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IMPACT OF MACROECONOMIC FACTORS ON THE COMPETITIVENESS OF NATIONAL ECONOMIES

The competitiveness of the national economy is one of the most important economic concepts. There are many of its definitions and methods of measurement. Since the country's competitiveness is formed by a huge number of factors, a literature review was carried out, as a result of which macroeconomic factors affecting the competitiveness of the economy were selected. The purpose of the article is to assess the degree of influence of selected factors on the global competitiveness of countries. For this, panel data of 60 countries for the period from 2006 to 2018 were collected. Based on this data, a regression analysis of panel data with fixed and random effects was carried out, where the dependent variable is the Global Competitiveness Index, and 22 macroeconomic factors act as independent variables. The Hausman test confirmed the preference for using a panel data model with fixed effects over a panel data model with random effects. As a result, 2 models were constructed that showed the degree of influence of the following factors to change the global competitiveness index: gross capital formation, total factor productivity, average labor productivity, pace of inflation rate, share of the current account balance in GDP, share of the employed population in the total population of the country, oil prices, growth rate of oil prices.

Key words: competitiveness, Global Competitiveness Index, macroeconomic factors, total factor productivity, panel data, regression analysis.

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Макроэкономикалық факторлардың ұлттық экономиканың бәсекеге қабілеттілігіне әсері

Ұлттық экономиканың бәсекеге қабілеттілігі маңызды экономикалық тұжырымдамалардың бірі болып табылады. Оның көптеген анықтамалары мен өлшеу әдістері бар. Елдің бәсекеге қабілеттілігі көптеген факторлардың әсерінен қалыптасады, сондықтан әдебиеттерге шолу жасалып, нәтижесінде экономиканың бәсекеге қабілеттілігіне әсер ететін макроэкономикалық факторлар таңдалды. Мақаланың мақсаты елдердің жаһандық бәсекеге қабілеттілігіне таңдалған факторлардың әсер ету деңгейін бағалау. Ол үшін 2006 жылдан 2018 жылға дейінгі кезеңдегі 60 елдің мәліметтері жиналды. Осы мәліметтер негізінде тұрақты әсерлері және кездейсоқ әсерлері бар панельді деректердің регрессиялық талдауы жүргізілді, мұнда жаһандық бәсекеге қабілеттілік индексі тәуелді айнымалы ретінде, ал таңдалған 22 макроэкономикалық фактор тәуелсіз айнымалылар ретінде есептелді. Хаусман сынағы кездейсоқ эффектілері бар панельді модельге қарағанда тұрақты эффектілері бар панельді модельді қолданудың артықшылығын растады. Нәтижесінде келесі факторлардың жаһандық бәсекеге қабілеттілік индексіне әсер ету дәрежесін анықтайтын 2 модель құрастырылды: жалпы капиталды қалыптастыру, факторлардың жалпы өнімділігі, орташа еңбек өнімділігі, инфляцияның өзгеру қарқыны, ағымдағы төлем балансының ЖІӨ үлесі, елдегі жұмыспен қамтылған халықтың үлесі, мұнай бағасы, мұнай бағасының өзгеру қарқыны.

Түйін сөздер: бәсекеге қабілеттілік, жаһандық бәсекеге қабілеттілік индексі, макроэкономикалық факторлар, жалпы факторлық өнімділік, панельді деректер, регрессиялық талдау.

