Economic security is one of the main challenges facing the Western Balkans. Poverty, unemployment and inequality threaten the everyday security of average citizens in the region. The Western Balkan economies have emerged from a serious economic recession and are in search of a new growth path on their way to eventual EU membership. However, they are beset by numerous economic and social problems that hinder their progress. The economic transition in the Western Balkans implicated a large structural change which has come through the processes of privatization and enterprise restructuring which caused the disappearance of many professions and jobs and have made the stock of skills inherited from the former system obsolete. All countries in the Western Balkans are striving to join the European Union. This transformation process presents enormous challenges and requires many changes and improvements in various fields especially when regards the economic development and employment. The Western Balkan (WB6) region, consisting in small emerging market economies, is aspiring to embark on an export-led growth and convergence path. After a late start in transition due to civil wars, the region experienced notable income growth nearly doubling its real GDP level in the last two decades. However, income convergence with advanced Europe has been less impressive when compared to new member states, partly reflecting lower exports. Western Balkan countries have the same problematics which regard widespread corruption, the presence of organized crime, the lack of freedom of legal functioning, and the deep politicization of public administration. The countries differ according to the importance and the sensibility of their problems, politics will treat them according to their platforms, legal frameworks in place and capacity for enforcement. These issues have a great impact for economic performance, generating employment, state revenue collection, and the development of small and medium enterprises. These problems are rooted in the general state of democracy and the political culture in the region, as well as diplomatic issues surrounding statehood. The main aim of this paper is to reflect and analyze the economic development through GDP in the Western Balkan in relation to unemployment and inflation. The analysis is based on the literature review, on the reports given form different structures and also based on quantitative data form the World Bank for Western Balkans’ countries on GDP, unemployment and inflation and testing their correlations through the Ordinary Least Squares (OLS) Model. At the end of this paper based on the theoretical and practical review are give the conclusions and the recommendation of the study.

**Keywords:** Western Balkans, economic development, unemployment, inflation
1. Introduction

The Western Balkans is a region of unfulfilled potential. The Western Balkans – comprising six countries: Albania, Bosnia and Herzegovina, North Macedonia, Kosovo, Montenegro and Serbia, with a total population of about 20 million and a combined GDP of roughly €80 billion – lies at the heart of Europe and is surrounded by European Union (EU) countries. But weak economic performance, combined with political instability and upheaval over recent decades, has left the region lagging behind EU comparators in terms of prosperity and living standards. GDP per capita in the Western Balkans is on average just one-quarter of the level in the richest EU members in western Europe. Six Western Balkans known as WB6 countries are known as countries with young populations, but aging once due the high emigration rate of youth in the region and rising numbers of university graduates, on the other hand, insufficient demands for profiles from the labor market and thus high unemployment rates of persons with a university degree. According to the World Bank Group study on Job Creation (2017), over 67 percent of respondents in the Western Balkans cited unemployment as their top concern - double the share in the European Union, where it appears that a stronger labor market response and more generous unemployment benefits have counteracted the effects of slowing growth. Remittances and Foreign Direct Investment are considered as driving forces for sustainable economic growth and development in the WB region. The increasing trend of youth unemployment in the Western Balkans will hamper economic growth. In the long run, this will result in the loss of an important share of the human capital of these countries, which might affect their prospects for convergence with Western European levels, including in terms of wages. DIG-Labour (Debt Investment and growth model used by IMF since 2012) models feature segmented labor markets, efficiency wages and open unemployment, and an informal non-agricultural sector; deeper analysis on which show that investment in human capital is more effective than investment in infrastructure in promoting long-run economic development when investments earn their average estimated returns. According to the empirical results, the Western Balkan countries should pursue policies that will open their economies to more investment and trade, decrease unemployment, and keep their general government debt and inflation low. These policies should lead to higher per capita growth rates and a faster convergence process.

The main research question of this study is what is the influence of inflation and unemployment on GDP so I the economic development and growth in the Western Balkan? There is enough theoretical evidence on the impact that inflation and unemployment have on GDP. Macroeconomic variables have consistently been the focus and challenging for many researchers and policymakers. In the following, we will present the variables applied in this study and the expected results. One of the variables that have sparked debate among researchers over the years is the growth of GDP to the inflation rate. No agreement was reached among the researchers on this relationship. Thus, we devise consistently encountered conflicting opinions and conclusions. Sidaruski (1967) found insignificant consequences between these two variables, while the negative effect supported by Fischer (1993), and the positive impact was stated by (Mallik & Chowdhury, 2001) among GDP growth and inflation rate. With this study we want to test empirically the way GDP is impacted through Inflation and unemployment regarding the Western Balkans economy.

