Original scientific paper
UDC: 330.101.541:331.556.4(497.6)
https://doi.org/10.18045/zbefri.2024.1.149

Impact of labour income in gross value added on migrations in Bosnia and Herzegovina*

Goran Radoš[1]

Abstract

The transition countries of Southeast Europe, especially the countries of the Western Balkans, have achieved modest economic growth rates since the beginning of the transition process. High unemployment rates, relatively high external imbalances, and rising external debt are common for the entire region. This paper will explain the impact of a decrease in the share of labour income in total gross value added on the increased outflow of the working-age population. The subject of a specific analysis is the increase in inequality and the consequences of differences in income on the economy and society of the country will be explained Increasing inequality in Bosnia and Herzegovina is measured by a significant decrease in the share of labour income in total gross value added in Bosnia and Herzegovina affects the outflow of the working-age population abroad.

Keywords: *transition country, share of labour income in gross value added, migrations*

JEL classification: *P2, H60, J10*

1. Introduction

Inequality in income distribution has long been considered beneficial and a prerequisite for quicker economic growth. Redistributing income towards poorer citizens has been considered as a means of reducing investment, as it would be used for spending instead of saving. However, contemporary research has shown a negative link between the inequality caused by a rift in income distribution and the growth of gross social product. Another finding was that this income distribution inequality increased the migration of the working population. Lower-income

* Received: 20-02-2024; accepted: 24-06-2024

[1] *Postdoctoral fellow, Faculty of Croatian Studies, University of Zagreb, Department of Communication Studies, Borongajska 83D, 10000 Zagreb. Scientific affiliation: migration management, international relations. Phone: +385 1 245 7627. E-mail: grados@fhs.unizg.hr.*

populations might have limited economic opportunities and thus, they will feel forced to migrate to other countries to improve their job opportunities and enjoy a higher standard of living. Additionally, economic inequality may also result in a similarly unequal distribution of education, healthcare, and infrastructure resources, as well as political instability. This instability can in turn cause economic uncertainty and volatility. As a result, migrations increase.

The focus of this paper is to determine the impact of a decrease in the share of labour income in total gross value added on the increased outflow of the working-age population. The research mostly focused on questioning the bond between political stability and freedom (level of democracy or freedom rank) on the level of population migration. With this in mind, it stands to reason that the first step would be to identify who qualifies as a migrant. There is no consensus on the unified definition of *migrant*. The European Union glossary defines in the *global context*, a person who is outside the territory of the State of which they are nationals or citizens and who has resided in a foreign country for more than one year irrespective of the causes, voluntary or involuntary, and the means, regular or irregular, used to migrate. Furthermore, other sources define the migrants by foreign birth, by foreign citizenship, or by their movement into a new country for a temporary (sometimes for as little as one month) stay, or to settle for the long term.

This article consists of seven sections. After the Introduction and setting of the research objectives and hypothesis in the second section, the third section reviews the relevant literature on migration and economic complexity. The fourth section describes the applied methodology (the multiple regression linear method). The fifth section deals with the macroeconomic indicators in Bosnia and Herzegovina. While the phenomenon of migration has been explored before, it has been primarily focused on developed nations, leaving a gap in understanding how these dynamics interact in developing countries. One such country, and the subject of this research, is Bosnia and Herzegovina. The sixth section presents the data analysis and estimation of the research results. The final section, The Conclusion implies that this research may have some limitations. However, using a holistic perspective and considering multiple factors, such as income distribution, political stability, migration patterns, and their interconnections, this article may provide valuable insight into unique challenges faced by transitional countries. Moreover, identifying the impact of income inequality on migration patterns may offer valuable insights for policymakers attempting to reduce inequality and retain skilled labor in Bosnia and Herzegovina.

2. The Problem

The transition countries of Southeast Europe, especially the ones of the Western Balkans, have achieved modest economic growth rates since the beginning of the

transition process. High unemployment rates, relatively high external imbalances, and rising external debt are common for the entire region.

Bosnia and Herzegovina is a transitional country in Southeast Europe, which has begun its transition to a market-oriented economy with a delay in its integration into global flows. It has the highest outward migration with about 30% of those who migrated in 2018 being between the ages of 18 to 35. In addition to this, people of all education levels are migrating, creating significant skills shortages, including technical skills, which are an important skills asset for any emerging country. Reasons for emigration include unemployment, which is the greatest concern in Bosnia and Herzegovina, overall poor living conditions, weak health care and education, and environmental concerns, particularly air pollution. At the same time, the wage differential with the European Union constitutes a strong pull factor. Preliminary analysis of the volume and structure of profitability in Bosnia and Herzegovina shows that it was relatively low long after the war, with a relatively high share of trade and services. In the traditional theory, profit levels and rates play the role of promoters of economic growth and development, stimulate employment, and increase competitiveness (quotation). At the beginning of the transition process, transition countries viewed private sector profitability as the most important factor in terms of its advantage over the public sector.