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Влияние макроэкономических факторов на конкурентоспособность национальных экономик

Конкурентоспособность национальной экономики – одно из важнейших экономических понятий. Имеется множество его определений и способов измерения. Поскольку конкурентоспособность страны формируют огромное количество факторов, был проведен обзор литературы, в результате которого отобраны макроэкономические факторы, влияющие на конкурентоспособность экономики. Целью статьи является оценка степени влияния отобранных факторов на глобальную конкурентоспособность стран. Для этого были собраны панельные данные 60 стран за период с 2006 по 2018 годы. На основе этих данных был проведен регрессионный анализ панельных данных с фиксированными и со случайными эффектами, где зависимой переменной является индекс глобальной конкурентоспособности, а в качестве независимых переменных выступают 22 макроэкономических фактора. Тест Хаусмана подтвердил предпочтительность использования модели панельных данных с фиксированными эффектами по сравнению с моделью панельных данных со случайными эффектами. В результате были построены 2 модели, которые показали степень влияния следующих факторов: валового накопления капитала, общей производительности факторов, средней производительности труда, темпа изменения инфляции, доли текущего платежного баланса в ВВП, доли трудоустроенного населения в общей численности населения страны, цены нефти, темпа роста цен на нефть на изменение индекса глобальной конкурентоспособности.

Ключевые слова: конкурентоспособность, индекс глобальной конкурентоспособности, макроэкономические факторы, общая производительность факторов, панельные данные, регрессионный анализ.

Introduction

In the era of globalization and integration processes, it is necessary for countries to constantly maintain and increase the competitiveness of their economies in order to successfully develop in the face of increasing competition. The competitiveness of a country's economy is a complex concept that is widely studied from different points of view. There are several alternative approaches for measuring competitiveness at the country level. Competitiveness ratings issued by international organizations determine the position of countries that change every year. The most important competitiveness ratings are: Global Competitiveness Index of World Economic Forum (WEF), World Competitiveness Index of International Institute for Management Development (IMD), Ease of doing business index of World Bank (WB), Index of Economic Freedom of the Heritage Foundation (HF), Business Competitiveness Index and Export Competitiveness Indicators. All ratings can be divided into two groups. The first group includes studies by the World Economic Forum and the International Institute for Management Development. In these ratings, the country's level of competitiveness is ranked according to the economic system (social and international relations), the role of the state and the institutional framework. The second group of studies (the World Bank and Heritage Foundation) focuses on the specifics of regulations related to entrepreneurship.

These approaches lead to different assessments, since there is no generally accepted method for determining and measuring the level of competitiveness. The competitiveness of national economies is influenced by a large number of economic and non-economic factors that vary in time and space. The purpose of this study is to assess the degree of influence of macroeconomic factors on the competitiveness of national economies based on an analysis of panel data.

Literature Review

Since the concept of competitiveness is ambiguous and the measurement system of this concept is not fully developed, there are many studies and approaches to assessing the level of competitiveness and factors influencing it.

For example, Segota et al. (2017) consider that traditional competitiveness indicators, in particular the Global Competitiveness Index (GCI) proposed by the World Economic Forum, are incomplete, because they do not take into account the macroeconomic efficiency of the country and suggest a combination of GCI and performance results obtained by Data envelopment analysis (DEA), to achieve a more realistic assessment of macroeconomic competitiveness. As a key result of the study, a new indicator of competitiveness is proposed: a combination of the traditional indicator of competitiveness and the results of assessing the macroeconomic efficiency of countries.

One of the founders of the concept of competitiveness Porter (1985) defines total factor productivity as the only criterion for competitiveness and acceleration of economic development at the national level. Macroeconomic studies invariably have as their subject of analysis an assessment of the percentage contribution of key factors of production – capital and labor, as well as total factor productivity to an increase in Gross Domestic Product (GDP). The World Bank notes that the introduction of total factor productivity as measure of economic growth has become one of the important achievements in economic science over the past fifty years.

Carayannis and Grigoroudis (2014) explore the dynamic relationship between innovation, productivity and competitiveness based on database containing a set of 25 indicators for 19 countries for the period 1998-2008. Although these concepts are considered interrelated and correlated, as a result of the study the authors prove the difference in the indices of innovation, productivity and competitiveness, that is, for individual countries the innovation indicators may be one of the lowest, but the competitiveness indicators are quite high compared to other countries.

