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Economic security of Bosnia and Herzegovina as part of the national security system

Економска сигурност Босне и Херцеговине као део система националне сигурности

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Abstract: Due to the specifics of the political and economic system in Bosnia and Herzegovina (BiH), in the recent history of the country it has not been possible to approach the problem and challenges of economic security comprehensively and seriously. The given circumstances reinforce the need for research and analysis of economic security in BiH in order to show the real situation. This paper analyses economic security as a part of national security, with the help of relevant indicators, and then the connection of economic security with the economic development of BiH. Methods of analysis, synthesis, compilation, correlation and linear regression were applied for research purposes. The aim of the research is an empirical analysis of economic security indicators in terms of determining the degree of interconnection of key variables of economic security (public debt, availability of financial resources, technological progress, investment in fixed assets, unemployment, military investment, foreign exchange reserves, budget deficit, GDP growth rate, etc.) for the period from 2008 to 2018. The results of the research clearly reveal that economic and national security are mutually interrelated, and that economic security is a precondition for national security, which confirms the main hypothesis of this paper.
Key words: economic system, economic security, national security, GDP, indebtedness, investments, unemployment.
JEL classification: E6

Сажетак: Због специфичности политичког и економског система у Босни и Херцеговини, у новијој историји земље није било могуће свеобухватно и озбиљно приступити проблему и изазовима економске безбедности. Дате околности појачавају потребу за истраживањем и анализирањем економске безбедности у БиХ како би се приказало реално стање. У овом раду анализирана је економска безбедност као дио националне безбедности, уз помоћ релевантних индикатора, а затим веза економске безбедности са економским развојем БиХ. За потребе истраживања примењене су методе анализе, синтезе, компилације, корелације и линеарне регресије. Циљ истраживања јесте емпиријска анализа показатеља економске безбедности у погледу утврђивања степена међусобне повезаности кључних варијабли економске безбедности (јавни дуг, доступност финансијских ресурса, технолошки прогрес, улагања у фиксну активу, незапосленост, улагања у војску, девизне резерве, прилив СДИ, стопа раста БДП) за период од 2008. до 2018. године. Резултати истраживања нам јасно говоре да се економска и национална безбедност међусобно преплићу, те да је економска безбедност предуслов националне безбедности што потврђује главну хипотезу овог рада.

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Кључне речи: економски систем, економска безбедност, БДП, задуженост, инвестиције, незапосленост.
ЈЕЛ класификација: E6

Introduction

The issue of economic security has always been a relevant topic, especially in modern times. It is becoming even more important in Bosnia and Herzegovina (BiH), taking into account its specific, and complex state organization. In modern times, as BiH trying to achieve greater compliance with European and world standards, the issue of economic security is becoming more "popular" and more prominent. Due to the specifics of the political and economic system in Bosnia and Herzegovina, in the recent history of the country it has not been possible to comprehensively and seriously approach the problem and challenges of economic security. The lack of unified databases, poor vertical and horizontal coordination, as well as poor cooperation of institutions at different administrative levels, posed an obstacle to a comprehensive understanding of the problem of economic security. Due to such circumstances, the need for research and analysis of economic security in BiH has been strengthened, with the aim of establishing and presenting the reality in BiH when it comes to a given issue. The results of such research is to show the level of economic security in BiH.

The research problem is focused on the impact of selected indicators of economic security, as well as the impact of indicators of economic development of the country on economic security. The subject of this paper is to analyse the economic security of BiH within the national security system, as well as the examination of economic security indicators. In this context, they will be compared with each other in order to reach a conclusion about their mutual relationship, as well as the overall impact on economic security. Starting from the issue of research of variables that are the focus of the paper, the following hypotheses have been set out that will be tested in the research process: *H1*- There is a statistically significant relationship between indicators of economic security; *H2* - Economic security indicators have a positive effect on GDP; *H3* - Economic security is a precondition for national security.

The paper is organized as follows: the first part discusses the existing literature and provides an adequate theoretical basis for further research, the second part refers to general facts about existing indicators and the choice of variables, the third part is dedicated to define the methodology used in research, and the fourth part presents empirical research results and discussion, while the fifth part concludes the paper.

