

Diagnosis of socio-economic development of Ukraine

Diagnóstico del desarrollo socioeconómico de Ucrania

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Abstract

The article analyses the financial and economic as well as socio-economic development of Ukraine as of 1991-2019. It has been established that during the period of interest Ukraine has worked its difficult way up the market transformations, gradual transformation of civil society, further integration into the global world economy under the permanent action of internal economic crises and negative effects of the global financial crisis. Causes and ramifications have been identified for each crisis period.

Key words: economy, economy of Ukraine, crises.

Resumen

El artículo realiza el análisis del desarrollo financiero, económico y socioeconómico de Ucrania durante el período de la independencia. Se ha determinado que durante el período estudiado Ucrania recorrió un camino difícil de las transformaciones del mercado, la transformación gradual de la sociedad civil, la integración ulterior en la economía mundial bajo la acción constante de las crisis económicas internas y los efectos negativos de la crisis financiera mundial. Para cada período de la crisis, se han identificado las causas y las consecuencias.

Palabras clave: economía, economía de Ucrania, crisis

1. Introduction

Ukraine is an independent European state for almost thirty years. The starting potential of the country in the 90s of the last century was highly appreciated by the World Bank (Graphic 1-2). Ukraine was a regional leader having the second largest and strongest technological development of industrial potential in the USSR.

Given these advantages, Ukraine had every chance of becoming a successful country with a strong economy.

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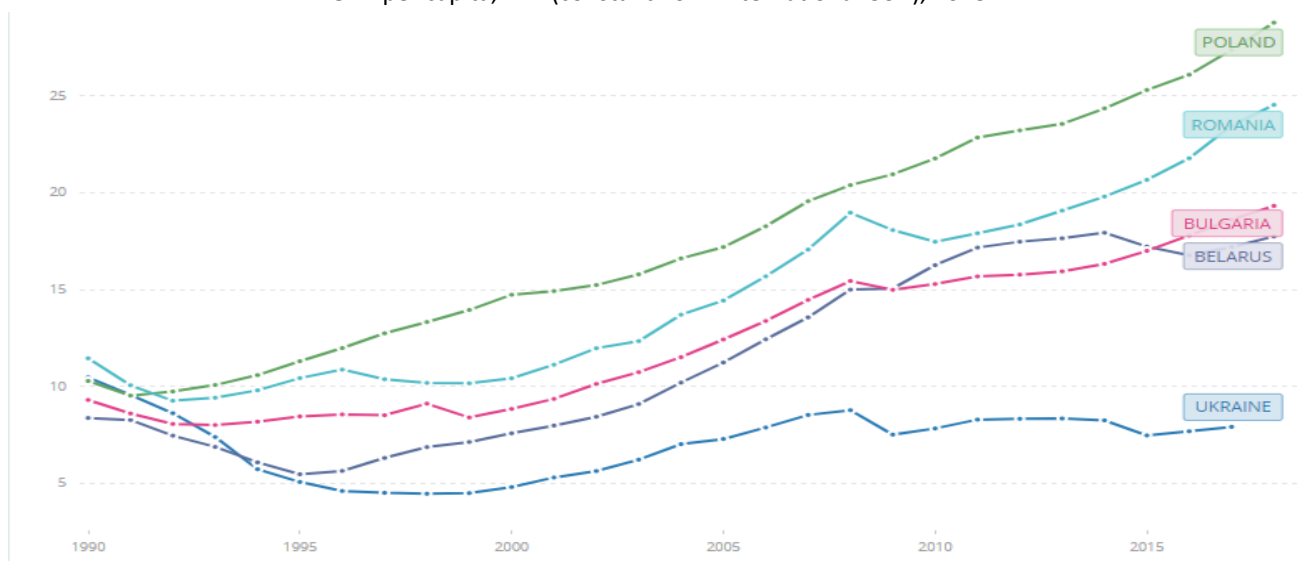
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To achieve this goal, it was necessary to choose an appropriate model of economic development from the following alternatives:

- active model i.e. reliance upon own potential, integrated and global economy, carrying out export expansion on terms of comparative advantages. That is, production-investment, high-tech, export-oriented economy;

