THE RULE OF THUMB: PRIVATE CONSUMPTION AS A DRIVING FORCE OF THE ECONOMIC GROWTH OF WESTERN BALKAN COUNTRIES

Medain Hashani *, Besime Ziberi **, Roberta Bajrami *

* Faculty of Economics, AAB College, Prishtina, the Republic of Kosovo
** Corresponding author, Faculty of Economics, AAB College, Prishtina, the Republic of Kosovo

Abstract

Private consumption is considered one of the main drivers of economic growth in Western Balkan countries. The main aim of this study is to estimate the impact of private consumption on the economic growth of the Western Balkans, including the North Macedonia, Kosovo, Albania, Montenegro, Bosnia and Herzegovina, and Serbia. Housing wealth was even the main driver of total private consumption in the European Union (EU) countries as a whole (Barradas, 2017). Based on an extensive literature review for panel data, this study uses econometric models with fixed effect, random effect, and Hausman-Taylor test. The data are taken from the World Development Indicators by country (The World Bank, n.d.) and cover the period 2010–2019. Based on the Hausman-Taylor test, the model that fits a small sample as in our case is chosen as the fixed effect. The results of the estimator show that a 1% increase in final consumption leads to a 0.43% increase in gross domestic product (GDP) growth and that, on the other hand, a 1% increase in the employment rate increases GDP by 0.11%. The most important domestic factor continues to be private consumption, driven by record levels in the labour market and further strengthening of household purchasing power (Bank of Slovenia, 2020). The study concludes that private consumption is the main driver of economic growth and sustainability in the case of the Western Balkans.

Keywords: Private Consumption, GDP, Western Balkan Countries, Labour Market

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1. INTRODUCTION

The countries of the Western Balkans, including Kosovo, North Macedonia, Albania, Montenegro, Bosnia and Herzegovina, and Serbia, are countries with developing economies and a protracted economic transition. All Western Balkan countries firmly believe that their future lies in the European Union (EU) and have already taken steps to meet the conditions for EU accession. In this respect, the people of the Western Balkans believe that with the EU perspective, they will improve their standard of living, increase employment, and increase their ability to consume, as this is the way gross domestic product (GDP) growth will increase. But the countries of the Western Balkans still face inherent problems. The main driver of their economic growth is therefore consumption. The theory of consumption
and its importance for economic growth was introduced by Keynes (1936), considering that consumption accounts for a large share of expenditure in the goods markets of modern economies and its share in GDP are about 70% in most advanced economies and even more in less advanced economies. Consumption is important for aggregate demand, the total demand for all goods and services in the economy because according to Keynesian theory, aggregate demand determines the level of production and employment in an economy: the more we demand, the more we produce, and the more we create jobs (Drakopoulos, 2021).

Since private consumption is considered a key factor for growth and sustainable economic development in general, it is of great importance in the case of the Western Balkans. Behind the Keynesian theory of consumption and its importance especially for developing countries as in our case lies the unity of this study, because in this study consumption is given its importance for sustainable economic growth and development.

The driving forces of economic growth are studied by different authors for different countries and in different periods. In most cases, the main drivers of economic growth are generally considered: foreign direct investment, remittances, capital investment, exports, employment rate, total consumption expenditures, open economy, financial stability, fiscal policy, etc. However, the special feature of this study is that it looks at private consumption as the main driver of economic growth in the Western Balkans. The World Bank Group also notes that across the region, the loss of jobs and wages since the onset of the crisis, exacerbated by high levels of insecurity, has severely affected private consumption making the role of private consumption more relevant in the analysis of developing countries such as Western Balkan countries (World Bank Group, 2022).

This study aims to analyse the impact of private consumption on the economic growth of Western Balkan countries. The main objectives of this study are as follows: 1) to estimate the impact of private consumption on the economic growth of Western Balkan countries and 2) to estimate the impact of the unemployment rate on the economic growth of Western Balkan countries.

The main research questions raised in this study are:

RQ1: Is consumption the key driving force of the economic growth of Western Balkan countries?

RQ2: Is employment positively related to the economic growth of Western Balkan countries?

Private consumption is representative of income. It is, therefore, worth noting that the consumption power of the countries of the Western Balkans depends mainly on the smooth functioning of the labour market, so consumption is likely to continue to play a strong role given the income levels of the countries, as is the case in other transition or emerging economies.

The remainder of the paper is structured as follows. Section 2 reviews the relevant literature and develops the hypotheses. Section 3 analyses the methodology used to conduct the empirical research. Section 4 provides the results and Section 5 presents the discussion. Section 6 concludes the study.