Unsurprisingly, the strong growth in gross value added (GVA) and profitability growth in the 2013-2018 period was met with great approval by the entire society. In addition to all the benefits achieved this way, it must be noted that the share of wages – labour income in the GVA has decreased. The GVA growth has largely spilled over into even higher profit growth – capital income growth. The consequence of a decrease in the share of labour income in total gross value added is the rise in inequality. The overall Gini coefficient for Bosnia and Herzegovina increased during this period.

However, the most important social phenomenon in Bosnia and Herzegovina is migration i.e. labour outflow. Due to the labour outflow, Bosnia and Herzegovina is losing a significant number of the young, able-bodied population.

With this in mind, this research poses a basic research problem: To what extent does the increase in inequality as measured by a decrease in the share of labour income and an increase in the share of capital income in total gross value added affect the increase of the working-age population abroad?

2.1. Objectives of the research

This paper will explain the impact of a decrease in the share of labour income in total gross value added on the increased outflow of the working-age population. The subject of a specific analysis is the increase in inequality and the consequences of

differences in income on the economy and society of the country will be explained. We will also try to determine the cause-and-effect relationship between the rise in inequality and the massive departure of the working-age population abroad. This will highlight good policies that can help reduce inequality and retain the working-age population in Bosnia and Herzegovina.

2.2. The Research Hypothesis

Increasing inequality in Bosnia and Herzegovina measured by a significant decrease in the share of labour income in total gross value added in Bosnia and Herzegovina affects the outflow of the working-age population abroad.

3. The literature review

In the economic literature, there are many sources dealing with the bond between income distribution and economic growth Kuznets (1955), Paukert (1973), Shaw (1973), Alesina and Perotti (1994), Greenwood and Jovanović (1990). Nestić (1999) elaborates that two types of bonds between income distribution end economic growth – via fiscal channel and channel of political instability. The fiscal channel presumes that the decisions made by governments related to the fiscal field – taxing and spending which are closely related to the trying of income distribution or influence on income have an impact on economic growth. Another channel relates to politics (in) – "larger inequality in income distribution brings to social pressure which can then result in instability which will harm enticement of saving and investments." (Nestić, 1999: 194). Distribution and stabilization fiscal politics aim to realize greater social righteousness, redistribution richness, and income as well as stabilization of economic flows in case of disturbances and crises. Political (in)stability – larger inequality in income distribution leads to social pressure and finally significant population migrations. Most of the contemporary theorists by their research prove the existence of a correlation between inequality in income distribution and wealth and GDP growth i.e. the existence of significant negative bonds (Barro, 1991; Clarke, 1995). Kaldor (1957), Karabarbounis and Neiman (2013) claim that exactly stability and growth of the share of income are a key form of dealing with any macroeconomic model, namely to increase productivity and macroeconomic dynamics.

McKenzie (2017) claims that poorer people very often do not have the adequate knowledge and skills to migrate i.e. to create adequate standards in the country they migrate to namely the population itself does not mean that they will migrate. Even there is a widespread prejudice that only poor people migrate. Clemens and Mendola (2020) have come to the same conclusion.

Basically, not only that the amount of income itself or the trend of increase or decrease of citizens concerning BDP of the source country influences the readiness of people to migrate.

International migration is deeply shaped by income inequality, but most studies on the determinants of international migration flows have focused on one specific dimension: between country income inequality (generally proxied by wages or per capita GDP differences). Although cross-country differences in per capita GDP capture part of the potential gains associated with international migration (for instance, those related to better in-kind public services and institutions, as emphasized by Ravallion (2019), individual benefits accruing to immigrants also depend on which part of the income distribution immigrants expect to *land* in, as well as on the shape of such distribution. As Milanovic (2005; 2015) puts it, by choosing one country, a person receives at least two *public'* goods—the average income of the country and the inequality of income distribution (Coniglio et al., 2023).

Economic inequality, which has been more or less widespread in Western developed countries over the last thirty years, is the result of a situation where a small part of the population benefits from most or all of the benefits from economic progress while at the same time, the majority of the population has little or no benefits. Piketty (2014) points to a long-term and ever-growing problem of concentrating wealth.

This inequality further results in the continuous redistribution of national wealth and income toward the top of the social pyramid, to the detriment of the rest of the population. Globalization is considered to be the main culprit for increasing inequality both within developed and underdeveloped countries (Lakner and Milanovic, 2015). Today, in Western countries, most wealth, defined as a set of tangible goods, financial assets, and rights held by individuals or families, is now concentrated in a significantly low percentage of the population. Of course, the degree of concentration of wealth shows significant differences from country to country. In the same countries, income, which means all income from property (interest, dividends and rent) or labour, and social transfers such as social assistance or unemployment benefits, is somewhat less evenly distributed than wealth. Concerning the reciprocal relationship between the unequal distribution of income and wealth, it has been found that the increase in income inequality has the effect of increasing differences in the size of wealth.