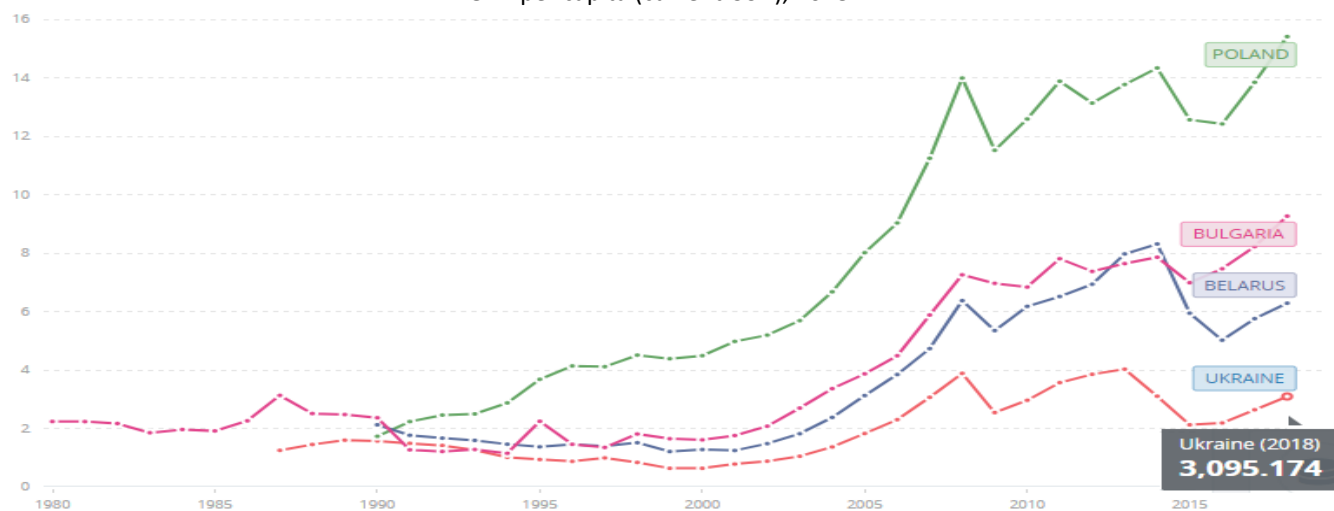
- passive-reactive i.e. economic development under the influence of internal and external challenges, “fitting” (adaptation) to the models of functioning of the economies of other countries, reliance upon external assistance.

Graphic 1
GDP per capita, PPP (constant 2011 international USD), 2018



Source: compiled by the authors on the basis of data (World bank)

Graphic 2
GDP per capita (current USD), 2018



Source: compiled by the authors on the basis of data (World Bank)

Unfortunately, Ukraine has chosen the second option of economic development. As a result, according to the Bloomberg Annual Economic Rating (Bloomberg Innovation Index, 2020) which ranked 60 economies in the world in terms of total unemployment and inflation, Ukraine ranked in the top five of the poorest in 2020 (56th place).

Let us diagnose the state of its socio-economic development, identify the factors of impact and ramifications in order to understand and explain such a negative transformation of the Ukrainian economy.

2. Methodology

2.1. Analysis of financial and economic development of Ukraine

The main indicators that most fully characterize the economic development of Ukraine for the period from 1990 to 2019 are shown in Table 1.

Table 1
Financial and economic indicators of economic development
of Ukraine for the period from 1990 to 2019

Years	Nominal GDP, billion USD	GDP index, %	IIP, %	Nominal GDP per capita, USD	EG, billion USD	IG, billion USD	CPI, %	IPPP, %	ICI, %	GFER, billion USD	GD, billion USD
1991	85.0	91.3	-	164.0	-	-	390.0	263.4	-	-	-
1992	79.0	90.1	-	1530.0	-	-	2100.0	4228.5	-	-	0.4
1993	69.0	85.8	-	1338.0	-	-	10256.0	9767.5	-	-	3.6
1994	54.0	77.1	-	1051.0	-	-	501.0	874.0	-	-	13.5
1995	49.0	87.8	-	958.0	-	-	281.7	272.1	71.5	-	10.9
1996	45.0	90.0	-	885.0	14.4	17.6	139.7	117.3	78.0	-	15.0
1997	50.0	97.0	-	992.0	14.23	17.13	110.1	105.0	91.2	-	15.4
1998	42.0	98.1	-	840.0	12.63	14.68	120.0	135.3	106.1	-	20.2
1999	32.0	100.2	-	646.0	11.58	11.85	119.2	115.7	100.4	1.2	19.2
2000	31.0	105.9	112.9	632.0	14.57	13.96	125.8	120.8	114.4	1.6	14.2
2001	38.0	109.2	114.2	782.0	16.26	15.77	106.1	100.9	120.8	3.1	13.9
2002	42.39	105.2	107.0	879.0	17.96	16.98	99.4	105.7	108.9	4.5	14.2
2003	50.13	109.3	115.2	1048.8	23.06	23.02	108.2	111.1	131.3	6.9	14.5
2004	64.88	112.1	112.5	1367.5	32.67	29.00	112.3	124.1	128.0	9.7	16.13
2005	86.14	102.7	102.4	1829.2	34.23	36.14	110.3	109.5	101.9	19.4	15.47
2006	107.75	107.1	106.2	2303.8	38.37	45.04	111.6	114.1	119.0	22.4	15.95
2007	142.72	107.9	105.5	3069.1	49.29	60.62	112.8	123.3	129.8	32.5	17.57
2008	179.99	102.1	96.9	3892.5	66.96	85.54	125.2	123.0	97.4	31.5	24.6
2009	117.23	84.1	78.1	2546.0	39.00	45.43	115.9	114.3	58.5	26.5	39.69
2010	136.42	104.2	112.2	2974.4	51.40	60.75	109.4	118.7	99.4	34.58	54.29
2011	163.16	105.2	108.0	3570.8	68.39	82.61	108.0	114.2	114.2	31.79	59.22
2012	175.78	100.2	99.3	3856.8	68.83	84.72	100.6	100.3	108.3	24.55	64.5
2013	183.31	100.0	95.7	4030.3	63.32	76.99	99.7	101.7	88.9	20.42	73.11
2014	131.80	93.4	89.9	3014.6	53.90	54.43	112.1	131.8	75.9	7.53	69.81
2015	90.62	90.1	87.7	2115.4	38.13	37.52	148.7	125.4	98.3	13.3	65.49
2016	93.27	102.4	104	2185.9	36.36	39.25	113.9	135.7	118	15.54	70.97
2017	112.15	102.5	101.1	2640.3	43.26	49.61	114.4	116.5	122.1	18.8	76.31
2018	130.83	103.4	103	3095.2	47.34	57.19	109.8	114.2	116.4	20.82	78.32
2019	167.85	103.2	99.5	3993.2	50.01	60.78	107.9	106.4	115.5	25.3	84.37

