2008 Crises in Economies of Balkan Countries

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2008 CRISES IN ECONOMIES OF BALKAN COUNTRIES

Cooperation Opportunities on Regional Bases

Balkan countries, block of Albania, Serbia, Bosnia, Bulgaria, Romania, Montenegro, Macedonia have somewhat specific path toward future economic growth. Although some of them are part of EU Community (Bulgaria, Romania) and they have experienced the highest GDP growth rate 2014/2000 , significant number of countries still wait to become member of EU and to be able to further form a bridge toward Asia, Middle East, Africa. Ways to make further progress in such a heterogeneous environment, consequences of 2008 crises and ways how to incorporate predictions in GDP reasoning are some of points that this paper tackles.

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Poslanica Titu

Ali kad se pojavila dobrostivost i čovjekoljublje Spasitelja našeg, Boga, on nas spasi ne po djelima što ih u pravednosti mi učinismo ,nego po svojem milosrđu.

A ludih se rasprava, i rodoslovlja, i svađa i sukoba zakonskih kloni:beskorisni su i isprazni.

2008 CRISES IN ECONOMIES OF BALKAN COUNTRIES

Cooperation Opportunities on Regional Base

0. Introduction

Very long history of change is present on the region of Balkan Peninsula with many states , variety of forms of living , different values. For the western worlds this part was known as the area where the train goes toward Orient with Orient Express until war time 90 ies. Somewhat at glance opinion about the region can be far from true and area through ages developed significant industries, cultural values with beautiful scenery and important monasteries to be visited. With break up of Soviet Union area struggled with inner differences and went through privatization process that is still under way in certain countries. Some countries managed to become a member of EU Community (Romania, Bulgaria) that brought them additional benefits and growth potentials while others still wait for this process to start or are in negotiation phase. What is common to all of them is that 2008 world crises impacted their economies also, reducing GDP growth , again bringing the question of rising unemployment, interest rate, rising debt and questions long term strategies for each country but as well as a region. Since it is not a secret for market economies that in time passes through up/down cycles western world was to some extent warned about dangers and potentials of each phase, but majority of Balkan economies were part of planned economic system and need additional caution regarding upside and downside fluctuations. Although growth brings prosperity it is a time to make solid ground for future lower than expected growth potentials or difficulties, while downside trend can also bring benefits if proper cooperation between state, banks, social and businesses structures are made. Paper tried to tackle some relation in basic GDP regressions in time before and after crises, and tried to accent prior crises potentials in cooperation that can be made on regional level. It can further be explored more how the countries communicate in the new form of bigger states (EU), do they use common ground in legal political stand to induce better communication in business, cultural and social relation, do they achieve some common project or continue with narrow game strategies etc.

History of relationships is somewhat explained with maps (*Appendix I*) and some musical representation of countries were tried by author (*Appendix II*).

1. Literature

There is generally growing number of papers that tackle Balkan countries .This number is increased with statistical references from the major Institutions and Organization as well as number of people that try to introduce some business relation in that part of the world. If we compare number of graduates in the last ten years and number of paper this region still lags significantly after their peer in the most of EU developed regions and falling number of patents signals industrial slow down.

It is interesting facts that is hard to find larger number of papers and books that are written in the period before market economy was introduced on Balkan peninsula. This was the region of planned economies with strong industry, very low or no unemployment rate, strong social sensitivity and more or less closed to open markets. Economist at that time was occupied with planning the ten twenty years business structure in strong relation with policies of states. While this system provided full employment and progress to majority nobody was interested in research and introduction of extreme market economies. This low level of pro and contra in paper and studies later turned out to be obstacle for these economies while being unprepared for the market based business. With time they gain knowledge about market through various programs but real aim and privatization topics of economies were unclear. Market economies however gain their own touch of Balkan understandings as the way how operate on the Stock Market, do privatization or understand what market do or do not.

2.Three questions

This work tries to tackle three questions: is the growth in region related to its own demand/supply forces or is influenced by the world /EU economies and to what extent, after period of crises is this part of the world back on track regarding regional cooperation, who are the leading forces if they exist, how the biggest economies (USA,EU) with their own policy influence cooperation and GDP growth in region.

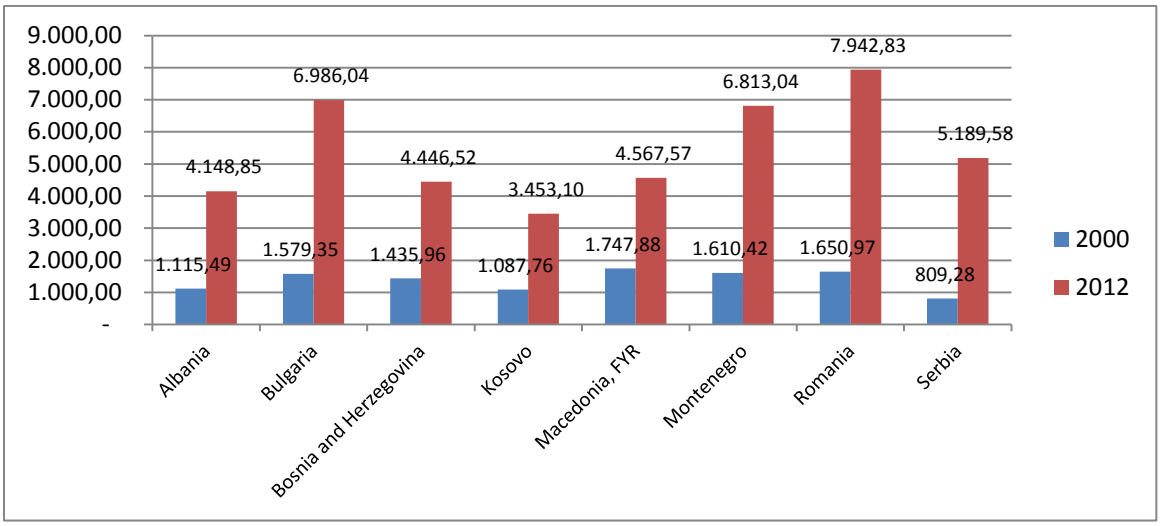
2.1. Influence of crises to region

By observing data about GDP growth from the period 2000 until now we can't say that Balkan region stagnated but what turned out to be an issue is unequal development, differentiation in GDP picture, different growth opportunities (some are member of EU and some not) , and prospect that depends upon economic situation in EU/USA larger economies that small open countries do not have influence or proper protection of consequences if further economic deterioration happens again.

Table 1: GDP /capita USD

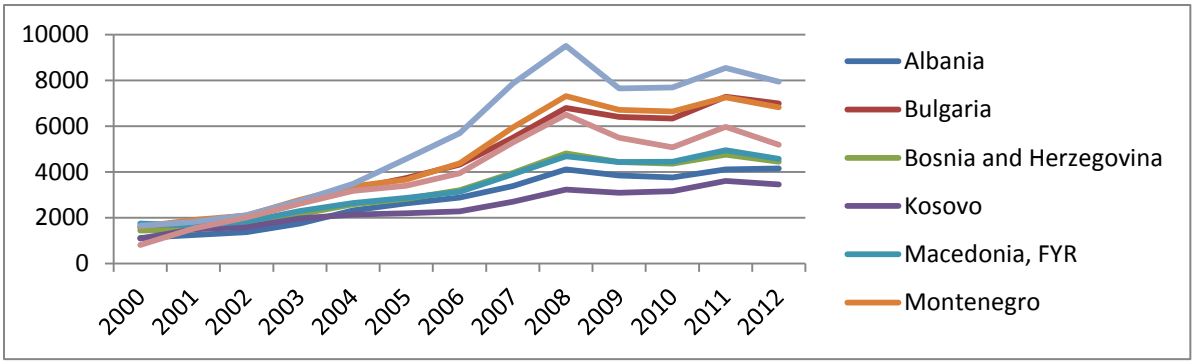
	2000	**2012**	**2012/2000**
Albania	1.115,49	4.148,85	371,93
Bulgaria	1.579,35	6.986,04	442,34
Bosnia and Herzegovina	1.435,96	4.446,52	309,66
Kosovo	1.087,76	3.453,10	317,45
Macedonia, FYR	1.747,88	4.567,57	261,32
Montenegro	1.610,42	6.813,04	423,06
Romania	1.650,97	7.942,83	481,10
Serbia	809,28	5.189,58	641,26

The largest GDP/capita is observed in Romania , Bulgaria and Montenegro and this is end result of GDP increase of almost five to four time in observed period.



Picture 1

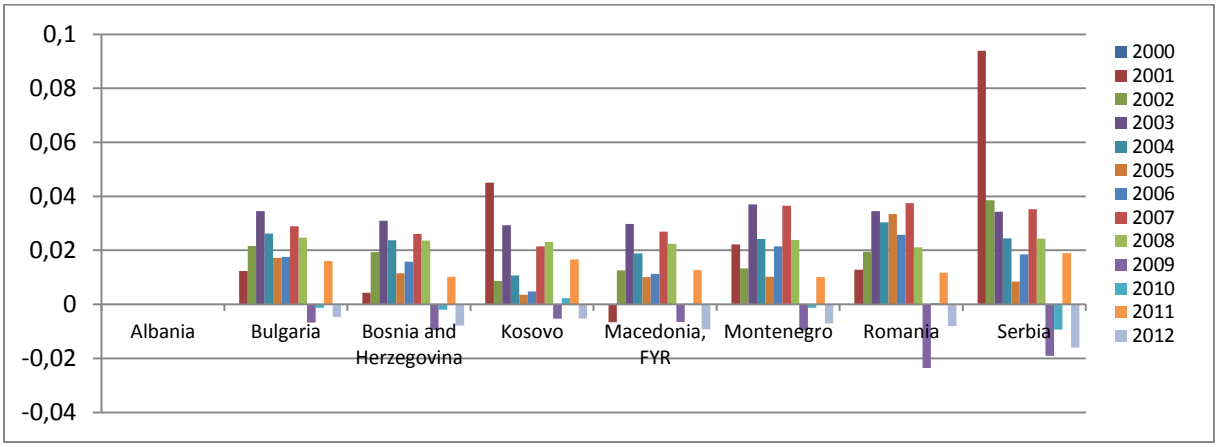
What is further strong and worrisome fact is that all countries came from similar economic backgrounds, with more or less equal GDP/capita level to find itself on different growth potential paths. This fact is primarily related to EU membership process, some natural favorable characteristics (sea, Black Sea) not land lock countries, bigger trading prospects, but and this strong rise - especially observed at Romania Bulgaria was somewhat slowed down after 2008 world economic crises. After the first strong decline in GDP picture countries continue with growth process finding itself faced with its own weaknesses after obtaining 2011 GDP/growth downward number. This fact showed that small open economies are vulnerable to world economic crises and do not recover as the big ones at later periods. On contrary their economies can later show inner weaknesses that can bring problems if proper long term structuring decisions are not taken as should, regional economic differences are not solved, regional cooperation is reduced and not supported, growth potential is again introduced from outside and not from productivity inside etc.



Picture 2

Picture 3 shows 2009 as a turning point in growth for majority of Balkan economies with Serbia and Romania experienced the largest fall in GDP. Further process of growth (2012 GDP decline) however was not in line with the world economies but more with unrealistic expectations from EU (new member countries), not developing inner opportunities, lagging with modernization process in existing economic processes, and game strategies instead of regional cooperation.

Picture 3



Picture 4

2.2. Cooperation and leaders

Table that is presented below is a result of trade that was present in 2012. While the world is a global place this export/import picture is a way of change on daily basis. Still some basics remain and conclusion can be reached if we look the most traded countries. Surprisingly it is not a larger number of trading partners in neighborhood and land locked countries tend to be more active in having export/import relation . Albania tends to trade overseas with Italy, but of significance are Germany and China. For Bosnia, Germany and Austria are relevant partners and certain trade amounts are reached with Croatia. Bulgaria exports to Germany and Turkey, with import partners coming from Russia and Germany, Macedonia also trade with Germany UK, Italy the most, Serbia chooses beside Germany and Russia some neighboring states and Romania also prefers relation with big economies.

Table 2: Export /Import Partners / Regional Cooperation

	Export partners	**Import partners**	**Regional Cooperation**
Albania	Italy 44.2%, Spain 9%, China 6.8%, Greece 4.9%, Turkey 4.7% (2012)	Italy 34.9%, Greece 11.7%, China 7.5%, Turkey 5.6%, Germany 4.3% (2012)	0
Bosnia	Slovenia 17.3%, Croatia 16.5%, Italy 13.6%, Germany 12.8%, Austria 12.7% (2012)	Croatia 21.1%, Germany 12.5%, Slovenia 12.4%, Italy 9%, Russia 7.3%, Austria 6.1%, Hungary 4.9%, Greece 4.3% (2012)	2+2=4
Bulgaria	Germany 10.4%, Turkey 9.1%, Italy 8.7%, Romania 8.2%, Greece 7.3%, France 4% (2012)	Russia 20.9%, Germany 11.3%, Italy 6.7%, Romania 6.6%, Greece 6.1%, Turkey 4.6%, Spain 4.5% (2012)	1+1=2
Macedonia	Germany 25.5%, Italy 6.1%, Bulgaria 5.2%, Greece 4.5% (2012)	Greece 17.7%, Germany 11.5%, UK 9.3%, Bulgaria 8.7%, Italy 5%, Turkey 4.8% (2012)	1+1=2
Montenegro	Croatia 22.7%, Serbia 22.7%, Slovenia 7.8% (2012 est.)	Serbia 29.3%, Greece 8.7%, China 7.1% (2012 est.)	3+1=4
Serbia	Germany 1316; Bosnia 1082;Romania 936; Russia 867 ; Montenegro 799	Germany 2066;Russia 2079; Italy 1840; Hungary 937; Romania 825	3+1=4
Romania	Germany 18.9%, Italy 12.3%, France 7.1%, Turkey 5.5%, Hungary 5.5% (2012)	Germany 17.5%, Italy 11%, Hungary 9.1%, France 5.7%, Russia 4.4%, Poland 4.3%, Austria 4.2%, Kazakhstan 4.1% (2012)	0 (Hungary =1 but not entirely on Balkan)

What is visible is strong relation toward Germany as a leading force and economy in EU, Germany presents long term import but also export partner bringing surplus to Bosna, Macedonia and Romania and deficit to Albania, Bulgaria, Serbia.

Table 3: Relation to Germany - large EU economy

	Germany relationship as EU significant country leader
Albania	Import 4,3% ; Deficit -4,3 %
Bosnia	Export 12,8 %; Import 12,5%; Suficit 0,3 %
Bulgaria	Export 10,4%; Import 11,3% Deficit =-0,9 %
Macedonia	Export 25,5% Import 11,5 % Suficit 14 %
Serbia	Export 13,16; Import 20,66; Deficit -7,50%
Romania	Export 18,9%;Import 17,2%; Suficit 1,7%

2.3.Global forces

a) EU/USA

In order to better realize all potentials and obstacles that each economy went through some differences between the biggest economies are presented. There is not an unique road that each country should follow but is an complex structure of political, economical, energy , cultural and even religious decisions that determines outcome of certain process. Even the biggest can create different opinion and influence each other on positive or negative way.

Although it looks that USA as more homogenous structure that exist for longer period of time have a greater flexibility and faster reaction on problems , EU still fights following its own set of procedures and rules and try to put as much emphases as it could on social and regional policies and development. The most recent arguments were made on base on different opinions on GMO, privatization , workers rights, although EU and USA tried to find common policy with Transatlantic Free Trade Agreement , or Transatlantic Trade and Investment Partnership (both not well known in public).

2008 crises brought USA to have in 2009 negative price rate while EU made a more modest decline, and in the later periods EU experienced faster price growing rate than it's over ocean counterpart.

CPI

	2007	2008	2009	2010	2011	2012
European Union	2,633695	4,204767	0,950366	1,669817	3,309678	2,718769
United States	2,852672	3,8391	-0,35555	1,640043	3,156842	2,069337

Table 4

The second negative impact of the crises was job uncertainties and job loss in both economies. But, while this was less temporal in USA it had a longer rising trend in EU.

Unemployment

	2005	2006	2007	2008	2009	2010	2011
United States	5,1	4,6	4,6	5,8	9,3	9,6	8,9
EU	8,9107	8,196183	7,149292	6,930026	8,913684	9,598222	9,582526

Table 5

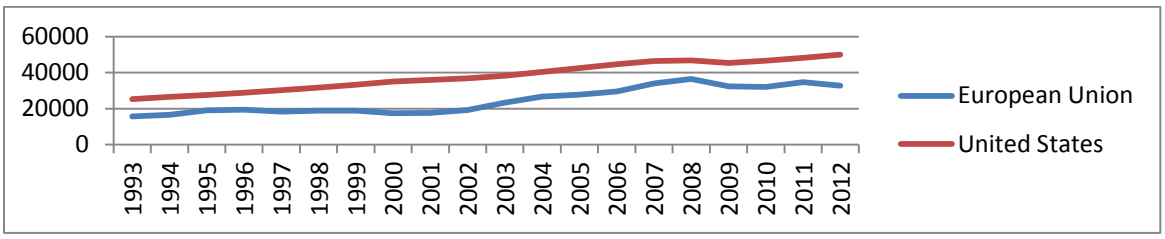
There is a still difference between EU/USA in GDP level , with additional burden of greater diversification in EU, debt struggle of large and significant economies (Greece, Italy etc.)

GDP /capita (USD)

	2006	2007	2008	2009	2010	2011	2012
EU	29.533,61	34.000,35	36.409,65	32.431	32.037,07	34.755,25	32.676,48
United States	44.622,64	46.349,12	46.759,56	45.305,05	46.615,51	48.112,6	49.965,27

Table 6

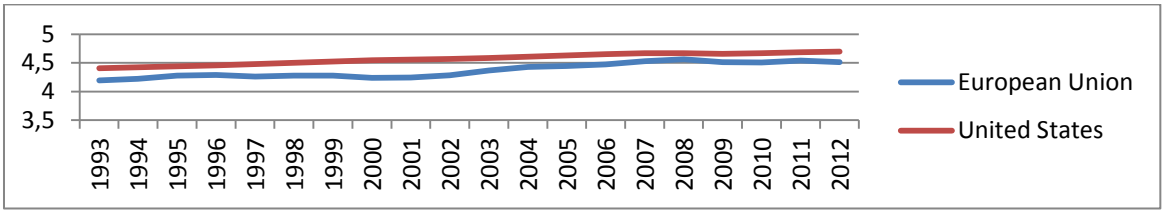
GDP /capita



Picture 5

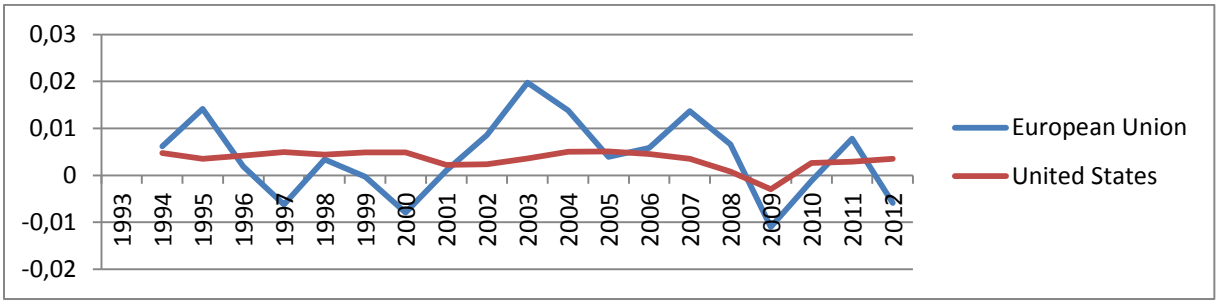
In order to understand impact of 2008 crises better it representation of log difference form is taken into picture. Although both economies have experienced lag in GDP , the bigger negative impact is observed in EU Community (*Picture 7*) where the 2009 brought full picture of weaknesses in economic structure.