The largest inequalities in the distribution of wealth among all industrialized countries today exist in the United States. Interestingly, Stiglitz (2014) states that it was precisely the rise of inequality in the US that preceded the economic crises of 1929 and 2008.

In the United States, in the 1980s, 37.4 percent of income was appropriated by the rich, and only 23.7% went to the 80% of the poorest. The same thing happened in the period 1988-2008 when five percent of the richest had appropriated 38% of

income and 50% of newly created assets. Between 2000 and 2007, one percent of *super-rich* Americans claimed over 20% of the country's total income, and that same percent received 19% of the national income in 1948.

On the downside, from the 1980s until the crisis of 2008, the wages of most employees stagnated or fell, and near the very end of this period, workers' minimum wages were $ 5.15 compared to 1966 when the lowest wage was worth $ 8 today.

The lack of wage growth occurred despite US economic growth, which averaged nearly 4% annually from 1990 to 2008. The average wage in the US economy between 2000 and 2007 increased only slightly by 0.1% per year.

According to the latest study by the Organization for Economic Co-operation and Development (OECD), inequalities in income distribution continue to grow in all the world's leading economies, and the gap between the rich and the poor is widening. Inequality has grown in 17 countries since 1980 until the 2008 financial crisis. The most outstanding differences between the rich and the poor are, as expected, in the United States and the United Kingdom, joined by Mexico and Israel. The slightest differences are in Denmark, Norway, and the Czech Republic, although they are also affected by a growing inequality trend. However, because of the previously extremely low inequality, the growth in income disparities has not yet significantly exacerbated uniformity in these countries. Even though the increasing inequality trend is somewhat common to most European developed countries (including transition countries), inequality ranges vary from country to country.

4. Methodology and data

Correlation and regression analysis methods are used. Since the problem we are investigating can be treated as a problem of one dependent and multiple independent variables, it is a convenient situation for using the multiple regression method. Also, we assume that the relationship between variables is linear, so the model we use will be a multiple linear model.

The basic features of this model are:

Y – dependent variable

X1, X2, ..., Xp – independent variables

Then the linear model is:

$$Y = po + p1X1 + ... + PpXp + s$$

Where po, pi, ..., Pp are unknown parameters to be evaluated, and *s* is a measurement error, i.e., residuals.

Accordingly, we will test here whether independent variables explain a significant part of the variability of the dependent variable, i.e., is there a relationship and determine which part of the variability of the dependent variable can be explained by the independent variable, i., link strength.

This paper aims to point out the crucial importance share of labour income in total gross value in Bosnia and Herzegovina, to highlight good solutions, flaws, and gaps in the economic policies of the country under review, but also to analyse and propose new opportunities for improvement.

From all of the above, it may be concluded that in this paper, the research started from theoretical facts to the statistical and macroeconomic methods that determined the research results from which the final indicators were derived.

5. Macroeconomic indicators in Bosnia and Herzegovina

In the period before the global financial and economic crisis, the real growth rates in Bosnia and Herzegovina were over 5%. However, the global economic recession has led to a decline in economic activity. After the fall in real GDP in 2009 by 3% and two years of crisis, with very modest growth rates, the economy in Bosnia and Herzegovina did not record economic growth in 2012. In 2012, a 1% GDP decline occurred as a downward trend compared to the modest 0.8% in 2010 and 1% in 2011. In 2013 and 2014, we had a modest growth.

For the years 2015, 2016, and 2017, we have very positive trends in this area. Real growth was significantly higher than in the previous period as an immediate result of a strong economic expansion in the European Union. Bosnian and Herzegovinian economies also recorded significant export and productivity growth, but overall economic growth remains below pre-crisis growth rates of over 5%.

5.1. Inequality in Bosnia and Herzegovina

The scale of inequality in Bosnia and Herzegovina is reflected in the distribution of average income and average consumption by income deciles (population divided into deciles by income, i.e. consumption). There are larger differences in the distribution of income concerning consumption, which indicates a greater inequality of income than consumption. However, the consumption differences are also significant and we can assume that they are influenced by large income inequalities. It is obvious that the average consumption is higher than the average income in all income deciles except the last two.