1. Literature review

The term "security" has changed its meaning throughout history, and consequently there are numerous definitions of this term today. In the initial stages of considering this term, it used to describe the safety of persons and goods. In the strategic sense, the term “State Security”, or, more often, “National Security” mainly referred to the defines of the territory from physical threats, classic way of endangering it by enemy diplomacy and conventional armed forces. With the advent of the Industrial Revolution, with the accelerated

development of science and technology, and later with the greater use of the Internet in modern times, there are growing challenges in terms of endangering the security of individuals, businesses, governments and states as a whole. Thus, the concept of security becomes more complex and takes on new forms, definitions and challenges (Antić, 2021).

Đukić (2017) points out that today the term "security" has come into use in numerous social areas such as politics, health, economics and finance, informatics, psychology, architecture, etc. Also, science is trying to find cause-and-effect relationships and answers to the new situation. Based on a comparative study, which covered 124 countries in a period between 1980 and 1995, the authors of the study concludes that civilian conflicts are always linked to five factors: stagnation and decrease of real GDP, a high share for military budget within national income, a tradition of conflict, a high income inequality and slow average growth in food production (Allan & Colleta, 2001).

Previous research resulted in a comprehensive understanding of national security through the prism of economic indicators such as public debt, GDP growth rate, capital investment, productivity, technology and institutions (Ignatov, 2019). Liapis et al. (2013) point out that the recent economic and financial crisis has shown that highly indebted EU countries are economically vulnerable as a result of their financial and credit position. Panizza and Presbitero (2013) conclude that if a country is excessively indebted and its economy is to be significantly vulnerable to external shocks.

For an economy to be developed and a state to be economically stable, it is necessary for a company to have access to the capital. McKinnon (2010) points out that the availability of financial resources determines the capacity of the economy to produce wealth. If the state has the power to produce wealth, then it has the ability to strengthen its economic power. Strengthening the economic growth and economic security of states is also achieved through investment in fixed assets. Piketty (2015) claims that investing in a fixed asset is a determinant of the economy's capacity to develop and strengthen infrastructure, industry, and so on. Such activities certainly strengthen wealth and economic strength.

Zelenika and Pearce (2011) recognize the importance of technology in strengthening economic security and the economy in general. These authors believe that economies that manage to keep pace with socio-economic development have the power to improve their economic position and thus the economic security.

An important element of economic security is the unemployment rate. Research mainly begins with the fact that a high unemployment rate implies a higher poverty rate, which increases the risks to economic and national security. Azalahu et al. (2013) show that unemployment and poverty pose a serious threat to national security. These findings are the result of research in Nigeria, and can be applied to other less developed economies. The authors conclude that unemployment leads to poverty, while both poverty and unemployment have implications for national security.

Foreign direct investment (FDI) is an important basis for the country's economic development and is also an element of economic and national security. FDIs are strongly linked to globalization flows, because it is clear that these processes have enabled the free flow of capital, goods and services. Taking into account that FDI represents great sums of

money, which in less developed countries occupy a high share of GDP, it is clear that FDI inflows and outflows have strong effects on the economic security of these countries (Graham and Marchick, 2006).

An important aspect of national security is also maintaining the stability of the domestic currency. Considering that Bosnia and Herzegovina implements the policy of the currency board, it is of great importance to maintain an adequate level of foreign exchange reserves. An adequate level of foreign exchange reserves provides security to the economy, i.e. protects it from economic shocks (Šoja & Galijašević, 2017). Foreign exchange reserves need to cover three months of imports, 100% of the country's short-term external debt, and 20% of the broadest monetary aggregate (IMF, 2020). If an adequate level of foreign exchange reserves is maintained, the economy seems to be more resilient to external economic shocks.

Taking into account the review of research by other authors on economic security, it is clear that the impact of globalization is noticeable in all segments of security and thus in the segment of economic security. Bosnia and Herzegovina is no exception, so it faces modern challenges of economic security.

2. Indicators and selection of variables

Along with the recognition the significance of economic security as a component of modern economy and the security of the state as well, certain indicators of it have been defined so far. To establish mechanisms for establishing and maintaining economic security, it is necessary to identify indicators that indicate the state of economic security of the country. Indicators serve as a simple tool for monitoring and are subjected to changes in accordance with global circumstances. In the era of modern globalization, the number of indicators of economic security has been increased compared to earlier historical periods. At the same time, the range of possibilities for endangering economic security has been increased. However, the advent of modern information technologies has facilitated the constant monitoring of indicators, thus enabling the timely detection of shortcomings and their timely correction. Some of the indicators of economic development are also indicators of economic security, which can be direct and indirect, and some of them also descriptive. The most important are: territory, population, GDP, allocations for the armed forces, foreign direct investment, unemployment and poverty, gold and money reserves, public debt, budget deficit, technological progress – technology and innovative activity, gas and other energy stocks, natural resources, ecology and structure of the banking system and foreign exchange reserves. Most economic security indicators coincide with economic development indicators. Due to the non-existence and unavailability of data, and due to the volume as well, all the above indicators will not be the subject of consideration in this paper. (Antić, 2021).