2. LITERATURE REVIEW AND HYPOTHESES

GDP growth and its drivers are becoming the most discussed topic among researchers. Numerous studies attempt to fathom what factors influence economic growth in both developed and developing countries in the short and long run. Private consumption accounts for the largest share of GDP. As Focus Economics (n.d.) shows, it is the main driver of economic growth, and the poorer a country is, the higher the share of consumption. However, rising consumption and easy access to credit on the one hand, and limited competitiveness of domestic firms on the other, have quickly led to large trade deficits (Organisation for Economic Co-operation and Development [OECD], 2019).

Private consumption, as a macroeconomic aggregate, is income-dependent, i.e., as income rises, so does consumption expenditure, and conversely, if remittances and thus income rise, private consumption is likely to have a positive impact on economic growth.

Private consumption and investment are of particular importance, as private households are cutting spending significantly and government spending has to cover part of the lack of domestic demand (Afonso, 2020).

Economic growth in the Western Balkans is driven by private consumption, which is influenced by the employment rate, fiscal stability, the tax system, easy access to finance or microcredit, remittances, and foreign direct investment. In this context, a study sheds light on the importance of various factors that boost consumption, such as the recovery of the labour market, accommodative monetary policy, the fall in oil prices in 2014–2015, the rise in asset prices, the easing of credit conditions and debt reduction (Dossche, Forsells, Rossi, & Stoeyks, 2018).

It is worth noting that labour market conditions are affected by rapid changes in information and communication technology (ICT). Automation and digital progress are shifting the demand for labour away from routine low and medium-level skills towards higher-level and more sophisticated technical and managerial skills (Kim & Qureshi, 2020). A study from Handriyani, Sahyar, and Arwansyah (2018) used a two-stage least squares (2SLS) regression with secondary data for the period 2006–2016 and finds that private consumption has a positive impact on economic growth in the ASEAN Economic Community (AEC).

A rising share of private consumption in GDP can be an early indicator of a future growth slowdown, especially if consumption-driven expansions are due to growing imbalances and rising debt burdens (Kharroubi & Kohlscheen, 2017). Domestic demand, supported by low-interest rates and strong employment growth, will remain the main driver of growth (OECD, 2018). Domestic spending and exports are the main drivers of economic growth (Oxford Business Group, 2012). Therefore, job losses, shortfalls in corporate revenues, and uncertainty will slow the return to previous levels of consumption, investment, and trade (Part III. Country summaries and key indicators, 2020, p. 165). The labour market in the Western Balkans is characterised by the...
phenomenon of “jobless growth” and serious long-term structural problems (Uvalic & Cvijanovic, 2018, p. 11). The factor labour has been considered as the carrier of economic activity, but the labour force, i.e., the broader concept of population, is at the same time the user of the product and services, i.e., the result of economic activity (Skuflic & Sokcic, 2010).

Strong macroeconomic stability, a strategically favourable geographical location, diverse economies, favourable tax regimes, and low unit labour costs combined with a relatively well-educated population are common attributes across the region (Sanfey, Milatović, & Krešić, 2016).

Another study, using panel least squares and pool least squares estimations to determine the impact of exogenous variables on economic growth (as growth in GDP per capita) and on the unemployment rate using data series from 2004 to 2017 for 8 selected Central and Eastern European (CEE) countries, concludes that private consumption is positively related to economic growth in the short run, but does not support the process of employment creation (Radulescu, Serbanescu, & Sinisli, 2019). A further study that uses the ordinary least square (OLS) model suggests that there is a positive and substantial relationship between household consumption and GDP, but that the impact of government expenditures on consumption expenditure is not significant in the long run (Aryusmar, 2020).

Almosabbheh (2020) examines the relationship between government expenditure and private consumption expenditure using the nonlinear autoregressive distributed lag (NARDL) approach and concludes that the hypothesis of an asymmetric relationship is not accepted, that there is a crowding-out relationship due to the positive shocks of government expenditure, and that the substitutability coefficient between the two types of expenditure is 0.8699. A study that employed vector error correction models (VECM) shows that changes in consumption and GDP are used to adjust to long-run equilibrium, while the GDP reaction to disequilibrium is larger (Hong & Lim Choon Seng, 2019).

Dada (2013) examined the impact of government expenditure on private consumption and output growth in Nigeria using the framework of a single-equation error correction mechanism. Exact unit root and cointegration tests were conducted for the variables of interest while single equation error correction models were estimated. The study concludes that government expenditure has a long-run effect on both private consumption and output.