Interestingly, the average consumption in the first income decile (consumption of the poorest decile) corresponds to the average income of persons in 6th income

decile. It may suggest that people in lower income deciles meet consumption from non-income sources (growing fruits and vegetables for personal use, payments in kind, etc.). Also, this difference may indicate the existence of a significant share of undeclared income or benefits, i.e., grey economy. Milanovic (1998) states that people often hide their sources of income and most often report less income than the real one, while they are less careful when reporting consumption. Furthermore, the disparity between income and consumption may also indicate a measurement problem, meaning that persons in lower income deciles underestimated their income or that their permanent income was higher than the declared income in a given reference period (Milanovic, 1998).

Unlike the first eight income deciles in the last two deciles with the highest income, the average income exceeds the average consumption. This suggests the existence of *surplus* income in the last two income deciles, i.e. the existence of income that exceeds consumption needs in a given period.

The disproportion between consumption and income in Bosnia and Herzegovina is also confirmed by the data on the total average income of 316 KM (convertible mark) and the total average consumption of 501 KM, which indicates that the total consumption in Bosnia and Herzegovina is on average 58.6% higher than the total income.

The average income in the 10th decile (the richest 10% of the population in BiH) is on average 35.5 times higher than the average income of the 1st decile (the poorest 10%) and 6 times the income of people in the middle of the distribution (between the 5th and 6th deciles). The average consumption of the richest decile is 3.3 times higher than the average consumption of the poorest decile and 2.2 times higher than the average consumption of people in the middle of the distribution.

5.2. Migration in Bosnia and Herzegovina

One of the most outstanding phenomena in Bosnia and Herzegovina in the last ten years is the migration outflow of the population. Due to the migration outflow, Bosnia and Herzegovina is losing a significant number of young, able-bodied population. In this analysis, we will use data on newly issued residence permits for Bosnia and Herzegovina citizens in EU countries maintained in Eurostat databases.

Table 1: Number of newly issued residence permits for Bosnia and Herzegovina citizens in EU countries

	2010	2011	2012	2013	2014	2015	2016	2017
EU	11,013	11,717	14,856	16,440	18,688	19,934	26,400	36,401
Germany	1,279	1,462	3,450	4,036	5,347	5,257	9,461	12,461
Slovenia	2,328	3,446	3,581	3,064	4,369	4,861	6,330	10,414
Croatia				1,284	1,002	866	2,382	5,526
Austria	1,703	2,459	3,077	3,603	4,057	4,520	4,060	3,350
Sweden	674	719	869	780	762	768	809	1,085
Italy	3,226	1,908	1,920	1,689	1,402	1,556	1,040	989
Switzerland			681	702	621	609	668	624
Czech Republic	123	70	359	217	179	479	590	528
France	356	334	326	417	400	357	377	364
Great Britain	237	212	219	335	172	155	208	329
Norway	154	166	196	225	224	279	256	306
Netherlands	182	417	162	195	169	164	173	164
Belgium	286	179	140	161	156	167	131	161
Malta	4	20	21	36	64	101	82	145
Luxembourg	85	99	148	74	101	126	124	138
Slovakia	6	18	37	36	27	46	43	126
Hungary	40	53	70	142	120	138	180	118
Poland	17	38	43	34	54	67	51	114
Finland	232	92	204	90	94	106	97	95
Denmark	97	58	75	103	65	67	56	83
Spain	52	59	41	57	61	46	56	76
Iceland	14	4	7	6	8	8	6	41
Ireland	30	32	28	25	25	19	47	40
Greece	21	14	15	23	25	21	35	37
Romania	18	7	31	19	14	24	39	22
Bulgaria	3	3	5	7	6	5	6	16
Portugal	3	10	17	4	7	11	8	12
Liechtenstein				12	13	15	9	8
Latvia	0	1	4	2	3	0	2	4
Cyprus	11	6	12	3	5	6	8	3
Estonia	0	0	0	2	1	0	2	1
Lithuania	0	1	2	2	1	1	3	0

Source: Eurostat

According to Eurostat, in the observed eight years, 155,449 people have emigrated from Bosnia and Herzegovina to one of the EU countries. The five key migrant countries from Bosnia and Herzegovina are Germany, Slovenia, Croatia, Austria, and Italy. What is of particular concern is that the number of those who move out of Bosnia and Herzegovina is consistently increasing yearly. At the beginning of the period, there were about 11,000 people, and about 36,000 people at the end of the period.

What is worth emphasizing here is that only legal migration was recorded, with people who obtained residence permits and joined the formal sector. Also, there is a proportion of the population who *illegally* move to EU countries, and this number is estimated at 15-20% of the number of migrants moving through official channels.

6. The data analysis

Data on the share of wages in GVA, political stability, and freedom rank are entered into the model as independent variables, while the data on migrants from Bosnia and Herzegovina are entered as a dependent variable. Data are for the period from 2008 to 2017.

