
THE NEXUS BETWEEN PRIVATE CONSUMPTION AND ECONOMIC GROWTH: EVIDENCE FROM WESTERN BALKAN COUNTRIES

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Abstract: The main aim of this paper is to highlight the effect and the importance of private consumption expenditure on the economic growth in the developing countries, thus to serve as a base of policy reforms in Western Balkans in regard of stimulation of private consumption for boosting their economic growth. In this regard, Ordinary Least Square, Fixed and Random effects techniques have been employed in order to determine the impact of the private consumption on the economic growth for the Western Balkan region: Albania, North Macedonia, Kosovo, Montenegro, Serbia and Bosnia & Herzegovina, for time spin 2000 – 2018. In addition, Hausman Taylor test has been utilized in order to choose the appropriate model among the fixed and random effect model. The findings of Hausman Taylor test reveal the random effects model as an appropriate for this analysis, suggesting a positive but insignificant relationship between private consumption expenditures and economic growth in the countries of the Western Balkan region. In addition, such insignificant effect of consumption reveal the need of the government to address the changes in the policies, yet keeping into consideration the short effect of consumption in the economic growth in the developing countries.

Keywords: private consumption, economic growth, Western Balkan, fixed effects, random effects.

1. INTRODUCTION

Economic growth needs to be sustained by public consumption, but growth that is sustained by public consumption will not be sustainable growth because sustainable growth is growth supported by investment. Therefore growth supported by investment is considered to be able to increase productivity so that it can help economic growth. Having into consideration the structure development of the Western Balkans, private consumption in Western Balkan countries depends on the employment rate, remittances and FDI, thus it is considered as a key factor of their economic growth and sustainable development. The unity of this study lies in the main aim which tends to analyze the effects of private consumption on the economic growth of the countries of the Western Balkans including Kosovo, North Macedonia, Albania, Montenegro, Serbia and Bosnia and Herzegovina.

Private consumption is representative of income, so it is worth noting that the consumer power of WB countries depends mainly on the proper functioning of the labor market, remittances and the foreign direct investments, consequently by reducing FDI, remittances and labor market activity private consumption will decrease. Also as it is noted from the World Bank group that throughout the region the loss of jobs and wages since the start of the crisis, exacerbated by the high uncertainty, has cut deeply into private consumption (World Bank Group, 2020), thus the role of private consumption is more deep when it comes into analysis the developing countries such as WB countries.

2. LITERATURE REVIEW

GDP growth and its drivers is becoming the most debatable topic between researches. Lot of studies are conducting trying to shed light which factors influence economic growth in short and long run in both developed and developing countries. Private consumption accounts for the largest part of GDP, as it is stated from the (Focus Economixs, 2020) it is the key engine that drives economic growth thus the poorer the country the higher the share of consumption. However, rising consumption demand and easy access to credit on one side, and the limited competitiveness of domestic firms on the other, rapidly translated into large trade deficits. (OECD, 2019). The key domestic factor remains private consumption, which is being driven by the record highs of the labor market and the further strengthening of household purchasing power. (Bank of Slovenia, 2020). Private consumption as a macroeconomic aggregate depends on income, which means that with the increase in income, consumption expenditures will increase and vice versa, if we have an increase in remittances and consequently revenues, private consumption is expected to impact positively the economic growth.

Economic growth in Western Balkans is driven by private consumption which is impacted from the employment rate, the fiscal stability, tax system, the easy access to finance or micro credits, remittances and foreign direct investments. Kharroubi and Kohlschen (2017) in their paper suggest that increasing shares of private consumption in GDP can be a leading indicator of future growth slowdowns, particularly if consumption led expansions come on the

back of growing imbalances and rising debt burdens. Domestic demand, supported by low interest rates and strong employment growth, will remain the main driver of growth. (OECD, 2018). Domestic spending and export are key drivers of economic growth, thus job losses, shortfalls in corporate revenue, and uncertainty will slow the return to previous levels of consumption, investment, and trade (Global Outlook, 2020, p. 165).