GDP log



Picture 6

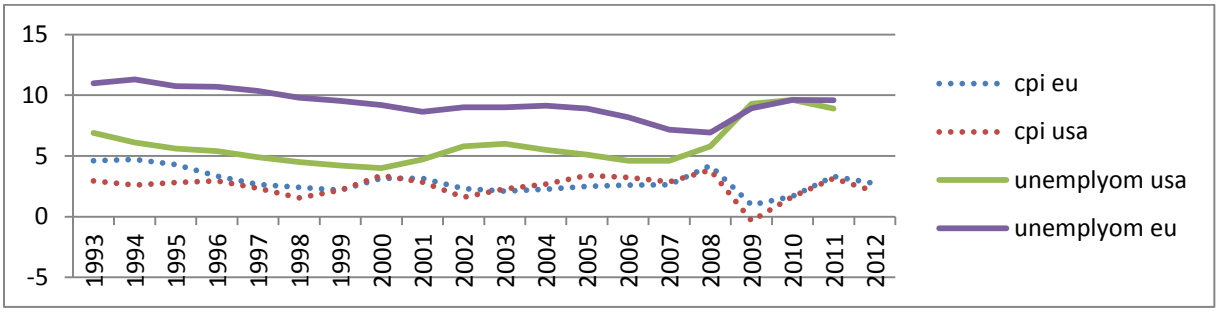
GDP log diff



Picture 7

Different picture is observed also in relation toward unemployment/inflation relation in both big economies. While USA had for a long time unemployment rate around 6% to be increased promptly with crises and later reduced, EU struggled with long term high unemployment rates above 10% who declined toward 2008 and with crises balanced back on higher rates. Both economies decreased prices in 2009 even to negative rates to be raised again toward 2% with recovery process in hand.

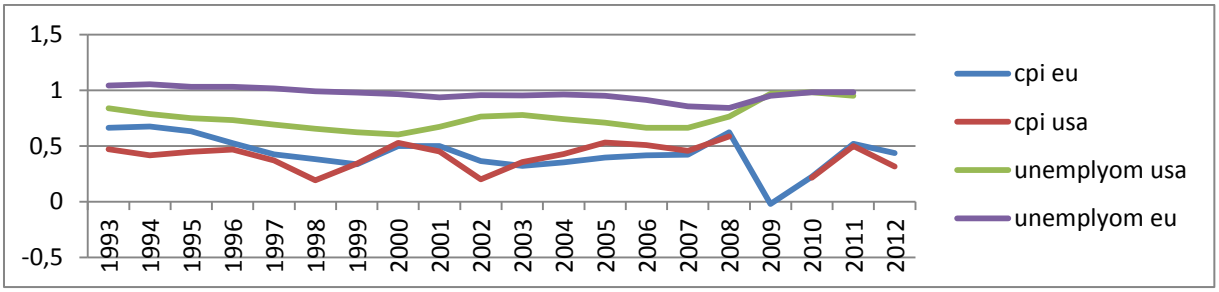
CPI /Unemployment EU USA



Picture 8

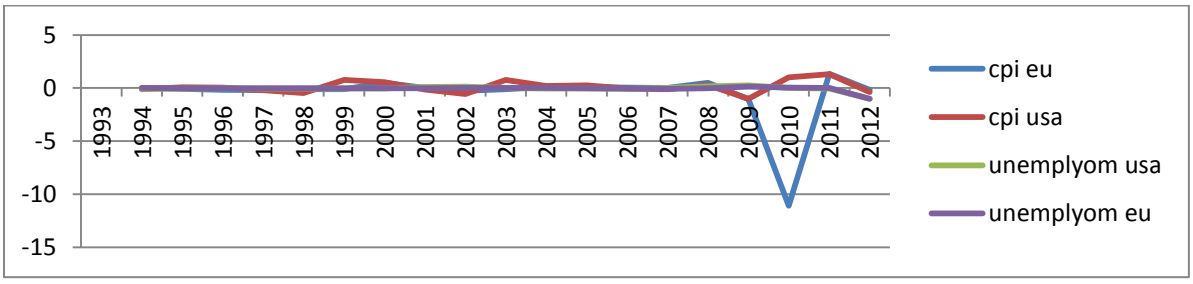
These four variables are presented in log form and difference between years observed. It is visible that the largest difference in trend was in CPI 2009/2010 (from negative to positive trend).

Log cpi log unemployment



Picture 9

Log diff cpi unemployment



Picture 10

Relation between unemployment/CPI has in USA expected reversed relation (one grows other falls) , while in EU is somewhat distorted (almost linear relation) – both are calculated in log form of original values.

Employment USA =0,779-0,16259 CPI

Employment EU=0,886+0,07592 CPI

3. Main aggregates

The main driving forces in economy are presented by GDP rise, GDP potentials and strategies, inclination to depend or not toward world economy, productivity, tourism, energy potentials, industry ,agriculture ,transport and storage and many other areas of human activities. Natural potentials are further managed by fiscal and monetary policies.

Some basic relation and structure of each Balkan country is presented .

GDP
-Consumption government households
-Investment-foreign domestic
-Import Export goods services
-Former GDP
-Monetary Fiscal Policy overall

Tourism
-Number of tourist arrival
-Revenue from tourism
-Taxes, fees from tourist
-Traveling cost-oil, card, plane, bus
-Marketing and further arrivals

Energy
-Energy production
-Energy consumption
-Type of energy renewable non renew
-Diversification of sources
-Storage Sale Communication

Industry
-Type of industries
-Specialization
-Revenue from industry
-Future plans investment
-Number of employees

Agriculture
-Area of land sq km
-Area under plants, wheat's, maize etc
-Forest
-Diversity of agricultural plants
-Revenue from agriculture

Transport Communication Storage
-Number of transport routs km
-Telephone, internet connection usage
-Storage facilities m^3
-Revenue from each part
-Modernization, Security, People , Service

3.1. GDP

Each Balkan country has changed planned economy for market based system fully incorporating knowledge of Production, Expenditure and Income Approach in its statistical measurement and presentation of economic results and potentials.

GDP Approach

Production Approach	***Expenditure Approach***	***Income Approach***
GDP=GVA+TP+D-SP	***GDP=FC+GFCF+CS+(E-I)***	***GDP=C+GOS+OTP-OSP+TP+D-SP***
GDP= Gross domestic production at market prices	*FC =Final Consumption*	*C=Compensation of employees*
GVA=Gross Value Added	*GFCF=Gross fixed capital formation*	*GOS=Gross operative surpluses*
TP= Tax on product	*CS =Change in inventories*	*OTP=Other tax on product*
D=Import Duties	*E =Export of goods and services*	*OSP=Other subsidies on product*
S=Subsidies on Product	*I =Imports of goods and services*	*TP=Taxes on product*

Table 6

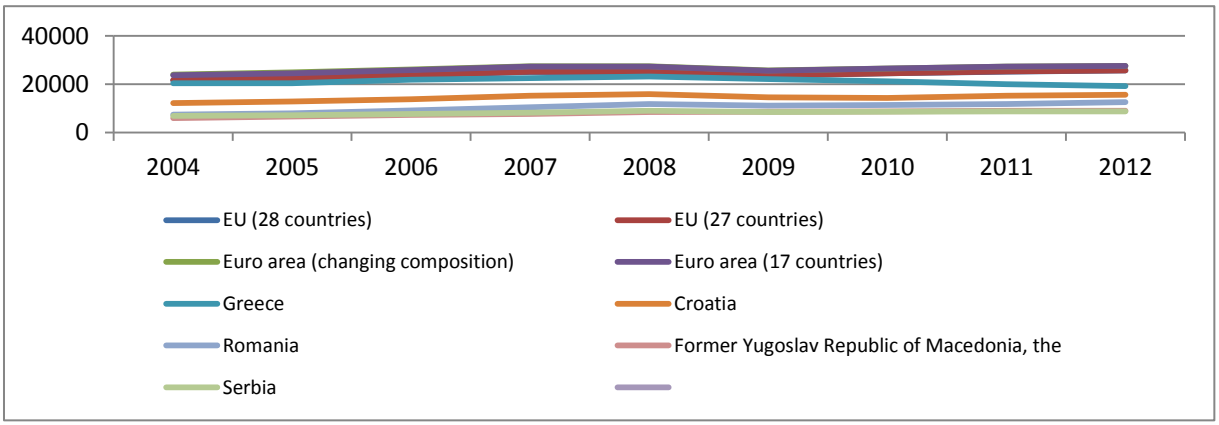
By changing the system GDP level did not automatically rise (Table 7 years around 2008) still exist huge difference in GDP level in EU area, where EU membership offers impulse to growth and further rise in GDP (comparison Serbia-Romania for example) or huge growth in GDP/capita 2010/2011 in countries such as Switzerland other areas in Europe (difference in GDP capita Switzerland in 2008 48.800 EUR/capita and in 2011 63.400 EUR/capita) what is further income level differentiation.

GDP /capita (USD)

	2006	2007	2008	2009	2010	2011
EU (28 countries)	23.600,00	25.000,00	25.000,00	23.500,00	24.400,00	25.100,00
EU (27 countries)	23.700,00	25.100,00	25.100,00	23.500,00	24.500,00	25.200,00
Euro area (changing composition)	26.100,00	27.400,00	27.400,00	25.600,00	26.500,00	27.200,00
Euro area (17 countries)	25.800,00	27.200,00	27.200,00	25.500,00	26.500,00	27.200,00
Greece	21.800,00	22.500,00	23.100,00	22.100,00	21.200,00	19.900,00
Croatia	13.700,00	15.200,00	15.800,00	14.500,00	14.300,00	15.200,00
Romania	9.100,00	10.400,00	11.700,00	11.100,00	11.400,00	11.800,00
FYR Macedonia	7.200,00	7.700,00	8.400,00	8.500,00	8.700,00	8.900,00
Serbia	7.700,00	8.200,00	9.000,00	8.400,00	8.500,00	8.700,00

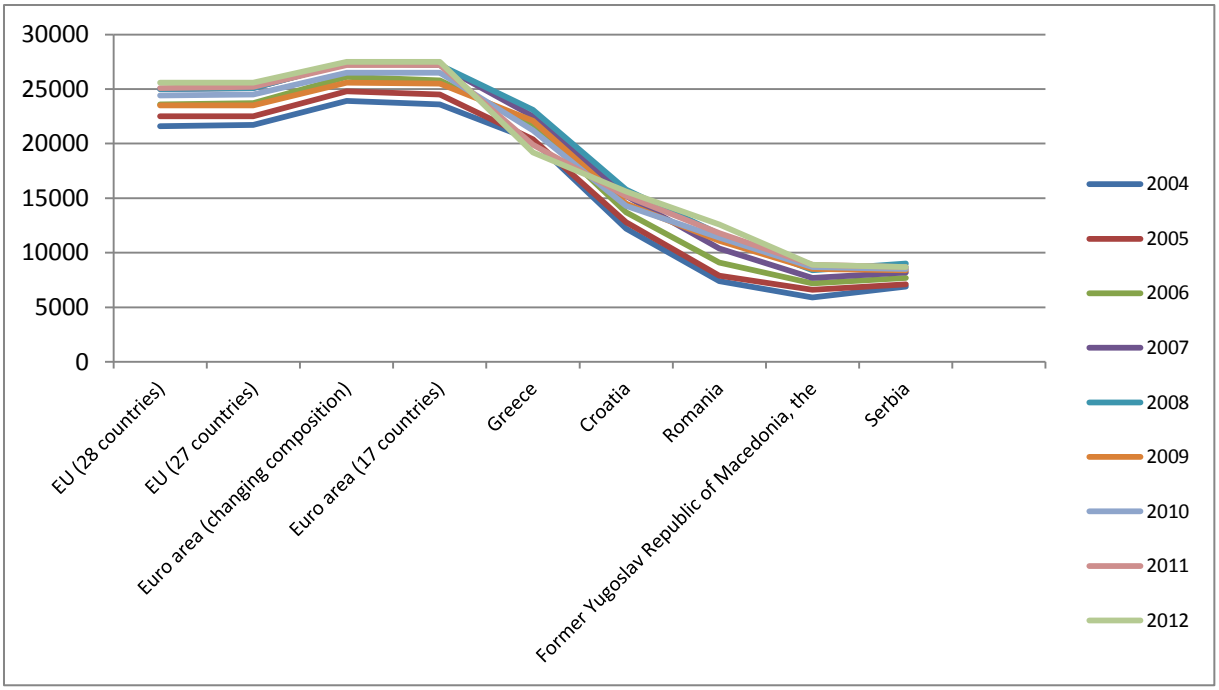
Table 7

What is further to be noticed on picture is lag of income in 2008-2010 period where some of the EU countries continued with declining GDP rate (Greece) ,some do not make significant progress (Serbia) and total EU 28 continued with GDP growth but with slower than expected rate.



Picture 11

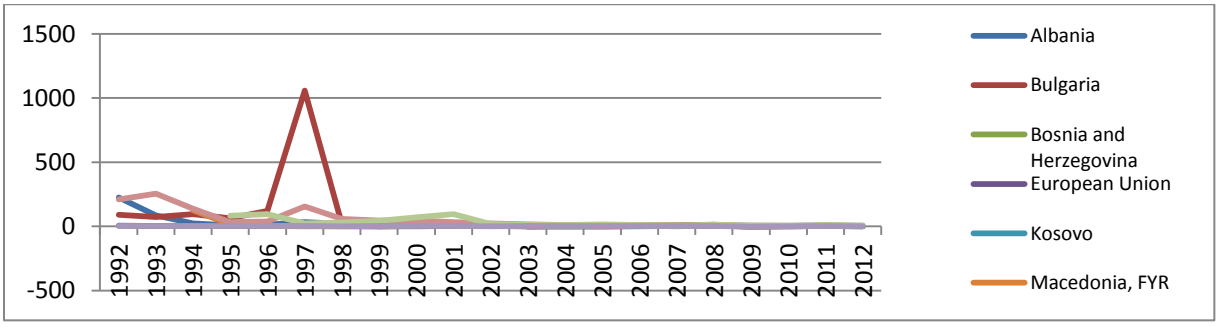
If the countries such as Switzerland or Norway exempted from the picture we can conclude that Euro area is enriched with highest GDP/capita rate, and Serbia with FYR Macedonia (non EU member) are among those with the lowest GDP /capita level.



Picture 12

The second macroeconomic variable is CPI. With time the majority of countries tried to decreased its level, Bulgaria had experienced crises in 1997 but with EU membership prices lowered to 2,7% in 2009 to be increased somewhat after that period again.

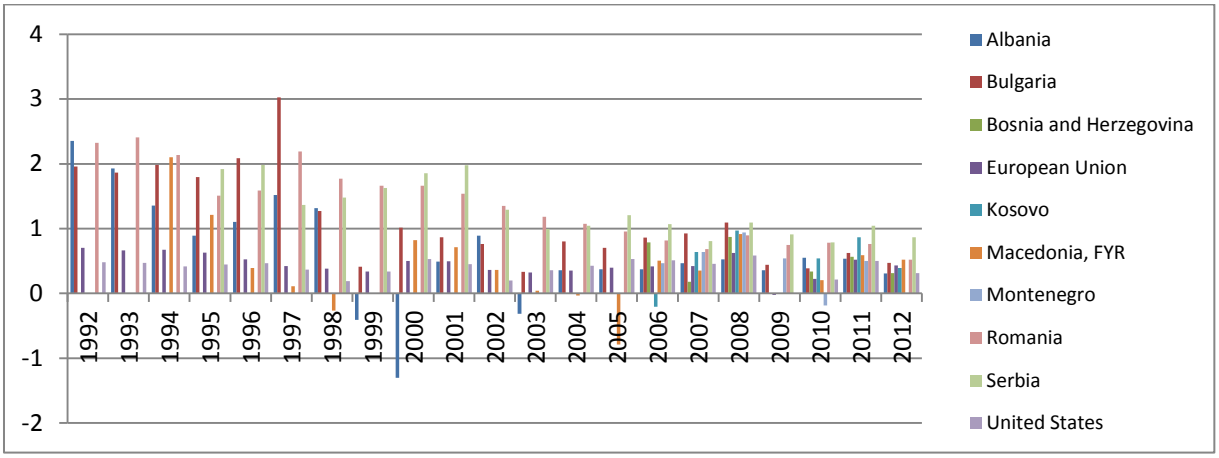
CPI



Picture 13

Overall is to be observed that with larger EU body , common policy and economic strategy CPI level tend to decrease. It had experienced negative rates after 2008 crises to be back on 2-4% in the EU region.

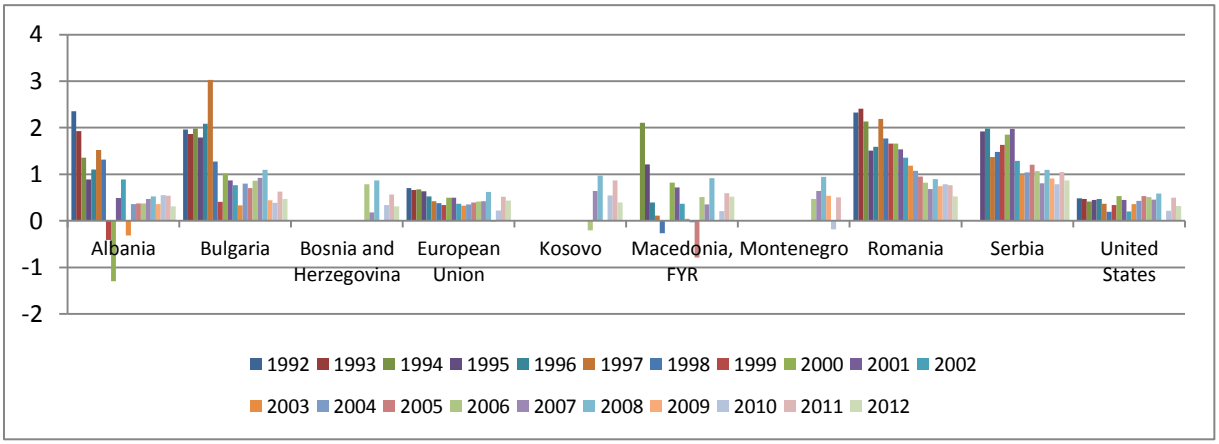
CPI



Picture 14

The lowest and the least variable CPI rates are still present in USA , and EU tried with somewhat higher rates to balance its economic picture. Balkan countries overall have strong declining rates in the period where Bulgaria, Serbia and Romania struggled hard to keep price rates in low brackets in early 90 ies.