Table 2: Political stability and freedom rank statistical correlation

	Share of wages in GVA	Political stability	Freedom rank	Migrants from BH
	x1 (independent variable)	x2 (independent variable)	x3 (independent variable)	Y (dependent variable)
1	0.571137775	-0.54	57	26,330
2	0.599135998	-0.67	54	12,648
3	0.590927125	-0.69	53	11,013
4	0.596771824	-0.82	56	11,717
5	0.604406937	-0.54	57	14,856
6	0.582397907	-0.4	55	16,440
7	0.586387235	-0.02	53	18,688
8	0.571714591	-0.4	55	19,934
9	0.55572468	-0.4	59	26,395
10	0.546818825	-0.38	61	36,403

Suorce: OECD (2021)

Results of multiple correlation show as follows:

$$Y = 247159 - 392247\ X_1$$

This result shows that the inverted connection exist between the variable X1 and variable Y – hence, the hypothesis that the decrease in the share of labour income in gross value added has an effect on the outflow of the working population abroad has been confirmed.

Table 3: Calculation of ANOVA methodology

ANOVA table					
Source	DF	Sum of Square	Mean Square	F Statistic	P-value
Regression	1	499,062,493.9	499,062,493.9	43.33181	0.0001725
(between yi and yi)					
Residual	8	92,137,860.55	11,517,232.57		
(between yi and yi)					
Total (between yi and yi)	9	591,200,354.4	65,688,928.27		

Source: OECD (2021)

Table 4: Correlation matrix

Y	X1	X2	X3	
Y	1	-0.918777	0.448019	0.804996
X1	-0.918777	1	-0.404108	-0.697064
X2	0.448019	-0.404108	1	0.017448
X3	0.804996	-0.697064	0.0174482	1

Source: OECD (2021)

Table 5: Coefficient Table Iteration 1 (adjusted R-squared = 0.901)

Coeff	SE	t-stat	lower t0.025 (6)	upper t0.975 (6)	Stand Coeff	p-value	VIF	
b	75,399.1	65,978.5	1.14278	-86,045	236,843	0	0.29667	
X1	-222,086	74,613.5	-2.9765	-404,659	-39,513	-0.5202	0.02475	2.77444
X2	8,403.6	4,576.23	1.83636	-2,794	19,601.2	0.23015	0.11596	1.42678
X3	1,376.03	501.891	2.7417	147.95	2,604.11	0.43837	0.03366	2.32207

Source: OECD (2021)

Table 6: Coefficient Table Iteration 2 (adjusted R-squared = 0.867)

Coeff	SE	t-stat	lower t0.025 (7)	upper t0.975 (7)	Stand Coeff	p-value	VIF	
b	135,598	66,253.9	2.04664	-21,068	292,264	0	0.07993	
X1	-296,997	72,289.9	-4.1084	-467,935	-126,058	-0.6957	0.00452	1.94514
X3	1,004.7	531.52	1.89025	-252.14	2,261.55	0.32007	0.10064	1.94514
b	247,159	34,609.8	7.14128	167,348	326,969	0	9.8E-05	
X1	-392,247	59,587.7	-6.5827	-529,657	-254,838	-0.9188	0.00017	1

Source: OECD (2021)

R square (R2) equals 0.844151. It means that the predictors (Xi) explain 84.4% of the variance of Y.

Adjusted R square equals 0.824670.

The coefficient of multiple correlation (R) equals 0.918777. It means that there is a very strong direct relationship between the predicted data (y) and the observed data (y).

The last iteration doesn't contain the greatest adjusted R-squared, we use the Backward Stepwise Selection based on the predictor's p-value.

Overall regression: right-tailed, F(1,8) = 43.331807, p-value = 0.000172474. Since p-value < a (0.05), we reject the H0.

The linear regression model, Y = b0 + b1X1 +...+ bpXp, provides a better fit than the model without the independent variables resulting in, Y = b0.

The following independent variables are not significant as predictors for Y: X2 and X3.

Therefore, we excluded these variables from the model.