The labor market in the WBs has been characterized by the phenomenon of “jobless growth” and severe long-term structural problems. Uvalic and Cvijanovic (2018) have considered the labor factors as the holder of the economic activity, however manpower, namely its broader term population is at the same time the user of the product and of the services, i.e. the result of the economic activity. Strong macroeconomic stability, strategic geographic location, diverse economies, favorable tax regimes and low unit labor costs, combined with a relatively well-educated population, are common attributes throughout the region (Sanfey et al., 2016).

In his paper, Almosabbeh (2020) has investigate the relationship between government spending and private consumption spending by applying the NARDL approach, suggesting that the hypothesis of the presence of a symmetric relationship is not accepted, there is a crowding-out relationship from the positive shocks of government spending and the substitutability coefficient between the two types of spending is 0.8699. In addition, authors Hong and Seng (2019) by using the VECM technique reveal that adjustment to long-run equilibrium is achieved through changes in both consumption and GDP, though the response of GDP to disequilibrium is stronger.

Dada (2013) examined the composition effect of government expenditure on private consumption and output growth in Nigeria using the framework of single equation error correction mechanism exactly unit root and co-integration tests were conducted on the variables of interest while single equations Error Correction Models were estimated. The study concludes that government expenditures have long-run effect both on private consumption and output.

In addition Nasir (2012) investigates the causal relationship between household consumption and economic growth in Malaysia over the period 1961-2009 using Johansen co-integration test; Vector Error Correction Model (VECM) and Granger causality test thus the study concludes that household consumption is important for economic growth in Malaysia.

3. RESEARCH METHODOLOGY

The economic theory implies that private consumption can positively affect the economic growth. In this regard, the model used in this paper is based on this statement, representing the general shape of model equation. In this regard panel annual data are utilized for 6 countries in the Western Balkan region: Albania, Bosnia and Montenegro, Montenegro, North Macedonia, Serbia and Kosovo, for the time spin 2000 – 2018. The panel is strongly balanced, implying same time period for all the countries included in the panel.

In order to accomplish the main objective of this paper, fixed (FE) and random (RE) effect model has been employed, while OLS model has been used for comparison purpose. Fixed effect model it is appropriate when determining the explanatory variable as non – random variable, contrary to the random effect model that treats the explanatory variable to be derived from random occurrences. In addition, the fixed effect model investigates the type of the impact of the variables that change over time. Thus it investigates the nexus among the independent variable and dependent variable within the same unit, by assuming that the countries might contain individual characteristics that can influence the independent variables. Therefore, the main objective of the fixed effect model is to check whether there exist a correlation between the error term and the independent variable, thus at the end to evaluate the net effect of the independent variables. On the other hand, the main assumption of the random effect model is that there exists a random or causal difference between the units (countries), that it is not correlated with the independent variables. In order to choose among the fixed and random effect model, Hausman Taylor test is performed.

Data set covers the recent annual data for the time spin 2000 -2018, for the Western Balkan region: Albania, Bosnia and Montenegro, Montenegro, North Macedonia, Serbia and Kosovo, collected from the indicators from the World Bank.

4. EMPIRICAL FINDINGS

In order to determine the impact of the private consumption on the economic growth in the Western Balkan countries, by employing the following models: OLS, Fixed (FE) and Random (RE) effects. In this regard, the following basic regression equation has been determined:

$$gdp_{cap} = \beta_0 + \beta_1 priv_consump + \beta_2 gfcf + \beta_3 remitt + \beta_4 pop + \varepsilon \quad (1)$$

where:

β_0 - intercept term
gdp_{cap} – GDP per capita growth (% annual)
priv_consump – Private final consumption expenditure (% of GDP)
gfcf – Gross Fixed Capital Formation (% of GDP)
remitt – Personal remittances receipt (% of GDP)
pop – population growth (annual %)
 ε - error term

In addition, the following table represents the expected relationship of the variables in the above model. Economic growth represents the dependent variable, measured through the GDP per capita growth rate (annual %), while as independent variables are: *priv_consump* measures the final private consumption expenditure as % of GDP, *gfcf* that represents Gross Fixed Capital Formation as % of GDP; *remittance* measured through personal remittances receipt (% of GDP) and population that represents the population growth (annual percentage).

Table1. Definition, abbreviations and expected relationship.