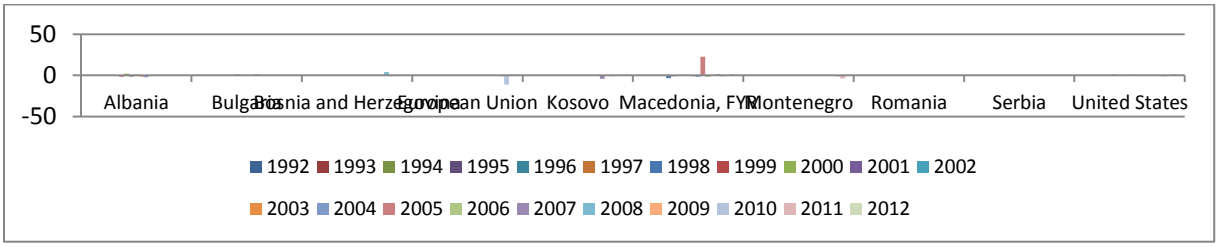
CPI



Picture 15

However from the log difference presentation of CPI it is visible that EU tends to manage its interest rates with crises, and countries who are not part of larger Community had difficulties in its level.

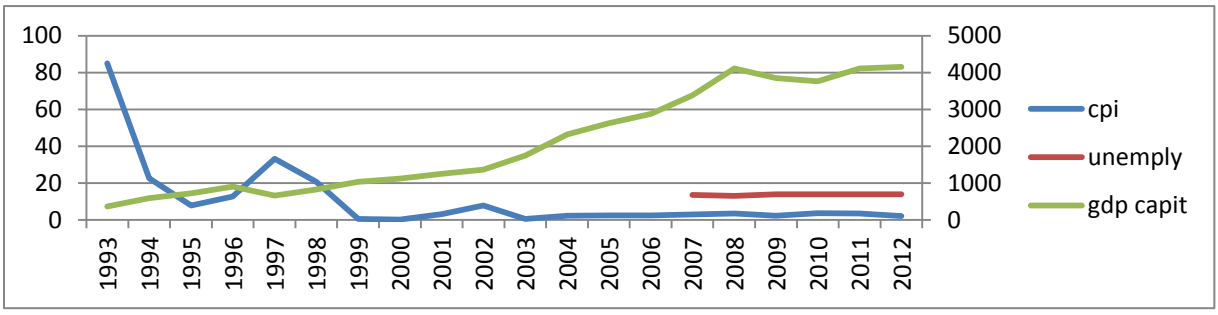
CPI LOG diff



Picture 16

Different paths were observed by each economy and each is specific and have its own advantages or is burdened with specific problems. Albania has passed a way from a very closed economy to small open country. It enjoys some global favorable potentials and explores possibilities to use its own natural resources in order to boost GDP further.

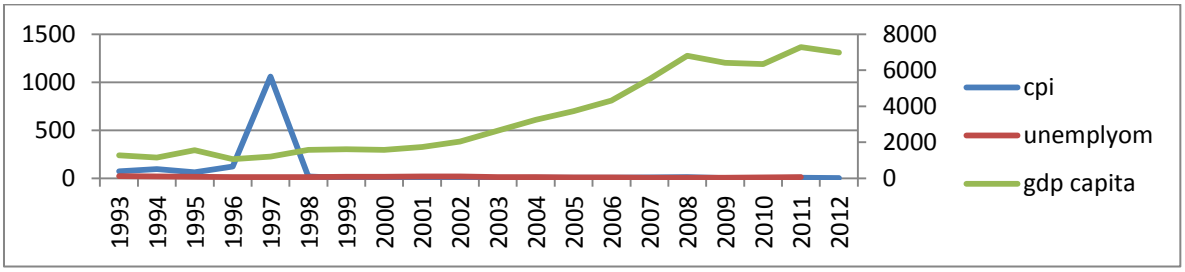
Albania



Picture 17

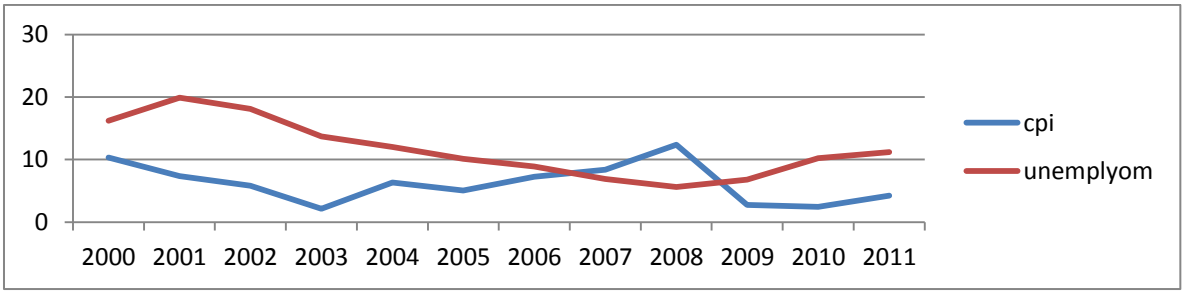
Bulgaria together with Romania managed to enter EU –among the first countries situated on the Balkan Peninsula. This brought significant short term benefits –GDP strong rising rate, reduced inflation and lowered unemployment rate. However problems in EU after 2008 brought back unemployment with youth unemployment (Bulgaria) being the most worrisome fact that is consequence of crises.

Bulgaria



Picture 18

Bulgaria



Picture 19

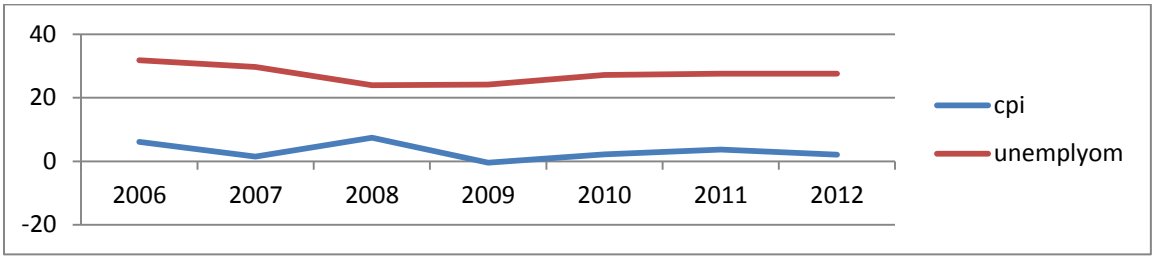
Bulgaria

	2000	2001	2007	2008	2009	2010	2011
CPI	10,31626	7,360951	8,402487	12,34877	2,753187	2,439009	4,21987
Unemployment	16,2	19,9	6,9	5,6	6,8	10,2	11,2
GDP/ capita	1579,348	1729,191	5498,036	6798,138	6403,148	6334,678	7286,642

Table 8

Bosnia and Herzegovina have to some extent similar macroeconomic picture as Macedonia with high unemployment rate, reduced inflation from early 2000 ies to day and slower GDP rise that is much under EU average.

Bosnia



Picture 20

Bosnia and Herzegovina

	2006	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
CPI	6,125	1,515508	7,416856	-0,39019	2,188538	3,675	2,049674
Unemployment	31,8	29,7	23,9	24,1	27,2	27,6	27,6
GDP/ capita	3199,897	3949,842	4802,467	4433,146	4361,877	4751,482	4446,52

Table 9

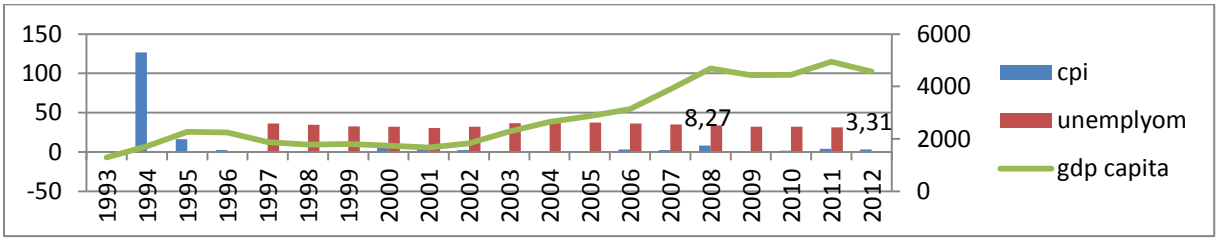
After period in early 90-ies with extremely high price rates Macedonia manage to lower inflation to around 3 %, it actively works on increasing GDP level but still suffers from above EU average unemployment rate.

Macedonia

	2006	2007	2008	2009	2010	2011	2012
CPI	3,216935	2,244651	8,27	-0,74398	1,609347	3,89817	3,31
Unemployment	36	34,9	33,8	32,2	32	31,4	
GDP/capita	3133,319	3891,895	4685,622	4433,857	4442,301	4940,94	4567,572

Table 10

Macedonia GDP/capita (USD) , Unemployment ,CPI



Picture 21

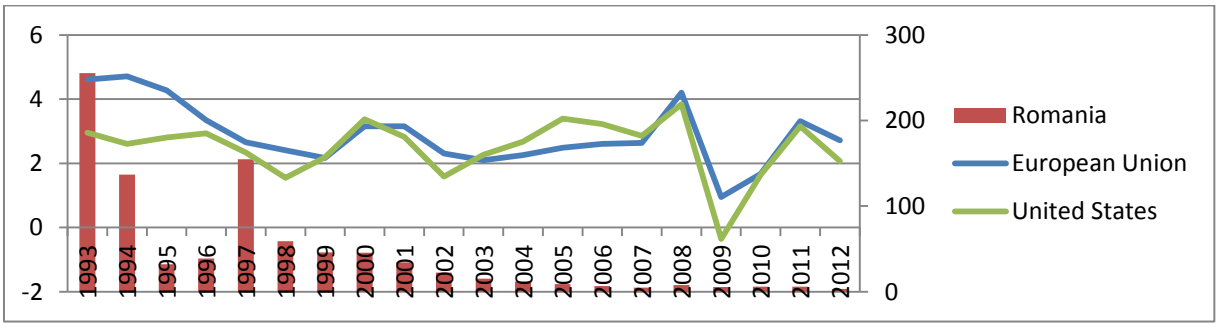
Romania is not just the country that is enriched with highest number of people but is one of rare on Balkan peninsula whose macroeconomic picture have visible, immediate and short term signs of recovery in period of the last 10 years. Part of its came with EU membership, some with inner policy of adaptation to business cycles and searching for new business opportunities. However, these good results(CPI reduced from 9 to 5 %; Unemployment rate at lower rate than on Balkan average and do not worsen with time having almost natural rate of unemployment, GDP/capita at rising rate almost doubled in few years time) can be slower if further economic policy is not pointed more toward regional cooperation, and new ways in further income strategy (non renewables will decline in due time and consumption oil/gas will continue to exist for example).

Romania

	2005	2006	2007	2008	2009	2010	2011
CPI	8,989057	6,584588	4,835779	7,848325	5,587663	6,094216	5,787777
Unemployment	7,2	7,3	6,4	5,8	6,9	7,3	7,4
GDP capita/USD	4572,048	5681,092	7856,476	9497,946	7650,961	7686,923	8539,261

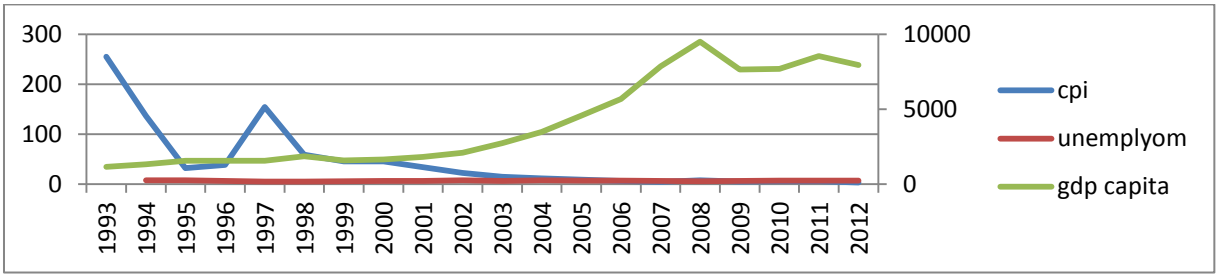
Table 11

CPI Romania, EU,USA



Picture 22

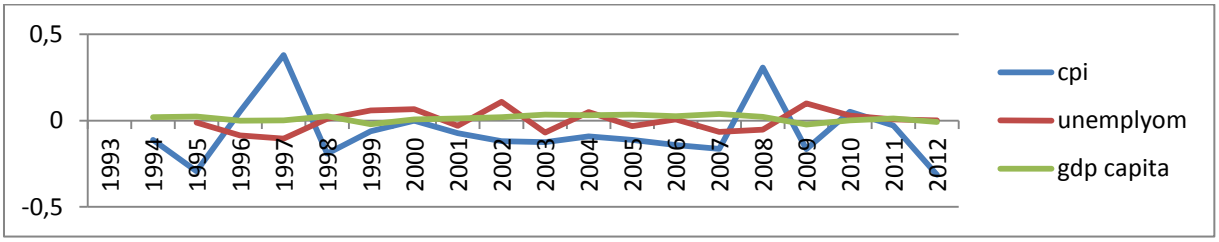
Romania CPI, Unemployment, GDP/capita USD



Picture 23

It is visible that in time of crises Romania experienced rise in unemployment 2009 , and CPI level in 2008 what are signs that country is dependent upon world economic situation and did not have strategy to manage prices .

Romania log diff



Picture 24

Serbia

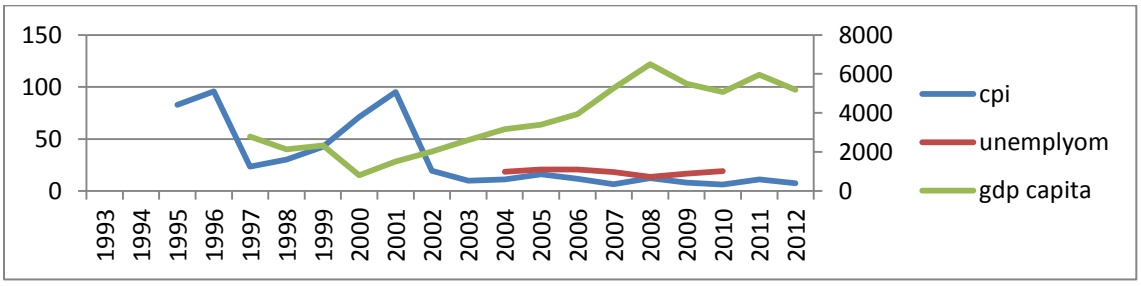
	2005	2006	2007	2008	2009	2010	2011
CPI	16,11998	11,72402	6,391706	12,41099	8,116951	6,142554	11,1374
Unemployment	20,8	20,8	18,1	13,6	16,6	19,2	
GDP capita/USD	3391,371	3942,631	5276,932	6497,843	5497,957	5073,075	5964,095

Table 12

Serbia had managed to lower its CPI rated who in years 2001/1996 were extremely high. Today's rates are much higher than EU average and amounts around 6-7%. In period of crises countries such as USA and EU tried to lower interest rates while opposite happens in Serbia where 2008/2011 brought higher interest rates. Unemployment level is at higher than average EU and fluctuate around 17-20%, GDP /capita rose from 1518 USD/capita to

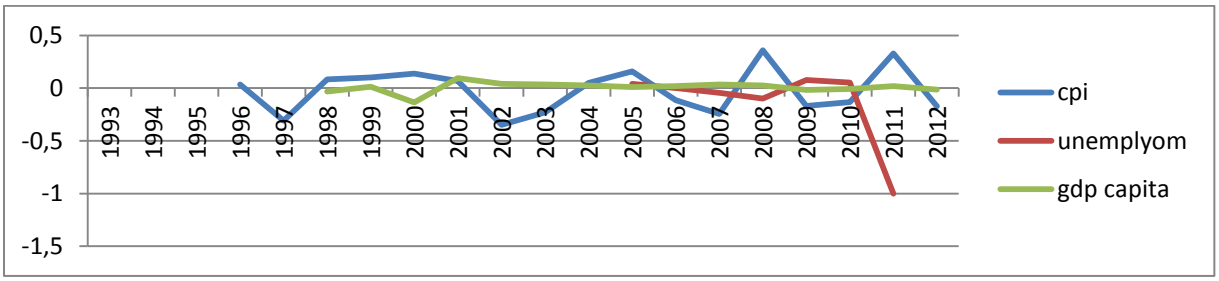
around 5500-6000 USD capita. Slower rising rates of GDP/capita requires examining of new prospects in area of economic policy.

Serbia



Picture 25

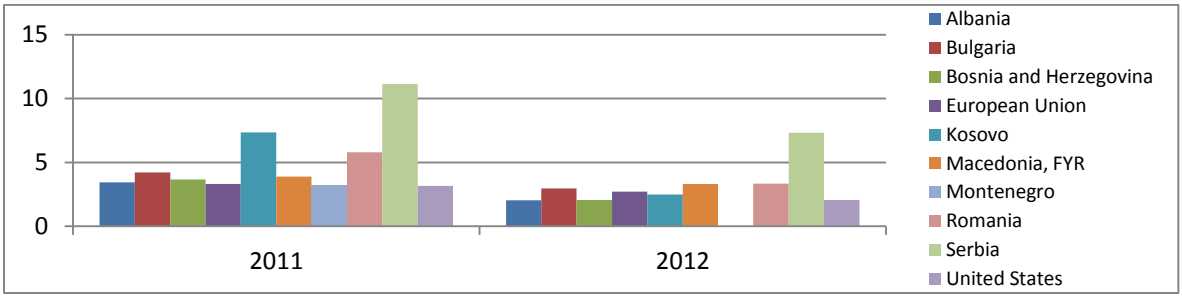
Serbia log diff



Picture 26

The only variable that shows signs of recovery is CPI - strong declining rate from year to year in all countries. Absolute the largest number has Serbia and with EU negotiation process/ EU membership prospects it is expected for this variable to be lowered .

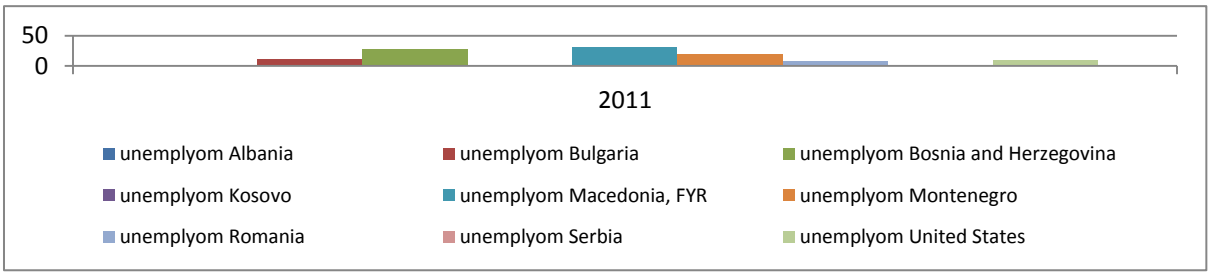
CPI



Picture 27

Higher than EU average unemployment rates burdens large number of countries in Balkan region, with long term unemployment level increased . Beside youth unemployment that is high in all regions certain countries –not part of EU- have larger than 20% unemployment rate and must in its policy special emphases put to reduce its negative impact and consequences.