Note: EG – export of goods, IG – import of goods, IIP - index of industrial production, CPI – consumer price index, IPPPI - industrial products producer price index, ICI – indexes of capital investments, GFER – gold and foreign exchange reserves, GD – government and guaranteed government debt of Ukraine

Source: calculated by the authors based on the data (State Statistics Service of Ukraine, 2020; Ministry of Finance of Ukraine, 2020; World Bank, 2020; Chernychko, 2013; Institute for Socio-Economic Research, 2016; Kravchuk, 2015)

Statistics on the dynamics of GDP level, industrial production, volume of exports and imports of goods, consumer prices, industrial producer prices, capital investments, gold and foreign exchange reserves, government and government guaranteed debts of Ukraine from information sources of the most influential Ukrainian and foreign institutions have been used for such analysis. For the sake of accuracy of the data and the possibility of comparing them over the long term, most of them have been estimated in relative terms, the absolute assessment of individual indicators has been determined in US dollars.

What can be observing throughout the period of interest? The nominal gross domestic product (GDP) of the country from 1991 to 2000 tends to decline. The highest rates of decline of this indicator are observed in 1994 and make up 22.9%.

In 2000, Ukraine's GDP was one third of the 1991 level, and only in 2006 this figure exceeded the 1990 level. The year of 1999 can be tentatively called the year of "break-even point", a turning point in the economic development, after which the positive dynamics of GDP change was observed until 2009. The year of 2004 was the most successful one, with GDP growing at 12.1%. This was largely due to the favourable dynamics of prices for metals in foreign markets, which accounted for about 40% of the country's export structure (State Statistics Service of Ukraine). However, this development was extensive in its character, given that the economy remained energy-consuming, low-productivity, poorly diversified, uncompetitive and dependent upon external sources of raw materials and energy resources.

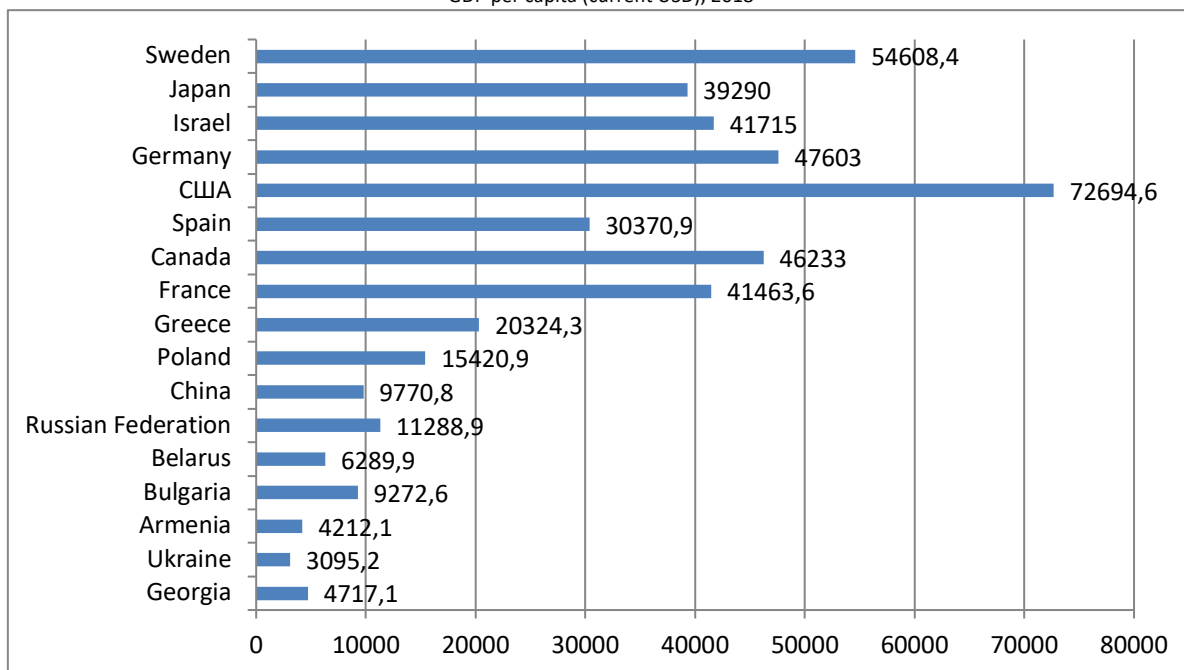
In 2009, the decline in GDP level compared to the previous year was again critical and made 15.9%. The main reason was the global financial crisis. The Ukrainian export-oriented model of economic growth, with the preference for low-tech exports, turned out to be vulnerable to the effects of the global financial and economic crisis and to changes of the global market conditions. The country's economy has suffered most from all European countries due to its export orientation and low competitiveness. The national currency was depreciated by more than 50% against the US dollar.