A study by Dunning and Zhang (2007) consider the country's resource endowment as a key component of the competitiveness of national economies. A high level of competitiveness, in turn, stimulates foreign direct investment in the country. Other researchers, in contrast, believe that foreign direct investment is an important part of policies aimed at improving the competitiveness of the national economy. And the countries that attracted more foreign investors will achieve a higher level of interstate competition and an intense multiplier effect for the entire economy (Fabus, 2014).

According to Bienkowski (2008), the competitiveness of a national economy depends on a country's ability to achieve economic growth faster than other countries and increase wealth in such a way that its economic structure changes and integrates effectively into international trade.

Aiginger et al. (2013) note that competitiveness shows a country's ability to create high added value, provide a high level of employment and thereby improve the living standards of the population.

In the work of Gerasymchuk et al. (2007) study the level of competitiveness, human development index, the index of the relationship of science and the stage of development of high technologies. The authors conclude that information and communication technologies affect the knowledge-

based economy, and the knowledge-based economy in turn has a positive effect on the global competitiveness of the economy.

Ülengin et al. (2010) believe that the key expected consequence of a nation's high level of competitiveness should be an increase in the welfare of the population. To assess the relationship between nation competitiveness and human development, data from 45 countries were collected and an artificial neural network was analyzed to identify those factors that have the greatest impact on performance indicators. Januškaite et al. (2018) also conclude that the link between intellectual capital and the level of competitiveness is strong and inseparable.

Methodology

The main purpose of the article is to determine the degree of influence of macroeconomic factors on the competitiveness of the economy. To achieve this, panel data was collected where the dependent variable is the Global Competitiveness Index. The following indicators were considered as possible independent variables: GDP, share of foreign direct investment, unemployment rate, GDP growth rate, total reserves, inflation rate, gross capital formation, human development index, world oil price, total factor productivity, employment rate, global innovation index, education costs, GDP per capita, high technology export, number of published scientific articles, share of savings, R&D expenses, patents, labor productivity, share of export in GDP, tax revenues. Data was taken from the World Development Indicators of the World Bank and from the UN official website. Macroeconomic studies invariably have as their subject of analysis an assessment of the percentage contribution of key factors of production – capital and labor, as well as total factor productivity to an increase in gross domestic product. In this study, average labor productivity was calculated. Also the total factor productivity was calculated based on the Cobb-Douglas function. The selection of explanatory independent variables was carried out on the basis of a matrix of pair correlations and the subsequent econometric analysis of panel data.

The sample contains information for 60 countries from 2006 to 2018, which occupy the first 60 places in the Global Competitiveness ranking of the World Economic Forum for 2018. Table 1 shows the paired correlation coefficients between the independent variables.

Table 1 – Pair Correlation Coefficients

	lnGrCapForm	lnA	lnYshL	ln1Infl	ln1CashGDP	lnLshPOP	lnPoilBr10	ln1rPoilBr10
lnGrCapForm	1.000							
lnA	0.404	1.000						
lnYshL	0.386	0.995	1.000					
ln1Infl	0.254	0.070	0.052	1.000				
ln1CAshGDP	-0.223	0.047	0.053	-0.202	1.000			
lnLshPOP	0.260	0.356	0.352	0.021	0.293	1.000		
lnPoilBr10	-0.013	-0.195	-0.194	0.240	0.035	-0.036	1.000	
ln1rPoilBr10	0.076	-0.048	-0.052	0.253	-0.009	0.006	0.453	1.000

A high value 0.995 is only for the correlation coefficient between the variables of the total factor productivity lnA and average labor productivity $lnYshL$. Therefore, in order to avoid multicollinearity, they cannot simultaneously be included in the independent variables of the regression model. The values of the remaining correlation coefficients are weak or very weak, and they may not be taken into account.