2. Literature Review

It has been some ups and downs with EU living standards has taken place in the past 15 years. The (weighted) average annual growth rate of the Western Balkans region between 2001 and 2016 was 3.2 per cent, compared with 1.4 per cent in the EU. The Western Balkan countries' overall GDP growth slowed from 4 percent in 2018 to an estimated 3 percent in 2019, with the exceptions of Kosovo and North Macedonia, all countries in the region experienced lower levels of growth in 2019 than in 2018 while employment increased in all countries, apart from Bosnia and Herzegovina.

In 2021, the Western Balkans is seeing an accelerated rebound from the COVID-19- induced recession that all six economies experienced in 2020. The recovery is taking hold at a faster-than-expected pace, with strong growth performances recorded across the region in the second quarter of 2021, in contrast to the subdued performance seen in the first quarter (and as noted in the Spring 2021 Regular Economic Report). The outlook for Western Balkan countries has improved due to a stronger-than expected economic performance in 2021. Following a contraction of 3.1 percent in 2020, the Western Balkans are set to grow 5.9 percent in 2021, 1.5 percentage points higher than projected earlier, while a pre-crisis growth path is expected to resume, with growth in the region projected at 4.1 percent in 2022 and 3.8 percent in 2023.

As for the employment and unemployment in Western Balkans, despite positive trends in the last few years, labor market performance is poor and characterized by high youth unemployment, low participation of women and high long-term unemployment. 37% of the total working age population was inactive in 2019 (the inactivity rate stands at more than 46% among women), while youth unemployment in 2019 was 32%, an important reduction compared to 48.5% in 2012, but still remains an alarming rate. Long-term unemployment constitutes between 60% and 80% of overall unemployment in the WB region.

The government of North Macedonia has introduced the Youth Guarantee (based on the EU experience) envisaging that each young person under the age of 29 is given an adequate job offer, an opportunity to continue education or to be included in internship or traineeship measures. In 2019, Serbia has started a feasibility study on Youth Guarantee. Comparing to the European Union rates on employment and unemployment the youth labor force participation rate (activity rate) in the Western Balkans was 30.1%, lower than the 37.8% average in the European Union Member States (EU-27), with the lowest activity rate in Kosovo* at 21.4%, the youth employment rate was below 27% in all WB economies, and just 10.9% in Kosovo*, compared to 31.4% in the EU-27. The youth unemployment rate was above 26% in all WB economies (compared to just 16.8 in the EU-27) reaching almost 50% in Kosovo*, the youth unemployment rate has increased as a result of the COVID-19 pandemic, especially in the 4th quarter of 2020, reaching as high as 46.5% in Montenegro with sharp increases also in North Macedonia (to 39.2%) and Serbia (to 32.4%). Long-term unemployment affects almost two-thirds of unemployed youth in Bosnia and Herzegovina and North Macedonia, and two thirds of unemployed young women in Montenegro. However, unemployment in the Western Balkans also rose at the same time to 13.7 percent in 2021, as labor market support programs were gradually wound down and people re-entered the labor market after pandemic-induced inactivity. Nevertheless, labor force participation rates remain low across the region, particularly for women, and the youth unemployment rate at 33.2 percent at the end of 2021 remains high.

3. Western Balkans — Country Overview

As for a detailed report of European Bank, Albania has posted positive economic growth for three consecutive quarters, driven by expanding domestic and external demand, tourism rebounded strongly in the summer season 2021, the economy is expected to grow by 8.0 per cent in 2021 and by 3.7 per cent in 2022. Bosnia and Herzegovina improved their economy in 2021 thanks to external markets and domestic private consumption, export of goods and services, the economy is expected to expand by 4.5 per cent in 2021 and 3.0 per cent in 2022. Kosovo thanks to goods exports that

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14 Regional Cooperation Council (2020) Regional Overview of Western Balkan Economies Regarding the European Pillar of Social Rights.
15 Regional Cooperation Council (2021) Study on Youth Employment in the Western Balkans.
grew strongly as well, household consumption is being propped up by a growing inflow of remittances and credit expansion so the economy is forecast to grow by 7.7 per cent in 2021 and 4.5 in 2022. Montenegro has started to recover due to tourism, with the number of incoming foreign tourists, GDP is forecast to grow by 12.3 per cent in 2021 and by 5.7 per cent in 2022. North Macedonia, with growth driven by both domestic and external demand, exports of goods increased in both value and volume terms, in tandem with imports, driven by the recovery in the EU, the economy is forecast to grow by 4.0 per cent in both 2021 and 2022. Serbia’s economy grew strongly in 2021. The country’s strong expansion in exports and industry reflects the rebound in the eurozone, Serbia’s main trading partner, while robust household consumption growth has followed a period of pent-up demand, the Serbian economy is forecast to grow by 6.5 per cent in 2021 and by 4.3 per cent in 2022.18