Another study empirically analyses the causal relationship between household consumption and economic growth in Malaysia over the period 1961–2009 using the Johansen cointegration test, the VECM, and the Granger causality test. The study concludes that household consumption is important for economic growth in Malaysia (Nasir, 2012). Ruth and Simon (2020) used the vector autoregression (VAR) model with a sample from 1954Q1 to 2015Q4, including four lags of the vector of quarterly observed variables. The study concludes, among other things, that the consumption response is associated with a persistent increase in disposable income. Regarding the Engel curves, Lechene, Pendakur, and Wolf (2020) provide the OLS regressions using commercially available consumer expenditure microdata and a simple linear pretest using data from 12 countries and examining resource shares, gender differences in expenditure, and individual poverty.

The study concludes that equal distribution — the implicit assumption underlying household-level poverty calculations — is rejected. Alper (2015) examined the relationship between economic growth and consumption, investment, unemployment, portfolio investment, and savings rates in Brazil, Russia, India, South Africa, and Turkey using panel data for the period 2005–2016. The study finds that savings rates have the largest impact on economic growth based on the results of Prais-Winsten panel corrected standard errors and feasible generalised least squares (FGLS), which account for cross-sectional dependence, and finds, among other things, that a 1% increase in consumption expenditure increases economic growth by 0.41%.

Another study, which used the OLS, fixed and random effects models, and a Hausman-Taylor model with instrumental variables (IV) to look at binding constraints on economic growth in the Western Balkans, found that foreign direct investment, gross savings, and domestic credit to the private sector all have a positive effect on per capita growth (Fetai, Mustafi, & Fetai, 2017). The household final consumption expenditures using panel data were analysed also by Arapova (2018), who used three methods: simple OLS, the fixed effect models, and the random effects models with panel data for the period 1991–2015. The chosen model is based on the results of Hausman’s specification test and Breusch and Pagan Lagrangian multiplier (LM) test for random effects. For both models — for a group of 13 Asian countries and 110 countries from around the world — the random effect model was selected as the most appropriate. The study concludes that a higher share of household income is likely to be spent on consumption due to consumption-enhancing policies.

The economy of Western Balkan countries broadly reflects a consumption-based growth model (Iali et al., 2019). Therefore, based on the review of related literature the main hypotheses raised in this study are as follows:

**H1: Private consumption remains the driving force of the economic growth of Western Balkan countries.**

**H2: Employment is positively related to the economic growth of Western Balkan countries.**

The hypotheses testing will be developed in the following section, where the research methods and data will be presented in the third section, and the results and discussion of the hypothesis will be presented in the fourth and the fifth section, respectively.

3. RESEARCH METHODOLOGY AND DATA

This study used a broad international literature with a particular focus on economic growth and private consumption. This study also draws on literature from the Western Balkans that deals with...
the analysis of the impact of private consumption and related macroeconomic variables that influence economic growth in the Western Balkans. Online platforms such as Scopus, WoS, SAGE, J-shop, EconBiz, and other online platforms are used to review the relevant literature.

The study uses panel data for the period 2010–2020 and includes Western Balkan countries such as North Macedonia, Kosovo, Albania, Montenegro, Bosnia and Herzegovina, and Serbia in the analysis.

The data are taken from the World Development Indicators by country (The World Bank, n.d.). The econometric models used are fixed and random effect models. The Hausman-Taylor test is applied to select the model that best fits our analysis case and circumstances. This model is considered the best fit for small samples of panel data, followed also by Ziberi and Zulfiu (2021), Fetai et al. (2017), and Arapova (2018).

Based on the review of related literature for the panel data analysis the following estimation model is used:

\[ y_{it} = \beta_0 + \beta_1 x_{it} + \varepsilon_{it} \]  

(1)

where, \( i \) presents the indexes countries; \( t \) presents the time period; \( y_{it} \) presents the dependent variable GDP growth (annual %); \( x_{it} \) presents the private consumption and employment rate; and \( \varepsilon_{it} \) is the error term.

In our analysis, we employed an econometric model with GDP as a dependent variable and consumption and employment as independent variables in the model. The significance of the chosen model, as well as the specification of independent variables such as consumption and employment in the model, support the identified gap in current empirical research reported in the second half of this study.

Since all panel analyses prevent measuring the impact of various macroeconomic aggregates on economic growth, none of the work cited emphasises consumption as a main driving force of Western Balkan countries, where panel econometrics models include a large number of variables such as private consumption, public consumption, remittances, employment vs. unemployment, and so on.

The selected variables in the panel model of this study have theoretical and empirical base, as is stated in the section of the literature review, the countries of the Western Balkans are considered as consumer based economies.

