РОЗДІЛ II
Економіка й управління національним господарством

Pavlikha Nataliya,
Doctor of Economics, Professor, Lesya Ukrainka Eastern European National University,
Department of International Economic Relations and Project Management;
Lutsk; e-mail: pavlixa2@gmail.com

Tsymbaliuk Iryna,
PhD, Associate Professor, Lesya Ukrainka Eastern European National University,
Department of Finance, Banking and Insurance;
Lutsk; e-mail: tsymbaliuk_i@ukr.net

Kotsan Liliya,
Scientific assistant, Lesya Ukrainka Eastern European National University;
Lutsk; e-mail: Kotsan_L@i.ua

MODELING THE OPTIMAL SIZE OF THE MINIMUM WAGE IN UKRAINE

The article proves that in Ukraine the system of social standards and guarantees needs to be optimized. The greatest influence on incomes among the instruments of their regulation is made by the minimum wage. It is proved that one of the directions of the regulation income system transformation in Ukraine is the change in the concept of salary formation. Improving the methodology for determining the optimal minimum wage makes it possible to optimize the system of social standards and guarantees in Ukraine.

Key words: state regulation of incomes, minimum wage, minimum pension, subsistence minimum, taxation, modeling.

Павлиха Наталья,
доктор экономических наук, профессор, Восточноевропейский национальный
университет имени Леси Украинки,
кафедра международных экономических отношений и управления проектами;
г. Луцк; e-mail: pavlixa2@gmail.com

Цимбалюк Ирина,
кандидат экономических наук, доцент, Восточноевропейский национальный
университет имени Леси Украинки,
кафедра финансов, банковского дела и страхования;
г. Луцк; e-mail: tsymbaliuk_i@ukr.net

Коцан Лилия,
научный сотрудник, Восточноевропейский национальный
университет имени Леси Украинки;
г. Луцк; e-mail: Kotsan_L@i.ua

МОДЕЛИРОВАНИЕ ОПТИМАЛЬНОГО РАЗМЕРА МИНИМАЛЬНОЙ ЗАРАБОТНОЙ ПЛАТЫ В УКРАИНЕ

В статье доказывается, что система социальных стандартов и гарантий в Украине нуждается в оптимизации. Одним из направлений трансформации системы регулирования доходов населения в Украине является изменение концепции формирования заработной платы и ее ориентация на реальную макроэкономическую ситуацию в стране.

Предлагается регрессионная модель определения оптимального размера минимальной заработной платы, которая позволяет оптимизировать систему социальных стандартов и гарантий в Украине. На основе анализа фактического изменения минимальной заработной платы с оптимальным ее размером, рассчитанным с использованием предложенной модели, отмечается, что меры правительства по регулированию доходов вводились с определенным временным лагом, что, ввиду нестабильной экономической ситуации в государстве, были противоположными к необходимым ко внедрению.

Ключевые слова: государственное регулирование доходов, минимальная заработная плата, минимальная пенсия, прожиточный минимум, налогообложение, моделирование.

Павліха Наталія,
доктор економічних наук, професор, Східноєвропейський національний
університет імені Лесі Українки,
кафедра міжнародних економічних відносин і управління проектами;
м. Луцьк; e-mail: pavlixa2@gmail.com

Цимбалюк Ірина,
кандидат економічних наук, доцент, Східноєвропейський національний
університет імені Лесі Українки,
кафедра фінансів, банківської справи та страхування;
м. Луцьк; e-mail: tsymbaliuk_i@ukr.net

Коцан Лілія,
науковий співробітник, Східноєвропейський національний
університет імені Лесі Українки;
м. Луцьк; e-mail: Kotsan_L@i.ua