Considering that the basic component of the GDP of Ukraine is industrial production so the dynamics of its change is almost similar. Due to the lack of statistics, comparisons of these indicators have been made since 2000.

The relative indicator of nominal GDP per capita reflects the state of development of the country's economy more precisely than the absolute indicator of nominal GDP. This indicator represents the level of labour activity of the population and the quality of life in the country. We can observe a positive dynamics of this indicator growth starting from 2000, with the exception of the crisis years for Ukraine in 2009 and 2015. However, the estimation will be more effective due to the comparison with the values of the similar indicator in other countries (Graphic 3).

Graphic 3

GDP per capita (current USD), 2018



Source: calculated by the authors based on the data (World Bank)

Thus, in 2018, according to World Bank estimates, the nominal GDP per capita in Ukraine was USD 3 095.2. At the same time, this indicator in some European countries is much higher, namely in Poland - USD 15 442.9, Bulgaria - USD 9 272.6, France - USD 41 463.6, Germany - USD 47 604. In the CIS countries: Russia - USD 11 288.9, Georgia - USD 4 717.1. Finally, in developed countries such as the United States - USD 72 694.6, Canada - USD 46 233. As the above data show, such comparison is not in favour of Ukraine.

The data provided in Table 1 on indices of consumer prices (CPI,%), producer prices of industrial products (IPPPi,%), indicate a period of hyperinflation (1992-1993), a high level of inflation, with the exception of individual years, during the whole period of interest. These indicators to some extent “duplicate” and confirm the trends of change in GDP and industrial production.

The negative change in the value of the capital investment index again confirms the crisis periods of economic development, such as: 1995 - 1996, 2008 - 2009 and 2014 - 2015. World experience has shown that underinvestment leads to a loss of competitiveness of the national economy, moral and physical deterioration of fixed assets, a decline in production and an increase in the cost of production.

Ukraine's external debt has a stable negative trend to an increase in absolute value (from USD 0.4 billion in 1992 to USD 84.37 billion in 2019, that is an increase of more than 100 times!) and to an increase in the negative ratio of government debt to GDP. According to the so-called “Maastricht Criteria” for EU member states as well as for candidates for EU membership, the government debt should not exceed 60% of the country's GDP. Unfortunately, this limit in Ukraine was exceeded in the following years: 2015 - 72.2%, 2016 - 76.1%, 2017 - 68%, 2018 - 59.9%, and 2019 – 50.25%.

The level of gold and foreign exchange reserves (GFER) (as of February 29, 2020 is USD 26.6 billion) as a source of coverage of the country's external debt is not sufficient. GFER volume has been unstable during the period of interest. The growth rate of foreign debt outstrips the growth rate of GFER, which is a major threat to the country's solvency.

2.2. Analysis of socio-economic indicators of Ukrainian economy

People are one of the driving forces of any country's economy. Table 2 shows the main socio-economic indicators of Ukraine in terms of dynamics: total population size, including pensioners, wage rates and employment, etc.