For most economies in the Western Balkans in 2021, the recovery in economic activity together with higher inflation fueled a nominal growth in revenues that outpaced expenditures. Core inflation in the Western Balkans reached a record high of 2.9 percent in December 2021, the conflict between Russia and Ukraine has added significant further impetus to already rising inflationary trends, driving energy and food prices sharply upwards, in January 2022 consumer price inflation growth ranged from 3.7 percent in Albania to 8.2 percent in Serbia.19

4. Data and Methodology

The research included six countries from the Western Balkan: Albania, Kosovo, Bosnia and Hercegovina, North Macedonia, Montenegro and Serbia the time period extend in 2010–2020, and the data set includes GDP, Unemployment rate and Inflation (consumer prices). The reason that the period taken into consideration is 2010-2020 is firstly because we wanted to examine at least a 10 years period from the current year backwards and also to include the crisis period and pandemic period. The data source is the World Bank. The variables of interest in order to answer the research question are GDP, inflation and unemployment.

5. Methodology

In this study is realized a descriptive analyses through the data set taken from the World Bank for the variables of the model. In the table below is presented a summary of descriptive statistics of the variables of interest by country and total, 2010-2020.

Table 1. summary of descriptive statistics of the variables of interest by country and total, 2010-2020.

<table>
<thead>
<tr>
<th>Country</th>
<th>Mean</th>
<th>Max</th>
<th>Min</th>
<th>St deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albania</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>1.32E+10</td>
<td>1.54E+10</td>
<td>1.14E+10</td>
<td>1.39E+09</td>
</tr>
<tr>
<td>Inflation</td>
<td>2.082252</td>
<td>3.626047</td>
<td>-0.367317</td>
<td>1.144975</td>
</tr>
<tr>
<td>Unemployment</td>
<td>14.38173</td>
<td>18.05000</td>
<td>11.47000</td>
<td>2.025771</td>
</tr>
<tr>
<td>Bosnje - Herzegovina</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>1.83E+10</td>
<td>2.02E+10</td>
<td>1.62E+10</td>
<td>1.37E+09</td>
</tr>
<tr>
<td>Inflation</td>
<td>0.531682</td>
<td>3.671250</td>
<td>-1.584100</td>
<td>1.644678</td>
</tr>
<tr>
<td>Unemployment</td>
<td>23.71773</td>
<td>28.01000</td>
<td>15.26500</td>
<td>5.175984</td>
</tr>
<tr>
<td>North Macedonia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>1.10E+10</td>
<td>1.27E+10</td>
<td>9.41E+09</td>
<td>1.12E+09</td>
</tr>
<tr>
<td>Inflation</td>
<td>1.406483</td>
<td>3.904754</td>
<td>-0.299920</td>
<td>1.439693</td>
</tr>
<tr>
<td>Unemployment</td>
<td>23.54727</td>
<td>32.02000</td>
<td>17.20000</td>
<td>5.464636</td>
</tr>
<tr>
<td>Montenegro</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>4.63E+09</td>
<td>5.54E+09</td>
<td>4.05E+09</td>
<td>5.13E+08</td>
</tr>
<tr>
<td>Inflation</td>
<td>1.465490</td>
<td>4.145247</td>
<td>-0.710514</td>
<td>1.625246</td>
</tr>
<tr>
<td>Unemployment</td>
<td>17.84636</td>
<td>19.97000</td>
<td>15.12000</td>
<td>1.780754</td>
</tr>
<tr>
<td>Serbia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>4.64E+10</td>
<td>5.33E+10</td>
<td>3.97E+10</td>
<td>4.67E+09</td>
</tr>
</tbody>
</table>

18 Bojana Vlajcic (2022) EBRD, EU and Intesa Leasing extend new funding to businesses in Serbia. European Bank for Reconstruction and Development.

Country          Mean       Max          Min         St deviation  
Inflation         4.128853   11.13740   1.122314     3.380361      
Unemployment      16.91727    24.00000   9.010000     5.124096      
Kosovo           GDP            6.85E+09  7.90E+09  5.34E+09   8.01E+08      
                                Inflation              1.876585  7.336418  -0.536929   2.180133      
                                Unemployment           NA        NA         NA          NA           

Source: (The World Bank, 2022), Author’s calculations

As we can see the country with the higher GDP is Sebia while the Country with the lower rate of unemployment is Albania also with the lower st. deviation of unemployment after Montenegro and the lower inflation rate is Bosnia Herzegovina. The country with the higher st. deviation in the GDP parameter is Montenegro which means that this is the country with the higher variability form the mean. North Macedonia is the country with the highest unemployment rate and as what can we consult from its st. deviation which is the lowest through Wester Balkan countries this unemployment rate seems to be quite consistent.