МОДЕЛЮВАННЯ ОПТИМАЛЬНОГО РОЗМІРУ МІНІМАЛЬНОЇ ЗАРОБІТНОЇ ПЛАТИ В УКРАЇНІ

У статті доведено, що система соціальних стандартів і гарантій в Україні потребує оптимізації. Це передбачає розробку й запровадження підходів до визначення бази для розрахунків мінімальної заробітної плати на основі зміни концепції її формування відповідно до макроекономічної ситуації в державі. Стверджується, що найбільший вплив на доходи серед інструментів їх регулювання має мінімальна заробітна плата. Тому, установлюючи її рівень, потрібно враховувати, що відповідні зміни відбудуться й в обсягах надходжень податків, соціальних відрахувань і прожиткового мінімуму. Відтак штучне збільшення розміру заробітної плати невідворотно призведе до номінального зростання складових частин доходів населення, однак якісного ефекту такий захід не матиме. На основі цього доведено, що зростання мінімальної заробітної плати має бути обґрунтоване відповідними позитивними змінами низки економічних показників. Доведено, що одним із напрямів трансформації системи регулювання доходів населення в Україні є зміна концепції формування заробітної плати та її орієнтація на реальну макроекономічну ситуацію в державі. Запропоновано регресійну модель визначення оптимального розміру мінімальної заробітної, що уможливлює оптимізацію системи соціальних стандартів і гарантій в Україні. На основі аналізу фактичної зміни мінімальної заробітної плати з оптимальним її розміром, розрахованим із використанням запропонованої моделі, відзначено, що заходи уряду щодо регулювання доходів населення запроваджувались із певним часовим лагом, що, зважаючи на нестабільну економічну ситуацію в країні, були подекуди протилежними до необхідних до впровадження.

Ключові слова: державне регулювання доходів, мінімальна заробітна плата, мінімальна пенсія, прожитковий мінімум, оподаткування, моделювання.

Formulation of Scientific Problem and its Significance. In order to improve the policy of incomes and wage to overcome poverty and a significant stratification of the population by their incomes in the current conditions of economic management in Ukraine, the system of social standards and guarantees must be optimized. This involves the development and implementation of approaches to determine the basis for calculating the minimal salary based on a changings in the concept of its formation in accordance with the macroeconomic situation in the country.

Research and Publications Analysis. The issue of formation of methodological approaches to determine the basis for establishing minimal national standards is raised in the works of many scholars, but it is still controversial. Some problems of transformation of population income regulation system, as well as peculiarities of its formation and distribution were investigated by such scholars as A. V. Semenchenko, M. Kravtsova, E. M. Libanova [1; 2; 3]. The issues of determining the minimum wage and its impact on economic

processes in the country [4; 5], the impact of taxation on the level of personal income [6; 7] were discussed in the economist's writings. However, the social standards and guarantees system optimization requires the development and implementation of approaches to determine the basis for calculating the minimum wage based on changing the concept of its formation in accordance with the macroeconomic situation in the country.

The Goal of the Article. The purpose of the article is to improve the methodology for optimization minimum wage in Ukraine basis on the constructing a correlation-regression model.

Presentation of the Material and Results. The analysis of scientific literature of the issues of improving the system of social standards and guarantees allowed to determine the main factors of their formation, this is the growth of GDP, levels of unemployment and employment, inflation.

In order to scientifically substantiate the transformation of the population income regulation system in determining the optimal level of minimal salary in Ukraine, the influence and tightness of the relationship between the above mentioned factors are analyzed.

Output data for construction a minimal salary model is given in table 1.

Table 1

Output Data for Constructing a Multi-Factor Model

Years	Minimal Salary, UAH	GDP	Economically Active Population, %	Unemployment in % to Economically Active Population	Inflation	Average Monthly Wage, UAH	Average Monthly Wage, USD	Minimal Wage, USD	Dollar Exchange Rate
	Y	X1	X2	X3	X4	X5	X6	X7	X8
2000	90,00	176128,00	63,2	11,60	128,20	230,00	44,06	17,24	5,22
2001	118,00	211175,00	62,3	10,90	112,00	311,00	57,27	21,73	5,43
2002	140,00	234138,00	61,9	9,60	100,80	376,00	70,94	26,42	5,30
2003	185,00	277355,00	61,8	9,10	105,20	462,00	86,68	34,71	5,33
2004	205,00	357544,00	62	8,60	109,00	590,00	110,69	38,46	5,33
2005	262,00	457325,00	62,2	7,20	113,50	806,00	152,08	49,43	5,30
2006	350,00	565018,00	62,2	6,80	109,10	1041,00	204,12	69,30	5,10
2007	400,00	751106,00	62,6	6,40	112,80	1351,00	264,90	79,20	5,10
2008	515,00	990819,00	63,3	6,40	125,20	1806,00	354,12	102,00	5,10
2009	605,00	947042,00	63,3	8,80	115,90	1906,00	247,53	78,60	7,70
2010	869,00	1120585,00	63,7	8,10	109,40	2239,00	279,88	108,80	8,00
2011	941,00	1349178,00	64,3	7,90	108,00	2633,00	329,13	118,20	8,00
2012	1073,00	1459096,00	64,6	7,50	100,60	3026,00	378,25	134,30	8,00
2013	1147,00	1522657,00	65	7,20	99,70	3282,00	410,25	143,50	8,00
2014	1218,00	1586915,00	62,4	9,30	112,10	3480,00	435,00	152,40	8,00
2015	1218,00	1988544,00	62,4	9,10	148,70	4195,00	265,51	77,20	15,80

* Composed by the author according to the State Statistics Committee of Ukraine [8].