In addition to some favourable indicators in BiH, including the growth of foreign exchange reserves and gold reserves, GDP growth, we also encounter indicators that represent vulnerabilities, such as demography and age structure of the population. Bearing in mind that unemployment contributes to poverty, it can be said that BiH, even with the

decline in the percentage of unemployed, is in an unenviable situation in respect to this issue. It could be defined as a very vulnerable and sensitive point from the aspect of the economic security (Antić, 2021). These are some of the indicators clearly indicate that BiH's economic security could be seriously compromised in a longer period of time.

Specific indicators of economic security are the National Security Index (NSI), which is the average of five other indices: the Human Development Index (HDI), the Research and Development Index, the Gross Domestic Product Performance Index, the Defence Expenditure Index and the Population Index. In addition to these indices, Asghari (2016) also cites the KOF Index, which consists of three dimensions: economic globalization, political globalization, and social globalization. However, these indicators will not be analysed because they are not applicable to our conditions at this time, and due to lack of data as well. The impact of certain indicators on economic security is direct and obvious, which could be recognized in the example of allocations for the armed forces, while some indicators are indirectly correlated with economic security.

3. Methodology

The empirical part of the paper is focused on examining the relationship between economic security indicators, as well as between them and GDP, i.e. economic growth as measured by the growth rate of GDP. In the empirical part of the paper, the focus is on examining the relationship between the variables that measure economic security for the period from 2008 to 2018.

In the first step, the data were collected, summarized, presented in tables and graphical descriptive analysis, and then a correlation and regression analysis were performed to test the set hypotheses. Descriptive statistics included the presentation of data through mean, minimum and maximum and standard deviation. Correlation analysis examines the state of mutual or reciprocal correlation between variables. It also represents a pattern of variation of variables depending on the way the variables are related, which is significantly different in relation to their isolated properties or the expected way of reacting.

The degree of correlation is expressed by the correlation coefficient which shows the degree of quantitative agreement, and is denoted by *r*.

4. Research results and discussion

The data used for the analysis are taken from the World Bank and the BiH Agency for Statistics. The period covered in the analysis is from 2008 to 2018. The following variables were analysed: public debt situation, financial resources, technology, fixed assets, unemployment rate, investments in the army, foreign exchange reserves, GDP growth rate, and net inflow of foreign investments. Data analysis and processing was performed in the statistical software package SPSS. Descriptive statistics for the analysed variables are shown in Table 1.

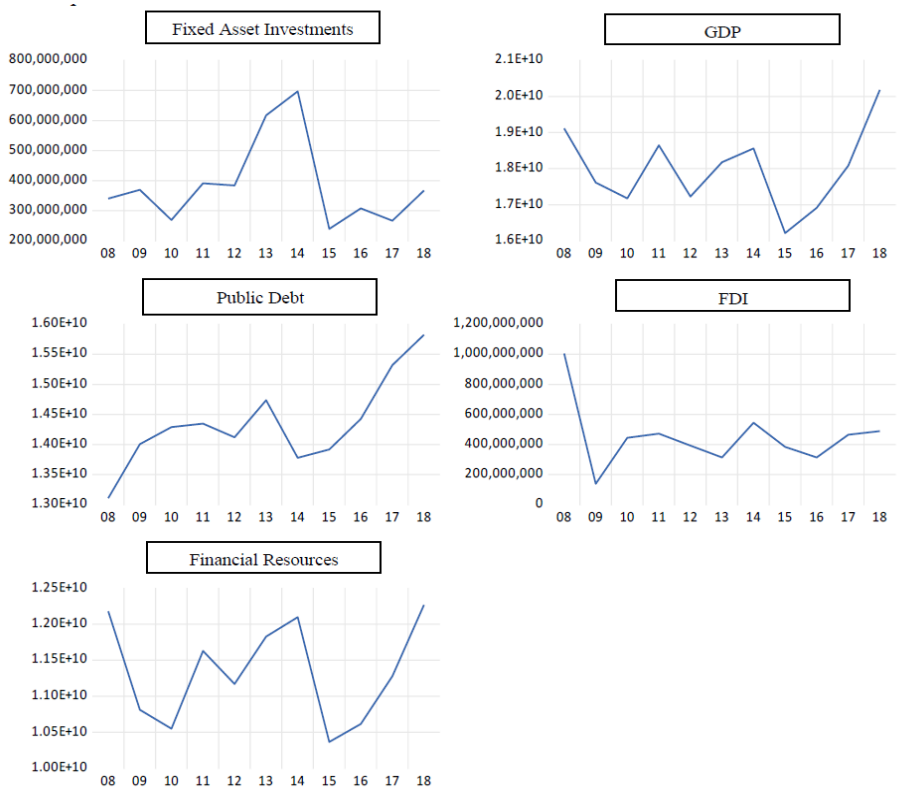
Table 1. Descriptive statistics of analysed variables