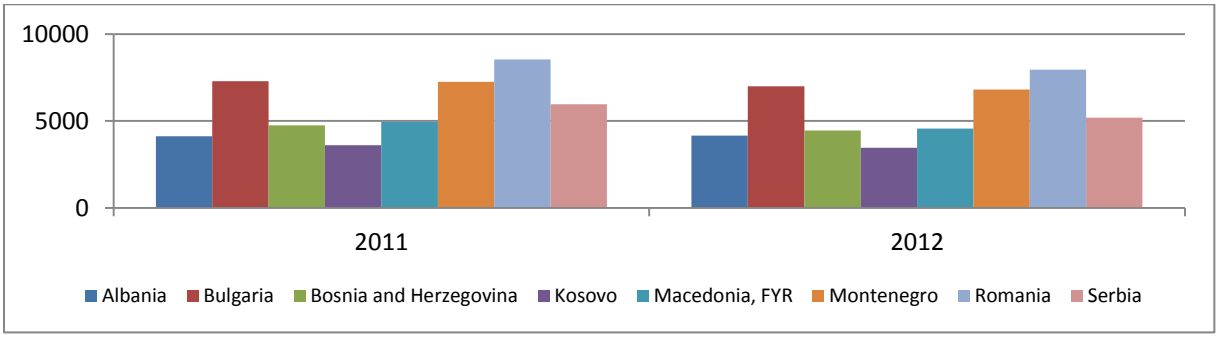
Unemployment



Picture 28

Balkan countries have lower GDP level than average EU countries with lower potential for further strong GDP rate to increase. In order to induce growth more some new orientation toward energy, industry and tourist policy have to be introduced as well as to explore more cooperation instead of game strategies. Variety of possibilities exist from renewable production and consumption, production of end goods with more than one country involved, work on best transport ways, introduce itself to Third Markets (Middle East as Region and its potential) , made creative regional team groups –work on new products, more efficient ways etc.

GDP capita



Picture 29

3.2.Tourisam

Tourism is an important branch in each economy obtaining revenue, linking people and businesses, promoting economies and natural beauty of people and reliefs. Each country has its own values and places to be visited but some common strategy in that field would boost region as the whole giving further potential in working places.

For tourism it is important to incorporate real values of each region and stress the best in excellent service, kind people, more than good food and drinks as well as variety of opportunities with each step tourist take.

In that plan of reasoning common strategy for three types of tourism offering: very rich, middle income families and low income or student leisure need to have strong foothold in each region. Further to note extreme importance of common policy while the average tourist have 2 week of free time to come from distant areas (even from Europe) of the world and would like to see and experience as much as possible.

Some possible steps are presented with opportunities to much greater and richer offer:

Black Sea Coast	*Start at Olympic city travel with ship across Black sea*
Bulgaria	*Travel to rose field and meet industry of perfumes*
Macedonia	*Enjoy in health care of top health rest institutions*
Montenegro	*Enjoy at Adriatic sea-old cities by see-swim,*

Black Sea Coast	*Again - sport at Olympic city, region*
Serbia	*Travel with plane to Serbia. Meet wine road south east go to Oldest Monasteries in the region*
Bosnia	*Meet Sarajevo another Olympic city of three religion*
Montenegro	*Go in mountains meet old monasteries – go to seaside resorts*

MONTENEGRO	Came from Italy with boat. Enjoy see activities
Serbia	Go to Vojvodina- learn to live on the farm
Romania	Meet old skills in textile. Go to factory buy newest textile clothes at cheap price
Macedonia	Go to art colony do paintings

MONTENEGRO	*Came from Wien with plane. Go to mountains- pick herbal*
Bosna	*Tara river boat journey*
Macedonia	*Enjoy local cuisine*
Bulgaria	*Travel at black see through roses, sunflower filed*

BULGARIA	*Start at port enjoy water sports. Go to industry of perfume buy some*
Serbia	*Vine road*
Serbia	*Skiing*
Albania	*Go to see enjoy old culture and see activities*

BULGARIA	*Start at capital meet industry and nature*
Macedonia	*Spend weeks at health center improve your health*
Serbia	*Old monasteries at Kosovo and in Serbia*
Bosnia	*Learn how to make cheese, enjoy nature, meet different cultures*

ROMANIA	*Enjoy traveling on Don au. Meet ship captains. Learn to manage ship*
Bulgaria	*Travel to business hub – buy electronics cheaply- meet people from business*
Serbia	*Wine road*
Macedonia	*Rest at Thermal Bad or Ohrid lake*

ROMANIA	*Go to climbing meet old stories old skills and enjoy nature*
Bulgaria	*Rose filed sand learn to make perfume*
Rusia	*Soči/Black Sea region*
Kazakhstan	*Horse riding*

SERBIA	*Go to Capital Belgrade enjoy cuisine. Travel to south winter sports and wine roads*
Bosnia	*River Tara*
Montenegro	*Mountings – monasteries-herbal*
Albania	*Ports and see activities and go to Italy*

SERBIA	*Go to spiritual learning in old monasteries. Learn to cook national dishes*
Macedonia	*Go to art colony do art :sculptures, pictures, music*
Bosnia	*Sarajevo –festivity*
Montenegro	*See activities*

MACEDONIA	*Art colony –do plenty of activities at Ohrid lake*
Bulgaria	*Go to industry center buy electronics*
Romania	*Go in mountains learn old stories*
Serbia	*Go to Vojvodina learn living on the farm*

MACEDONIA	*Medical clinical rest Thermal*
Bulgaria	*Rose fields*
Romania	*River trip*
Rusia or Kazastan	*Soči or Horse riding*

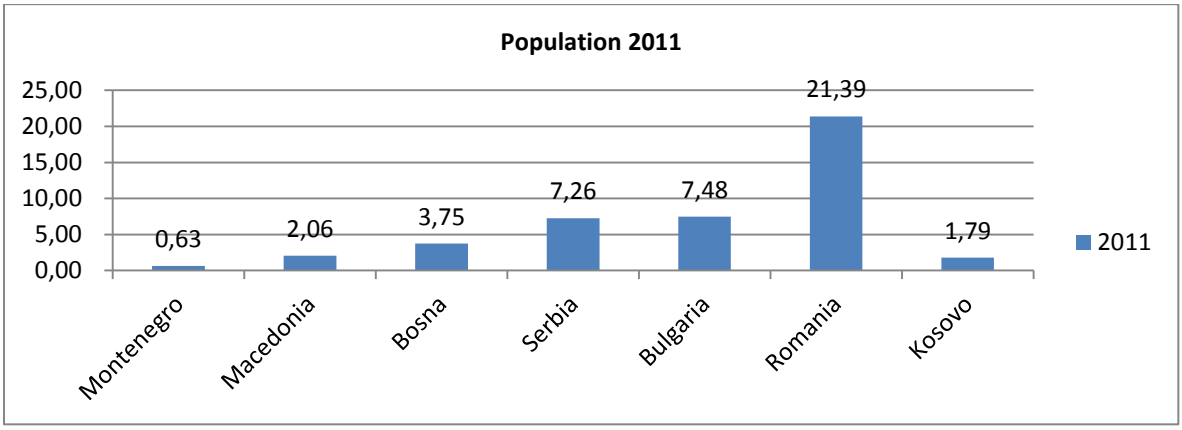
Beside bringing monetary support to region, rising employment potentials and bringing country beauties in spotlight it can boost economy by cooperation, increasing other services related to field (transport, agriculture, construction), or serve as Value Added Production potential that would bring new investment in country.

Tourism= f (number of hotel, beds, transport infrastructure, cooperation in region, restaurants offer, number od days with sun, diversity of programs , different pricing strategies etc)

Tourist= f(group/individual, week/2week time, prefer hotel/private; would like full package or only part of program, different income groups, different time (Christmas, summer, winter program interest) etc.)

3.3. Energy

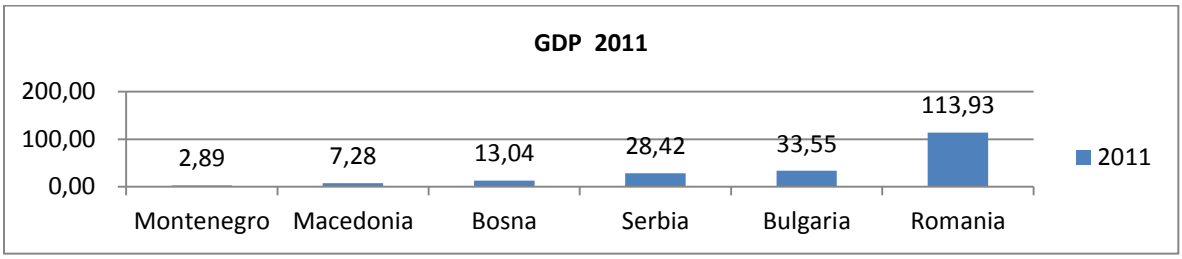
When the region that is heterogeneous in beliefs and standards, have different ways toward EU community or is involved more in solving inner issues than making global picture it is good to put some basics such as energy, trade, common goals, regional natural characteristics in picture. In this respect some new ideas, projects and more accessible EU funds can be reached and GDP growth put in more healthier path. Balkan countries are connected with many facts and if we start from population it is diversified with richness of nations, beliefs , talents and achievements. Region incorporates around 40 mil people, majority is situated in Romania around 21,39 mil people a country that connects the Black Sea region- Russia, Ukraine and Kazakhstan and leads toward Asia gate on the EU eastern shores. Bulgaria and Serbia (both around 7,5 mil people) are similar in population number and are occupied with trading and industry, in that way bringing further benefits to region. Bosnia, Macedonia and Montenegro have less than 5 mil people but are spice that enriches the region with culture, natural beauties and production of some specific goods .



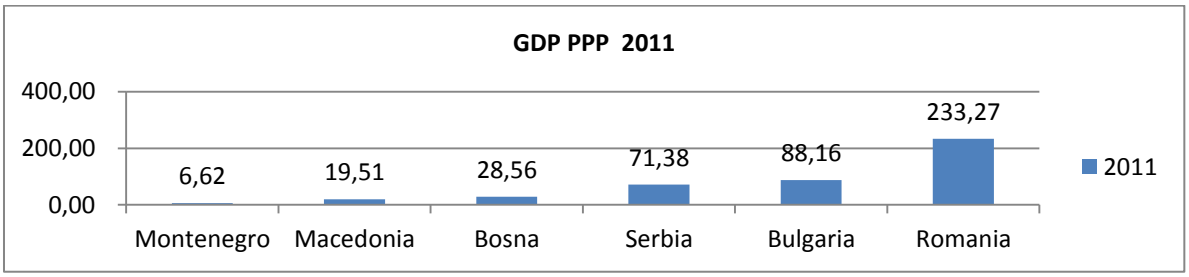
Picture 30

It is to be expected that GDP is linearly related to the population number, but differences exist in current and future potentials considering policy, economy, EU membership or strategy toward mid or long term GDP growth. This GDP level is a result of growth in the last decade with one strong decline in 2008-2009 period when the countries experienced problems of the world crises that was spilled over in the region. Although this GDP level (bill USD) is a result of growth, EU impact on region to less extent is a result of long term

national policies in the terms of economic stability. In that respect this level can be a first step or base toward more qualitative, regionally related growth that is achieved with long term strategy.

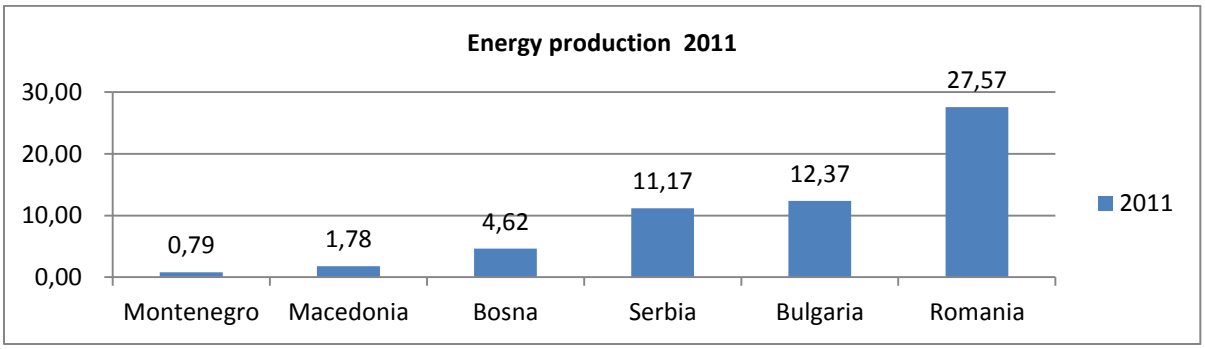


Picture 31



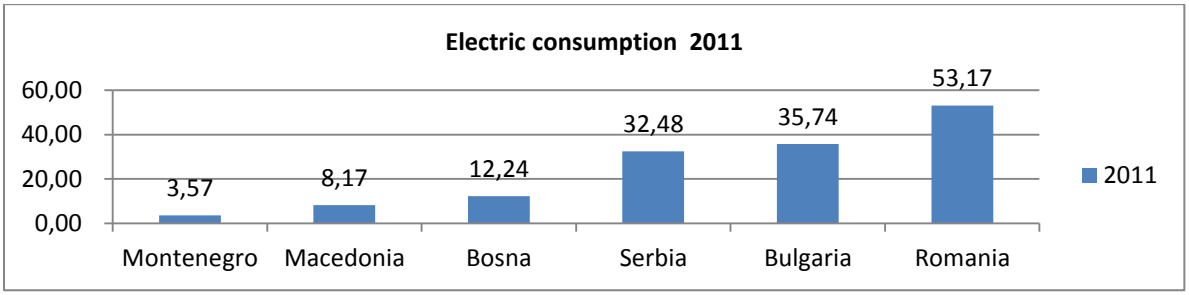
Picture 32

Energy production, trade and transmission through region is not just a necessity but a right for the each member of community to have access to more cheaper, environmentally friendly solution and in this respect this is one of the strongest links that can further be connection line in economic solutions.



Picture 33

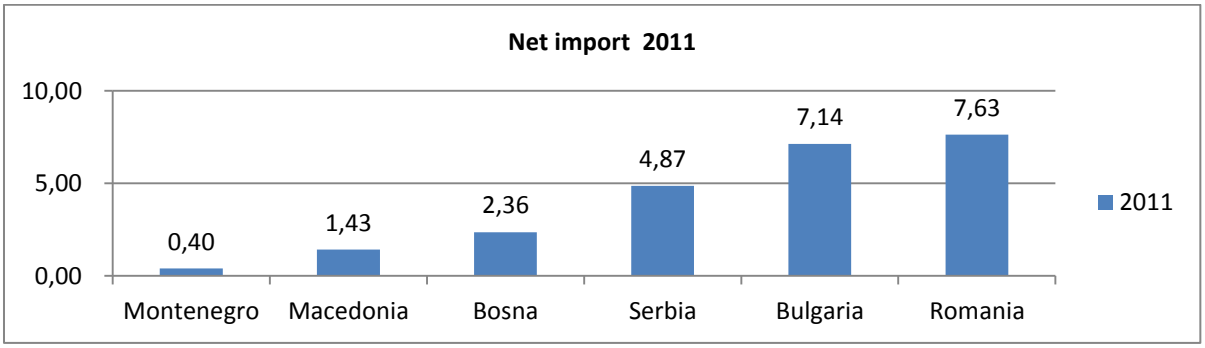
This line of thinking is further visible in the picture 34 when less difference between country exist and electricity production is related toward some natural potentials that certain area is able to produce. In that respect Serbia and Bulgaria are input to region as a factor of stability, trade potentials with electricity production of more than 33 TWh .



Picture 34

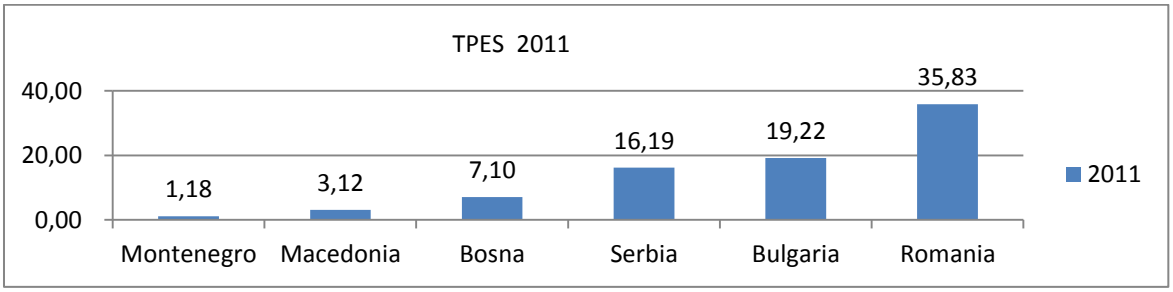
Strong linkage between energy import, production and GDP potential sis proved in Balkan states. The majority of them (Romania is exemption) do not have a large and significant non renewables resources. Romania has long history of oil extraction, have seven refineries, oil product pipeline and serves as import port –Constanta- for the oil from Russia, Kazakhstan. Albania has recently discovered some oil potentials that can be further push up for the economy, but if not proper environmentally protected can hinder other important aspects of development (tourism, agriculture, industry, manufacturing etc). Serbia has also certain potentials in oil recovery but with mid term impact to overall energy and economy input.

In that respect Bulgaria has almost the same net import (around 7 mil toe) as Romania what is presented at picture 38.



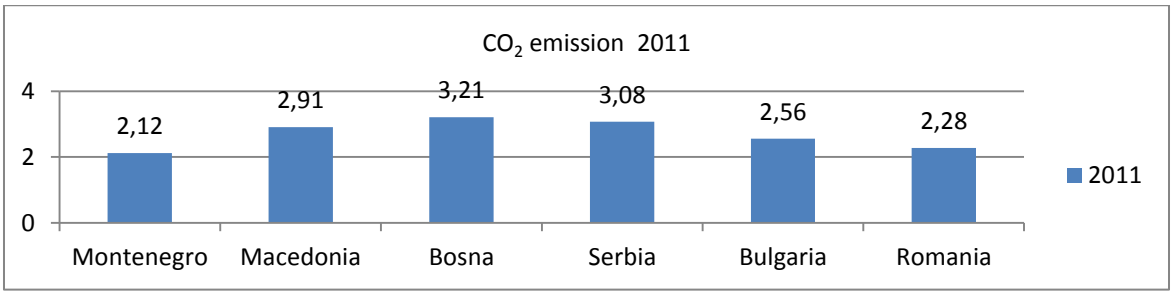
Picture 35

Further more realistic picture of single country energy potential is given by TPES (Mtoe) where indigenous production is added with import , export, international marine bunker quantities as well as international aviation bunkers that are subtracted and stock changes incorporated in the whole picture. In that way Romania have the energy supply of around 36 Mtoe, Bulgaria around 20 Mtoe, Serbia 16 Mtoe, and Bosna around 7 Mil toe.