One of the prerequisites for applying regression analysis methods to construct econometric models is the absence of linearly related independent variables (factors). If this prerequisite is not satisfied, then, as was mentioned above, there is a multicollinearity phenomenon, what means that there is a strong correlation between the independent variables (included in the model factors). In the mathematical aspect, multicollinearity leads to a weak conditionality of the matrix of the system of normal equations, that is the closeness of its determinant to zero, and in the content aspect – to distort the meaning of the regression coefficients and the difficulty in identifying the most significant factors.

The main reasons that cause multicollinearity are independent variables that characterize the same property of the investigation phenomenon, which are components of the same sign (table 2).

One of the prerequisites for applying regression analysis methods to construct econometric models is the absence of linearly related independent variables (factors). If this prerequisite is not satisfied, then, there is a multicollinearity phenomenon, what means that there is a strong correlation between the independent variables (included in the model factors). In the mathematical aspect, multicollinearity leads to a weak

conditionality of the matrix of the system of normal equations, that is the closeness of its determinant to zero, and in the content aspect - to distort the meaning of the regression coefficients and the difficulty in identifying the most significant factors.

Table 2

Matrix of Coefficients of Pair Correlation for Constructing a Multi-Factor Model

	Y	**X 1**	**X 2**	**X 3**	**X 4**	**X 5**	**X 6**	**X 7**	**X 8**
Y	1	0,980721	0,603523	-0,28076	0,110617	0,986509	0,879373	0,891581	0,751742
X 1	0,980721	1	0,555432	-0,32823	0,253890	0,997531	0,869345	0,848370	0,805583
X 2	0,603523	0,555432	1	-0,28646	-0,206300	0,542526	0,645292	0,685499	0,224735
X 3	-0,280760	-0,32823	-0,28646	1	0,224555	-0,291600	-0,577180	-0,520430	0,064151
X 4	0,110617	0,25389	-0,20630	0,224555	1	0,238625	-0,054760	-0,170180	0,557970
X 5	0,986509	0,997531	0,542526	-0,291600	0,238625	1	0,860921	0,845671	0,811201
X 6	0,879373	0,869345	0,645292	-0,577180	-0,054760	0,860921	1	0,983271	0,411347
X 7	0,891581	0,84837	0,685499	-0,520430	-0,170180	0,845671	0,983271	1	0,384623
X 8	0,751742	0,805583	0,224735	0,064151	0,557970	0,811201	0,411347	0,384623	1

* Composed by the author.

The main reasons that cause multicollinearity are independent variables that characterize the same property of the investigation phenomenon, which are the components of the same sign.

Currently, there are several methods to assess the presence of multicollinearity in the totality of independent variables, to measure its degree, to identify mutually correlated variables and to eliminate or weaken its negative impact on the regression model. The most common method for detecting multicollinearity is the correlation method. In practice, it is believed that two variables are collinear (linearly dependent) if the pair coefficient of correlation between them in absolute value exceeds 0.8. Multicollinearity is often eliminated by excluding one of the correlated factors from the model.

As a result of the correlation-regression analysis, a model was developed. It reflects the impact of GDP and the level of economic activity of the population of the country on the size of the minimal salary established by the state:

$$Y = -2281,73 + 0,000685 X1 + 35,99514 X2, \tag{1}$$

where:

Y – minimal salary, UAH; *X1* – GDP; *X2* – economically active population at the age of 15–70, in *%* to the population of the corresponding age group.

The informational of the model is estimated by the magnitude of the coefficient of multiple correlation and the value of the calculated value of the F-relation (Fischer criterion) for the correlation coefficient. Both values should be as great as possible: it is desirable that the value of the multiple correlation was from 0,9 and higher, and the value of the F-relation was at least an order higher from tabular one.

