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The Determinants of Economic Growth in the Transitional Economies of the Former Yugoslavia

Abstract

Transitioning economies are special occurrences, which often contribute to their significance and need for analysis. The purpose of this study is to assess the determinants of economic growth in the recently independent transitional economies of the former Yugoslavia while using Slovenia as the main comparison country. Slovenia is deemed throughout the literature as the most successful state after transition, which is why it is used as the main comparison state. The countries included in this study are Slovenia, Croatia, Serbia, Bosnia and Herzegovina, Macedonia, and Montenegro. Kosovo has been excluded due to the instability created by its recent independence and its involvement in the Kosovo War. The time range of this study is from 2000 to 2011 due to the limited availability of data for all the countries since they are recently independent and the data is from the World Bank Database.

This study will first establish background knowledge of the Yugoslav region in order to set the stage and explain where economic growth was apparent before independence. Then, literature on the most successful state, Slovenia, will be discussed as well as the relevant information on the statuses of each country prior to the transitioning period. This study adds to the overall literature about the former Yugoslavian countries by examining the components of economic growth to Gross Domestic Product (GDP) per capita growth. After the theory section, the data and methodology sections state the two methodologies used: descriptive statistics and means hypothesis testing to determine what factors are similar to Slovenia's means. Results and discussion will conclude the study where Slovenia is ranked highest in terms of future success with Croatia and Serbia following in second and third.

The Determinants of Economic Growth in the Transitional Economies of the Former Yugoslavia

Tara Gracer

I. INTRODUCTION

Transitional economies are special occurrences, which often contribute to their significance and need for analysis. The purpose of this study is to assess the determinants of economic growth in the recently independent transitional economies of the former Yugoslavia while using Slovenia as the main comparison country. Slovenia is deemed throughout the literature as the most successful state after transition, which is why it is used as the main comparison state. The countries included in this study are Slovenia, Croatia, Serbia, Bosnia and Herzegovina, Macedonia, and Montenegro. Kosovo has been excluded due to the instability created by its recent independence and its involvement in the Kosovo War. The time range of this study is from 2000 to 2011 due to the limited availability of data for all the countries since they are recently independent and the data is from the World Bank Database.

This study will first establish background knowledge of the Yugoslav region in order to set the stage and explain where economic growth was apparent before independence. Then, literature on the most successful state, Slovenia, will be discussed as well as the relevant information on the statuses of each country prior to the transitional period. This study adds to the overall literature about the former Yugoslavian countries by examining the components of economic growth to Gross Domestic Product (GDP) per capita growth. After the theory section, the data and methodology sections state the two methodologies used: descriptive statistics and means hypothesis testing to determine what factors are similar to Slovenia's means. Results and discussion will conclude the study where Slovenia is ranked highest in terms of future success with Croatia and Serbia following in second and third.

II. BACKGROUND

This study includes only countries that

once belonged to a socialist economy and that have transitional to a capitalist economy for a significant reason. The Yugoslavian War in 1991 produced five states, Slovenia, Croatia, former Yugoslav Republic of Macedonia, Bosnia and Herzegovina, and Republic of Yugoslavia (which included the current territories of Serbia and Montenegro). These states, unlike other transitional states, had to fight for their rights and independence to create a separate state. For example, Slovenia broke first in 1991 and reached its independent status before the other former countries in 1992. A list of each country's independence year can be found in Table I. Similar transition states from the Soviet Union also changed their type of economy from a planned economy to a capitalistic one; however, obtaining their independence was relatively more peaceful with political demonstrations in 1989. The countries of the former Yugoslavia became independent as a result of war, which differed greatly from the former Soviet Bloc. The former Soviet bloc also received assistance from Russia and other foreign influences to transition while the former countries of Yugoslavia did not. This suggests that the countries of the Former Yugoslavia were by themselves and did not receive help once they broke off; their state resources were damaged or missing, which significantly halted economic activity and growth. Additionally, Russia was the main state which countries broke free from. In the case of former Yugoslavia, there was and is no main state with satellite states. No main state resulted because Yugoslavia was formed after World War I from different empires and because "Yugoslavia was not like other communist states, since it pursued its own course of economic development" (Rogel, 2004, p. 12). Having no main state to send financial support, as in the case of the Soviet Union, led countries of the former Yugoslavia to be alone in reestablishing their new economies and government. Therefore, there is a significant difference between the types of transitional countries and their struggles to regenerate their economies. This is why

only the former Yugoslavian countries are examined here.