The method used to answer to the research question presented above is the linear simple and multiple regression so OLS (Ordinary Least Square) the regression line of the Ordinary Least Square is presented form for the equation

\[ Y = \alpha + \beta X + e \]

Is given through

\[ Y = \hat{\alpha} + \hat{\beta} X \]

The evaluation of the parameters \( \hat{\alpha} \) and \( \hat{\beta} \), represent the values of \( \alpha \) and \( \beta \) that results smallest sum of square errors between the line and the real data.

The variables taken into consideration are GDP in the quality of the dependent variable, unemployment in the quality of the independent variable (x1) and the inflation which is also one of the independent variables (x2) of this model. The soft used is Eviews 10.

6. Empirical Analysis

For the empirical data analysis, we have run two regressions, the first to investigate the relation through the GDP and the inflation and the second one to investigate the relation through GDP, inflation and unemployment, at the end of this regressions we have compiled the table below with all the coefficients in interest for further analysis.

<table>
<thead>
<tr>
<th>Model</th>
<th>R-squared</th>
<th>F-statistic</th>
<th>( \hat{\alpha} )</th>
<th>( \hat{\beta} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP-Inflation</td>
<td>0.140886</td>
<td>10.49531</td>
<td>1.22E+10 (p-value 0.000)</td>
<td>2.37E+09 (p-value 0.0000)</td>
</tr>
<tr>
<td>GDP-Inflation-Unemployment</td>
<td>0.232410</td>
<td>7.872244 (p-value 0.001)</td>
<td>2.43E+10 (p-value 0.0004)</td>
<td>-5.61E+08 (p1) 2.83E+09 (p2) (p-value 0.07)</td>
</tr>
</tbody>
</table>

Model 1

The link GDP – Inflation investigates how inflation impacts the GDP, so the inflation is the independent variable (x) while GDP is the dependent variable (y). as it results from the empirical analysis of the data for the country of Western Balkan 14% of the GDP is explained form the inflation. Since the Fisher statistics is 10.05 with a significanse Prob F-Statistics 0.002 which is smaller then 0.05, it means that the model I statistically significant in general. Seeing that from the OLS regression model the values that correspond to t-statistics for the coefficients a and b are respectively 3.2 and 5.6 with a significanse level (prob) smaller than 0.05 we can conclude that the paraments are statistically significant.

In this case the equation is presented as below

GDP=1.22E+10 + 2.37E+09INFLATION

Model 2

The variables taken into consideration in this case are GDP which is the dependent variable, unemployment one of the independent variables (x1) and inflation is the other independent variable.

The relation through GDP- unemployment – inflation tents to explain how the two independent variables impact
and correlate to the GDP. As it results after running the regression the variation of the unemployment and inflation explain 23% of the variation in GDP.

Since the Fisher statistics is 7.8 with a significance Prob F-Statistics 0.001 which is smaller then 0.05, it means that the model II statistically significant in general. Seeing that from the OLS regression model the values that correspond to t-statistics for the coefficients a, b1 and b2 are respectively 3.79, -1.8 and 3.6 with a significance level (prob) smaller than 0.05 we can conclude that the paraments are statistically significant.

In this case the equation is presented as below

\[ \text{GDP}=2.43E+10+2.83E+09\text{INFLATION}-5.61E+08\text{UNEMPLOYMENT} \]

7. Conclusions

Among other problems discussed later in this paper, the Western Balkan countries were encumbered by their unfavorable starting position – with low incomes and high unemployment in the early nineties. The situation further deteriorated due to military conflicts and regional disputes in the second half of the nineties, destroying the hardly existent industrial capacity, disrupting trade among countries and worsening the economic situation. At the same time, governments were distracted from applying and implementing much-needed structural reforms.20

This study analyses the impact of macroeconomic indicators on economic development represented from GDP in Western Balkans countries. Using data from World Bank Indicators for the period 2010 to 2020. Results suggest that GDP is influenced and explained better from the inflation and unemployment, concretely the 23% of the GDP is explained from Unemployment and inflation. As expected, unemployment has a negative relation with the GDP. Even though all the similarities through the Western Balkans countries as transitions countries they have all different approaches regarding the macroeconomic parameters, this because of other differences they have in way they are governed, policies, cultural differences, geography reflected also in tourism, etc.

Western Balkan countries although they have experienced significant economic decreases sometimes for major external reasons and other times for internal reasons have always proved a very good ability to recover and to compare with other countries of the region.

Unemployment and specially youth unemployment remains a problem in the Wester Balkans, removing the actual barriers and improvement of business environment would significantly contribute to the increase of employment and opening of new jobs, which would give the chance to young and unemployed persons to be socially involved. All of this requires fast reforms, which have to be followed by political will and support of civil society.

References


Bojana Vlajcic (2022) EBRD, EU and Intesa Leasing extend new funding to businesses in Serbia. European Bank for Reconstruction and Development.