1) Checking the adequacy of the model in general.

We check the initial hypothesis H_0: all the coefficients of the multiple regression equation (1) are zero: $a_i = 0$ (i = 1,2, ..., n) against the alternative Hi there is at least one coefficient a_i that is different from zero. The check is carried out using Fisher's statistics with n and (m-n-1) degrees of freedom:

$$F = \frac{\dfrac{\sum_{i=1}^{m}(\hat{y}_i - \overline{y})^2}{n}}{\dfrac{\sum_{i=1}^{m}(y_i - \hat{y}_i)^2}{m-n-1}} \text{ or } F = \frac{R^2}{1-R^2}\frac{m-n-1}{n}, \tag{2}$$

n – the number of factors included in the model; m – total number of observations; $\hat{y}i$ – estimated value of the dependent variable in the observation; y – the average value of the dependent variable; y_i – the value of the dependent variable in the observation; R – coefficient of multiple correlation.

According to Fisher's tables, the critical value of Fcr solved with n and (m-n-1) levels of freedom and beforehand set a trust level (1– ą) to 100 %.

If F> Fcr, then this indicates the adequacy of the constructed model. If the model is not adequate then it is necessary to return to the stage of constructing the model and possibly enter additional factors or go to the nonlinear model.

Fischer criterion calculated =189,37.

Fischer criterion tabular =2,95.

Fischer's criterion: with a probability of 99 %, the dependence we have built up corresponds to the initial data;

2) verification of the coefficients of the regression equation significance.

To do this, it is worth checking the hypothesis H0: the coefficient ai = 0 versus the alternative Hi: ai ≠ 0 for each coefficient of the multiple regression equation. The verification is carried out using the t-criterion of the Student, whose actual value is calculated for the parameters of multi-factor regression by the formula [9]:

$$t_f = \frac{r \cdot \sqrt{m-n-1}}{\sqrt{1-r^2}}, \tag{2}$$

$$t_{f\ x1} = \frac{0{,}9807 \cdot \sqrt{8-2-1}}{\sqrt{1-0{,}9807^2}}; \qquad t_{f\ x1} = 15{,}3638.$$

$$t_{f\ x2} = \frac{0{,}6035 \cdot \sqrt{8-2-1}}{\sqrt{1-0{,}6035^2}}; \qquad t_{f\ x2} = 1{,}3995.$$

The actual value is compared with the critical one, which is based on the Student's t-criterion tablets for degrees of freedom k = m-n-1 and p probability. If the actual value of the t-criterion exceeds its critical level, then the corresponding parameter is statistically significant and has a significant effect on the aggregate indicator.

The critical value of the Student's t-criterion can be determined by using the Microsoft Excel T.TEST formula. The table value for degrees of freedom m-n-1 = 5 and the probability of 0.9 equals:

$$t_{0,9;5} = 0{,}1322.$$

Thus, the chosen coefficients of the regression equation are statistically significant, since, for both X1 and X2, the table value of Student's t-criterion is substantially higher:

$$\left|t_f\right| > t_{p;k}; \qquad \left|15{,}3638\right| > 0{,}1322; \qquad \left|1{,}3995\right| > 0{,}1322.$$

The calculation procedure of multiple correlation-regression analysis given above, allows not only to evaluate the influence of each of the factors which form the model on the resultant sign, but also to predict and justify the optimal level of minimum wage for the future.

Table 3,6 presents the initial data for calculating the minimum wage for the period up to 2019 using the proposed model. The calculations make it possible for us to compare the established wage level in 2016–2017 with the level that we would think would be optimal based on the determinants of its formation, namely – GDP and the number of economically active population. Also, to predict the size of the minimum wage, which corresponded to the probable change in the two factors and minimized the risks of negative processes in the country's economy, which are possible at a biased level of social guarantees (table 3).