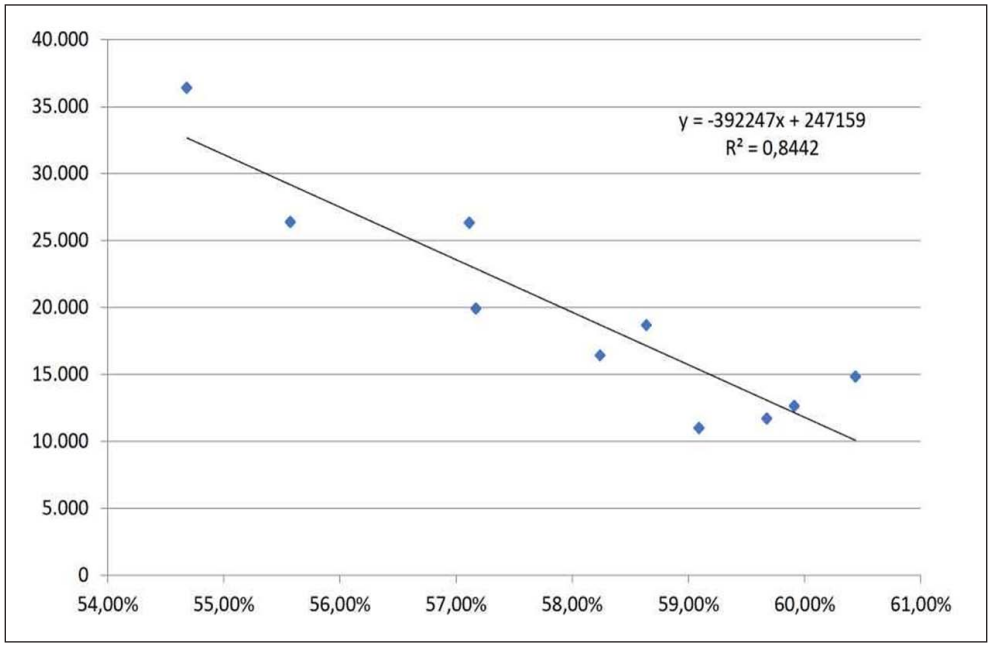
The Y-intercept (b): two-tailed, T = 7.141284, p-value = 0.0000979272. Hence b is significantly different from zero. Linear regression assumes normality for residual errors. Shapiro Wilk p- value equals 0.493900. It is assumed that the data is normally distributed.

The White test p-value equals 0.787118 (F = 0.247753). It is assumed that the variance is homogeneous. There is no multicollinearity concern as all the VIF values are smaller than 2.5.

The priori power is low: 0.1911, we reject the H0.

The power to prove each predictor significance is always lower than the power of the entire model.

Figure 1: P-value calculation



Source: OECD (2021)

There is a limited number of theoretical literature that combines the share of wages in GVA and migrations. Authors such as Piketty, Stiglitz et al., highlight the importance of theoretical and empirical relations between the mentioned pair. Theoretical explanation for their relation can be seen in lower (higher) shares of wages in national income which relate to wages of medium and lower deciles of population and which influence growing (reducing) inequality in income. At the same time, a higher (lower) share of profit in the functional distribution of income results in a higher (lower) share of income for the upper decile of the population and so makes an impact on the increase (reducing) of income inequality (Gomez Serrano et al., 2016). Of course, it is much more probable that the income which is part of profit makes an income of upper deciles of the population because it is much more probable that the part-takers in this category of the population own a company, shares or simply have more desirable political treatment by which they realize an easier access to financial services.

As in most countries in the rest of the world, the share of wages or income from work and increase in capital share presents a mirror image of economic structure in the transformation process. Change in itself is influenced by a mix of factors that differently contribute to the change of relative share of income from work and capital diversely from country to country. And, Bosnia and Herzegovina is specific due to its political system and development model.

In the case of developed countries such as the USA and Great Britain, growing inequalities in years before the crisis led to an imbalance of saving and investment/consumption considering that the deciles of the lower-income population have borrowed money from deciles with larger income and creditors abroad. In Bosnia and Herzegovina, income inequality has also been growing. However, financial markets are way less inclusive and developed in developed countries. Therefore, the lower-income deciles could not follow the increase in income of upper deciles through crediting in the period of economic reforms excluding the last five years after the rise of the global financial crisis when the phenomenon of financialization becomes more and more apparent. Due to that, the increase in savings has been directed to financing the inland deficit instead of the need to develop the inland market. Besides that, the corporal sector has increased its net debts intending to generate even higher investment instead of paying out growing profits to households as reimbursements to executive managers/management, bonuses, and dividends as was the case in the USA and Great Britain so the share of wages in GDP in the last few decades has been relatively decreasing.

The decreasing trend of share in income from work in Bosnia and Herzegovina has imminently led to an increase in income inequality considering that the income from capital has almost always been more unequally distributed than the income from work, as it has already been explained. As sectoral access added value pro-worker has been extremely high through few decades and the largest part of added value has gone to the corporal sector considering that the flow of cheap workforce from rural areas has put pressure on the number of wages in urban centres where the industry is gathered. Surely the distribution of factor income, when these two production factors are in question, under the influence of the above-mentioned logic of financial repression and work surplus in rural parts of the country.

Economic inequality can have a significant impact on economic migration patterns in a country. Here are a few ways economic inequality can affect economic migration:

Limited economic opportunities: Economic inequality can lead to limited economic opportunities for people in the lower-income brackets. In such cases, people may feel forced to migrate to other countries to find better job opportunities, higher wages, and better living standards.

Unequal distribution of resources: Economic inequality can result in an unequal distribution of resources such as education, healthcare, and infrastructure. This can make it difficult for people in certain regions to access these resources, making it harder for them to improve their economic status. This may prompt them to migrate to other areas or countries where resources are more accessible.