Since our sample combines time series and spatial data, a regression model of panel data was built to analyze the influence of the considered independent variables on the competitiveness of economies. To study a model with these characteristics, we can use two different models: a model with fixed effects (FE) and a model with random effects (RE). The model with fixed effects explores the relationship between the predictor and the result variables within the entity and assumes that the independent variables are fixed in units of observation and that the fixed effects are calculated from the differences within each unit over time. A model with random effects is usually preferable when it is assumed that the missing variables are absent or do not correlate with the explanatory variables considered in the

model. Using this model will determine unbiased coefficient estimates, use all available data and create the smallest standard errors. A significant difference between fixed and random effects is whether the unobserved individual effect includes elements that correlate with regressors in the model (Baltagi, 2013).

The general equation of our econometric model is as follows:

$$GCI_{it} = \alpha_i + \beta X_{it} + \varepsilon_{it} \quad (1)$$

where i represents the countries of the sample ($i = 1, \dots, 60$), and t represents the time ($t = 2006, \dots, 2018$). GCI_{it} is a dependent variable and is a Global Competitiveness Index calculated by the World Economic Forum. α_i is an unobserved individual specific effect, and β is a vector of coefficients associated with independent variables. X_{it} is the vector of explanatory variables for country i at time t . ε_{it} is the error value.

Using the collected panel data, 2 regression equations were constructed with fixed and random effects. The general equation adapted to our sample is described by equations (2, 3):

$$\ln(GCI_{it}) = \beta_1 \ln(GrCapForm_{it-1}) + \beta_2 \ln(A_{it-1}) + \beta_3 \ln(1rInf_{it-1}) + \beta_4 \ln(1CAshGDP_{it-1}) + \beta_5 \ln(LshPOP_{it-1}) + \beta_6 \ln(Poil_{it-1}) + \beta_7 \ln(1rPoil_{it-1}) + \alpha_i + \varepsilon_{it} \quad (2)$$

In the first model (2), the dependent variable is the logarithm of the Global Competitiveness Index. On the right side of the model in the first term is $GrCapForm_{it-1}$ (Gross Capital Formation), which consists of the cost of adding to the fixed assets of

the economy plus net changes in stock levels, and is calculated as a percentage of GDP; in the second term, A_{it-1} (Total factor productivity) is calculated by the authors for each country using GDP, fixed capital and employment using the Cobb-Douglas

production function; in the third term $1rInf_{it-1}$ (inflation rate) reflects the rate of annual percentage change in value for the average consumer purchasing a basket of goods and services; in the fourth term $1CAshGDP_{it-1}$ (the share of the Current Account Balance in GDP) is calculated as the sum of net exports of goods and services, net primary income and net secondary income as a percentage of GDP; in the fifth term $LshPOP_{it-1}$ shows the percentage of the employed population in the total population

$$\begin{aligned} \ln(GCI_{it}) = & \beta_1 \ln(GrCapForm_{it-1}) + \beta_2 \ln(YshL_{it-1}) + \beta_3 \ln(1rInf_{it-1}) \\ & + \beta_4 \ln(1CAshGDP_{it-1}) + \beta_5 \ln(LshPOP_{it-1}) + \beta_6 \ln(Poil_{it-1}) \\ & + \beta_7 \ln(1rPoil_{it-1}) + \alpha_i + \varepsilon_{it} \end{aligned} \quad (3)$$

In the second model (3), compare with the first model, in the second term $YshL_{it-1}$ (labor productivity) is included instead of the total factor productivity. Labor as one of the factors of production is taken into account when calculating the total factor productivity. However, this model assesses the degree of influence of only labor productivity on the competitiveness of the economy. Labor productivity is an important economic indicator that shows output per worker. All explanatory variables in equation (3) are also used with a lag of 1 year.