After analyzing the minimum wage the actual change with its optimal size, calculated using the proposed model, it is possible to admit that the government's measures to regulate population incomes have

been introduced with a certain time lag, which, according to the unstable economic situation in the country, were sometimes inversely necessary for implementation. So comparable wage rates are not only differed in size, but sometimes also the dynamics of their changes varied. In particular, in 2014, after another economic

Table 3

Results of the Minimum Wage Calculation Using the Proposed Model

Years	Minimum Wage, UAH.	GDP	Economically Active Population aged 15–70, in % of the Population of the Corresponding age Group	Calculated Minimum Wage, UAH
2000	90	176 128	63,2	114
2001	118	211 175	62,3	105
2002	140	234 138	61,9	107
2003	185	277 355	61,8	133
2004	205	357 544	62	195
2005	262	457 325	62,2	271
2006	350	56 5018	62,2	344
2007	400	751 106	62,6	486
2008	515	990 819	63,3	676
2009	605	947 042	63,3	646
2010	869	1 120 585	63,7	779
2011	941	1 349 178	64,3	957
2012	1073	1 459 096	64,6	1043
2013	1147	1 522 657	65	1101
2014	1218	1 586 915	62,4	1052
2015	1218	1 988 544	62,4	1327
2016	1370	2 383 182	62,2	1590
2017	3200	3167282,4	63,6	2178
2018	3723	3682087,6	63,8	2539
2019 (prognosis)	x	4267971,5	63,9	2944

* Calculated by the author according to the State Statistics Service of Ukraine [8].

crisis, when the GDP of the country declined along with the reduction of the number of economically active population, the dynamics of the minimum wage did not meet the specified changes and continued to grow to 1218 UAH, creating additional difficulties for employers. While, according to calculations, the level of minimum wage should have drop to 1052 UAH.

Next year, the government froze salary growth at the 2014 level (1218 UAH). However, the growth of GDP and the unchanging number of economically active population (which may indicate not only improvement of the economic situation but also increase of labor productivity) allowed to raise the minimum wage to 1327 UAH.

The next step for the government within the limits of state regulation of incomes was to increase the size of the minimum salary in 2017 to the level of 3200 UAH per month, twice exceeded the level of the previous 2016. According to the calculations carried out using the proposed model, such a significant increase in the indicator was ungrounded because it did not have an economic basis and did not take into account the dynamics of GDP – the main macroeconomic indicator of economic development. And if in 2016 the level of the minimum wage was indeed understated and required revision in the direction of increase, but not on such a scale. In our opinion, the optimal minimum salary in 2017 should be UAH 2178. Fig. 1 shows a graphical representation of changes in the actual and calculated levels of minimum wage compared with changes in the country's GDP.
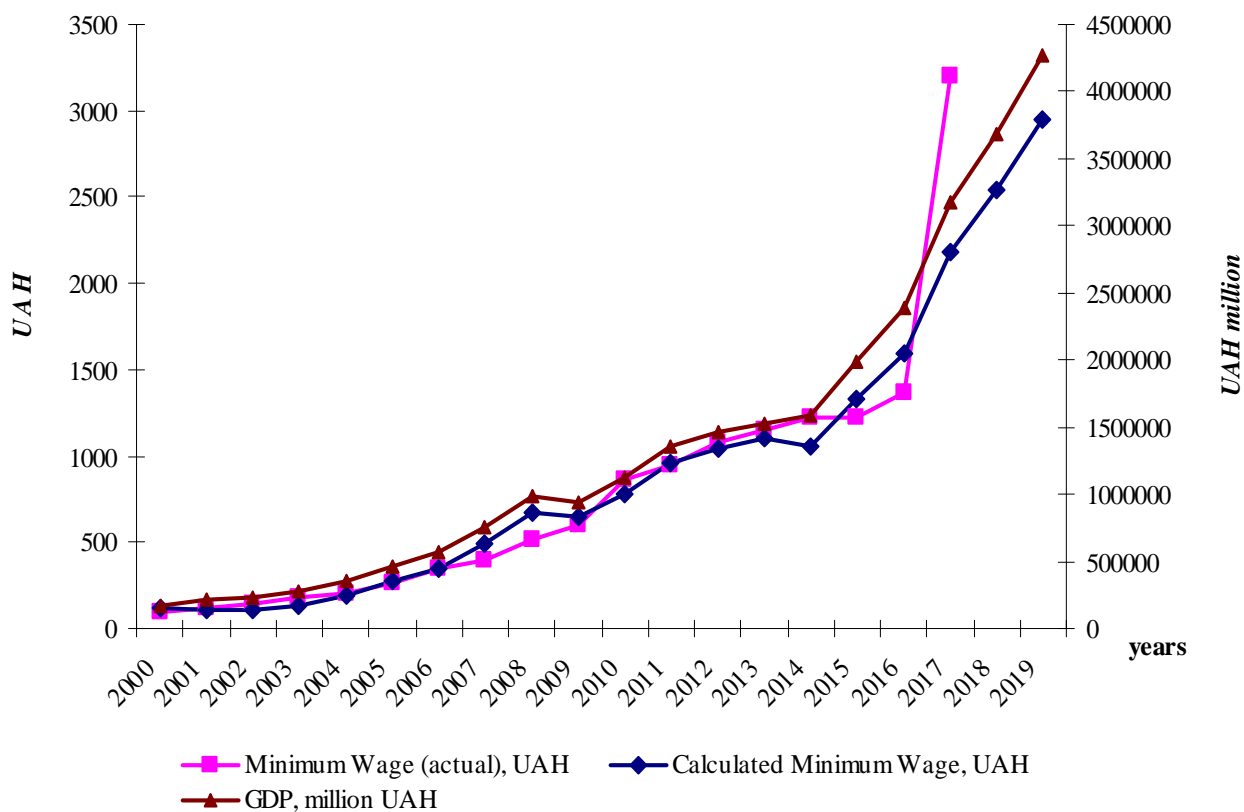
Fig. 1. *Dynamics of the Minimum Wage and GDP of Ukraine*