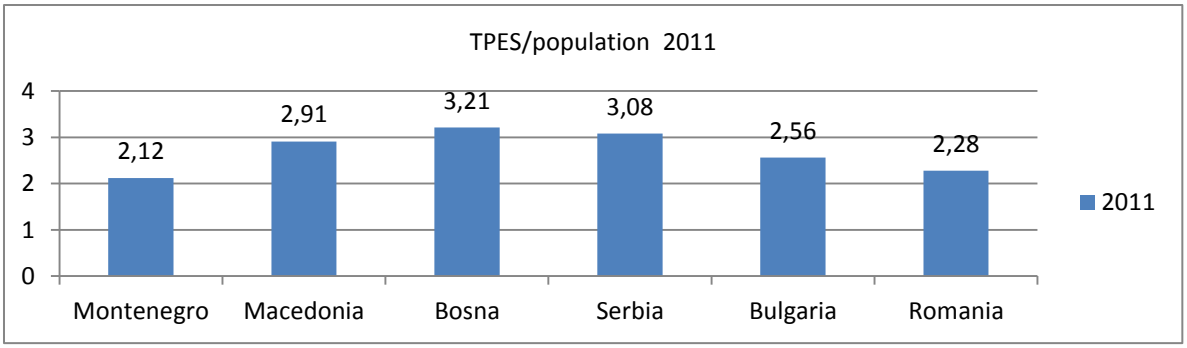
Picture 36

Further difference to note -or potentials to correct certain imbalances are CO_2 emissions. It is to note that Bosna as low GDP level country is rich with coal having at the same time highest negative impact on environment with CO_2 emissions. This situation can be improved with EU legislation put in force, some hydro energy potential used more (Serbia/Bosna; Montenegro/Bosna) , more vivid trade with energy that comes from renewables , potential to trade between energy and manufacturing etc.



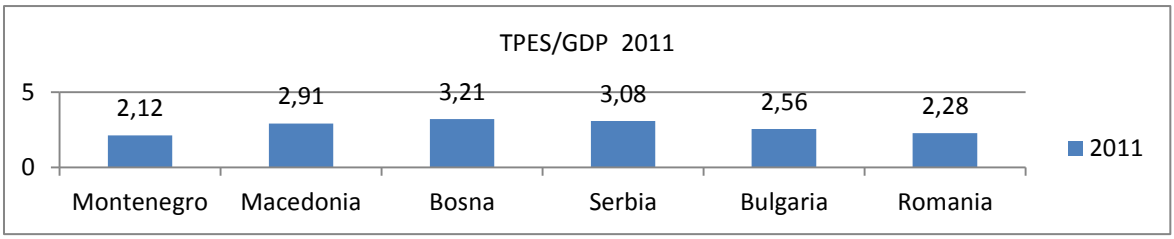
Picture 37

Having all this facts in mind TPES/population have a much different result as expected. Instead of having the Romania and Bulgaria (as EU members) as leading country in energy supply they lagged behind Bosnia – who is among the poorest countries in the region but rich with coal resources.

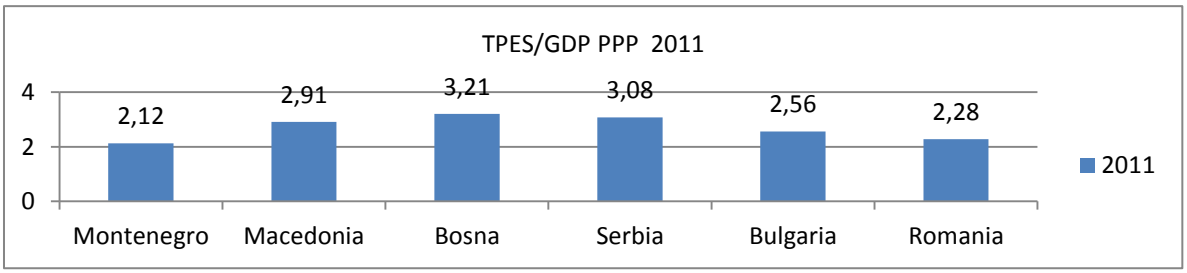


Picture 38

Although the same stands for the TPES/GDP it can be short to mid term result if renewables are not developed in the region of Serbia Bosnia.

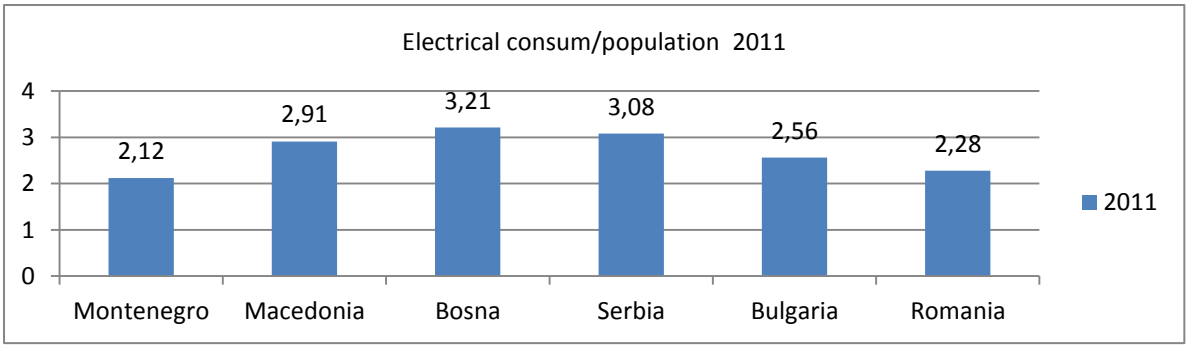


Picture 39



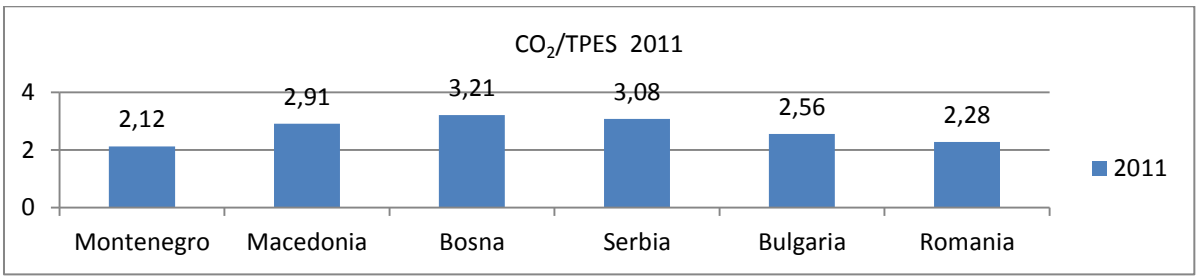
Picture 40

Electrical consumption is also non linearly related to region considering their current GDP potential, and EU average. It is to be expected a greater level in the whole region especially with climate change(bigger difference in temperature, with CO_2 emissions bigger problems in environment) and how will this region adapt to development of renewables as electricity source can further influence not just electricity consumption but prevention of natural problems (flooding's, agriculture output etc.). To some extent it is in the long term interest of region that the electricity comes from more environmentally friendly resources by promoting different incentives (loans, Government policy actions, interregional meetings, incentives to buy from friendly resources, etc) .



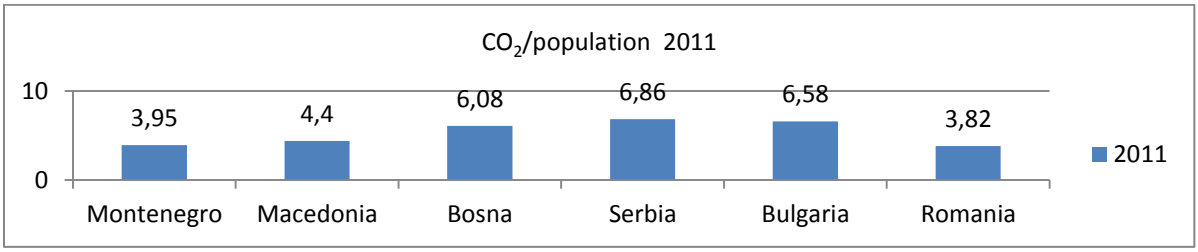
Picture 41

Some of solutions to region can be more cheaper energy source comes from Serbia(hydroelectricity, renewables,, wind) that it is presently in Bosnia (coal, number of accidents in mines, number of restriction for digging etc.) what would lower CO_2 emission and damage the region less (impacts harvest in Macedonia, Romania, Bulgaria for example).



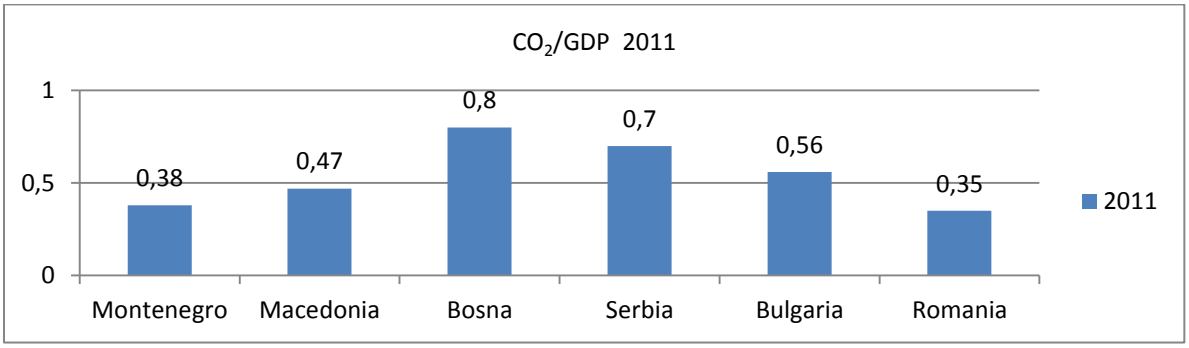
Picture 42

With further GDP growth, the level of CO_2 emissions is likely to growth in the whole region (number of new cars bought, energy efficiency measures not incorporated, GDP too low for clean or electric cars to be put in market.) Picture can be improved with more qualitative train, bus linkages in the whole area, and potential for common policy in manufacturing electric cars (Main factory in former Zastava area for example and parts manufactured in Bulgaria, Romania Bosnia – one of solutions)



Picture 43

What is visible in region is similar to the global world energy/economy/environment related cycle. Those who have low GDP are linked to coal, other sources that brings harmful emissions and this further negatively influence region in respect of clean environment and agricultural production. The key is the long term policy of region and price competiveness , development of long term energy strategy that benefits all (clean production, production of clean vehicles, trade with resources imposing some EU legislation standards etc) .

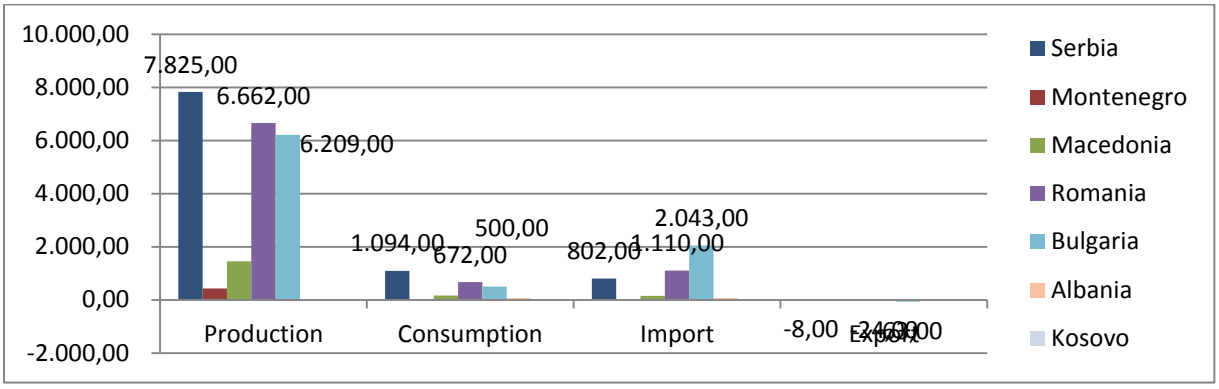


Picture 44

Energy production is important part of the whole picture and brings stability in long term economic planning. It can further boost export and trade potentials and if price is set at the competitive level or inter related with some manufacturing potentials can further lower negative impact of emissions in the regions. Production and consumption of energy is topic of regional consultation while some negative consequences impacted the whole (Nuclear damage and danger, possibilities of impact, ways of managing this production facilities for example) or can be interrelated with manufacturing potentials.

Coal is still very important in mid Balkan picture- although have the highest potential to increase CO_2 level. Long term Government policy toward saving this resource, and promoting other potential is the task for the region(hydro, bio energy, transport of bio energy, production electric cars etc are some of the ways) .

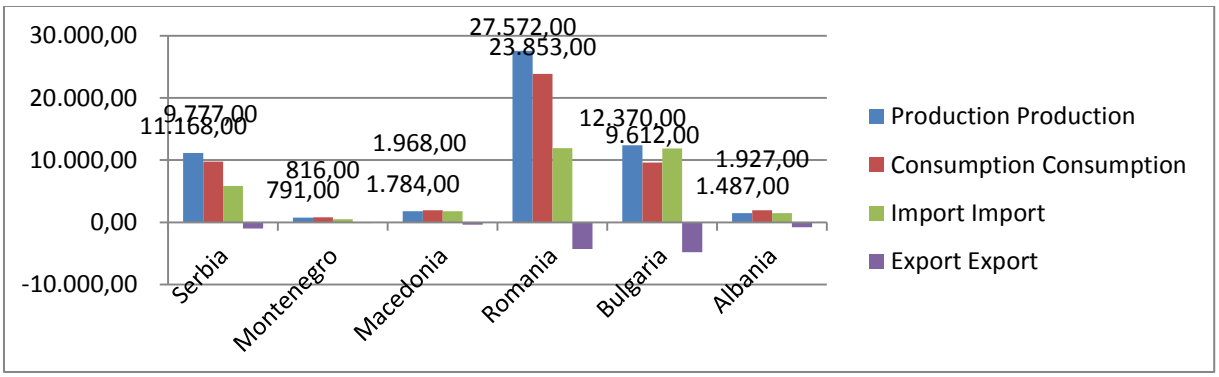
Coal production (Mtoe)



Picture 45

The three most populous countries are the one that are the base for the energy stability for the region. They are the leaders in growth of policy that brings ability not just to their own countries but to region as well (what they produce, how, do they promote induce manufacturing that is related toward clean energy goals, have all energy efficiency measure in industry or households etc.) Long term energy goals- especially in renewables potential should be carefully considered and pricing policies set as long term goal toward reduction of coal, wood etc.

Total energy picture(Mtoeq.)

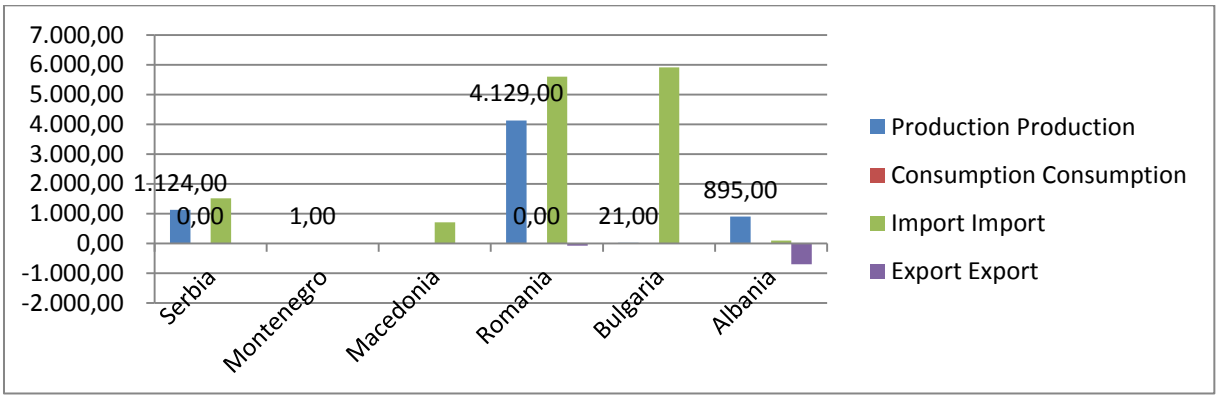


Picture 46

Romania is in the group of a few European countries that have significant oil production potential but this is still not enough for the country consumption. Serbia has recently develop oil production inside its border with Gazprom ownership and technology of NIS (largest oil group with two refineries) . Some developments in the respect of oil production

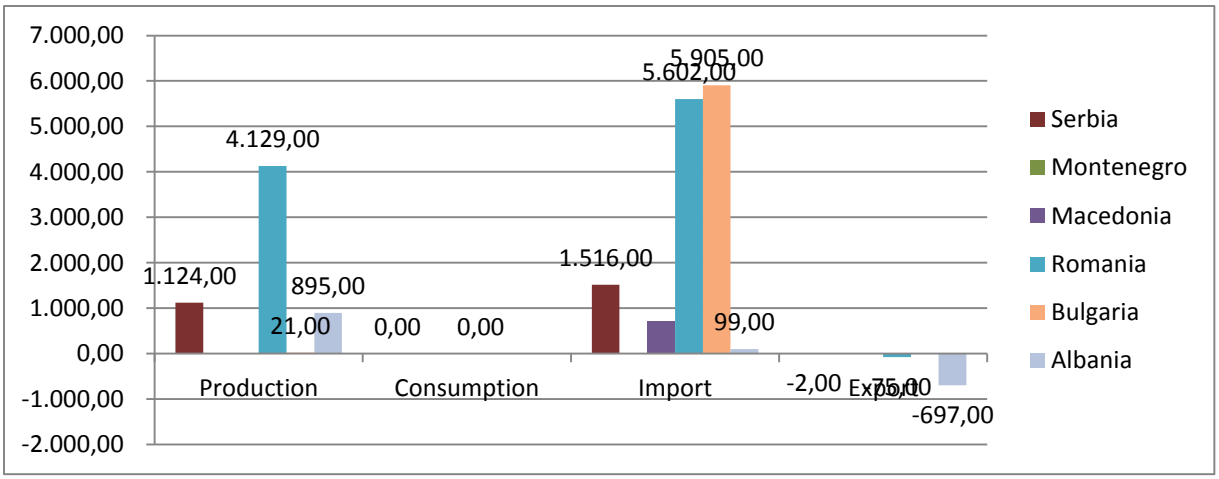
and oil transport routs comes from Albania but can hinder growth in tourism if some negative incidents occur.

