
- improve infrastructure [15].

Performing all these and other urgent tasks will lead to improvement in the Ukrainian economy, modernization of production, accelerate investment attraction, create new jobs and create new opportunities for the domestic economy and positively affect the quality of life of every citizen of the country.

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Part 1. Mechanisms of Economic Support for Sustainable Development

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