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## ANALYSIS OF THE LEVEL OF WELLBEING IN UKRAINE

**Odynets Volodymyr Andriyovych**

*PhD, Associate Professor, Head of Department of  
Information Systems and Technologies,*

**Ratushnyak Tetyana Volodymyrivna**

*PhD, Associate Professor, Associate Professor of Department of  
Information Systems and Technologies,*

*National State Tax Service University of Ukraine, Ukraine*

*The EU-Ukraine Association Agreement, signed in Brussels on 27 June 2014, is a document of cooperation in the areas of social and economic policy. The main objective of such cooperation is the improvement of quality of life. Organizations and government agencies conduct monitoring socio-economic development of the countries in order to analyze and assess the level of citizens' life. Assessment of the country's social and economic status involves a wide range of the parameters which show diverse aspects of human life and of economics of the country on the whole. The analysis of the social and economic indexes, which characterize public welfare in Ukraine in 2007-2014, has been carried out.*

**Key words:** *public wellbeing, level of citizens' life, macro index, social and economic index, monitoring the social and economic processes.*

**Introduction.** Implementation of Ukraine's strategical course for European integration envisages:

- gradual rapprochement with the European Union, based on common values and strong preferred relationships;
- implementation of European standards of justice, freedom and security with the view to ensure the rule of law and fundamental freedoms;
- completion of transition to market economy by adapting existing Ukrainian legislation to the EU standards;
- approximation of Ukrainian policies to the EU in accordance with the fundamental principles of macroeconomic stability, coordination of state finances and balance of payments;

– creating conditions for closer cooperation in other fields of mutual interest of Ukraine and the EU.

Chapter 21 of the EU-Ukraine Association Agreement (AA) signed in Brussels on 27 June 2014 [1] is devoted to cooperation in the sphere of social policy. Article 420 of Chapter 21 reveals the objectives of such cooperation, where the priority is given to the improvement of quality of life.

Quality of life, or well-being, reflects economic and social welfare of the population and involves a wide range of aspects: production, defined by property relations, level of material outcome of society, services and social labor productivity. It also covers various lifestyles, needs for life benefits and possibilities to meet those needs by supplying goods and services on the market, household income of the citizens. Thus, the people's well-being depends on a number of economic, social, political, cultural, innovative, environmental and other factors.

Organizations and government agencies conduct monitoring socio-economic development of the countries in order to analyze and assess the level of citizens' life.

By monitoring we mean a set of tools used to collect and process information for assessing the social and economic status of the country, for predicting forthcoming events, and identifying threats to its sustainable development [2].

Monitoring of the country social and economic status provides the government with data to develop sustainable policy and rational decision making. Basic data for monitoring is furnished by official statistics.

Assessment of the country's social and economic status involves a wide range of metrics which show diverse aspects of human life and of economics of the country on the whole.

International Monetary Fund (IMF), founded in 1945, for quite a long time had been using Gross National Product (GNP), i.e. the total value of final goods and services developed by the country within a year, as the main macroeconomic indicator of welfare regardless of the geographic location of its enterprises.

Since 1991, the United Nations (UN) has recommended IMF to use Gross Domestic Product (GDP) as main macroeconomic indicator, i.e. the total value of final goods and services produced by residents irrespective of the ownership of the consumed economic resources [3]. The high level of GDP was considered a key indicator of welfare in the country.

The method of calculating GNP and GDP and countries ranking, based on the values of these indicators, are published on the official website of the UN and in other sources [4, 5].

In addition to GDP other important macroeconomic indicators are [3]: national production volume, the overall price level in the country, interest rate, employment, etc.

While not denying the importance of macroeconomic indicators to measure quality of life, modern scientists, politicians and public figures maintain that traditional metrics is not perfect, and suggest new approaches to estimating the public welfare. Those approaches are disclosed in the following documents [6, 7]: the Istanbul Declaration adopted by the World Forum on Measuring and Fostering the Progress of Societies, the Communication from the Commission "Beyond GDP – Measuring Progress in a Changing World"; a global project "Measuring Social Progress" of the Organization for Economic Cooperation and Development (OECD); the recommendations of Stiglitz-Sen-Fitoussi Commission on Measuring Economic Performance and Social Progress etc.