Many tests are utilised to execute the given panel analysis. The diagnostic tests were also performed on the chosen model to see if it was misspecified. Moreover, slope homogeneity, cross-sectional dependence in the error, group-wise heteroscedasticity, serial correlation in the errors, and normality of the errors were all regarded as typical problems with panel estimations (Ziberi & Zulfiu-Alli, 2021). The findings of the diagnostic tests are listed in the Appendix.

4. RESULTS

This section presents the results of the estimation of the econometric models. As mentioned in the research methodology section, this study uses fixed and random effects models to achieve the main objective of this study. The Hausman-Taylor test with instrumental variables (IV) is used to select the most appropriate model under the circumstances of the study. The Hausman-Taylor test is used to choose between fixed and random effects models.

The summary statistics of the variables utilised in the model are shown in Table 1. The number of observations is 79, and the R-squared coefficient of the determinant is 0.611. The model is appropriate for our situation of study and helps us to generate further estimates.

Table 1. Summary statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final_consumption</td>
<td>0.436***</td>
</tr>
<tr>
<td>Employment</td>
<td>0.120*</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.942</td>
</tr>
<tr>
<td>Observations</td>
<td>79</td>
</tr>
<tr>
<td>Number of id</td>
<td>6</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.611</td>
</tr>
</tbody>
</table>

Note: Standard errors in parentheses. *** p < 0.01, ** p < 0.05, * p < 0.1.
Source: Authors’ calculations.

The descriptive statistics of the variables utilised are shown in Table 2. There are 119 observations with a standard deviation of 3.346 for GDP, 94 observations with a standard deviation of 4.809 for final consumption, and 90 observations with a standard deviation of 8.029 for employment.

Table 2. Descriptive statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Obs.</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>119</td>
<td>3.711</td>
<td>3.346</td>
<td>5.795</td>
<td>26.974</td>
</tr>
<tr>
<td>Final_consumption</td>
<td>94</td>
<td>3.604</td>
<td>4.809</td>
<td>-1.427</td>
<td>15.434</td>
</tr>
<tr>
<td>Employment</td>
<td>90</td>
<td>37.979</td>
<td>8.029</td>
<td>22.490</td>
<td>33.392</td>
</tr>
</tbody>
</table>

Source: Authors’ calculations.

Table 3 presents the fixed effects results within the regression. As we can see, the R-squared is 0.6113, which means that the model fits and is highly significant. In this study, annual GDP growth percentage was used as the dependent variable and final consumption and employment rate as independent variables.

The results of the p-value show that the variables meet the criterion of a p-value less than 0.05. In our case, the results show that a 1% increase in final consumption leads to a 0.43% increase in GDP growth. The variable employment rate has a p-value of 0.060, which satisfies p-value conditions and is important in our model. Thus, a 1% increase in the employment rate leads to a 0.11% increase in GDP growth in the case of Western Balkan countries. The diagnostic tests show that the model is acceptable (see Appendix).
Table 3. Fixed effects (within) regression

| Coef. | Std. Err. | t     | P>|t|   | [95% Conf. Interval] |
|-------|-----------|-------|-------|-----------------|
| GDP   | 0.435329  | 0.04 | 10.37 | 0.0000          | [0.3517701; 0.5192584] |
| Employment | 0.1199308 | 0.062 | 1.91 | 0.0600 | [-0.004; 0.2499] |
| _cons | 2.39 | 2.39 | 1.23 | 0.223 | [-2.7097606; 1.826709] |
| sigma_u | 1.0316278 | 1.0629413 |
| sigma_e | 0.02826182 | 0.48 |

Rho 0.062 |

Note: F-test that all u_i = 0: F(5, 71) = 0.84. Prob > F = 0.5291.
Source: Authors' calculations.

Table 4 presents the results of the random effects GLS regression. You can see that the R-squared is 0.59, indicating that the model is important. As we can see from a p-value for the variables used in the model, final consumption has a p-value of 0.000 and employment 0.48. In the first case, the p-value condition is fulfilled, but in the second case, the variable employment does not fulfil the p-value condition — the p-value is smaller than 0.05.

Table 4. Random effects GLS regression

| Coef. | Std. Err. | z     | P>|z|   | [95% Conf. Interval] |
|-------|-----------|-------|-------|-----------------|
| GDP   | 0.4270494 | 0.038 | 10.98 | 0.0000          | [0.350; 0.504] |
| Employment | 0.017835 | 0.024 | 0.70 | 0.484 | [-0.031; 0.066] |
| _cons | 0.9762083 | 0.517 | 1.91 | 0.060 | [-0.223; 2.176] |
| sigma_u | 0.0283276 | 0.028 |
| sigma_e | 1.0629413 |
| Rho 0.1208623 |

Note: F-test that all u_i = 0: F(5, 71) = 0.84. Prob > F = 0.5291.
Source: Authors' calculations.