In Figure 1.1, GDP per capita growth is exemplified during the transition years of 1990 to 2000. GDP per capita growth was calculated using GDP per capita levels in constant 2005 international dollar terms to account for inflation. The year 1990 has no growth because no countries reported GDP per capita levels for the year 1989, and therefore, growth for the year 1990 is unable to be calculated. It can be seen that GDP per capita growth is negative during the war period. However, several countries increase GDP per capita growth after 1994. Bosnia and Herzegovina has the highest spike in GDP per capita growth in 1995 and 1996. Other countries never grow above 0.2 percent. The initial conditions of each country could demonstrate why some countries have been more successful in increasing their GDP per capita following the years after independence and war.

III. LITERATURE REVIEW

This literature review covers a range of information from initial conditions, the most successful country, general studies on the former Yugoslavia, and the components of growth theory. This study adds to the overall literature by examining the components of economic growth to GDP per capita growth individually for each country.

A. Initial Conditions

This section lays out the initial conditions of all the republics of the Former Yugoslavia in order to better understand each country prior to independence. It also explains where economic growth was most prevalent.

Physical geography is one example of how and why the former Yugoslavia was so economically different across all regions (Boduszynski, 2010). Access to natural resources, the coastline, good soil, and other prosperous Western economies of Europe were some of the reasons for successful transitions. The fertile hills of Croatia and Slovenia led to their successful development because they contained skilled labor, modern productions like machinery and electrical appliances, proper infrastructure for trade, and were closer to western European capitals (Boduszynski, 2010). According to Boduszynski (2010), the least developed regions were the mountainous "Bosnia and Herzegovina, Montenegro, southwest Serbia, the Dalmatian hinterlands of Croatia, and northern Kosovo" because they were isolated and had infertile land (p.51).

The most fertile land is located along the Danube River; therefore, the Danube Plain supplies Slovenia, Croatia, and Serbia with the most fertile cropland. Macedonia, on the other hand, in the Vardar Valley, grew cotton and tobacco, which are cash crops. This land is also highly irrigated in order to compensate for the hot and dry summer climate (Singleton, 1991). Central Serbia and Macedonia have fertile soils however, "remained undeveloped due to poor economic planning and geographical isolation" (Boduszynski, 2010, p. 51). Croatia, having a coastline on the Adriatic Sea (which has mild winters), allows for it to grow citrus and olive trees as well as to have hills of vineyards. In addition, the coastline provides significant levels of tourist and trade revenue (Singleton, 1991; Boduszynski, 2010). However, with the increase in tourism along the coast, agriculture has declined due to alternative employment in the tourism sector (Singleton, 1991).

The amount of infrastructure and investment of each region could clearly be seen by the North and South divide of the former Yugoslavia (Singleton, 1991). Since the South was seen as less profitable, and therefore lacking in development, business investments left it underdeveloped. Therefore, "newly globalizing countries must be able and willing to open up their foreign markets in goods, services, and investments" in order to attract wealthy foreign investors (Kiggundu, 2002, p.141). The republics also invested in their own production to avoid dependence on other republics with which they had tensions (Singleton, 1991). However, capitals were interlinked such as Belgrade, Zagreb, Ljubljana, and Sarajevo. The first three had a rail and highway system that ran along the Sava River. The largest industrial area of the Former Yugoslavia in the early 1990s was Belgrade, located in present day Serbia. It produced transportation equipment, agricultural machinery, and consumer products such as clothing, television sets, and food products. Second was Zagreb, Croatia which produced electrical-engineering equipment, petrochemicals, machine tools, and consumer products such as textiles, paper products, and furniture. Thirdly, the area of Ljubljana and Maribor in Slovenia was ranked as the next largest industrial area which produced goods from aluminum and high-quality steel for trucks, electrical appliances, cotton fabrics, and shoes. Sarajevo in Bosnia and Herzegovina was ranked last because of its small industrial sector size and recent development in the 1990s, however it is known for its heavy industry use of iron and steel (Singleton, 1991).