Table 2
Socio-economic indicators of Ukraine

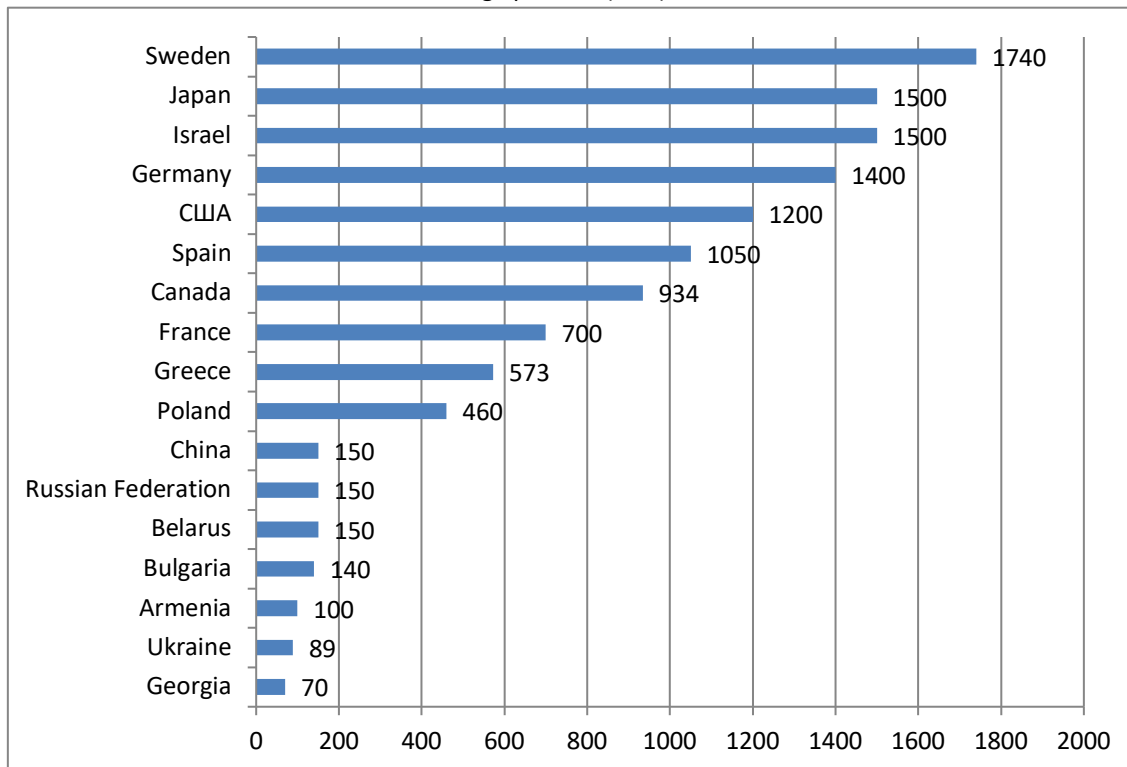
Years	Population size, mln. people	Unemployed citizens in the age of 15-70		Number of pensioners,		Average monthly wage		Average monthly pension, USD	Minimum subsistence level, USD
		mln. people	%, of the size	mln. people	%, of the size	Average size in industry, USD	Production sector, USD		
1996	51.30	-	-	14.49	28.24	66.70	81.00	20.49	-
1997	50.82	-	-	14.49	28.51	75.38	91.20	27.36	-
1998	50.37	-	-	14.53	28.86	44.65	54.27	15.23	-
1999	49.92	-	-	14.52	29.09	34.12	42.18	11.64	-
2000	49.43	2.66	5.37	14.53	29.39	42.32	55.57	12.68	49.68
2001	48.92	2.46	5.02	14.45	29.53	58.70	76.63	15.80	58.70
2002	48.20	2.14	4.44	14.42	29.92	70.58	90.96	22.97	64.14
2003	47.83	2.01	4.20	14.38	30.06	86.71	110.88	25.62	64.15
2004	47.47	1.91	4.02	14.35	30.22	111.14	140.12	34.34	68.23
2005	47.12	1.60	3.40	14.07	29.85	159.64	191.40	62.61	83.76
2006	46.79	1.52	3.24	14.05	30.03	206.23	240.02	80.55	93.47
2007	46.51	1.42	3.05	13.94	29.97	267.52	307.72	94.73	105.35
2008	46.26	1.43	3.08	13.82	29.87	234.55	261.95	100.78	78.83
2009	46.05	1.96	4.25	13.75	29.86	238.70	265.12	117.01	87.79
2010	45.87	1.71	3.74	13.72	29.91	281.22	324.05	129.70	108.14
2011	45.71	1.66	3.64	13.74	30.05	329.55	390.50	144.17	119.28
2012	45.60	1.59	3.49	13.82	30.31	378.58	437.88	156.80	136.99
2013	45.50	1.51	3.32	13.64	29.98	408.48	470.79	184.00	147.13
2014	43.00	1.85	4.30	13.53	31.47	220.69	252.91	96.78	74.58
2015	42.84	1.65	3.86	12.15	28.35	174.79	199.63	65.90	55.42
2016	42.67	1.68	3.93	12.30	28.82	190.62	217.06	62.50	56.78
2017	42.49	1.70	4.00	11.96	28.14	253.11	271.88	65.14	60.57
2018	42.27	1.58	3.73	11.73	27.74	320.16	347.92	89.54	66.92
2019	42.03	1.49	3.54			443.16	497.69	105.5	85.58

Source: calculated by the authors based on the data (State Statistics Service of Ukraine, 2020; National Bank of Ukraine, 2020)

According to the data in Table 2, the population of Ukraine is steadily decreasing annually. For nearly thirty years, the total population decline has exceeded 9 million. However, given that the official census was last conducted in the country in 2001, population statistics are in doubt.