The Hausman-Taylor test indicates which model is most appropriate in the circumstances. In this context, we analyse the value of the coefficients. In the fixed model, the final consumption is 0.435, but smaller in the random effect model — 0.427. The coefficient for the employment rate is 0.11 in the fixed random effect model and 0.017 in the random effect case.

Table 5. Hausman-Taylor test

| Variables/coefficients | (b) fixed | (b) random | (b-b) difference | sari[diag[V] b-V, B] S.E. |
|------------------------|-----------|------------|-----------------|----------------|---|
| Final consumption      | 0.4355329 | 0.4270494 | 0.0084355 | 0.001982 |
| Employment             | 0.1199308 | 0.017835 | 0.1025635 | 0.0575029 |

Note: b = consistent under H_0 and H_a; B = inconsistent under H_a, efficient under H_f.
Source: Authors' calculations.

5. DISCUSSION

In line with our findings, other studies also consider private consumption as one of the main drivers in the Western Balkans. The region needed a reorientation towards a more sustainable growth model — one based on exports and the private sector, rather than consumption supported by transfers or inefficient public spending (World Bank Group, 2017). In terms of employment rates, this region is also considered to have a high unemployment rate of graduates and a high percentage of NEET.

Employers in the Western Balkans face significant problems in finding employees with the required skills. Thirty-four per cent (34%) of companies in the Western Balkans reported that an insufficiently trained workforce was a barrier to ongoing operations, with a third of these companies rating the problem as severe or very severe. More than half of all enterprises indicated that total annual turnover would increase if this obstacle were removed.

Although the sectoral composition of the skills mismatch varies from country to country, the need is mainly concentrated in the manufacturing and service sectors, especially hospitality and agribusiness (Sanfey & Milatovic, 2018).

Another study recommended that Western Balkan policymakers strengthen law enforcement, reduce corruption, implement policies to raise public awareness about the importance of asking for fiscal coupons when making purchases, promote democratic and economic sustainability to attract foreign investors in export-oriented industries.

regulate contract issues in economic zones and make administrative procedures easier for foreign investors, and use private remittances for business purposes (Ziberi & Zulfu-Alli, 2021). In line with our findings is also a study from Ziberi, Rexha, and Gashi (2021) that considers private consumption expenditure as a pillar toward the economic growth of a developing country.

6. CONCLUSION

In the case of developing countries like the Western Balkans, private consumption is critical for economic growth. The econometric models used in this study proved the hypothesis (H1) that private consumption is a driving force of the economic growth in Western Balkan countries. The model chosen in this line based on the Hausman-Taylor estimator is fixed effect, which is exactly the situation in small samples. We discover a positive influence of private consumption on economic growth as well as a positive impact of the employment rate on economic growth in economies that are underdeveloped. The study makes further recommendations to increase GDP growth. Based on econometric estimators used, the study comes with a further suggestion to the Western Balkan countries such as effectively focusing on attracting foreign direct investments, exports, global openness, taxes, legal reforms, political stability, and corruption in order to raise the consumption.

The main limitation of this study is the small number of observations in the econometric model used. It should also be noted that we lack empirical evidence for the Western Balkans that examines the impact of private consumption on economic growth. As we mentioned in the literature review section, there are many empirical findings for different macroeconomic aggregates as binding constraints on economic growth, but the unit of this study is behind the power of consumption as the main driver of economic growth in the Western Balkans.

The importance of this study is directed at all actors in the economy such as:

- The government: It should pay attention to private consumption. The reason why governments should pay attention to private consumption is because of the government’s tax policy. Since we know that consumption depends on income, wealth, and consumer expectations, this is reflected in taxes and duties that reduce disposable income and thus the power of consumption.
- Individuals and households: They should be aware that they directly influence the growth of the country’s GDP through their household consumption.
- Businesses: To provide fair competition for product quality and prices to justify aggregate supply vis-à-vis aggregate demand at the level of an economy.

This study is of great importance for future research as private consumption can be studied using mixed research methods. Further research could be conducted to identify the variables that influence private consumption in an economy, such as income, taxes, savings, and workers’ perceptions.

REFERENCES

APPENDIX

Figure A.1. The findings of the diagnostic tests

Note: In regard to the test of significance of the fixed effect, we see that F = 0.83325117, thus, the model is significant in a case of 79 observations including into analysis.