Unemployment was a chronic problem in Yugoslavia before the 1990s because it reached over

17 percent (Boduszynski 2010). Underemployment was even higher, at 20 percent (Boduszynski 2010). Wherever development was lacking, there were dangerous levels of unemployment, such as in Macedonia, Kosovo, and Serbia, where rioting and strikes were common. As one moved from the north to south unemployment worsened. Slovenia and Croatia, therefore, had the lowest unemployment rates in 1990 while Serbia, Bosnia and Herzegovina, and Montenegro were in the middle. Kosovo and Macedonia had the worst unemployment rates, as high as 37 percent (Boduszynski 2010). This, therefore, had a serious effect on the competition for jobs and wages, which enabled a rise in infrastructure and demand for separation from the whole of Yugoslavia (Boduszynski 2010).

B. The Most Successful: Slovenia

The initial conditions provided Slovenia with the upper hand in transitioning from a socialist economy to a capitalist system. Slovenia had a homogeneous, socially stable population, a diversified manufacturing sector, private agriculture, partly private service sector, well-established trade links with Western European markets, and an advantageous geographic position (Mencinger 2001).

During the transitional period, Slovenia was most successful for several different reasons over the other former Yugoslav states. The trade surplus in 1992 resulted from a decrease in domestic demand and increase exports (Mencinger 2001). After 1992, GDP increased by 2.8 percent in 1993 and later to 5.3 percent in 1994. In 1993, Croatia had a negative GDP growth rate of 8 percent which increased to a positive growth rate of 5.9 percent in 1994. Serbia, in 1993, had a severe negative growth rate of 30.5 percent which also increased to a 2.5 percent growth rate in 1994. Macedonia, on the other hand, remained at a negative GDP growth rate for both 1993 and 1994 at 7.5 percent and 1.8 percent respectively (World Bank). Montenegro and Bosnia and Herzegovina in 1993 were not yet declared independent states. Slovenia's secession also provided a great push for restructuring of the economy. It followed unemployment patterns of other European countries such as France and Germany. The prices remained stable and its government budget became balanced (Mencinger 2001). With the accumulation of these reasons, it is apparent that Slovenia has been the most successful state in transition and why it is being used as the frame of reference for this study.

C. General Studies on the Former Yugoslavia

The volume of literature is not great, specifically in the sector of economic growth of the former countries of Yugoslavia. This is due to the fact that their independence is rather recent and not enough yearly data is available to observe significant findings. The war period and recessions after the war limited each country from recording figures due to a lack of resources and staff. The CIA Factbook only has economic figures for the most current year; therefore, it cannot provide data for a series of years. Slovenia, Croatia, and Macedonia broke free first and, as a result, have more literature from the early 1990s. Montenegro and Kosovo, on the other hand, have little to no literature at all because they gained independence in the early 2000s. Therefore, this study is relatively new in comparison to the remainder of the literature.

Naghshpour and Sergi (2008) and Piatkowski (2002) are the most relevant available literature that examine the economic growth of the Former Yugoslavia with different methods. Piatkowski (2002) creates a New Economy indicator that ranks countries on how prepared they are to transition; therefore, Piatkowski's study examines countries prior to their dissolution while this study examines post war effects. Piatkowski (2002) suggests, however, that the countries that are ranked lower are in a "technological trap", which is due to insufficient quality of institutional infrastructure and lack of investment in newer technologies. Higher ranked countries, such as Slovenia, have had the advantage of the institutional infrastructure because of their accession into the European Union (in May of 2004).

Naghshpour and Sergi (2008) examine countries of South East Europe and perform a spline trend on the data, such as real GDP levels to test for significance of the economic growth slopes of each country. This study acknowledges that "Yugoslavia is the only country to disintegrate, while the rest of the countries in the region kept their national identity" (Naghshpour and Sergi, 2008, p. 126). In the conclusion of this study, both authors note that it is important to determine the factors that affected the economic growth in the South Eastern European countries in different ways. This is why the following section and this study focus on the components of economic growth of the former Yugoslavia.

D. Components of Growth Theory

Smith and Todaro (2012) introduce components of economic growth in their book *Economic*

Development. Appendix 3.1 in the book is broken down into three categories: capital accumulation, population and labor force growth, and technological progress. They state that these three components of growth “are of prime importance” for developing countries (Smith and Todaro, 2012). By examining each component separately to see its effect on the economy, *ceteris paribus*, it can be determined which component of economic growth will increase GDP levels and GDP per capita.