Oil (Mtoeq)



Picture 47

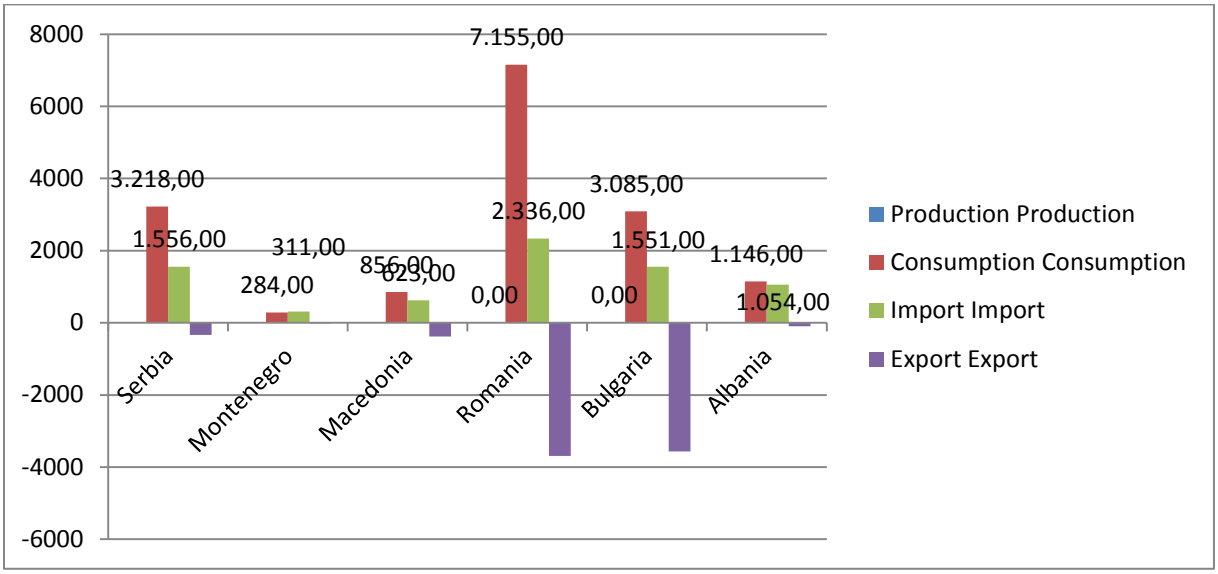
Strong reliance on import of crude is visible in Balkan area and this is strongly related to the diesel, gasoline consumption, number of cars, and transport industry as whole. While this not strongly oppose to brad EU picture it present "standard" .



Picture 48

Romania is currently the most important oil production, import and refining country (7 refineries) and with the largest potential to export its products. Serbia and Bulgaria have similar picture in consumption but Bulgaria (Lukoil Burgas,) developed bigger export potentials.

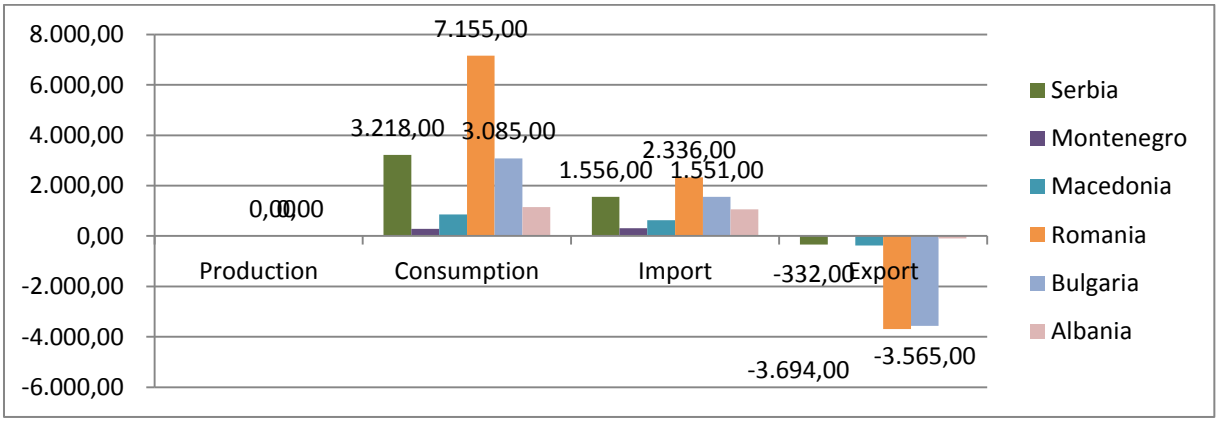
Oil products th. ton (Consumption, Import, export, production)



Picture 49

Almost linearly related to the number of population is the picture of oil products consumption. Romania has a very good position (Constanta, developed several refining plants, has export possibilities) with Serbia and Bulgaria achieving the similar consumption around 3-3,5 mtoe/year but with different export possibilities (presence of global oil company Luk oil , Black Sea ports are some of advantages).

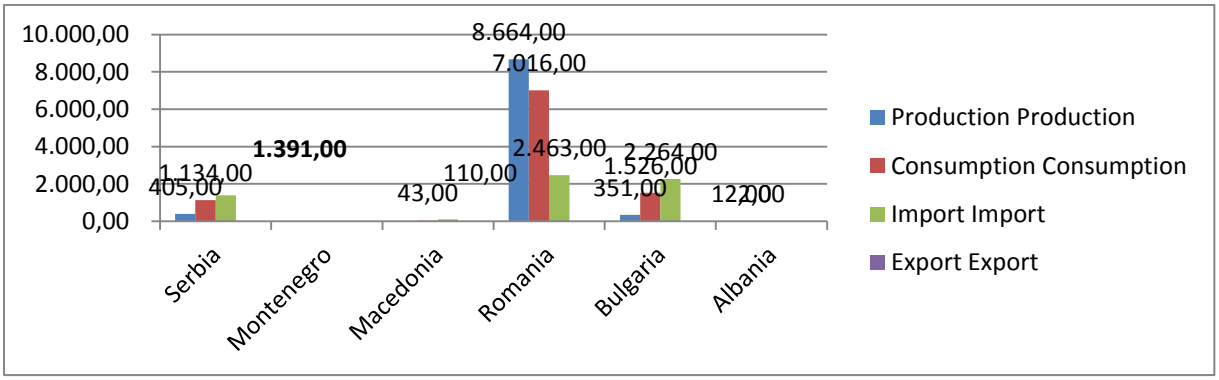
Oil products (th ton oil eq. year)



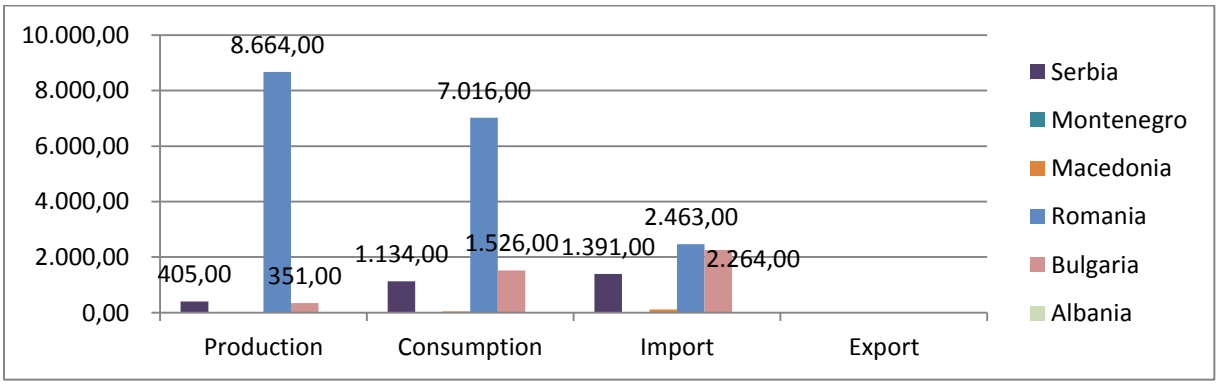
Picture 50

Similar picture is in the area of natural gas production where Romania advances toward other countries with production of 8,6 Mil ton oeq of gas. This surpasses consumption that is around 7 Mil t oea and is almost seven time more than in Serbia.

Natural gas



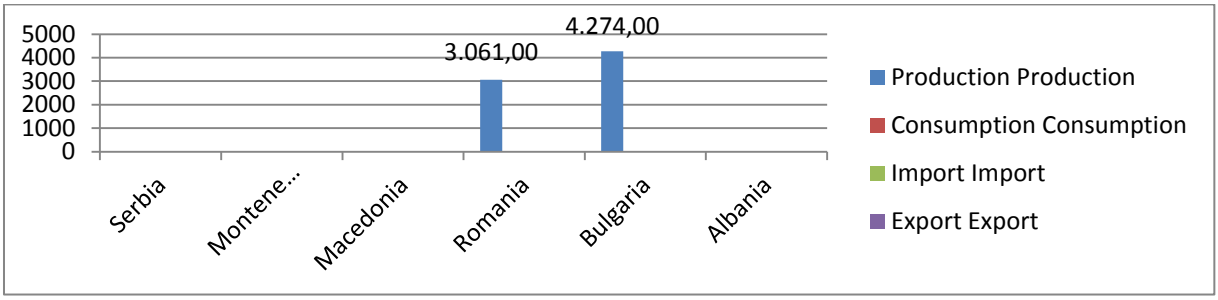
Picture 51



Picture 52

In the area of electricity production from nuclear source only the two EU member states are active in this filed. This implies further responsibility not just toward its own energy policy, EU policy toward reporting and security but regional long term and especially security standard s while the region (whether or not EU member state) can bear consequences of small accidents or leakages. NE can bring benefits as factor of stability but is a matter of regional security concern also.

NE Consumption in electrical plants



Picture 53

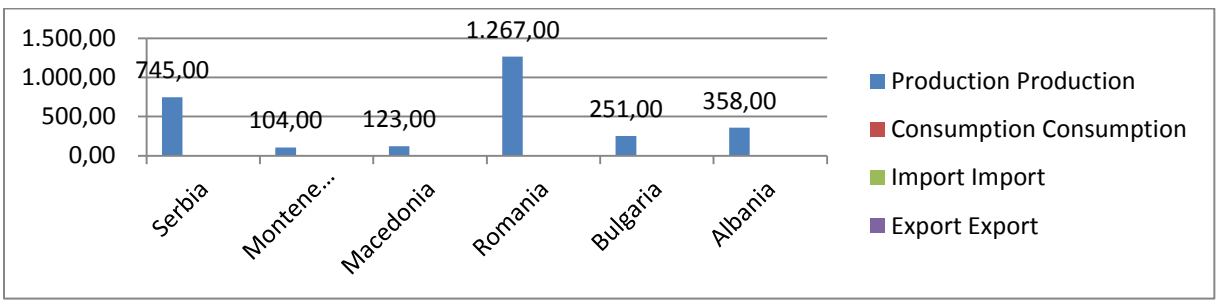
Further to stress interrelation is visible on the picture below where countries producers do not trade energy with the region while risk still stays.

NE consumption in electrical plants

Picture 54

Again Romania has arose as the greatest hydroelectricity power, followed by Serbia. It is good news that low income countries such as Albania developed hydro potentials, and this can be further driving force of clean energy to region , reduction of electricity price and more vivid energy trade in this part of world.

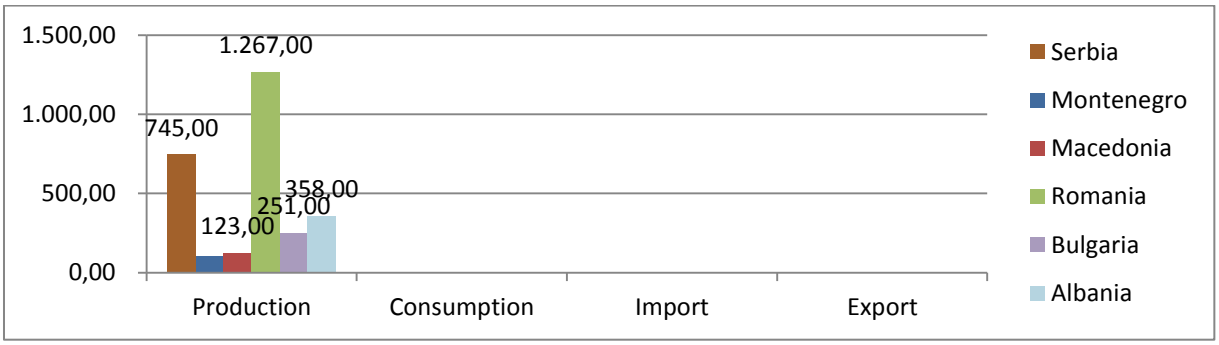
Hydro in electrical plants



Picture 55

Hydro energy production can build up resources on the common ground(Bosna, Serbia, Romania, Bulgaria) and that would bring energy stability and long term economic prospects to region (Montenegro, Macedonia, would benefit from low /lower than today electric price).

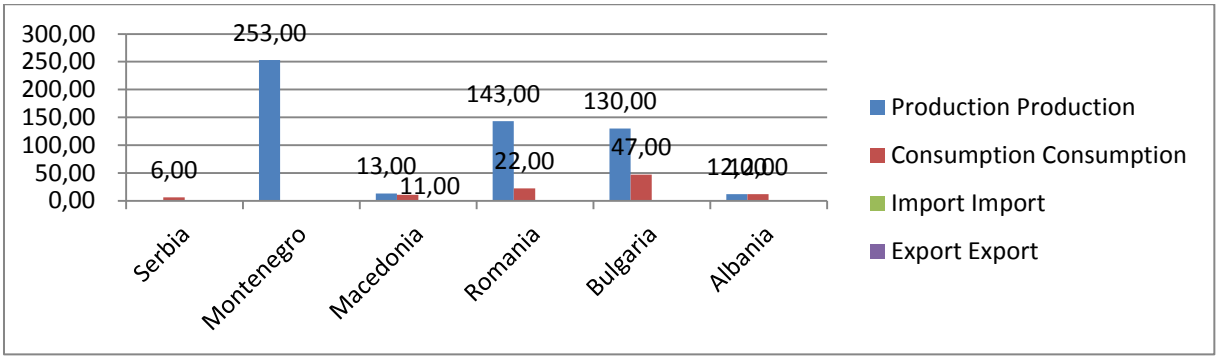
Hydro in electric plants



Picture 56

Lowe level of oil/gas resources induced exploration and development by some Balkan countries to other energy sources such as geothermal potentials. Further development of this kind will contribute greatly to the region and can bring (Montenegro) potentials for export (to Bosnia, Serbia,)a s a source of clean energy.

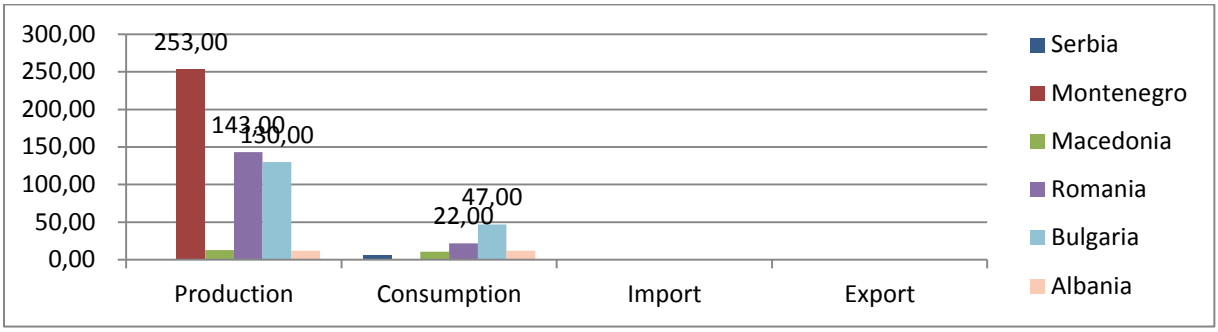
Geothermal electrical plants



Picture 57

Production of geothermal energy is a result of natural possibilities but also as new clean and creative input to overall energy picture of region. It can be further advanced with more plants, more manufacturing in the fields and trade that surpasses national borders.

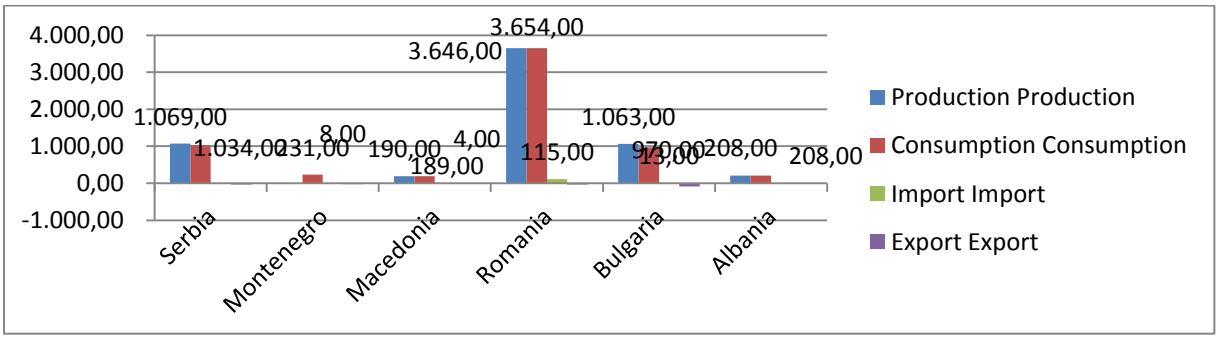
Geothermal electrical plants



Picture 58

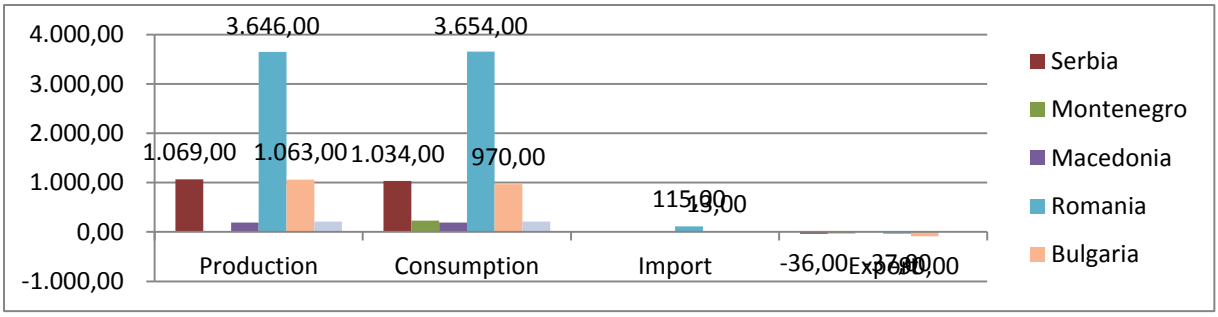
In the area of biofuel production Romania advances with Serbia behind having also potentials in the area of production. Whether or not Romania will contribute with this resource to region or just hold to its own potentials(in form of knowledge, transport, sharing etc) is not just a mid term country policy but long term regional policy. Possibilities to trade with this resource can come from Hungary, Ukraine, Russia and ways of long term strategy can be put in today's decision processes. Additional responsibility comes in the form from EU membership, EU funds and these are usually accessibly in the form of regional development process.

Biofuel (th ton oil equiv.)