Brain drain: Economic inequality can lead to a brain drain, which is the loss of highly skilled professionals and workers who migrate to other countries. This can be detrimental to a country's economic growth and development, as it loses some of its most talented and innovative individuals.

Political instability: Economic inequality can cause political instability, which can lead to economic uncertainty and volatility. In such situations, people may choose to migrate to more stable and prosperous countries to escape economic and political upheaval.

Overall, economic inequality can significantly impact economic migration patterns in a country. Countries with high levels of economic inequality may experience increased emigration as people seek better economic opportunities and living standards elsewhere.

7. Conclusion

With this in mind, this research has several possible limitations. Firstly, it has limited scope. It focuses specifically on Bosnia and Herzegovina, and the results may be hard to generalize and apply to other countries with different economic, social, and political climates. Secondly, not all factors are taken into account when considering migration patterns. The focus is on economic factors, such as income distribution and inequality, and it does not consider other migration factors, such as social, cultural, and political. Lastly, as the research is based on a specific period (2010 – 2017), it may not accurately reflect long-term changes and trends. Economic and social dynamics may have changed since the end of this study.

Inequality in income distribution was considered a desirable and necessary condition for achieving faster economic growth. More recently in recent literature, these postulates have been questioned. Furthermore, the same literature describes that inequality can lead to an uneven distribution of resources such as education, health, and infrastructure. In addition, economic inequality can cause political instability that can lead to economic uncertainty and volatility, and all of the above factors can cause an increase in migration. The research example for Bosnia and Herzegovina in the unrivaled period confirms the identified impact of the decrease in the share of income from labor in the total gross value added, which conditions the increase in outflow of the working-age population in Bosnia and Herzegovina. In addition, the study results also questioned the link between political stability and freedom, i.e. the level of democracy (rank of freedom) and the level of population migration. It is desirable to investigate further the next five-year chronological period, 2018-2023, and compare the results obtained with the results of this study, which would lead to more precise research results and conclusions, anyone can use them to develop strategies and economic policies for public authorities based

on achieving faster and more significant economic growth by preventing negative migration flows – emigration caused by the income gap of the population as a basic demographic resource of the state.

References

Alesina, A., Perotti, R. (1994) "The Political Economy of Growth: A Critical Survey of the Recent Literature", *The World Bank Economic Review* [Internet], Vol. 8, No. 3, pp. 351–371. Available at: <https://www.jstor.org/stable/3989954> [Accessed: February 6, 2024]

Barro, R. J. (1991) "Economic Growth in a Cross Section of Countries", *Quarterly Journal of Economics*, Vol. 106, No. 2, pp. 407–443, https://doi.org/10.2307/2937943.

Clarke, G. R. G. (1995) "More Evidence on Income Distribution and Growth", *Journal of Development Economics*, Vol. 47, No. 2, pp. 403–427, https://doi.org/10.1016/0304-3878(94)00069-O.

Coniglio, N. D., Peragine, V., Vurchio, D. (2023) *International migration and income inequality*, WIDER Working Paper 2023/41 [Internet], Helsinki: UNU-WIDER, https://doi.org/10.35188/UNU-WIDER/2023/349-9.

Eurostat (2024) *First permits by reason, length of validity and citizenship*. Available at: <https://ec.europa.eu/eurostat/databrowser/view/migr_resfirst__custom_11945987/default/table?lang=en> [Accessed: February 19, 2024]

Gomez Serrano, P. J., Molero-Simaro, R. Buendia, L. (2016) "The Impact of the 2008/2009 Crisis On Inequality And Poverty In Southern Europe: The Case Of Spain", *Journal of Australian Political Economy* [Internet], No. 78, pp. 87–114. Available at: <https://luisbuendia.unileon.es/wp-content/uploads/2016/02/Gomez-Serrano-Molero-Simarro-Buendia-The-impact-of-the-2008-9-crisis-on-inequality-and-poverty.pdf> [Accessed: February 6, 2024]

Greenwood, J., Jovanovic, B. (1990) "Financial Development, Growth, and the Distribution of Income", *Journal of Political Economy* [Internet], Vol. 98, No. 5., pp. 1076–1107, Available at: <https://www.jstor.org/stable/2937625> [Accessed: February 6, 2024]

Kaldor, N. (1957) "A Model of Economic Growth", *The Economic Journal*, Vol. 67, No. 268, pp. 591–624, https://doi.org/10.2307/2227704.