The relevance of such research is confirmed by the fact that in October 2015 Angus Deaton was awarded the Nobel Memorial Prize in Economic Sciences for his analysis of consumption, poverty and welfare. Deaton's works help to solve complex practical problems for economists – to determine the poverty line in developing countries. Calculation of the average income is one of traditional ways to determine the level of welfare and poverty, but this approach is not exact, since it ignores the shadow incomes and their seasonal fluctuations. Deaton proposes to determine the level of well-being and poverty through the calculation of consumption (costs) at the individual level.

Analysis of recent research and publications. The first official attempt to change the traditional method of measuring the quality of life was Human Development Index (HDI), introduced by Amartya Sen and Mahbub ul Haq.

HDI is understood as generalizing relative index, calculated on the basis of other parameters, by a particular formula or methodology. Thus, it is a composite index that takes into account such indicators of social and economic development, as life expectancy, level of education, level of income. Methodology of HDI calculation, and countries' ranking according to its value, are published under the United Nations Development Programme annual report [5] starting from 1990.

HDI is a complex index, which is calculated by statistical averages of each country. It does not adjust for internal inequality of certain citizens. Later the 2010 Human Development Report alongside with HDI introduced three new indices: Inequality-Adjusted Human Development Index (IHDI), Gender Inequality Index (GII), Multidimensional Poverty Index (MPI).

Further efforts to improve the methodology of assessing well-being resulted in introducing alternative socio-economic indices. Among them are [2, 5, 8-12]: The Legatum Prosperity Index, Happy Planet Index, Happy Life Index, Green GDP and others. These socio-economic indices vary in statistical data and scoring techniques.

Innovative scoring of certain indices alongside with statistical data also involved the use of data from current opinion polls.

Previously unsettled problem constituent. Ukrainian scientists [3, 8] explore the level of prosperity in Ukraine on certain macroeconomic indicators and indices. However, to determine the actual level of well-fare for Ukraine we propose to conduct a comparative analysis of socio-economic indices.

Main purpose of the article. We will carry on monitoring of Ukraine's ranking in the years of 2007-2014 by applying current socio-economic indicators.

Results and discussions.

1. Legatum Prosperity Index (LPI) is a composite index that highlights social and economic achievements of 142 countries. It has been published since 2006 by the Legatum Institute (Great Britain). According to Jeffrey Gedmin, the director of the Institute, Prosperity Index is the only tool that measures national prosperity based on both wealth and wellbeing.

LPI considers 89 different variables [12], systematized and selected into eight groups according to the following social and economic areas: Economics, Entrepreneurship, Governance, Education, Healthcare, Safety & Security, Personal Freedom and Social Capital. Statistical data for scoring indices are obtained from official sources of international statistics: the UN Human Development Report, the World Bank report on "The World Development Indicators", OECD, World Trade Organization (WTO), World Intellectual Property Organization (WIPO), International Data Corporation, and from authoritative sources that continually study public opinion: Gallup Institute, Economist Intelligence Unit, etc.

2. World Happiness Index (HPI), the new index of socio-economic development of countries, was proposed in 2006 by the New Economics Foundation (NEF), British research center. The majority of people want to live a long and happy life and the state (government) should ensure the welfare of the citizens, without compromising the environment. Bearing that in mind Nick Marx, the author of the index, offered alternative for assessing social and economic development. The formula for calculating HPI has the following form:

$$HPI \approx \text{Experienced Wellbeing} \cdot \text{Life Expectancy} / \text{Ecological Footprint} .$$

Data sets from the Gallup World Poll and World Values Survey are used to evaluate the well-being of the citizens. Sociological survey is based on the question "What is your level of well-being on the scale of 0 to 10 ?" and performed among 1000 respondents, aged from 15 years across over 150 countries. The result of the survey is the index Ladder Of Life (Scale of Life), which equals the index Experienced Well-being and reflects the welfare of citizens. According to the survey area of values of Ladder of Life index belongs to the segment [0; 10].