Picture 59

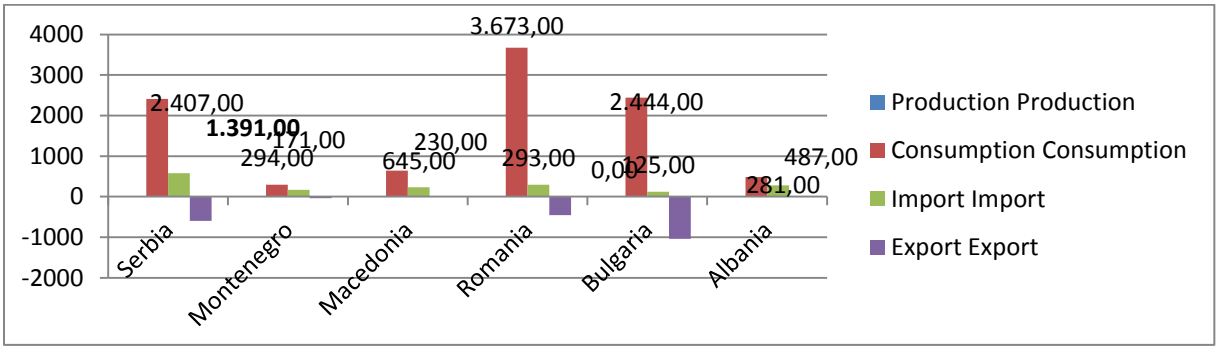
Biofuels can be made as the waste from big agricultural production but can serve as input in local (village, small town) energy heat production. They are also part of fuel composition, and EU policy measures to reduce dependence on oil. In that respect total consumption of produced good is not a surprise.



Picture 60

Although there is a great potential in electricity production , with current export infrastructure potentials, low level electricity/capita consumption will acquire more generation and trade in order to reduce price and lower impacts from coal as cheap but with negative environmental impacts. Whether additional input will come from wind, geothermal or hydro energy or combination of all is dependent upon natural resources but as well as country reediness to enter manufacturing/industry processes related to it and follow new legislation rules that originates in EU. In order to growth more countries need to be in front of time in that respect – it can be done by manufacturing cost cutting methods, new technological achievements, patents number etc.

Electrical

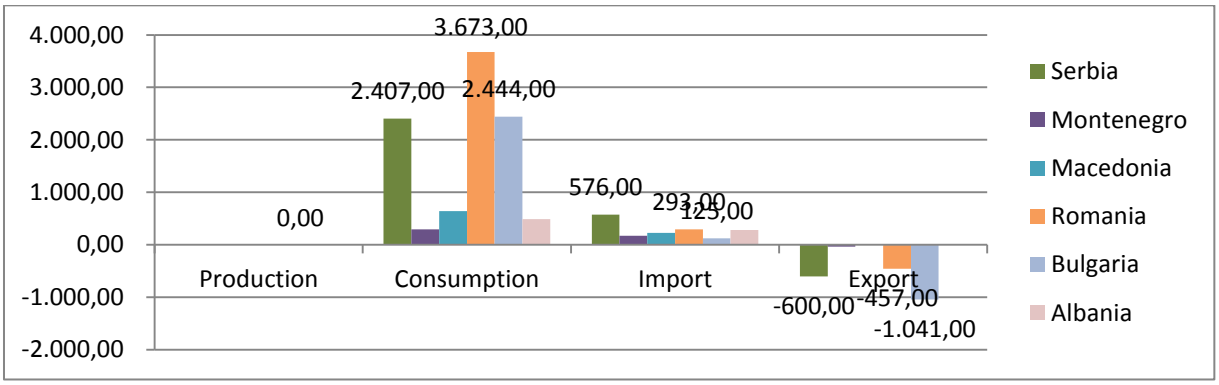


Picture 61

Low GDP level implies lower than EU average electricity consumption making further potentials to advance. Help can come from various Government initiatives ,inputs and help in form of subsidies, legislation clearness and easiness of theory –praxes, trade potentials supported regional cooperation (energy kvota system, clean energy agreements, CO_2 cup,

emission trade, protection of lower than regional GDP/capita countries from entering market , price agreement etc) as well as support from EU community.

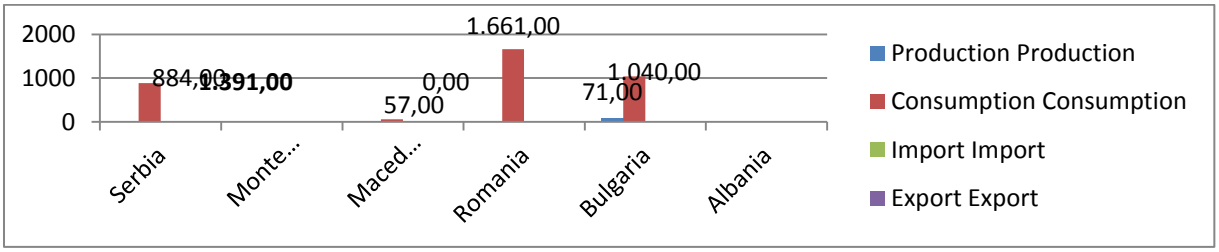
Electrical



Picture 62

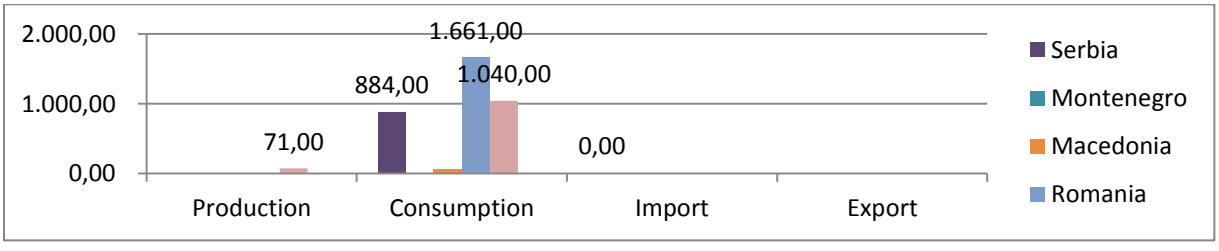
Consumption of heat is by far the largest in Romania (1.661 th ton oil eqiv,) than Bulgaria (1.040 th ton oil eqiv) and Serbia (884 th ton oil equiv.).

Heat



Picture 63

Heat

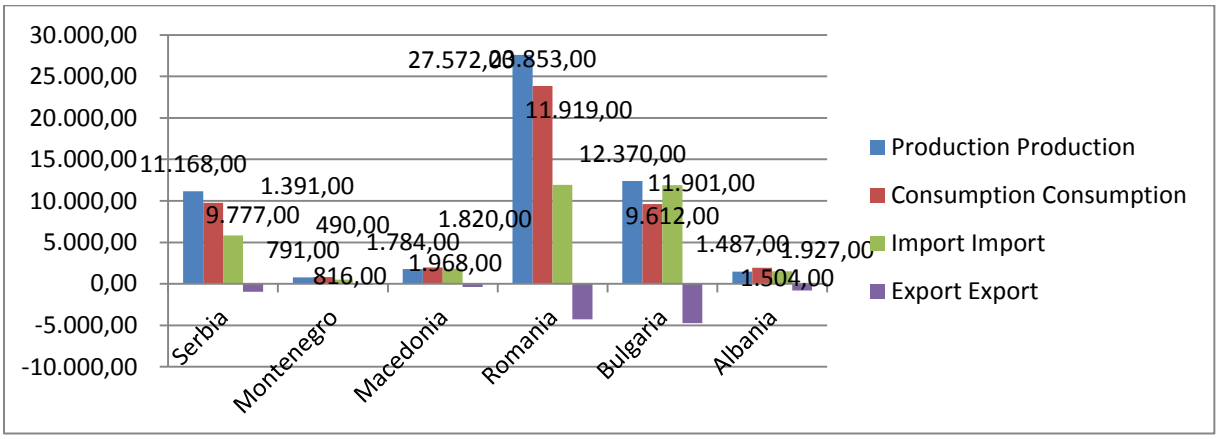


Picture 64

The most populous country Romania is the one that produces and consumes the majority of energy but has lower export potentials than Bulgaria. In that respect we can see that

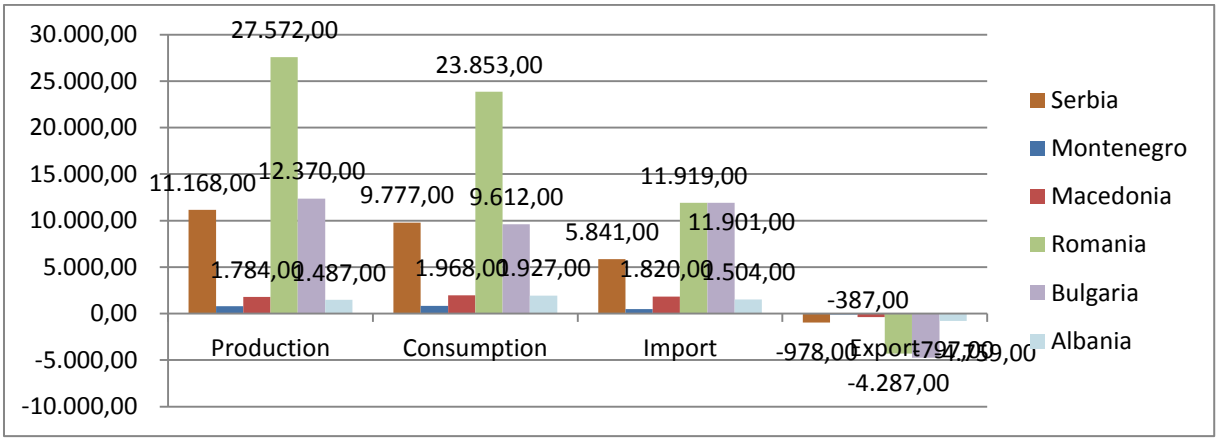
possibilities for other countries in the region exist in area of increased production and trade especially in developing different types of renewable resources.

Total energy production, final consumption, import export without electrical plants



Picture 65

Total energy Balkan



Picture 66

Once the natural resources are used and put into production, consumption level is on the line of increase with GDP growth. Countries can further reasons possibilities to trade, transport of their own resources or import the type of energy used. Beside many new alternatives, developments and proposed projects (web pages oil companies, refineries, governments, ministries) in area of natural gas, oil, place exist for product and bio transport or transit.

3.4. Industry

Balkan had developed industrial infrastructure before 1990 ies but after this period many went through unsuccessful privatization process or was not speed enough to incorporate its businesses in global economic structure. Many big economies fell under more competitive industrial processes (lower cost, better quality) from East /South Asia and Balkan area is not exception. With the low price of imported good, lower oil prices of transport for this region period of import gain significance. This policy induced significant negative effects : rising debt, reduced knowledge of production, higher unemployment and it is not a good mid term economic strategy. There is potential for cooperation in region – different assembly lines , one product with many contributors etc. and this kind of cooperation can give new impulse in GDP growth.

TOTAL	**Countries**
Agriculture, forestry and water supply	Macedonia Bosnia Romania
Agriculture, hunting and related services	Macedonia Serbia Bulgaria
Forestry	Bosnia Montenegro
Fishing	Albania Montenegro Bulgaria
Mining and quarrying	Bosnia Romania Serbia
Mining of coal	Romania Bosnia
Mining of metal ores	Serbia Bosnia Romania
Mining of other ores and stone	Bosnia Serbia Romania
Manufacturing	
Manufacture of food products and beverages	Serbia Romania Bulgaria Macedonia
Manufacture of tobacco products	Macedonia Albania Montenegro
Manufacture of textile and fabrics	Romania
Manufacture of wearing apparel and fur	Romania
Manuf. Of leather and leather products, footwear	Romania

Manufacture and products of wood and cork	Serbia Bosnia
Manuf. Of pulp, paper and paper products	Serbia Bosnia
Publishing, printing and reproduction	Macedonia Montenegro
Manuf. Of coke and refined petroleum products	Romania Serbia Bosnia Rep Srpska Bulgaria Albania
Manuf. Of chemicals and chemical products	Bulgaria
Manuf. Of rubber and plastic products	Albania
Manuf. Of other mineral products	Bosnia Romania Serbia
Manufacture of basic metals	Bosnia Serbia Romania
Manuf. Of metal products, except machinery	Bosnia Serbia Romania
Manuf. Of other machinery and equipment	Bulgaria
Manuf. Of office machinery and computers	Bulgaria
Manuf. Of other electrical equipment and apparatus	Bulgaria Serbia
Manuf. Of radio, TV and communication equip.	Bulgaria Macedonia
Manuf. Of precision and optical instruments	Montenegro
Manuf. Of motor vehicles and trailers	Serbia
Manuf. Of other transport equipment	Serbia
Manuf. Of furniture and related products	Bosnia Serbia Romania
Recycling	All countries
Electricity, gas and water supply	All
Electricity, gas and hot water supply	All
Purification and distribution of water	All
Construction	Bosnia
Wholesale and retail trade, repair	Serbia
Sale and repair of motor vehicles	Bulgaria Serbia
Wholesale trade and commission trade	

Retail trade except of motor vehicles; repair	Serbia
Hotels and restaurants	All countries
Transport, storage and communications	
Land and transport via pipelines	
Water transport	Romania Montenegro Albania
Air transport	Serbia
Related activities and travel agencies	All countries
Post and telecommunications	All countries
Financial activities	All countries (foreign banks+domestic)
Financial intermediation	All countries (foreign+domestic)
Insurance and pension funding	All countries (foreign +domestic)
Real estate activities, renting	All countries
Real estate activities	All countries
Renting of machinery and equipment	All countries
Computer and related activities	Bulgaria Montenegro Serbia
Research and develop.	All countries
Other business activities	All countries

Although each country tried to develop/or to save existing as much production facilities that is possible still much can be made in area of economic, political, market, marketing , transport and trade opportunities.

Microeconomic= $a+a_1$*cost competitiveness+a_2*quality+a_3*innovative+a_4*brand+a_5*transport trade potentials representations+a_6*number of innovative products +e

Macroeconomic=$b+b_1$*interest level+b_2*government support+b_3 trade opportunity+b_4 global recognition ,trade mark+b_4*new opportunities +e

Since now many form of game strategies were observed in world as well as in countries in that region that implies profit maximization strategy only for one side. It is done with many

forms and ways: GDP strength, Government support, legislation , non competitive price strategies, big names brands , large chain supermarket that have better opportunities and starting point, local products not put on market shelf's , products from abroad are sold etc. This one side strategy can boost one stronger economy but in long term will reduce tax rates and could bring GDP lower increase rates.

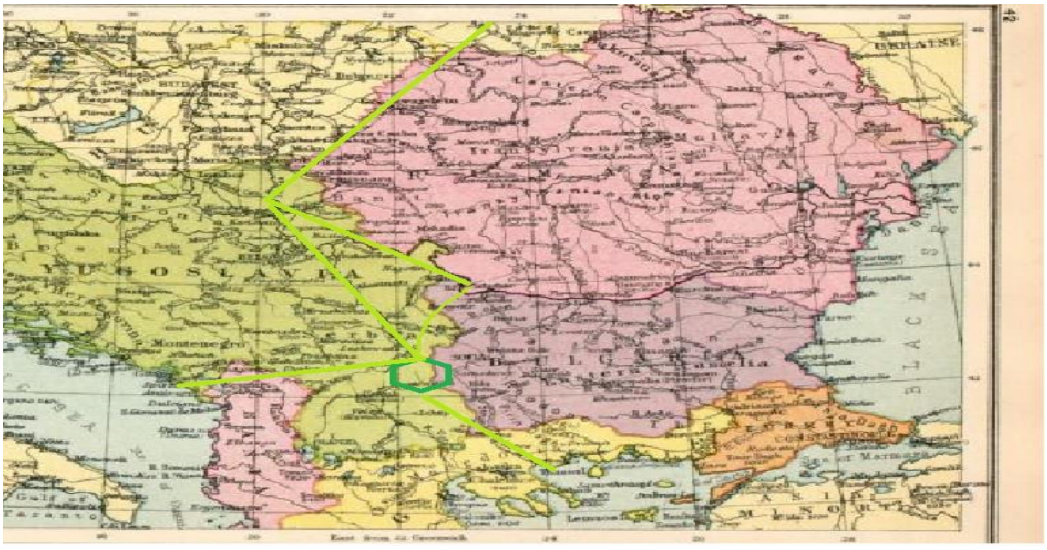
Some common strategy is presented as two types of markets: Market A and Market B .

Market A – Market for agricultural good, products, food , vegetable, wheat, corn, soya-

would bring goods from region to one central point and further offer lower price depending on quantity and make possible buyers from Asia, Middle East to involve in trade.

Market A *(St Ilija)*	Situated at Macedonia-Serbia-Bulgaria corner – goes to Middle East, Russia, Asia, Africa and region
Wheat	Storage facilities, long term secure supply, possibility to transport to Russia, Middle East, make physical and paper market , make possible for smaller buyers/sellers to participate, etc
Corn, Soya	
Sugar, Flowers	
Vegetables	

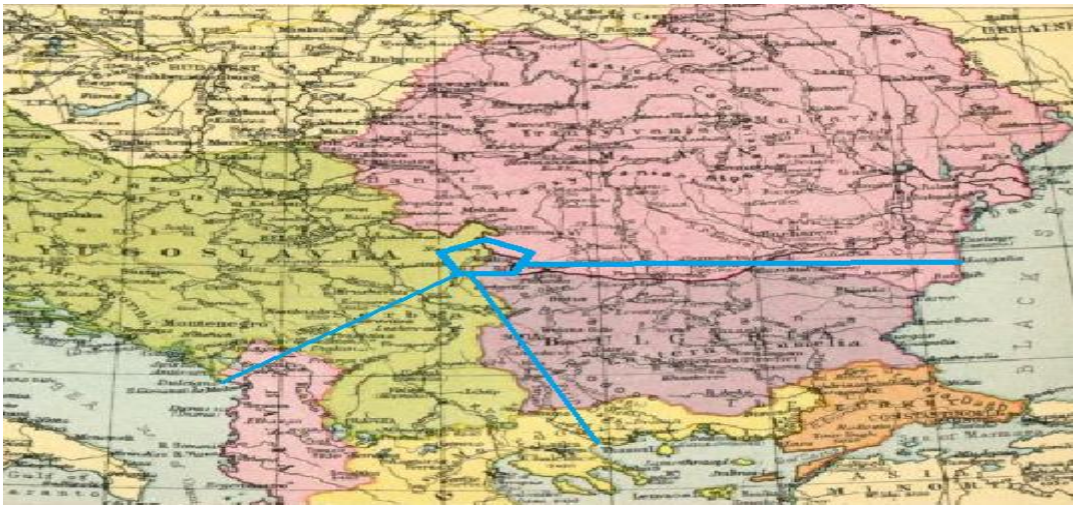
Benefits : in form of long term cooperation, making physical market , discount possibilities, ground for industry to further produce etc.



Map: web, possibilities

Market B – again situated at the corner of three counties, represent market, industrial and manufacturing trading spot, induce domestic production in goods, have up to date products of high technical standards produced by Bulgaria, Serbia, Romania, Montenegro, Bosnia,Albania, Macedonija as joint venture.