Karabarbounis L., Neiman, B. (2013) *The Global Decline of the Labour Share*, NBER Working Papers, No. 19136, National Bureau of Economic Research, Inc [Internet]. Available at: <https://ideas.repec.org/p/nbr/nberwo/19136.html> [Accessed: December 21, 2023]

Kuznets, S. (1955) "Economic Growth And Income Inequality", *The American Economic Review* [Internet], Vol. 45, No. 1, pp. 1–28. Available at: <https://assets.aeaweb.org/asset-server/files/9438.pdf> [Accessed: February 6, 2024]

Lakner, C., Milanovic, B. (2016) "Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession", *The World Bank Economic Review*, Vol. 30, No. 2, pp. 203–232, https://doi.org/10.1093/wber/lhv039.

McKenzie, D. (2017) "Poverty, Inequality, and International Migration: Insights from 10 Years of Migration and Development Conferences", *Dans Revue d'economie du developpement* [Internet], Vol. 25, No. 3-4, pp. 13–28. Available at: <https://www.cairn.info/revue-d-economie-du-developpement-2017-3-page-13.html> [Accessed: February 6, 2024]

Milanovic, B. (1998) *Income, Inequality, and Poverty during the Transition from Planned to Market Economy*, Washington, DC: The World Bank.

Milanovic, B. (2005) *Worlds Apart: Measuring International and Global Inequality*, New York: Princeton University Press, https://doi.org/10.1515/9781400840816.

Milanovic, B. (2015) "Global Inequality of Opportunity: How Much of Our Income Is Determined by Where We Live?", *The Review of Economics and Statistics*, Vol. 97, No. 2, pp. 452–460, https://doi.org/10.1162/REST_a_00432.

Nestić, D. (1999) "Distribucija dohotka i ekonomska politika [Income Distribution and Economic Policy]", *Privredna kretanja i ekonomska politika* [Internet], Vol. 9, No. 73, pp. 191–225. Available at: <https://hrcak.srce.hr/19377> [Accessed: February 6, 2024]

OECD (2021) *Multi-dimensional Review of the Western Balkans: Assessing Opportunities and Constraints*, OECD Development Pathways, Paris: OECD Publishing, https://doi.org/10.1787/4d5cbc2a-en.

Paukert, F. (1973) "Income Distribution at different Levels of development: A Survey of Evidence", *Internatational Labor Review* [Internet], Vol. 108, No. 2-3, pp. 97–125. Available at: <https://labordoc.ilo.org/discovery/fulldisplay/alma991495013402676/41ILO_INST:41ILO_V1> [Accessed: February 6, 2024]

Piketty, T. (2014) *Capital in the twenty-first century*, Cambridge: The Belknap Press of Hardvard University Press, https://doi.org/10.2307/j.ctvjnrvx9.

Ravallion, M. (2019) "Global Inequality When Unequal Countries Create Unequal People", *European Economic Review*, Vol. 111, pp. 85–97, https://doi.org/10.1016/j.euroecorev.2018.09.003.

Shaw, E. S. (1973) *Financial Deepening in Economic Development*, New York: Oxford University Press.

Stiglitz, J. (2014) *Reconstructing Macroeconomic Theory to Manage Economic Policy*, NBER Working Papers, No. 20517, National Beureau of Economic Research, Inc [Internet], pp. 1–28. Available at: <https://www.nber.org/system/files/working_papers/w20517/w20517.pdf> [Accessed: January 31, 2024]

Utjecaj dohotka od rada u bruto dodanoj vrijednosti na migracije u Bosni i Hercegovini

Goran Radoš[1]

Sažetak

Tranzicijske zemlje jugoistočne Europe, posebice zemlje zapadnog Balkana, od početka tranzicijskog procesa ostvaruju skromne stope gospodarskog rasta. Visoke stope nezaposlenosti, relativno visoke vanjske neravnoteže i sve veći vanjski dug zajednički su cijeloj regiji. U ovom radu objasnit će se utjecaj smanjenja udjela dohotka od rada u ukupnoj bruto dodanoj vrijednosti na povećani odljev radno sposobnog stanovništva. Predmet posebne analize je povećanje nejednakosti te će se objasniti posljedice razlika u dohotku na ekonomiju i društvo zemlje. Povećanje nejednakosti u Bosni i Hercegovini mjereno značajnim smanjenjem udjela dohotka od rada u ukupnoj bruto dodanoj vrijednosti u Bosni i Hercegovini utječe na odljev radno sposobnog stanovništva u inozemstvo.

Ključne riječi: *tranzicijska zemlja, udio dohotka od rada u bruto dodanoj vrijednosti, migracije*

JEL klasifikacija: *P2, H60, J10*

[1] *Viši asistent, Fakultet hrvatskih studija, Sveučilište u Zagrebu, Odsjek za komunikologiju, Borongajska 83D, 10000 Zagreb. Znanstveni interes: menadžment migracija, međunarodni odnosi. Tel.: +385 1 245 7627. E-mail: grados@fhs.unizg.hr..*