For the whole period of interest, the share of pensioners in the total population ranges from 28.24% to 31.47%, i.e. almost every third person in the country is a pensioner. The average monthly pension in Ukraine is one of the smallest among European countries and today hardly exceeds USD 100. The average pension in comparison with other countries is shown in Graphic 4. In addition, for a rather long period (2000 - 2008), the average monthly pension was below the minimum subsistence level.

Graphic 4
Average pension (USD), 2018



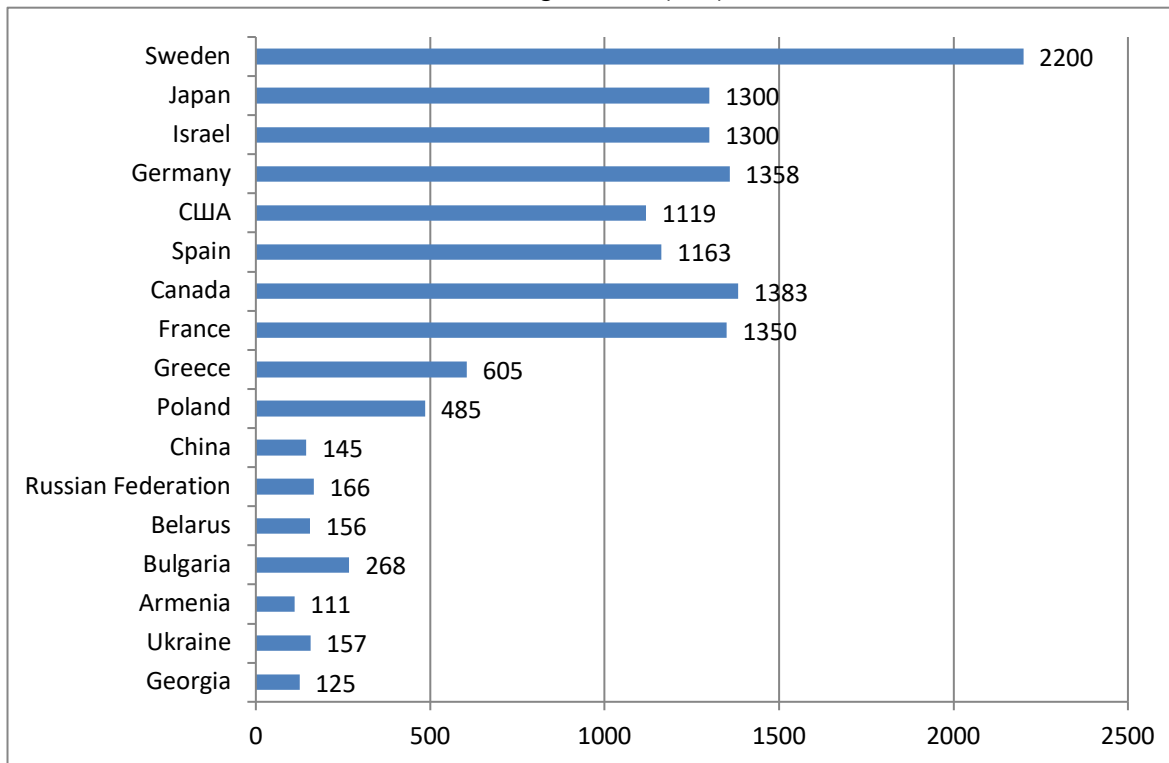
Source: compiled by the authors based on the data (Kulinich, Zhaivoronok, 2019; Shepetivka Bulletin, 2018)

According to estimates of the “Ukrainian of the Future”, the number of working Ukrainians in the near future may be compared to the number of pensioners. In addition, according to the same institution, about 8 million Ukrainians are involved in emigration, 3 million of them already living abroad with their families. This is a critical situation for the labour market and for filling the budget of the Pension Fund of Ukraine.

The unemployment rate in Ukraine ranges from 3.05% in 2007 to 5.37 in 2000, and tends to increase in crisis periods (2009, 2014). This figure is lower than in European countries. Thus, in 2019, the unemployment rate in the 28 EU Member States was 6.2% (Eurostat, 2020).

The average monthly wage rate in the industry and in the country's production sector tends to increase steadily until 2013. However, initially the internal political and then economic crisis of 2013-2015 led to a sharp depreciation of the national currency and, as a consequence, a decrease in the average monthly wage in US dollars. And only in 2019 it was possible to exceed the average monthly wage in 2013. The size of the minimum wage in comparison with other countries is shown in Graphic 5.