Data for Life Expectancy indicator were obtained from the UN Human Report. The area of values of the indicator belongs to the segment [20, 85].

Ecological Footprint is a quantitative indicator of the environmental burden which defines the area necessary for providing the population with food and neutralization of industrial wastes [9]. The planet Earth area is taken as unit of measurement for Ecological Footprint. Data for Ecological Footprint were obtained from Global Footprint Network.

Methodology for determining HPI index and ranking of 151 countries on this index in 2006, 2009, 2012 were published online [10].

3. "Green GDP" (or Environmentally-Adjusted Domestic Product, Eco-Domestic Product) is a macroeconomic indicator of the environmental impact and social costs of economic production and consumption in a country.

Measuring "Green GDP" is especially important for the countries with resource-based economies. Although some scientists and scholars have proposed general methodological approaches to calculating "Green GDP" index [13], the unified method of measuring has not been offered. Ukrainian scholars [8] determined the "Green GDP" by the formula:

$$\text{Green GDP} = \text{GDP} - \text{CBC} - \text{CNR} - \text{CEP} - \text{EHEA} ,$$

where CBC – consumption of basic capital, CNR – consumption of natural resources (depletion of natural resources), CER – cost for environment protection, EHEA – estimates of environmental harm due to economic activities.

Green GDP calculations for Ukraine are presented in the paper [8].

4. The 2012 UN Inclusive Wealth Report first offered to use Inclusive Wealth Index (IWI) as Green GDP. According to Achim Steiner, project manager of the UN Environment Programme (UNEP), IWI index tends to be more accurate indicator of the country's material wealth than GDP. It will promote sustainable development and elimination of poverty. UN Inclusive Wealth Report gives a list of countries with decreasing natural resources and recommends investing in reproducible natural resources. The report of the UN "Inclusive Wealth Report 2012" published index for 20 countries, among which Ukraine is not included.

5. Better Life Index (BLI) is a composite index that covers the social and economic achievements of 34 countries, members of OECD. BLI has been published since 2011 and accounts for 24 indicators being selected and assembled into eleven groups according to social and economic areas (life indicators): housing, income, jobs, community, education, environment, civic engagement, health, life satisfaction, safety, work-life balance [11]. Statistical data for calculating the indicators are obtained from OECD, UN, national statistical agencies, Gallop Institute. Innovation of Better Life Index is the realization of opportunity to set the weight of each of eleven areas. Information technologies allowed to make this index interactive. The

methodology of calculation and index values are published [11] for 36 countries, where Ukraine was not included.

In table 1 we represent values of GDP [4, 14], GNP [5], HDI [5], LPI [12], HPI [10] for Ukraine for these indices and indicators for years 2007-2014.

**Table 1. The results of monitoring socio-economic indices**

Index, unit of measurement	Value of index for Ukraine							
	2007	2008	2009	2010	2011	2012	2013	2014
GNP by PPP in per capita, \$	8415	8713	7364	7752	8102	8196	8215	-
GDP by PPP in per capita, \$	8422	8824	7575	7718	8335	8520	9142	8668
GDP in per capita, \$	3068	3891	2545	2974	3569	3885	4029	3082
GDP at current prices in per capita, UAH	15496	20495	19832	24429	29519	32002	33473	36435
HDI, dimensionless, area of values [0,1]	0,726	0,729	0,722	0,726	0,730	0,733	0,734	-
LPI, dimensionless, ranking among 142 countries	-	-	63	69	74	71	64	70
HPI, dimensionless, area of values [0,100]	-	-	38,1	-	-	37,6	-	-

### **Conclusions and further researches directions.**

In the article we showed the level of well-being in Ukraine according to various indices and indicators.

Values for macroeconomic indices GDP, GNP are low. For the sake of comparison in 2012 the first place for the level of GDP (by PPP in per capita, \$) was held by Qatar with GNP \$87478, while in 2013 Qatar's GNP rose to \$119029. The cited values are higher than those for Ukraine by ten times – \$8215. Moreover, prevailing majority of European countries outstrips Ukraine by this index (including the neighbouring countries Russia, Belarus, Poland, Slovakia, Hungary, Romania). Only Moldova and Georgia lag behind having GNP index respectively \$5041 and \$6890.