Description	*Public debt (in mil. $)*	*Financial resources (in mil. $)*	*Techn. (in mil. $)*	*Fixed assets (in mil. $)*	*Unemployment rate (in %)*	*Inve. in the army (in mil. $)*	*Foreign exchange reserves (in mil. $)*	*GDP growth rate (in %)*	*Net inflow of foreign investments (in mil. $)*
Average	14,351.62	11,345.09	123.11	386.33	25,22	200,12	5,014,31	1,72	450,75
St. error	223.53	210.28	19.57	43.54	0,99	8,87	256,87	0,69	64,76
Standard deviation	741.37	697.42	64.92	144.40	3,28	29,42	851,96	2,29	214,79
Minimum	13,108.61	10,365.69	74.44	239.32	18,40	157,97	4,247,54	-3,00	138,51
Maximum	15,824.21	12,266,10	261.38	697,04	28,01	242,47	6,808,43	5,43	1.004,85
Series length	11	11	11	11	11	11	11	11	11

Source: the authors' calculation

In the period from 2008 to 2018, the public debt of BiH amounted to around 14 billion US dollars. The minimum value of the debt was around 13.1 billion US dollars, and the maximum value was around 15.8 billion US dollars. Financial resources are observed through the value of lending. In the observed period, the value of the loan was around 11.3 billion US dollars, with the minimum value being around 10.3 billion dollars and the maximum value around 12.2 billion dollars. Investments in technology during the observed period averaged 123 million BAM, and ranged from 74.4 million to 261.3 million, which indicates that these investments were not uniform but variable. Investments in fixed assets averaged $ 356 million, which is a modest amount of funds for these purposes. It is noticed that the differences between the minimum and maximum are quite high. The inflow of foreign investments is also quite modest and has been declining in recent years. During the observed period, the inflow of foreign direct investment averaged $ 450 million, with a maximum value of $ 1 billion and a minimum of $ 138 million (Figure 1).

Figure 1. Graphical representation of the movement of the analysed variables in the period 2008-2018



Source: the authors' calculation

The unemployment rate is one of the biggest problems in the BiH economy. On average, the unemployment rate during the observed period was 25%, with a minimum rate of 18.4% and a maximum of 28.01%. It is important to emphasize that in this case the unemployment rate is shown according to the World Bank calculation. Investments in the military during the observed period were quite modest and averaged $ 200 million. The minimum value of investments in the army amounted to around 157 million, while the maximum value was around 242 million. It has been noticed that there were no large oscillations in investments, but still were quite modest. Foreign exchange reserves have tended to grow in recent years. During the observed period, the average value of foreign exchange reserves was about 5 billion US dollars, while the minimum value was 4.2 billion US dollars, and the maximum value was 6.8 billion US dollars (Figure 2). The GDP growth rate during the observed period was 1.72%. The negative rate recorded is 3% and the maximum positive is 5.43%.

Figure 2. Graphical representation of the movement of the variables analysed

Source: the authors' calculation

Such rates are quite low, and insufficient for transition countries to encourage stronger development. World Bank research shows that growth should be at least 6% to ensure stable economic development (Steinbach, 2019).

In order to test the hypotheses, and taking into account the analysed data placed in relation to each other, a correlation and regression analysis were performed. Correlation analysis examined the relationship between the observed variables, i.e. it was assessed whether there is a relationship between the observed variables and how strong it is. Regression was used to analyse, i.e. examine the dependence between the variables that are related to each other. Correlation analysis, which examined the existence of correlations between variables are shown in Table 2.