Results and Discussion

The results of econometric calculations performed using the STATA statistical software package with the dependent variable $\ln GCI$ are shown in Table 2. Due to the lack of some data for individual countries, some of the observations were excluded from the sample, as a result of

of the country; the sixth and seventh terms $Poil_{it-1}$ and $1rPoil_{it-1}$ show oil prices and growth rates of oil prices respectively. All explanatory variables in equation (2) are taken with a lag of 1 year in order to eliminate the consequences of possible simultaneity. The inclusion in the right side of the equation of variables measured over the same period of time with GCI can introduce endogeneity into the model. And the inclusion of regressors with a lag avoids this problem.

which 703 observations were used out of a possible 780. The second and the fourth columns of table 2 present the results of the evaluation of the panel data model with fixed effects by the least squares method, and the third and fifth columns show the results of the evaluation of the panel data model with random effects by the generalized least squares method.

In parentheses there are robust standard regression coefficient; *, **, *** – the significance of the coefficients at 10%, 5% and 1% levels, respectively; FE – fixed effects, RE – random effects;

for specification (1), F-test for the significance of individual effects was used: $F(58, 637) = 142.79$, $\text{Prob} > F = 0.0000$; Hausman test: $\text{Chi}^2(5) = 39.08$, $\text{Prob} > \text{chi}^2 = 0.0000$;

for specification (3), F-test for the significance of individual effects was used: $F(58, 637) = 142.91$, $\text{Prob} > F = 0.0000$; Hausman test: $\text{Chi}^2(5) = 38.06$, $\text{Prob} > \text{chi}^2 = 0.0000$.

Table 2 – Panel regression models with dependent variable $\ln GCI$

Independent variables	Specifications			
	(1)	(2)	(3)	(4)
$\ln(GrCapForm_{it-1})$	0.032*** (0.011)	0.029*** (0.011)	0.033*** (0.011)	0.030*** (0.011)
$\ln(A_{it-1})$	0.106*** (0.013)	0.099*** (0.013)		
$\ln(YshL_{it-1})$			0.104*** (0.013)	0.097*** (0.013)
$\ln(1rInf_{it-1}) + \beta_4$	-0.0016** (0.0006)	-0.0019*** (0.0006)	-0.0016** (0.0006)	-0.0019*** (0.0006)

$\ln(1CAshGDP_{it-1})$	0.0016*** (0.0004)	0.0015*** (0.0004)	0.0016*** (0.0004)	0.0015*** (0.0004)
$\ln(LshPOP_{it-1})$	0.160*** (0.042)	0.155*** (0.037)	0.190*** (0.042)	0.180*** (0.037)
$\ln(Poil_{it-1})$	-0.023*** (0.006)	-0.024*** (0.006)	-0.023*** (0.006)	-0.024*** (0.006)
$\ln(1rPoil_{it-1})$	0.00018*** (0.00005)	0.00019*** (0.00005)	0.00018*** (0.00005)	0.00019*** (0.00005)
Cons	0.414** (0.176)	0.476*** (0.155)	0.776*** (0.170)	0.831*** (0.148)
Individual effects	FE	RE	FE	RE
Number of observations	703	703	703	703
Fisher test for significance coefficients	F(7, 58) = 30.48 [0.0000]		F(7, 58) = 30.97 [0.0000]	
R-squared	0.37		0.37	
Wald statistics		Chi2(7) = 210.65 [0.0000]		Chi2(7) = 211.90 [0.0000]

Notes: In parentheses there are robust standard regression coefficient; *, **, *** – the significance of the coefficients at 10%, 5% and 1% levels, respectively; FE – fixed effects, RE – random effects;

for specification (1), F-test for the significance of individual effects was used: $F(58, 637) = 142.79$, $\text{Prob} > F = 0.0000$; Hausman test: $\text{Chi}^2(5) = 39.08$, $\text{Prob} > \text{chi}^2 = 0.0000$;

for specification (3), F-test for the significance of individual effects was used: $F(58, 637) = 142.91$, $\text{Prob} > F = 0.0000$; Hausman test: $\text{Chi}^2(5) = 38.06$, $\text{Prob} > \text{chi}^2 = 0.0000$.