The World Bank divides countries' economies into four income groupings: low (GNP per capita less than \$975), lower-middle (GNP per capita less than \$3855), upper-middle (GNP per capita less than \$11905), and high (GNP per capita of over \$11905). According to this classification, Ukrainians have lower-middle incomes.

Our research also showed that the GDP (by PPP in per capita, \$) of European countries in the entire period from 2007 to 2014 is the lowest for Ukraine, Georgia and Moldova. The purpose of our further researches should be to find out the reasons of such a permanent long-term decline. But one of the obvious reasons is that these European countries have military conflicts with Russia.

The level of the country by index HDI can be very high, high, medium or low.

The level of Ukraine belongs to the category of high.

The authors of LPI classify the countries by three levels: high, medium and low. LPI for Ukraine is medium in observed period.

Ukraine's rank by index HPI is "medium".

Thus, in the article we showed, that monitoring the macroeconomic and socio-economic indices does not provide a single-valued estimate of the quality of life for Ukraine. During the period from 2007 to 2013 Ukraine has the tendency of rising well-being according to official macro indices such as GDP, GNP, HDI. The year 2009 is exclusion, when Ukraine suffered economic crisis. But at the same time (2009 year) alternative indices LPI and HPI shows highest values.

At the moment not all socio-economic indices are published. But in 2014 we see the decline of GDP and LPI for Ukraine. That means Ukraine is going through another economic and social crisis.

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**АНАЛІЗ РІВНЯ ДОБРОБУТУ В УКРАЇНІ**

**Одинець Володимир Андрійович,**  
*кандидат економічних наук доцент,*  
*завідувач кафедри інформаційних систем і технологій*  
**Ратушняк Тетяна Володимирівна,**  
*кандидат фізико-математичних наук, доцент,*  
*доцент кафедри інформаційних систем і технологій*

***Національний університет державної податкової служби України, Україна***

*Угода про асоціацію між Україною та Європейським Союзом, яку підписано 27 червня 2014 року, передбачає співробітництво країн у різних сферах, зокрема у сфері соціальної та економічної політики. Головною метою такого співробітництва визначено покращення якості життя. Для здійснення аналізу і оцінки життєвого рівня населення міжнародні організації та державні установи запроваджують моніторинг соціально-економічного розвитку країн. Для проведення оцінки соціально-економічного розвитку країн використовують систему кількісних показників, які характеризують стан кожної окремої соціально-економічної сфери і економіку країни в цілому. Проведено аналіз деяких соціально-економічних індексів, які характеризують суспільний добробут в Україні у 2007-2014 роках.*

***Ключові слова:** суспільний добробут, рівень життя населення, макропоказник, соціально-економічний індекс, моніторинг соціально-економічних процесів.*

**АНАЛИЗ УРОВНЯ БЛАГОСОСТОЯНИЯ В УКРАИНЕ**

**Одинец Владимир Андреевич,**  
*кандидат экономических наук доцент,*  
*заведующий кафедрой информационных систем и технологий*  
**Ратушняк Татьяна Владимировна,**  
*кандидат физико-математических наук, доцент,*  
*доцент кафедры информационных систем и технологий*

***Национальный университет государственной налоговой службы Украины, Украина***

*Соглашение об ассоциации между Украиной и Европейским Союзом, подписанное 27 июня 2014 года, предусматривает сотрудничество стран в различных сферах, в частности в сфере социальной и экономической политики. Главной целью такого сотрудничества определено улучшение качества жизни. Для осуществления анализа и оценки жизненного уровня населения международные организации и государственные учреждения вводят мониторинг социально-экономического развития стран. Для проведения оценки социально-экономического развития стран используют систему количественных показателей, характеризующих состояние каждой отдельной социально-экономической сферы и экономику страны в целом. Проведен анализ некоторых социально-экономических индексов, характеризующих благосостояние населения в Украине в 2007-2014 годах.*

***Ключевые слова:** общественное благосостояние, уровень жизни населения, макропоказатель, социально-экономический индекс, мониторинг социально-экономических процессов.*