Table 2. Correlation analysis

		Public debt	*Financial resources*	*Techn.*	*Fixed assets*	*Unempl. rate*	*Invest. in the army*	*Foreign exch. reserves*	*Net inflow of foreign invest.*
Public debt	Pearson correla.	1	-0.466	.684*	-0.097	-0.586	-0.173	.829**	-0.368
	Sig. (2-tailed)		0.148	0.02	0.776	0.058	0.61	0.002	0.266
	T	11	11	11	11	11	11	11	11
Financial resources	Pearson correla.	-0.466	1	-0.449	0.584	0.601	-0.374	-0.368	0.175
	Sig. (2-tailed)	0.148		0.166	0.059	0.051	0.258	0.266	0.606
	T	11	11	11	11	11	11	11	11
Technology	Pearson correla.	.684*	-0.449	1	-0.252	-.913**	-0.028	.902**	0.28
	Sig. (2-tailed)	0.02	0.166		0.455	0	0.936	0	0.404
	T	11	11	11	11	11	11	11	11
Fixed assets	Pearson correla.	-0.097	0.584	-0.252	1	0.297	0.109	-0.114	-0.011
	Sig. (2-tailed)	0.776	0.059	0.455		0.375	0.749	0.739	0.975
	T	11	11	11	11	11	11	11	11
Unemployment rate	Pearson correla.	-0.586	0.601	-.913**	0.297	1	-0.179	-.838**	-0.196
	Sig. (2-tailed)	0.058	0.051	0	0.375		0.598	0.001	0.563
	T	11	11	11	11	11	11	11	11
Investment in the army	Pearson correla.	-0.173	-0.374	-0.028	0.109	-0.179	1	-0.24	0.216
	Sig. (2-tailed)	0.61	0.258	0.936	0.749	0.598		0.478	0.523
	T	11	11	11	11	11	11	11	11
Foreign exchange reserves	Pearson Correla.	.829**	-0.368	.902**	-0.114	-.838**	-0.24	1	-0.032
	Sig. (2-tailed)	0.002	0.266	0	0.739	0.001	0.478		0.926
	T	11	11	11	11	11	11	11	11
Net inflow of foreign investments	Pearson correla.	-0.368	0.175	0.28	-0.011	-0.196	0.216	-0.032	1
	Sig. (2-tailed)	0.266	0.606	0.404	0.975	0.563	0.523	0.926	
	T	11	11	11	11	11	11	11	11
* Correlation is significant at the 0.05 level (2-tailed)									
** Correlation is significant at the 0.01 level (2-tailed)									

Source: the authors' calculation

The obtained results show that there is a statistically significant, positive and strong relationship between public debt and technology (0.684), as well as between public debt and foreign exchange reserves (0.829). Other economic security variables are not

significantly related to public debt. If financial resources are observed, it is noticed that they are in a certain medium-strong connection with other elements of economic security. There is a statistically significant negative relationship (-0.466) with public debt, then with technology (negative relationship -0.449), there is a significant positive relationship with fixed asset investments (0.584), a positive relationship with the unemployment rate (0.601), while with other variables no statistically significant association was found.

Investments in technology are statistically significantly related to public debt (correlation 0.684), with trends in financial resources there is a negative relationship (-0.449), there is a very high negative correlation with the unemployment rate (-0.913), a positive and strong relationship with foreign exchange reserves (0.902), and a significant relationship with the net inflow of foreign investment (correlation 0.404).

The variable fixed assets, which is also one of the elements of economic stability, stands in a statistically significant positive relationship with financial resources (correlation 0.584), while it is not in a statistically significant relationship with other variables. The unemployment rate is in a statistically significant negative relationship with public debt (-0.586), followed by a positive relationship with financial resources (0.601), a strong negative relationship with technology (-0.913), and a negative relationship with foreign exchange reserves (-0.838).

Investments in the military are not statistically significant with any variable. This means that the observed variables are not related to investments in the military, but these investments are related to some other variables. Foreign exchange reserves are strongly positively related to public debt (correlation 0.829), technology investment (correlation 0.902), significantly negatively related to the unemployment rate (correlation -0.838), while there is no significant relationship with other variables. The inflow of foreign investments is not statistically significant in relation to any of the observed variables that measure economic security and the country.