The coefficients of almost all the variables presented in Table 2 are significant at the 1% level, with the exception of the coefficients for the variable inflation rate, the coefficient at which is significant at the 5% level. According to the results, the estimated regression models of panel data with fixed effects are statistically significant, $R^2 = 0.37$. Although the value of the coefficient of determination is not high, it is sufficient to identify the influence of these factors on the global competitiveness of economies. The purpose of the study is not to identify all factors affecting global competitiveness, but only to assess the degree of influence on it, mainly macroeconomic factors. Further research should include studying the influence of microeconomic factors at the level of firms and industries in all countries. In the calculations for panel data with random effects by the GLS method, instead of the coefficient of determination, the Wald statistics $\text{Chi}^2(7)$ serves as an indicator of the quality of the estimated models. The values given in Table 2 confirm the statistical significance of panel regressions with random effects.

F-test confirms the presence of individual effects. Since the set of countries included in the study is unchanged for all years, it is usually recommended to

use a panel regression model with fixed effects. The Hausman test was carried out, which confirmed the preference for using a panel data model with fixed effects compared to a panel data model with random effects. In addition, the robust estimates of the significance of the coefficients used in the calculations presented in Table 2 take into account the influence of possible heteroscedasticity on them.

The signs of the coefficients correspond to their economic meaning. It is logical to assume that an increase in the gross capital formation in the country, an increase in the total factor productivity or average labor productivity, an increase in the current account balance and an increase in the share of employed in the total population of the country, with positive coefficients, should contribute to increasing its competitiveness. Whereas the negative sign of the coefficient at a variable rate of inflation corresponds to the fact that price increases generally worsen the country's macroeconomic indicators and negatively affect its competitiveness.

In our opinion, an interesting fact is that the coefficient with a variable world oil price is negative, and the coefficient with a variable growth rate of oil price is positive for the calculation results in all four specifications of the model. This means that, in gen-

eral, an increase in the world price of oil contributes to a decrease in the GCI of each country. At the same time, each additional percentage of the increase in the world oil price gives a smaller decrease in the GCI than the previous percentage of the increase in the world oil price. There is a complete analogy with the law of diminishing returns of production factor in microeconomics.

All model variables are presented in logarithmic form. Therefore, the estimated coefficients for them show the percentage change in the dependent variable GCI in response to an increase in the corresponding variable by one percent.

As expected, an increase in gross capital formation, total factor productivity, average labor productivity, the share of the current account balance in GDP, the share of the employed population in the total population of the country, and the growth rate of oil prices contribute to increasing the competitiveness of countries.

Let's consider the influence of each factor on the country's competitiveness. According to the calculations, in Table 2, the estimate of the β_1 coefficient in both models is almost the same and averages 0.0325. This means that a 1 percent increase in gross capital formation will lead to an increase in the GCI by 0.0325%, and an estimate of the coefficient of this variable is significant at 1%. Capital is not just one of the factors of production, but an important driving force of economic development. To create conditions for high rates of economic growth, it is necessary to maintain the rate of gross capital formation.

The equation of model (2) shows that an increase in the total factor productivity by 1% entails an increase in the GCI by 0.106%. The degree of influence of average labor productivity on the competitiveness of the economy is determined in the model (3). According to a regression estimate, an increase of this factor by 1% will lead to an increase in global competitiveness by 0.104%. It should be noted that it is precisely labor resources that play a decisive role in increasing global competitiveness in connection with an increase in total factor productivity. But in this case, with an increase in productivity, not quantitative, but qualitative characteristics of labor

resources are important. For example, Delgado et al. (2012) define national competitiveness as the expected level of output per person of working age, for which high-quality conditions have been created by the state, as well as business conditions caused by both microeconomic and macroeconomic factors.