* Written by the Author.

The lack of sufficient objective reasons for a significant increase in the minimum salary also testifies to the tendency to change the number of economically active population (fig. 2).
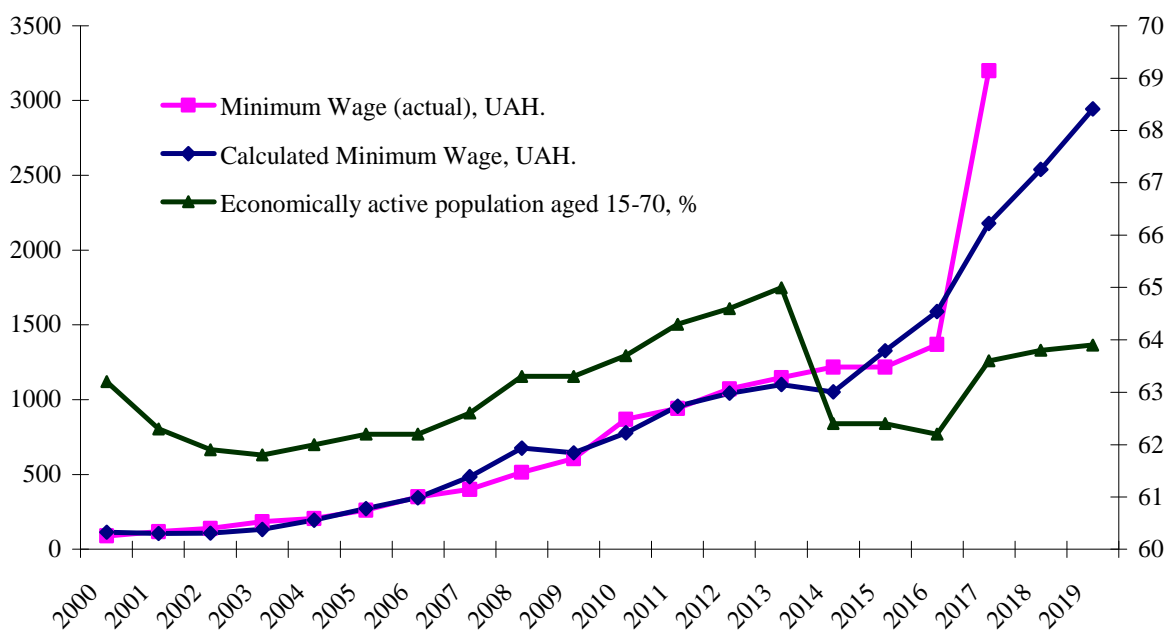

Fig. 2. *Dynamics of the Minimum Wage and the Level of Economically Active Population of Ukraine*

* Written by the Author.