Variables	Abbreviation	Relationship
GDP per capita growth rate (annual %)	<i>gdp_cap</i>	
Final consumption expenditure as % of GDP	<i>priv_consump</i>	positive
Personal remittances receipt (% of GDP)	<i>remitt</i>	positive
Gross Fixed Capital Formation as % of GDP	<i>gfcf</i>	positive
Population growth (annual percentage)	<i>pop</i>	negative

Source: authors' source.

In addition, the following table represents the descriptive statistics of the variables, regarding the number of observation, their mean value, standard deviation, and their minimum and maximum value.

Table2. Descriptive statistics

Variables	Observations	Mean value	Standard Deviation	Minimum value	Maximum value
<i>gdp_cap</i>	113	3.862011	3.493825	-5.996974	26.88778
<i>priv_consump</i>	112	98.17088	8.240793	79.56681	116.1335
<i>remitt</i>	107	10.86017	5.546285	1.979687	28.71385
<i>gfcf</i>	109	23.5759	13.16328	-28.9021	79.78271
<i>pop</i>	114	-.1528761	.6320005	-3.582128	1.041533

Source: authors' calculations.

5. EMPIRICAL FINDINGS

Several econometric models have been employed in order to determine the relationship between private consumption and economic growth in the Western Balkan. In addition, the results of OLS, fixed effects and random effects are presented in the Table3. OLS findings reveal that final consumption has positive but statistically insignificant effect on the economic growth. Also results imply a positive relationship between remittances and GDP per capita growth, thus by increasing one point of the remittances the GDP per capita will increase by 0.1 %. In addition, adjusted $R^2 = 0.719$, thus 71.9% of the estimated model explains the variances of the dependent variable – GDP per capita. In addition, positive and significant relationship is determined between *gfcf* and *gdp_cap*, where by increasing 1 % of Gross Fixed Capital Formation, the GDP per capita will increase by 0.08 %. Further, population growth as expected has negative and significant effect on the economic growth of the Western Balkan countries.

In the next two columns are presented the results from the fixed effect and random effect regression. In addition, the last row represents the results of the Hausman test, indicating the random effect model as appropriate. Thus the null hypothesis: individual effects are not correlated with other model repressor it cannot be rejected, thus random effects model is suitable. Also the results of the random effect model reveal positive but insignificant effect on the economic growth of the Western Balkan countries.

Table3. Regression results: OLS; fixed and random effects.

Estimation model	OLS	FIXED EFFECTS	RANDOM EFFECTS
Dependent variable:			
gdp_cap			
priv_consump	0.00504	0.05484	0.00873
	(0.490)	(0.318)	(0.797)
remitt	0.10483**	0.24125*	0.11183*
	(0.025)	(0.007)	(0.023)
gfcf	0.0840*	0.09313*	.082745*
	(0.000)	(0.000)	(0.000)
pop	-0.81972***	-0.79143	-0.79291***
	(0.058)	(0.247)	(0.068)
observation	107	107	107
Adjusted R-squared	0.719		
F	69.45	7.65	
Wald Chi2			29.42
Model	OLS	FE	RE
Hausman test			
Chi2 = 5.86			
Prob>chi2=0.2096			
Random effect appropriate			
Breusch and Pagan Lagrangian multiplier test for random effects			
chibar2(01) = 0.00			
Prob > chibar2 = 1.0000			
Note: (*) statistically significant at 1% level, (**) statistically significant at 5% ; (***) statistically significant at 10%			

Source: author's calculation.

6. CONCLUSION

The main of the paper was to investigate the relationship of the private consumption and economic growth in the Western Balkan countries: Albania, Bosnia and Herzegovina, Montenegro, North Macedonia, Kosovo and Serbia, by utilizing recently data of the World Bank indicators for the time period 2000 – 2018. In this regard, several models have been used: OLS, fixed and random effects. In addition, Hausman test has been determined in order to choose the appropriate model between fixed and random effects, determining the random effects as the suitable one. Finally, the results reveal positive but insignificant relationship between private consumption and economic growth in the Western Balkans, for the time spin 2000 – 2018. In addition, such insignificant effect of consumption reveal the need of the government to address the changes in the policies, yet keeping into consideration the short effect of consumption in the economic growth in the developing countries.

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