Capital accumulation increases both physical capital stock and human capital. Physical capital stock, known as machinery and technology, are used to create output and can help increase production if more physical capital stock is accumulated. Smith and Todaro (2012) suggest two methods for increasing physical capital stock by either using “a portion of present income to save and invest for future output and income” or increasing the “economic infrastructure and nation’s resources” (p.140). Therefore, an increase in physical capital stock can occur if there is an increase in investment and savings. The proxy for physical capital in this study is saving rates, more specifically, gross domestic savings, which is a percentage of GDP. This proxy is not a best fit because savings are not always used for investment since they could be used to fund retirement, education, or be spent in the present. When savings increase, more money is available to distribute for investment. If an increase in physical capital stock occurs, the productivity and production of businesses will increase. Therefore, if the savings rate increases, the availability of investment will increase, which in turn will allow for an increase in physical capital stock and output. Ciftcioglu and Begovic (2010) also agree that by increasing capital accumulation, economic growth will increase, especially in the case of Central and Eastern European countries. Therefore, by increasing the savings rate, economic growth will increase due to an increase in physical capital stock.

Population and labor force growth, as explained by Smith and Todaro (2012), can be “considered a positive factor in stimulating economic growth” (p. 141). Depending on the economic system of the developing country, the surplus of labor created by an increase in population might “exert a positive or a negative influence on economic progress” (Smith and Todaro, 2012, p.141). However, the transitional economies of the former Yugoslavia were at war and their populations have been severely depleted and therefore need to restore their labor force to equal, if not higher, levels.

Galor (2005) also concludes that population growth can be attributed to an increase in and sustain economic growth. In order to restore the labor force and increase output, population growth must increase for the former Yugoslavian countries. By increasing the productive labor force, output will increase, allowing for economic growth due to a larger labor force.

To Smith and Todaro (2012) and “to many other economists”, “the most important source of economic growth” is technological progress. There are three types of technological progress that Smith and Todaro (2012) discuss: neutral technological progress, laborsaving technological progress, and capital-saving technological progress. The first “occurs when higher output levels are achieved with the same quantity and combinations of factor inputs”, which can arise from simple divisions of labor. Laborsaving technological progress is “the achievement of higher output using an unchanged quantity of labor inputs as a result of some invention”, which can typically be seen through mechanization. Lastly, capital-saving technological progress is facilitated through “some invention or innovation that achieves higher output levels using the same quantity of inputs of capital” (Smith and Todaro, 2012, p.142-143). Smith and Todaro (2012) state “in labor-abundant (capital-scarce) developing countries, capital-saving technological progress is what is needed most” (p.142-143). One of the reasons for using Foreign Direct Investment (FDI) as an explanatory variable is because “FDI is often used as a measure of a country’s overall openness, competitiveness, and globalization” (Kiggundu, 2002, p.152). It is also used because “it increases a country’s capital stock, creates employment, generates domestic income and savings, and facilitates technology transfer and management know-how”, which could therefore be used to increase GDP per capita (Kiggundu, 2002, p.152). When developed countries and corporations send their FDI, they also send their technological experiences and industrial methods to less developed countries. FDI inflow therefore helps less developed countries develop with the expertise of those countries already industrialized. The more FDI developing countries receive, the more experience they learn from developed countries because agreements in FDI often include less developed countries adopting capitalistic qualities in the economy and democratic systems. Therefore, an increase in the FDI means more economic growth for the transitioning economies.

By individually examining all components of growth, physical capital, population, and technology,

to see the effects on growth, it is hypothesized that countries similar to Slovenia's economic growth patterns will have larger economic growth rates and have overall higher progress in the components of growth.

IV. DATA

The data collected is from the World Bank Databank from years 2000 to 2011 (World Bank Databank). Some countries, such as Montenegro, lack data entirely and will only be used in comparison when data is available. By acknowledging the lack of data, future studies must be conducted when data is more available.

V. RESEARCH DESIGN

Two methodologies will be used to assess which country has the best average mean in comparison to other countries and if the means of the data set are significant enough to determine a similarity to Slovenia's means. The dependent variable is GDP per Capita growth rates, calculated using 2005 constant international dollars. The explanatory variables are the domestic savings rate, foreign direct investment, population growth, and labor force participation rate.

A. Descriptive Statistics

Since this dataset lacks large variation and figures, descriptive statistics will be used to examine how countries rank based on individual growth components. Descriptive statistics will examine the following problems:

1. Which country has the best (worst) average mean of the individual growth component?
2. Taking all rankings into account, which countries rank the highest/lowest?

B. Means Hypothesis Testing

First, averages of each component are calculated for 2000 through 2011 using Slovenia as the main frame of reference. Every country will be examined individually relative to Slovenia.