After examining the correlation between the variables analysed, i.e. between the variables that measure economic security, a regression analysis was performed in which the dependent variable is the GDP growth rate, while the independent variables are: public debt, financial resources, technology, fixed assets, rate unemployment, military investment, foreign exchange reserves and net inflow of foreign investment. In order to examine the correlation between the variables, regression models were developed in which the dependent variable is the GDP growth rate, as well as the nominal GDP during the observed period. When developing the model, all variables were taken into account, and the results of the regression model are shown in the tables below.

Table 3. Summarized multiple regression model

Model summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.896[a]	.802	.011	2.27339	3.391
a. Predictors: (Constant), Net inflow of foreign investments, Investments in the military, Fixed assets, Unemployment rate, Financial resources, Public debt, Technology, Foreign exchange reserves					
b. Dependent Variable: GDP growth rate					

Source: the author's calculation

The results obtained show that the coefficient of determination is 80.20%, which indicates that the observed predictors, i.e. indicators of economic security explain 80.2% of GDP growth. The Durbin-Watson index is 3,391, indicating that there is an autocorrelation between the variables included in the model. The analysis of the variance of the regression model is shown in Table 4.

Table 4. Analysis of variance

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.902	8	5.238	1.013	.586[b]
	Residual	10.337	2	5.168		
	Total	52.239	10			
a. Dependent Variable: GDP growth rate						
b. Predictors: (Constant), Net inflow of foreign investments, Investments in the military, Fixed assets, Unemployment rate, Financial resources, Public debt, Technology, Foreign exchange reserves						

Source: the authors' calculation

With the ANOVA test, we measure how significant the regression model is, and this is shown by the significance data, which in this case is 0.586, and is higher than the limit of 0.05 (because the regression was performed with a 95% confidence interval). More precisely Sig. (0.586)> 0.05, and it is concluded that the regression model does not correctly predict the GDP growth rate. The coefficients of the regression model are shown in Table 5.

Table 5. Regression model coefficient

Coefficients[a]								
Model		Unstandardized coefficients		Standar. coeffic.	t	Sig.	Collinearity statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	50.669	66.302		.764	.525		
	Public debt	.124	.923	.284	.134	.905	.022	45.348

	Financial resources	-.622	.811	-.677	-.767	.523	.127	7.856
	Technology	-7.460	8.714	-1.055	-.856	.482	.065	15.353
	Fixed assets	.296	3.022	.098	.098	.931	.099	10.148
	Unemployment rate	-.773	1.529	-1.108	-.506	.663	.021	48.515
	Investments in the military	-2.117	13.928	-.133	-.152	.893	.129	7.746
	Foreign exchange reserves	-.033	1.334	-.059	-.025	.983	.017	58.264
	Net inflow of foreign investments	2.450	2.106	1.167	1.163	.365	.098	10.170
a. Dependent Variable: GDP growth rate								

Source: the author's calculation

The results show that there is a high multicollinearity among the observed variables. This conclusion leads to the value of VIF data. It is desirable that this data be up to 10 in order to consider that there is no multicollinearity, which was not noted in this case. In order to investigate the appropriate regression model, certain factors were excluded from the model, namely: public debt, unemployment rate and foreign exchange reserves. After that, the regression model was restarted, and the results are given in the following tables. The regression model with the mentioned variables are shown in Table 6.

Table 6. Regression model summary

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.843[a]	.710	.421	1.73974	2.860
a. Predictors: (Constant), Technology, Net inflow of foreign investments, Investments in the military, Fixed assets, Financial resources					
b. Dependent Variable: GDP growth rate					

Source: the authors' calculation

The coefficient of determination is 71%, which indicates that the GDP growth rate is explained by 71% of variations that come from changes in technology, net inflow of foreign investments, investments in the army, fixed assets, and financial resources. The Durbin-Watson index is 2.86, and it is concluded that there is a slight autocorrelation. In the next step, ANOVA analysis was performed, which is shown in table 7.

Table 7. ANOVA analysis

Model		Sum ANOVA[a] of Squares	df	Mean Square	F	Sig.
1	Regression	37.105	5	7.421	2.452	.174[b]
	Residual	15.134	5	3.027		
	Total	52.239	10			
a. Dependent Variable: GDP growth rate						
b. Predictors: (Constant), Technology, Net inflow of foreign investments, Investments in the military, Fixed assets, Financial resources						

Source: the authors' calculation

The regression model in this case is not statistically significant, as indicated by the significance data, which in this case is greater than 0.05. More precisely Sig. (0.174)> 0.05, and it is concluded that the regression model does not correctly predict the GDP growth rate. The next step is the analysis of the regression coefficients, which is shown in Table 8.