Graphic 5
Minimum wage amount (USD), 2019



Source: compiled by the authors based on the data (Ekonomichna Pravda, 2020)

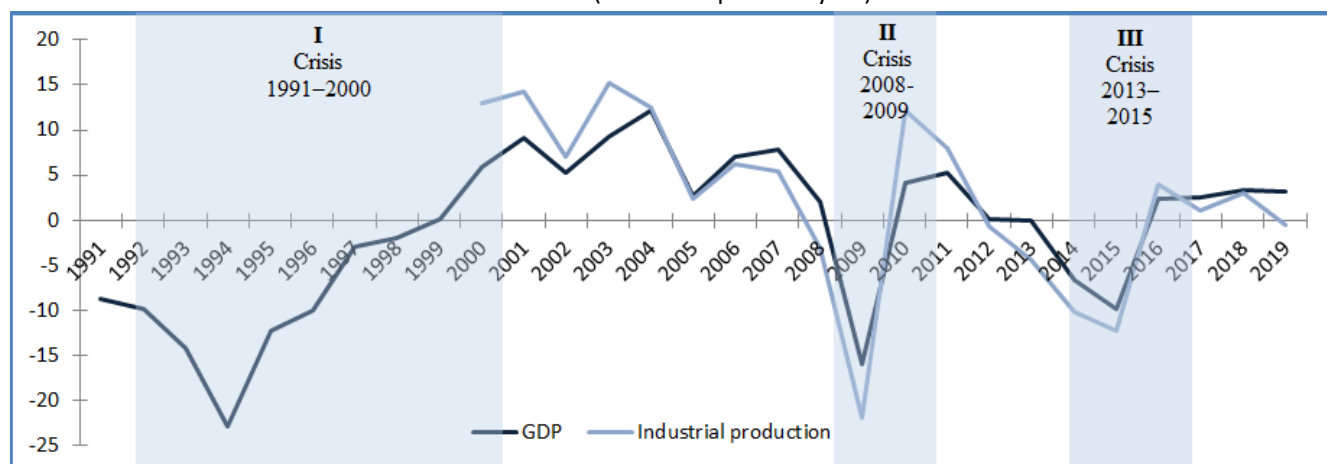
3. Results

3.1. Financial and economic results of economic development of Ukraine

There were three crises in the Ukrainian economy according to the results of studies of its socio-economic development for the period from 1991 to 2019. To confirm this Graphic 6 shows the dynamics of changes in gross domestic product and volumes of industrial production expressed as percentage in comparison with the previous year. The first crisis in the Ukrainian economy has been going on from 1991 to 2000, the second from 2008 to 2009, the third from 2013 to 2015.

The first crisis was the most prolonged and large-scale one according to its ramifications and it arose from the collapse of the USSR and the breakdown of economic ties between the former Soviet republics, which concerned, first and foremost, the division and cooperation of labour. This crisis was irreversible and affected all sectors of the economy.

Graphic 6
Dynamics of change of GDP and industrial production of Ukraine (in% to the previous year)



Source: calculated by the authors based on the data (State Statistics Service of Ukraine, 2020; Institute for Socio-Economic Research, 2016)

The year of 1994 was the peak of the crisis with critical GDP decline that amounted to 22.9%. It was only in 1999 that the downward trend in this indicator was overcome, but it was impossible to reach its pre-crisis level. The details of the causes and ramifications of this crisis are summarized in Table 3.

Table 3
Causes and ramifications of the 1991-2000 crisis

1991- 2000 crisis	
Causes of crisis origin	Ramifications of crisis
collapse of the USSR, the breakdown of economic ties imperfect production structure energy dependence on other countries external and increased internal competition low level of competitiveness general fall in production, the crisis of non-payments political instability in society lack and imperfection of legislation lack of managerial experience under market conditions inefficient management of the economy	economy block stop sharp drop in the level of industrial production and GDP shortage of consumer goods high level of inflation and hyperinflation collapse of the monetary system sharp drop in household income unemployment devaluation of the national currency changes in the labour market etc.

Source: formulated by the authors

The second crisis is the result of the global financial and economic crisis that began in 2007 in the United States. The economy of Ukraine was not ready to withstand the manifestations of the global crisis technologically, technically and economically. The main reason for the vulnerability of the Ukrainian economy to the impact of this crisis was its over-openness (the share of exports was about 40% of GDP, see Table 1). The causes and ramifications of the second crisis are summarized in Table 4.