Hypothesis testing using t-tests on the means will look as follows for each mean growth component:

- H_0 : There is no difference between a country's mean and the Slovenian mean for that specific growth component
- H_a : There is a difference between a country's mean and the Slovenian mean for that specific growth component

Compute the standard deviation with the following equation:

$$\delta = \sqrt{\frac{1}{N} \sum_{i=1}^N (x_i - \mu)^2}$$

Next compute the standard error with the following equation:

$$\delta \bar{x} = \frac{\delta}{\sqrt{n}}$$

The Critical Value Approach will be used to determine whether or not the null hypothesis should be rejected:

$$Z = \frac{\bar{x} - \mu}{\delta / \sqrt{n}}$$

The z-value for the two-tailed test will determine the significance levels for the individual countries and their components of growth for alphas equal to 0.01 and 0.05 for all tests, so that $z(\alpha 0.01) = 2.326$ and $z(\alpha 0.05) = 1.645$.

VI. RESULTS

The results section contains two sub-sections, descriptive statistics and means hypothesis testing, in order to analyze the components of economic growth for the former Yugoslavian countries relative to Slovenia.

A. Descriptive Statistics

The appendix contains Table 2 which summarizes the rankings of all five countries based on the means calculated in Table 3. The rankings provide a sense of which countries are doing the best in each component of growth category and overall economic growth.

Slovenia has the most top rankings, and Serbia and Croatia are next with three second rankings each. The rest have different ranking numbers for all the categories and do not follow any patterns. It is interesting to note, however, that Slovenia has two sixth rankings in GDP per capita growth and FDI inflows, although it is the top ranking country overall.

B. Means Hypothesis Testing

Table 3 summarizes the results from the means hypothesis testing. The means that fail to reject the null hypotheses are indicated by a bold "accept" in the right-hand columns.

The first means that are accepted by hypothesis

testing are the GDP per capita growth rates of Croatia (0.05 and 0.01 significance levels), Macedonia (0.01 significance level), and Montenegro (0.01 significance level). This suggests that the countries listed above have similar GDP per capita growth means to Slovenia. If Croatia, Macedonia, and Montenegro have similar means, this also signifies that these countries are on track for economic growth because they are following the same mean for GDP per capita as Slovenia. The other countries, Serbia and Bosnia and Herzegovina, did not fail to reject the null hypothesis and are, therefore, not exhibiting similar economic growth patterns as Slovenia.

The means hypothesis test for domestic saving rates found that Bosnia-Herzegovina and Montenegro both fail to reject the null hypothesis. However, by using descriptive statistics, this cannot be true. Both countries experienced negative rates of domestic savings rates, nowhere near the domestic savings rates of Slovenia. This could have resulted because the negative domestic savings rates were squared in order to find the z value. Therefore, no country has means similar to Slovenia's means and are not following the domestic savings rates average means to increase overall economic growth.

The only two countries to fail to reject the null hypothesis for FDI inflows were Serbia (0.05 significance level) and Montenegro (0.05 and 0.01 significance levels). This suggests that Serbia and Montenegro are receiving equal levels of FDI inflows or more to boost economic growth. Other countries, such as Croatia, Bosnia-Herzegovina, and Macedonia, have lower mean FDI inflows than Slovenia and therefore are not going to exhibit economic growth patterns like Slovenia.

The only country to fail to reject the null hypothesis for FDI outflows was Croatia (0.01 significance level). This suggests that Croatia and Slovenia have similar FDI outflow means while the other countries are not significantly close enough to Slovenia's means. Therefore, Croatia is the only country that follows an average mean of FDI outflow close enough to Slovenia.

Several countries fail to reject the null hypothesis for the means of population growth. Croatia (0.05 significance level), Serbia (0.05 and 0.01 significance levels), and Bosnia-Herzegovina (0.05 and 0.01 significance levels) fail to reject the null hypothesis. Therefore, their population growth means are statistically similar to Slovenia's population growth

mean and are on the right track for economic growth by following Slovenia. Macedonia and Montenegro, on the other hand, are not following Slovenia in terms of this component of growth.

No countries fail to reject the null hypothesis for the means of labor force participation rates because they either do not have the same average means as Slovenia or they do not report labor force participation rates.