Table 8. Regression coefficient

Coefficients[a]								
Model		Unstandardized coefficients		Standar. Coeffic.	T	Sig.	Collinearity statistics	
		B	Std. error	Beta			Toler.	VIF
1	(Constant)	22.633	25.974		.871	.423		
	Financial resources	-.384	.575	-.417	-.667	.534	.148	6.746
	Fixed assets	-.127	.837	-.042	-.152	.885	.752	1.329
	Investments in the military	-1.548	8.752	-.097	-.177	.867	.191	5.223
	Net inflow of foreign investments	1.688	.755	.804	2.235	.076	.448	2.232
	Technology	.283	2.237	.040	.127	.904	.579	1.728
a. Dependent Variable: GDP growth rate								

Source: the authors' calculation

The results show that there is no multicollinearity among the data analysed, given that the VIF data for each data is less than 10. The obtained results show that investments in technology and inflows of foreign direct investment have a positive impact on GDP growth, while other variables have a negative impact on the rate GDP growth. However, none of the mentioned factors, i.e. the factors included in the model, are statistically significant since the significance indicator Sig. for each indicator is higher than the limit value of 0.05. The regression model, according to the model presented for this purpose, has the following form:

$$\text{GDP growth rate} = 22,63 - 0,384X1 - 0,127X2 - 1,1548X3 + 1,688X4 + 0,283X5 + \varepsilon$$

In order to make this analysis more detailed and complete, a regression analysis was performed in which the dependent variable is GDP, instead of the previous dependent variable - GDP growth rate. Regression analysis was performed, and the results obtained are presented in the following tables.

Table 9. Regression model

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.954[a]	.910	.850	433.86281	2.890
a. Predictors: (Constant), Net inflow of foreign investments, Fixed assets, Investments in the military, Public debt					
b. Dependent Variable: GDP					

Source: the authors' calculation

The regression model, in summary, shows that foreign direct investment, investment in fixed assets, investment in the military, and public debt explain as much as 91% of variations in GDP. The Durbin-Watson indicator is 2,890, indicating that there is no significant autocorrelation among the data. Table 10 shows the results of the ANOVA test.

Table 10. ANOVA analysis

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11445237.948	4	2861309.487	15.201	.003[b]
	Residual	1129421.635	6	188236.939		
	Total	12574659.583	10			
a. Dependent Variable: GDP						
b. Predictors: (Constant), Net inflow of foreign investments, Fixed assets, Investments in the military, Public debt						

Source: the author's calculation

The regression model is reliable and statistically significant, as indicated by the Sig value. (0.003) <0.05, and it is concluded that the regression model predicts GDP in a correct way. The parameters of the regression model are given in the table below.

Table 11. Regression model parameters

Coefficients[a]								
Model		Unstandardized coefficients		Stand. coeffic.	t	Sig.	Collinearity statistics	
		B	Std. error	Beta			Toler.	VIF
1	(Constant)	-2913.640	3271.484		-.891	.407		
	Public debt	1.029	.201	.680	5.118	.002	.847	1.180
	Fixed assets	.029	.010	.374	3.021	.023	.977	1.023
	Investments in the military	17.456	4.829	.458	3.615	.011	.933	1.072
	Net inflow of foreign invest.	3.377	.698	.647	4.837	.003	.837	1.195
a. Dependent Variable: GDP								

Source: the author's calculation

If the results of the regression coefficients are observed, it can be noticed that there is no multicollinearity between the data, which makes the regression model more reliable. If the statistical significance of the regression parameters is observed, it can be noticed that all the parameters of the model are statistically significant, because the data is Sig. for each parameter less than the limit of 0.05. The regression model in this case is:

$$\text{GDP} = -2.913,64 + 1,029X1 + 0,029X2 + 17,456X3 + 3,377X4 + \varepsilon$$

The regression model indicates that public debt, investment in fixed assets, investment in the military as well as inflows of foreign investment contribute positively to BiH GDP. The regression model is reliable, as the elements of the regression model, so this model can be used for further analysis and prediction. Based on the presented research results, certain arguments are identified which examine our hypotheses. With regard to the first hypothesis, which claims that between indicators of economic security a statistically significant correlation is determined, results still indicate that between some indicators, a strong and statistically significant correlation does exist, while there is no such correlation between some others, which clearly indicates to the partial fulfilment of the set hypothesis.