Table 4
Causes and ramifications of the 2008-2009 crisis

2008-2009 crisis	
Causes of crisis origin	Ramifications of crisis
negative impact of the global financial crisis country's economy is not competitive and export-oriented mortgage crisis insufficient development of the banking sector lack of a real stock market lack of state support for the financial system and the real sector of economy inefficient government regulators in the real sector economy corruption	sharp decrease in all macroeconomic indicators of the national economy depreciation of the national currency by 50% against the US dollar real GDP decline over three years over 14% reduction of the level of manufacturability of products reduction of export and import level of the country negative balance of visible trade reduction of solvency of legal entities and individuals etc.

Source: formulated by the authors

The main cause of the third crisis in the Ukrainian economy was the confrontation between political forces, business elites and civil society due to the refusal of the Ukrainian leadership of the European Vector of Development. GDP decline in 2015 was 9.9%, with inflation level reaching almost 50%, depreciation of the national currency more than 300% (Table 1). More details on the causes and ramifications of this crisis are presented in Table 5.

Table 5
Causes and ramifications of the 2013 – 2015 crisis

2013 – 2015 crisis	
Causes of crisis origin	Ramifications of crisis
confrontation between political, business elites and civil society annexation of the Autonomous Republic of Crimea and military actions in the east of Ukraine high level of corruption low level of trust in the public administration system low external demand for products reduction of purchasing power of individuals and legal entities narrowing of credit activity deterioration of the financial position of the entities reduction of state funding unsatisfactory investment attractiveness excessive debt burden on the economy	reduction of real GDP and industrial production in 2015 by almost 10% depreciation of the national currency by three times against the US dollar the loss of traditional markets decrease of the industrial production index to the level of 2009 sharp rise in inflation level to 40% decrease in the volume of foreign economic activity reduction of the level of solvency of the population decrease in economically active population and increase in external migration

Source: formulated by the authors

Thus, for the whole period of interest, Ukraine's economy was almost constantly under the conditions of economic crises. Although the classical sense of the term “crisis” is interpreted as a danger and as new opportunities and chances. Unfortunately, surmounting the crisis of the Ukrainian economy is more similar to self-renewing of the socio-economic system than to an effectively managed anti-crisis process. The ramifications of all three crises are similar in terms of negative changes in macroeconomic indicators, but the worst ramification is a sharp deterioration in socio-economic development, a decline in the population as a whole and an economically active population in particular.

3.2. Socio-economic and demographic results

In addition to the economic ramifications that have caused all the crises, socio-economic and demographic consequences for Ukraine are equally important. These concerns: population size, labour market, unemployment rate, standard of living, population stratification by income level, destruction of the middle class, level of social protection.

According to official statistics, the population of Ukraine decreased by more than 9 million (State Statistics Service of Ukraine, Population; TSN, 2018). Thus, 51.944 million people lived in Ukraine in 1991, there were 52.244 million people in Ukraine in 1993, and 42.030 million people reside in Ukraine in 2019 (without Crimea). If you trust the results of the electronic census of the population of Ukraine conducted by the Cabinet of Ministers in 2019 the decrease in the population size was more than 14 million people for the entire period of independence (as of December 1, 2019 the size of the existing population of Ukraine is 37 million 289 thousand 300 people according to the evaluation data (this indicator does not include the population of Crimea and the occupied territories of Donbass).

The difference between the birth rate and the death rate in Ukraine over the last 10 years has negatively exceeded the European average by 3-5 times (How the Demographic Situation in Ukraine Has Changed Over the 25 Years of Independence, 2018). Ukraine is experiencing a boom in internal and external labour migration. According to demographic statistics, from 7 to 15% of economically active citizens have gone to work abroad during the last 20 years. Currently, from 4 to 8 million Ukrainians work abroad according to various sources. Ukraine's long-term labour migration has been increasing since 2008 and has continued to grow strongly, especially since 2014-2015 (Pivtorak, 2016).

The average life expectancy of Ukrainians remains the lowest in Europe and is as of May 2019 for men - 67 years, women - 77 years, which corresponds to the world average, but is 10 years less than in Western Europe.

4. Conclusions

Thus, during the period of interest, Ukraine has covered the difficult way of market transformations, further integration into the global world economy, internal economic crises and negative effects of the global financial crisis, gradual transformation of civil society. These transformations were accompanied by socio-economic, investment-financial and organizational-technological factors; provoked asymmetry in property relations, resource allocation and required proactive crisis management. Such large-scale changes have had different effects upon economic development: from long-lasting crisis periods to short periods of economic growth.

Today we are facing a new challenge to the world socio-economic system - COVID-19. It is difficult to predict the extent of its impact upon the world economy. One thing is clear - the impact will be negative, varying in size for different countries, to some extent dependent on their financial strength and management flexibility. We can understand the complexity of the situation comparing the indicators of the foreign exchange reserves and the government debt of Ukraine before the start of the global financial crisis in 2008 (the ratio was 1:0.78) with the same indicators in 2019 (the ratio is 1:3.33). Only professional and effective management can use the crisis as an opportunity to renew the national economy and bring it to a new level of development.

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