VII. DISCUSSION

Based on the results above, several conclusions can be made about which countries are the most successful and what components of growth added to their success. Slovenia, the reference country, is ranked first and outperforms the other countries in terms of domestic savings rates, FDI outflows, and labor force participation rates. Serbia and Croatia are next in rank. Serbia has good performance in GDP per capita growth, FDI inflows, and FDI outflows, but does not record its labor force participation rate. Croatia is second in real GDP per capita, domestic savings rates, and labor force participation; however, other components of growth are lacking. Regardless, Bosnia and Herzegovina, Macedonia, and Montenegro are still countries that lack in increasing their components of growth and need to adopt policies that will promote these increases. For example, there is a need for more capital accumulation, since no countries exhibit similar domestic savings rates to Slovenia and should adjust interest rates to incentivize savings. Some countries, like Montenegro, were very successful in attracting FDI; however, they are not stable and developed enough to send FDI out such as Slovenia and Croatia. Other countries are increasing their population growth rates to replace their depleted populations, like Croatia, Serbia, and Bosnia and Herzegovina. Countries like Montenegro and Serbia need to record their labor force participation rates so that they know what kind of policies to implement to spur labor participation and ultimately productivity.

VIII. CONCLUSION

In order to transition successfully, Bosnia and Herzegovina, Macedonia, and Montenegro have to increase their components of economic growth to reach Slovenia's level. There are several ways these countries can do this. In order to increase GDP per capita growth rates, they have to produce more output. To increase overall output, components of economic growth must be increased, with the most significant being FDI inflows. To increase FDI inflows, the least successful countries

should open their borders to foreign investors who bring money and technology into the country to spur economic activity. Either way, the governments of the former Yugoslavia must provide policies that encourage and promote economic growth to increase so that they can be as successful as Slovenia in economic growth and transitioning.

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XI. APPENDIX

Table I: Breakup of the Former Yugoslavia	
Country	Year of Independence
Slovenia	June 1991
Croatia	June 1991
Macedonia	September 1991
Bosnia & Herzegovina	January 1991
Montenegro	June 2006
Serbia	June 2006
*Montenegro & Serbia reported individual figures from 1997 onward to the World Bank	