The first hypothesis was tested using the correlation method. The second hypothesis was tested using regression analysis, which unequivocally showed that economic security indicators have a positive effect on GDP.

Conclusion

If the state wants to preserve its security, i.e. sovereignty, integrity, territorial integrity and independence, it must be able to ensure a strong army as an instrument to deter open aggression, as well as strong and up-to-date institutions dealing with the economic security of the country. In order to have a strong army, the state must be economically strong to be able to finance the army, which is achieved by strong economic institutions that take care of economic security. Therefore, if the state is economically strong, it will be easier to deal

with the challenges of economic security. Institutions responsible for economic security issues must be aware of any situation and potential threats in every moment. In a case that economic security is endangered, responsible instructions are obliged to have prepared scenarios. Those areas are interrelated to each other and represents cause-and-effect relationships.

This article analysed the state of public debt, financial resources, technology, fixed assets, unemployment rate, investment in the army, foreign exchange reserves, and the net inflow of foreign investment in BiH. The observed period of analysis was 2008-2018. Based on the results obtained, it was established that the set hypotheses were proven. The first hypothesis claims that a statistically significant correlation between economic security indicators is determined. The results still indicate that a strong and statistically significant correlation between some indicators does exist, while there is no such correlation between some others indicators.

Thus, public debt is in a very strong and statistically significant relationship with investment in technology, and with trends regarding foreign exchange reserves. Financial resources are significantly related to investing in fixed assets, the state of the unemployment rate as well as foreign exchange reserves. There is no significant statistical relationship of military investments to other elements, also to net inflows of foreign investment. According to the obtained results it could be concluded that there is indeed a strong connection between certain factors of economic security, which is in favour of proving the set hypothesis. However, on the other hand, neither a strong nor a statistically significant relationship was found between certain factors. The consequence of that is reflected in the fact that the available funds are unevenly invested in BiH, which results in a weaker development of certain sectors, which certainly represent elements of economic security as well.

The second hypothesis claims that economic security indicators have a positive effect on GDP, which has been proven through regression analysis as well. The results show that public debt, fixed assets, military investment and foreign investments have statistically significant and positive impact on GDP. Over 70% of changes in GDP in BiH could be explained by these indicators. Throughout history, the economy has been a prerequisite for secure survival. In order to provide good and quality living conditions and essential needs for the family, people used to work. In addition to securing the country's borders and sovereignty, states had to take into account the resources they possessed (mostly natural in early history) and find a way to procure what they did not naturally possess (mineral resources and food). Nowadays, the basic idea is the same, the correct allocation of resources, with respect to the fact that these processes are further complicated by technological progress. Most macroeconomic indicators and indicators of economic development are also indicators of economic security. As is evident in the proof of the second hypothesis, economic security indicators have a positive effect on GDP, which is one of the main "indicators" of a country's strength. In what has been presented so far, it is apparent that economic and national security are intertwined, and that economic security is a precondition for national security, which confirms the third hypothesis expressed in this paper.

Population issues might cause a big concern we may face in the future. Developed countries are "aging", while some poor countries such as The DRC has a population with an average age of 18 years. According to the above fact, it can be concluded that the former could have a deficit of human resources, and the latter could have high unemployment and population that is to seek employment in the developed countries. The states, which manage to overcome this problem in the best way, will be economically safer than others. In the period ahead, the economic structure is increasingly turning to the tertiary, quaternary and quintal sectors. Services, tourism, traffic, information technology and social protection are branches that will come to the fore in modern society. None of the above would be possible without scientific progress and innovation, so countries that invest enough in science, combined with a young population, could become modern leaders in economic and civilizational terms.

This paper does not consider variables such as VAT, inflation and others, which could have an important role in the overall economic system, and thus economic security. Therefore, the analysis of variables not covered in this paper is a recommendation for future research in this area.

The economic crisis caused by the COVID-19 pandemic has led to a slowdown in world economies and a decline in the social product. Consequently, in the forthcoming period, states are more likely to commit individually to their economic security than in the context of collective security. Thus, those countries that are economically stronger and more stable could be safer from the aspect of economic security. According to the current trends on the international scene it could be concluded that countries that want to maintain their economic security at the required level, for survival and development will have to provide access to capital, keep up with and even increase the level of technological development, attract foreign investment and provide the necessary political stability.

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