According to table 2, the inflation rate negatively affects the GCI. This is due to the fact that after rising inflation, the nominal interest rate rises, which in turn affects the financial system and, in general, purchasing power. And in increasing the competitiveness of the national economy, the financial system plays an important role.

The degree of influence of another indicator of the financial system – the current account balance – is also evaluated in the models, and the coefficient ratio showed the same result in both models – 0.0016. This means that an increase in the current account balance by 1% will increase the competitiveness of the economy by 0.0016%. The current account balance represents the sum of net exports of goods and services, net primary and secondary income. The negative value of net exports indicates stagnation in the sectors of the economy that produce products that are most in demand on the world market and indicate weak competitiveness of the national economy.

The inverse effect of changes in oil prices on global competitiveness was determined based on a regression analysis of panel data in the previous article (Mukhamediyev & Temerbulatova, 2019).

As an example, we consider the calculation according to the model of the estimated value of the logarithm of the GCI for Kazakhstan in 2018. Table 3 in the second row shows the values of the corresponding independent variables in 2017 indicated in the first row. The third row contains estimates of the coefficients of the model from the second column of Table 2. The fourth row contains multiplication of the corresponding quantities from the second and third rows. Their sum is 1.205, and this, together with the constant 0.414, is the estimated value of 1.619 of the dependent variable $\ln GCI$ in 2018. Its deviation from the actual value of 1.465 of the dependent variable is approximately 10%, which is quite expected according to the calculation results in Table 2.

Table 3 – Calculation of the estimated $\ln GCI$ value for Kazakhstan in 2018

Indicators	$\ln GrCap$ Form	$\ln A$	$\ln IInfl$	$\ln ICAsh$ GDP	$\ln Lsh$ POP	$\ln Poil$ Br10	$\ln I rPoil$ Br10
The value of the indicator in 2017	3.256	5.049	7.176	-3.108	4.199	4.024	17.68
The estimated coefficients in column (1) of Table 2	0.032	0.106	-0.0016	0.0016	0.160	-0.023	0.00018

The values of the terms in the estimated equation (2)	0.104	0.535	-0.0115	-0.0050	0.672	-0.0926	0.0032
The ratio of the term to the actual value of <i>lnGCI</i> in 2018,%	7.1	36.5	-0.8	0.33	45.9	-6.3	0.24

The fifth row of Table 3 shows the ratios of the corresponding elements of the third row to the actual value of 1.465 dependent variable in 2018, expressed as a percentage.

First of all, we note that the variables of total factor productivity – 36.5% and share of employed population in the total population – 45.9% have the greatest weight. The influence of other indicators is much less. Although capital accumulation is essential for economic growth, the impact of the variable *lnGrCapForm* on the Kazakhstan Global Competitiveness Index is estimated at only 7.1%. Approximately the same, but the negative impact of the variable world oil prices equal to minus 6.3%. The effect of the remaining three variables, inflation rate, current account balance and growth rate of the world oil price can be considered insignificant.

Conclusion

The purpose of this article is to assess the degree of influence of macroeconomic factors on the competitiveness of the economy. To achieve the goal, annual data were collected for 60 countries for 2006-2018. Using panel data, 2 models were constructed

where the dependent variable is the logarithm of the global competitiveness index. After review of earlier published literature 22 variables were selected as independent variables.

A specific example is considered for Kazakhstan, which showed that the estimated value of the Global Competitiveness Index in 2018 corresponds to its actual value. The greatest influence is exerted by factors – total factor productivity and the share of employed in the total population. Other factors affect significantly less.

Based on the results of the study, it can be concluded that, in order to achieve higher positions in the global competitiveness ranking, countries should pay attention to improving their indicators of gross capital formation, total factor productivity, labor productivity, inflation, account balance and employment. The value of the country's GCI is also affected by its uncontrolled world oil price and its growth rate. In particular, it can be concluded for Kazakhstan that the most important factors in improving its position in the global competitiveness rating are the total factor productivity, labor productivity and the share of employed in the total population.

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