Figure 1.1: GDP Per Capita Growth of the Former Yugoslavia During Civil War

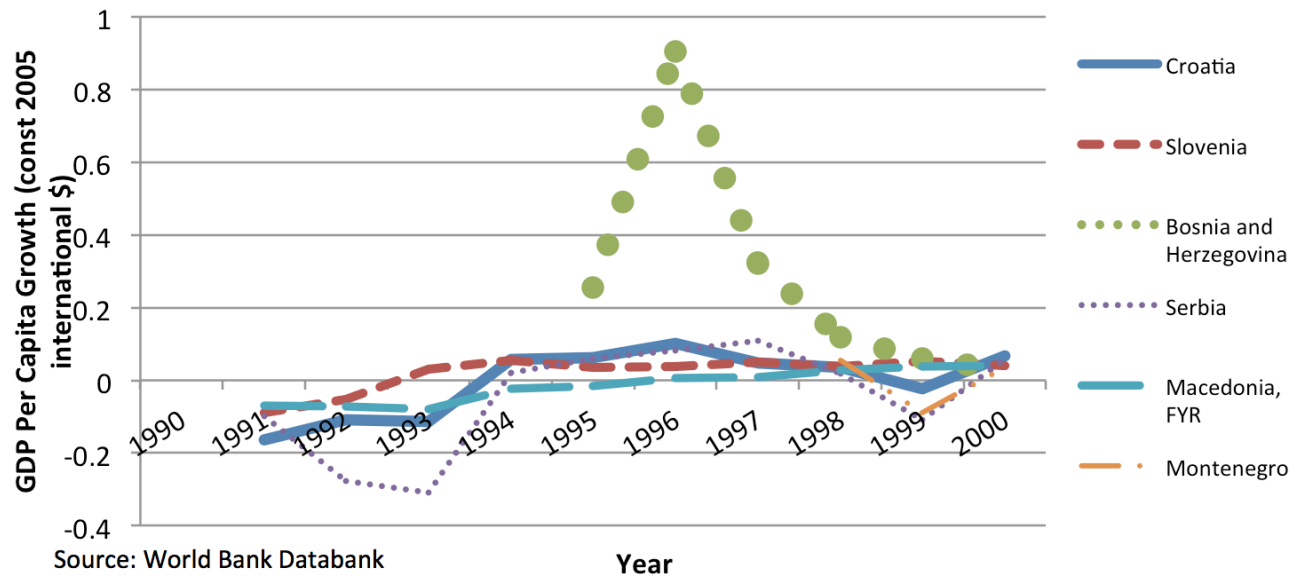


Table 2: Country Rank

Country	Real GDP per Capita	GDP per Capita %	Domestic Savings Rate	FDI Inflows	FDI Outflows	Pop. Growth Rates	Labor Force Part. Rate
Slovenia	1	6	1	6	1	3	1
Croatia	2	5	2	4	3	5	2
Macedonia	5	4	3	3	5	2	3
Bosnia & Herzegovina	4	1	6	5	4	1	4
Montenegro	3	3	5	1	---	4	---
Serbia	6	2	4	2	2	6	---

* Ranking based on means from 2000 to 2011 and are in Table 3

Table 3: Hypothesis Tests on Components of Growth

	Mean	Std. Dev.	Std. Error	Z-Value	Alpha 0.05	Alpha 0.01
Real GDP per Capita (constant 2005 International \$)						
Slovenia	23505.32					
Croatia	6489.77	962.08	290.08	-21.37	Reject	Reject
Bosnia & Herz.	8442.45	1219.9	367.82	-21.95	Reject	Reject
Macedonia	8165.00	912.23	275.04	-28.69	Reject	Reject
Montenegro	8770.44	1348.82	406.68	-20.57	Reject	Reject
GDP per Capita Growth Rates						
Slovenia	0.0171					
Croatia	0.0237	0.0395	0.0119	-0.9883	Accept	Accept
Serbia	0.0367	0.0272	0.0082	-3.4722	Reject	Reject
Bosnia & Herz.	0.0401	0.0307	0.0092	-3.3188	Reject	Reject
Macedonia	0.0246	0.0305	0.0092	-1.676	Reject	Accept

Table 3: Hypothesis Tests on Components of Growth						
Montenegro	0.0361	0.0409	0.0123	-1.9266	Reject	Accept
Gross Domestic Savings Rates (% of GDP)						
Slovenia	25.71					
Croatia	20.57	2.61	0.79	-25.11	Reject	Reject
Serbia	0.83	6.05	1.82	0.55	Reject	Reject
Bosnia & Herz.	-15.44	12.49	3.77	5.10	Accept	Accept
Macedonia	4.12	2.16	0.65	-5.32	Reject	Reject
Montenegro	-4.08	6.29	1.90	3.15	Accept	Accept
FDI Inflows						
Slovenia	2.12					
Croatia	5.08	2.45	0.73	-5.89	Reject	Reject
Serbia	6.02	4.23	2.30	-	Accept	Reject
Bosnia & Herz.	4.68	3.39	1.02	-3.58	Reject	Reject
Macedonia	5.10	3.32	1.00	4.10	Reject	Reject
Montenegro	25.52	36.77	18.39	0.39	Accept	Accept
FDI Outflows						
Slovenia	1.33					
Croatia	0.78	0.79	0.24	-2.26	Reject	Accept
Serbia	1.27	1.27	0.38	-2.47	Reject	Reject
Bosnia & Herz.	0.09	0.11	0.03	-23.99	Reject	Reject
Macedonia	0.01	0.06	0.02	-4.07	Reject	Reject
Montenegro	0	0	-	-	-	-
Population Growth Rates						
Slovenia	0.28					
Croatia	-0.27	0.25	0.25	2.10	Accept	Reject
Serbia	-0.31	0.04	0.04	9.77	Accept	Accept
Bosnia & Herz.	0.34	0.25	0.25	-0.34	Accept	Accept
Macedonia	0.26	0.02	0.02	-11.85	Reject	Reject
Montenegro	-0.05	0.07	0.07	1.64	Reject	Reject
Labor Force Participation Rates						
Slovenia	69.75					
Croatia	64.65	20.45	6.47	-9.78	Reject	Reject
Serbia	-	-	-	-	-	-
Bosnia & Herz.	52.16	16.54	5.23	11.36	Reject	Reject
Macedonia	61.76	19.61	6.20	1	Reject	Reject
Montenegro	-	-	-	-	-	-
Reject H_0 if						
$\alpha = 0.5$ $\alpha = 0.01$						
$\alpha \geq -1.645$ or $1.645 \leq \alpha$ $\alpha \geq -2.326$ or $2.326 \leq \alpha$						