As can be seen from Fig. 1–2, the proposed minimum salary takes into account the GDP dynamics, which confirms the objectivity of the calculated model and the correctness of the findings. For stable economic growth and GDP growth, raising the minimum salary of 2944 UAH will be possible only in 2019. State regulation of incomes by establishing an unreasonably overestimated level of minimum salary will inevitably have a number of consequences. In particular, the amount of CSP will double to 704.00 UAH for entrepreneurs in groups 2, 3 of the single tax. For entrepreneurs of the second single tax group the amount of the tax will also increase, since the rate is tied to the minimum salary and is 20 % of its size. That means, with an increase of the minimum wage in twice, they will have to pay more, which, accordingly, will negatively affect the size of income received by business entities. As to the impact of the growth of the minimum salary on the level of incomes in Ukraine, in our opinion, this will not lead to significant positive changes and their real growth. After all, for a long period of time, the minimum wage in our country is 100–150 USD. and only in recent years, due to economic instability and depreciation of the national currency, its level has fallen to 55 dollars. Therefore, in our opinion, the next growth of the minimum wage to 118 dollars brings it to the level of 2011, leaving it still quite low – $ 4. for a day that does not solve the problem of poverty

Thus, as an important socio-economic indicator of the country's development, incomes require balanced regulation by the state. The system of state regulation of income in Ukraine is ineffective, and the measures implemented in the course of its implementation do not meet the changing economic situation in the country and used with a delay by the government.

The result of unjustified minimum wage increase may be inflation and currency depreciation, trying to compensate the costs for increasing wage employers-representatives of the business will increase prices or transfer employees to part-time job.

Conclusions. It has been proved that in the modern conditions of management in Ukraine the system of social standards and guarantees needs to be optimized.

The calculations confirm that the greatest influence on the income among the instruments of their regulation is made by the minimum wage. Therefore, by establishing its level, it is necessary to take into account that the corresponding changes will take place in the volumes of tax revenues, social deductions and subsistence minimum. Consequently, an artificial increase in wage will inevitably lead to a nominal increase in the components of household incomes, but this will not have a qualitative effect. On this basis, it is proved that the growth of the minimum salary should be justified by the corresponding positive changes in a number of economic indicators.

It is proved that one of the directions of the regulation income system transformation in Ukraine is the change in the concept of salary formation. Improving the methodology for determining the optimal minimum wage makes it possible to optimize the system of social standards and guarantees in Ukraine.

On the basis of the analysis of the actual change in the minimum wage, calculated using the proposed model, it was noted that government's measures to regulate population incomes have been introduced with a certain time lag, which, according to the unstable economic situation in the country, were sometimes inversely necessary for implementation.

References

1. Кривцова М. Система державних соціальних стандартів та гарантій в Україні: вплив на доходи населення та шляхи вдосконалення. *Науковий вісник [Одеського національного економічного університету].* 2016. № 6. С. 108–131.
2. Лібанова Е.М. Бідність населення України: методологія, методика та практика аналізу. Київ, 2008. С. 143.
3. Семенченко А. В. Удосконалення механізму державного регулювання доходів населення. *Бізнес Інформ.* 2016. № 5. С. 51–56.
4. Collins Christopher. Raising the Minimum Wage: An Economic Gain. *The Park Place Economist*: 2017. Vol. 25. URL: http://digitalcommons.iwu.edu/parkplace/vol25/iss1/20 (Last accessed: 20.10.2017).
5. Manning Alan The elusive employment effect of the minimum wage. *CEP Discussion Paper*. No 1428, London: Centre for Economic Performance. London: School of Economics and Political Science 2016. URL: http://eprints.lse.ac.uk/67646/ (Last accessed: 21.10.2017).
6. Цимбалюк І. О. Необхідність та напрями удосконалення податкової системи України. *Проблеми розвитку фінансової системи України та шляхи їх вирішення*: монографія. Луцьк, 2014. С. 99–115.
7. Kroft Kory, Kucko Kavan, Lehmann Etienne and Schmieder Johannes. Optimal Income Taxation with Unemployment and Wage Responses: a Sufficient Statistics Approach. Technical report. National Bureau of Economic Research. 2016. URL: http://ftp.iza.org/dp9719.pdf (Last accessed: 21.10.2017).

8. Доходи та витрати населення України (2002–2015). *Сайт Державної служби статистики України.* URL: www.ukrstat.gov.ua/ (дата звернення: 19.06.2017).

9. Степанишин В. М., Тисовський Л. О. Побудова моделі кореляційного аналізу для дослідження багатофакторних процесів і явищ. *Вісник Національного університету «ЛП».* 2012. № 736. С. 133–138.

References

1. Kryvtsova, M. (2016) Systema derzhavnykh sotsialnykh standartiv ta harantii v Ukraini: vplyv na dokhody naselennia ta shliakhy vdoskonalennia [System of state social standards and guarantees in ukraine: effect on incomes and ways of improving] *Naukovyi visnyk Odeskoho natsionalnoho ekonomichnoho universytetu,* 6, 108–131 [in Ukrainian].

2. Libanova, E. M. (2008) Bidnist' Naselennya Ukrainy: Metodologiya, Metodyka ta Praktyka Analizu [Poverty of Ukraine's Population: Methodology, Methods, and Practice of Analysis]. Kyiv, KNEU, 143 [in Ukrainian].

3. Semenchenko, A. V. (2016) Udoskonalennia mekhanizmu derzhavnoho rehuliuvannia dokhodiv naselennia [Improving the State Regulating the Income of the Population]. *Business-inform.* 5. 51–56 [in Ukrainian].

4. Collins, Christopher (2017) Raising the Minimum Wage: An Economic Gain. *The Park Place Economist:* Vol. 25. Retrieved from: http://digitalcommons.iwu.edu/parkplace/vol25/iss1/20 (Last accessed: 20.10.2017) [in English].

5. Manning, Alan (2016) The elusive employment effect of the minimum wage. CEP Discussion Paper, No 1428. Centre for Economic Performance, London School of Economics and Political Science, London. Retrieved from: http://eprints.lse.ac.uk/67646/ (Last accessed: 21.10.2017) [in English].

6. Tsymbaliuk, I. O. (2014) Neobkhidnist ta napriamy udoskonalennia podatkovoi systemy Ukrainy. [Necessity and directions of improvement of the tax system of Ukraine]. Problemy rozvytku finansovoi systemy Ukrainy ta shliakhy yikh vyrishennia : monohrafiia. [*Problems of development of the financial system of Ukraine and ways of their solution: monograph*]. Lutsk. 99–115 [in Ukrainian].

7. Kroft, K., Kucko, K., Lehmann, E. and Schmieder J. (2016) Optimal Income Taxation with Unemployment and Wage Responses: A Sufficient Statistics Approach. Technical report. National Bureau of Economic Research. Retrieved from: http://ftp.iza.org/dp9719.pdf (Last accessed: 21.10.2017) [in English].

8. Dokhody ta vytraty naselennia Ukrainy (2002–2015). [Income and expenditure of the population of Ukraine]. Site of the State Statistics Service of Ukraine. Retrieved from:: www.ukrstat.gov.ua. (Last accessed: 19.06.2017) [in Ukrainian].

9. Stepanishin, V. M., Tysovsky, L. O. (2012) Pobudova modeli koreliatsiinoho analizu dlia doslidzhennia bahatofaktornykh protsesiv i yavyshch [Construction of a correlation analysis model for the study of multifactorial processes and phenomena] Bulletin of the National University «LP». No. 736. P. 133–138 [in Ukrainian].

УДК 339.92:332.14

Сак Тетяна,
кандидат економічних наук, доцент, Східноєвропейський національний
університет імені Лесі Українки, кафедра економіки,
безпеки та інноваційної діяльності підприємства;
м. Луцьк; e-mail: tetianasak@gmail.com
https://doi.org/10.29038/2411-4014-2018-02-35-41

ОЦІНКА БЕЗПЕЧНОСТІ ФУНКЦІОНУВАННЯ БІЗНЕСУ В УКРАЇНІ

У статті проведено оцінку безпечності функціонування бізнесу в Україні. Проаналізовано статистичні дані щодо кількості суб'єктів підприємництва за розмірами та результатами їхньої діяльності. Для виявлення причин, що формують небезпеки функціонування вітчизняних підприємств, розглянуто місце України у світових економічних рейтингах. За результатами дослідження визначено, що Україна суттєво відстає в економічному розвитку, а, порівняно із сусідніми країнами, має несприятливий бізнес-клімат для розвитку підприємництва. Виявлено зовнішні та внутрішні загрози розвитку підприємництва, серед яких основними є корупція, обмеженість фінансування, податкове навантаження, неефективне корпоративне управління, низька інноваційна активність. Визначено стратегічні напрями для подолання загроз та підвищення безпечності функціонування бізнесу.

Ключові слова: бізнес-середовище, суб'єкти підприємництва, безпечність бізнесу, рівень безпеки, світові економічні рейтинги, загрози розвитку підприємництва

Сак Татьяна,