Market B St Cyril and Method	Romania-Bulgaria-Serbia corner- goods goes to region and global market
Manufacturing	Potentials to develop production in different types of product, with time product and goods varies with quality and quantity supply and production by region ;If made by cooperation can be competitive toward lower priced products from other markets
Trade	
Economic	
Skill trade	

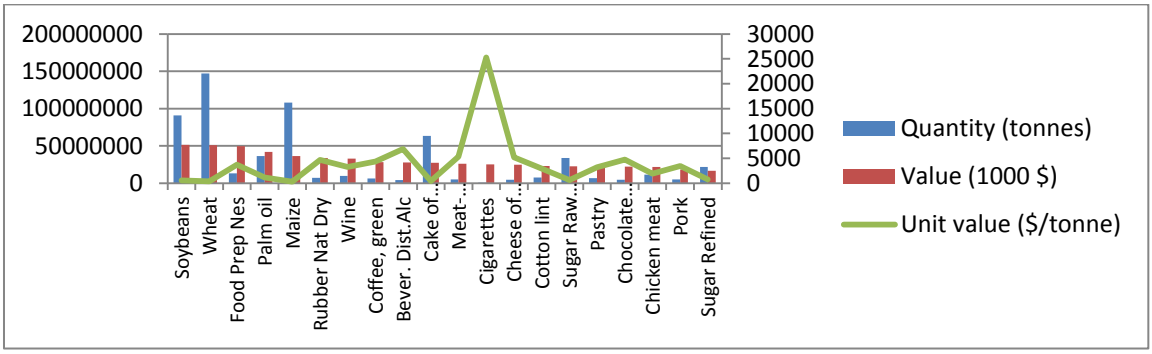


Source: web, possibilities

3.5. Agriculture

With rising number of people on earth question of agricultural production gains more and more importance. Data of quantity and price, relation of energy price input to end price are added with several others: ownership of resources, number of owners per ha, monopoly type of business, usage of herbal products, type of seed used. Its not rare fact that continents have very different views about policy in that filed and tried to compete with more or less subsidies in certain type of product. The largest quantity as expected is marked in wheat, corn , soya production, while the largest monetary value is in the end product of food preparation. Per unite price cigarettes are the most expensive good.

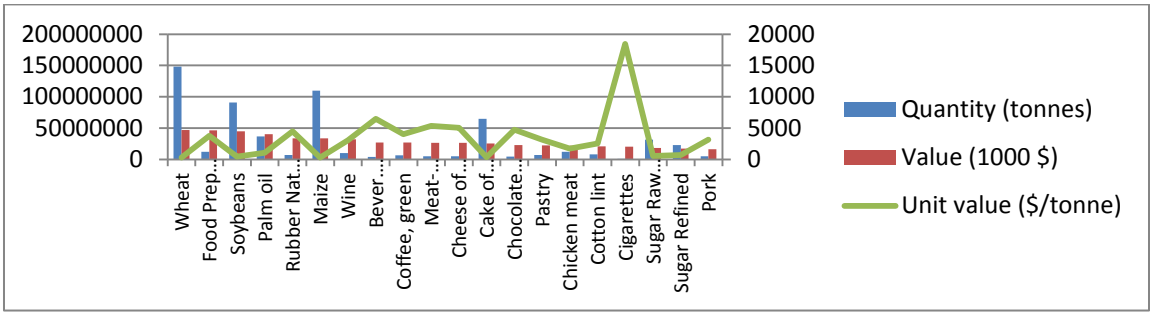
World import



Picture 67

There is a large world market for agricultural goods although it looks as if it is regionally concentrated (tons, quantity, can not be good preserved etc). Part of solution is that we still lacks low value transport possibilities on distant journeys, part that some markets are inaccessible due to low income , or are protective of their own domestic goods.

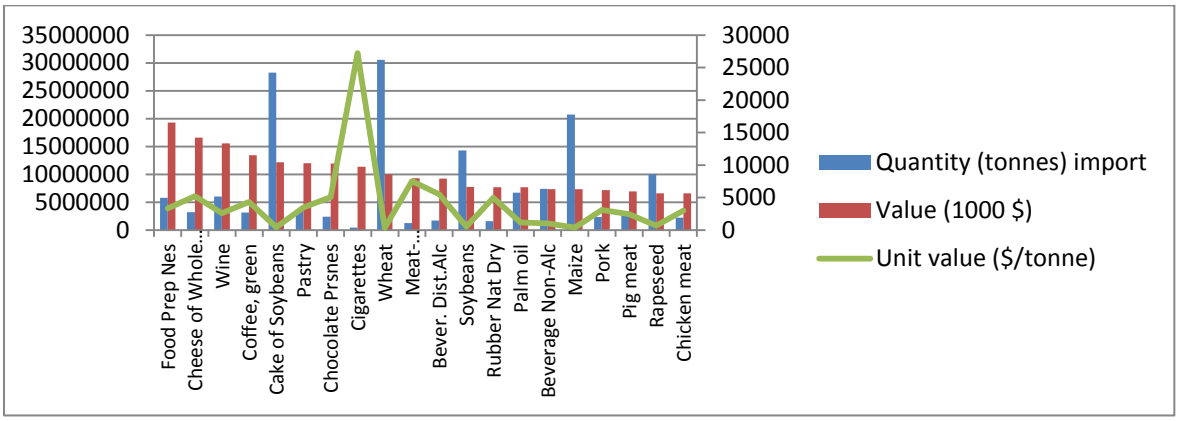
World export



Picture 68

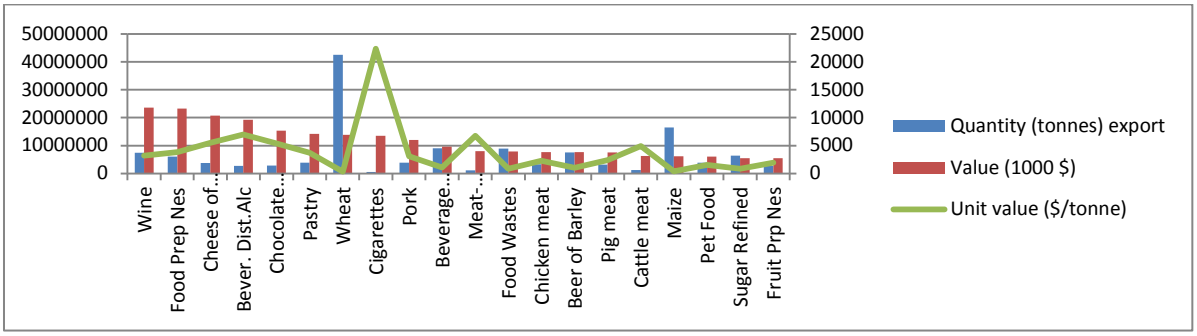
The majority EU trade is with wheat, maize and soybeans in quantity, and food end product, cheese, wine ,coffee, grain pastry in value. Very long tradition in food preparation, conservation, production, marketing and branding makes Europe one of the most quality and market with potentials but for end quality product. However it struggles with USA demand to open more its market for different seeds (GMO) that are not in line with current EU policy and they disagree about subsidy policy.

EU import



Picture 69

EU Export

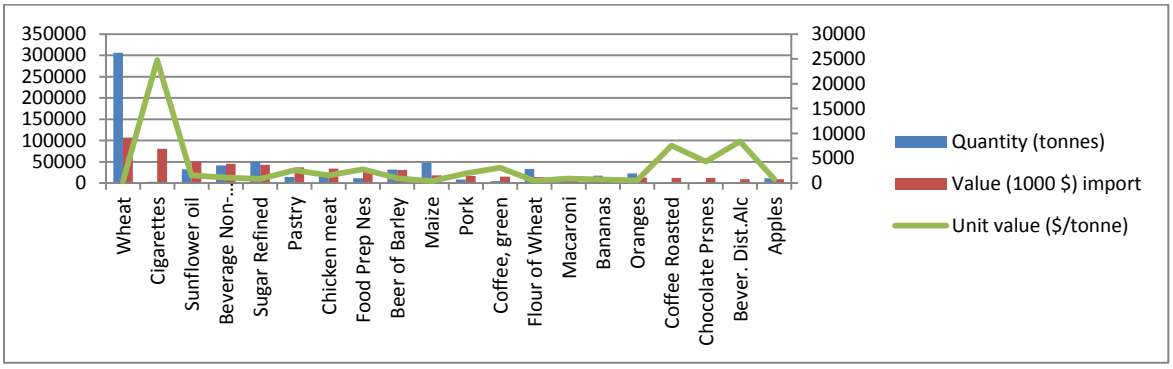


Picture 70

Balkan countries are situated on the crossroads between Africa, Asia, Middle East , Black Sea ,Russia and Ukraine and have potentials to reach EU market with agricultural or food preparation product. In that respect country policy is significant and can be advanced in the field, but with regional policy more products that can be reached for lesser price is additional impetuous for entering foreign markets with quality and price .

Albania is very dependent upon wheat import and additional benefit of common market (good from Serbia) can have positive impact on country Balance Sheet.

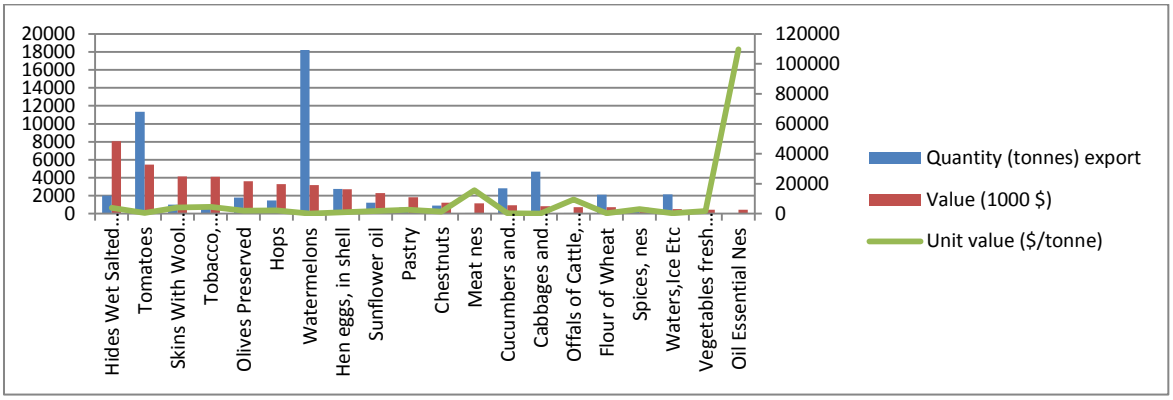
Albania import



Picture 71

At the same time Albania can produce watermelon, salad, tomato, cabbages and with environmentally clean production closeness of market –EU, regional- can further boost production and income.

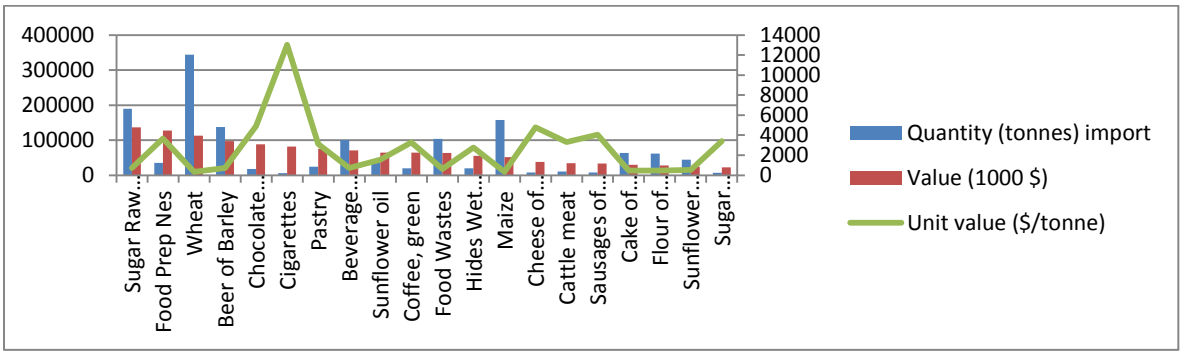
Albania export



Picture 72

Bosna is dependent on wheat, sugar import in quantities and in value terms food preparation product are added as well as maize, beer, chocolate pastry, coffee and other goods. Good position near Serbia, Hungary and Romania can have certain advantages in trade opportunities but better trade would be on free market without or with some tax exemption possibilities .

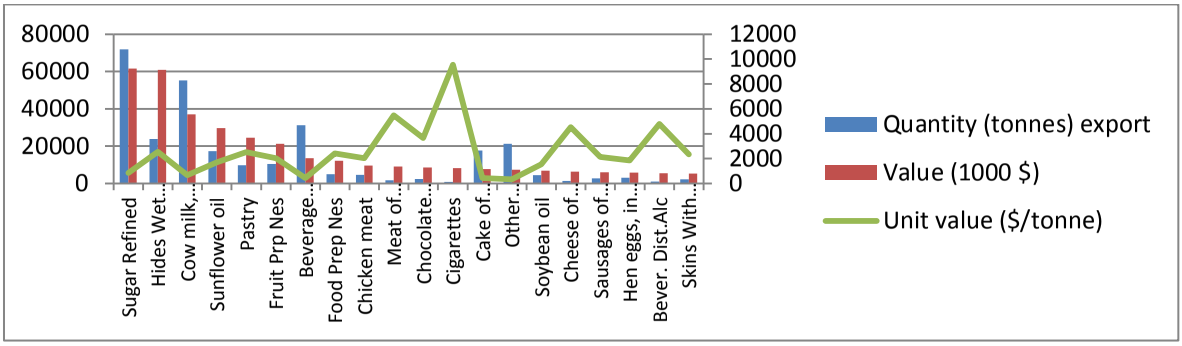
Bosna import



Picture 73

Potential for export Bosna finds in sugar products, cattle products, cow milk, sunflower oil and pastry.

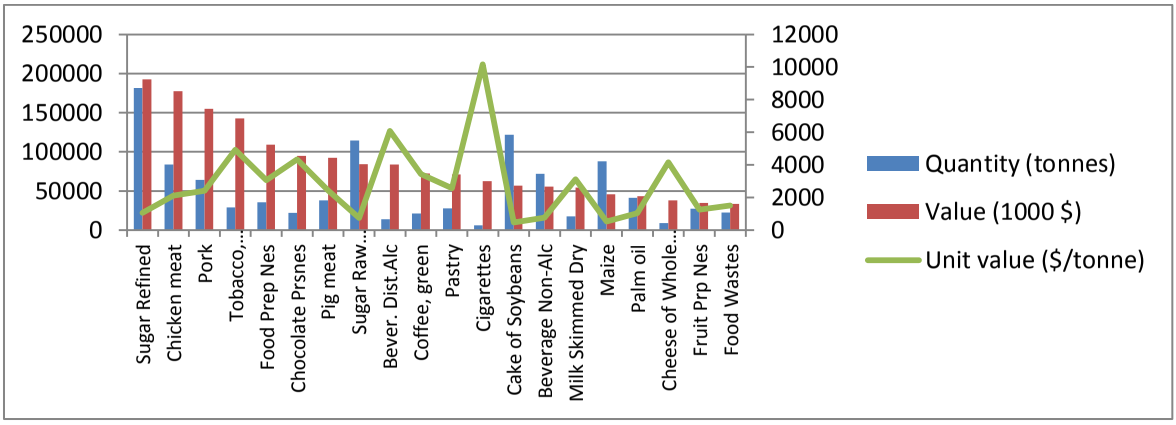
Bosna export



Picture 74

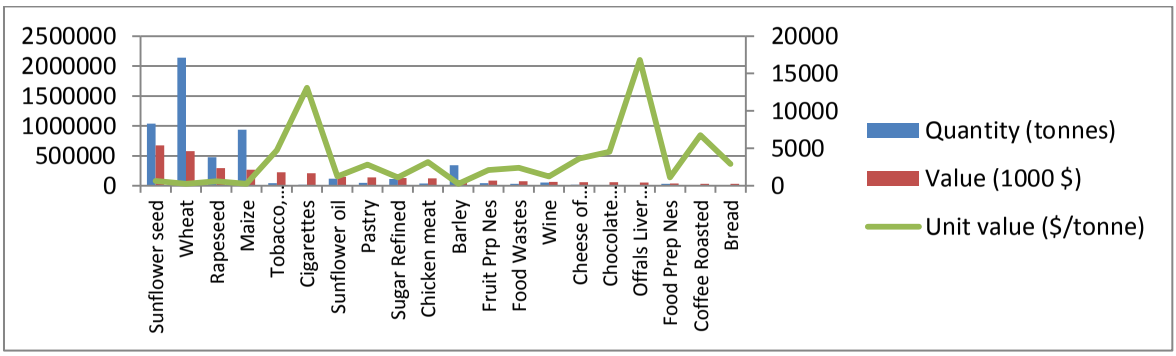
Bulgaria is importer in sugar products, chicken meat, pork, tobacco, pig meat and is big exporter in wheat ,maize and sunflower oil.

Bulgaria import



Picture 75

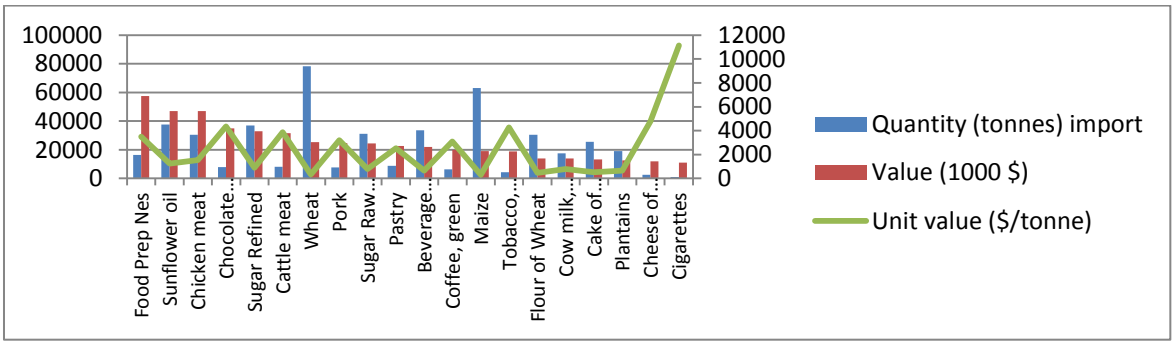
Bulgaria Export



Picture 76

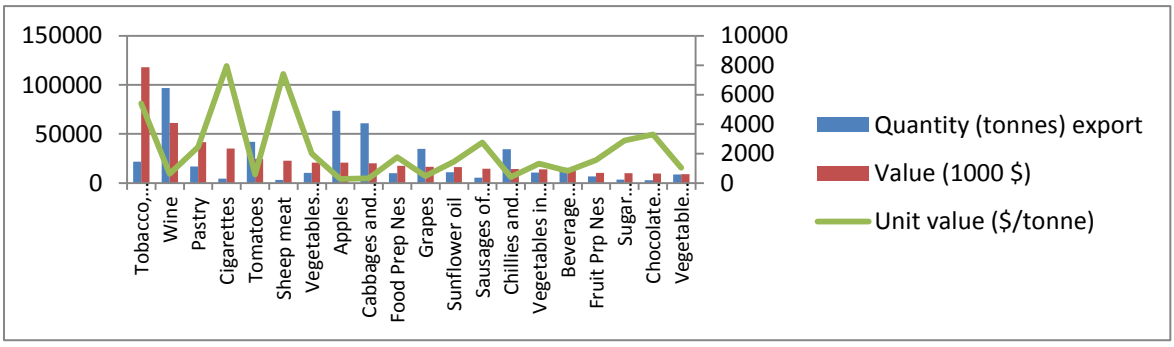
Macedonia is rich with sun , experienced with vegetable fruit production and can further boost end food product, wine production to reach extremely demanding EU market. Although it imports wheat, maize and meat it is very known for its tobacco products, wine, pastry, tomato, cabbage and all kinds of quality juices.

Macedonia import



Picture 77

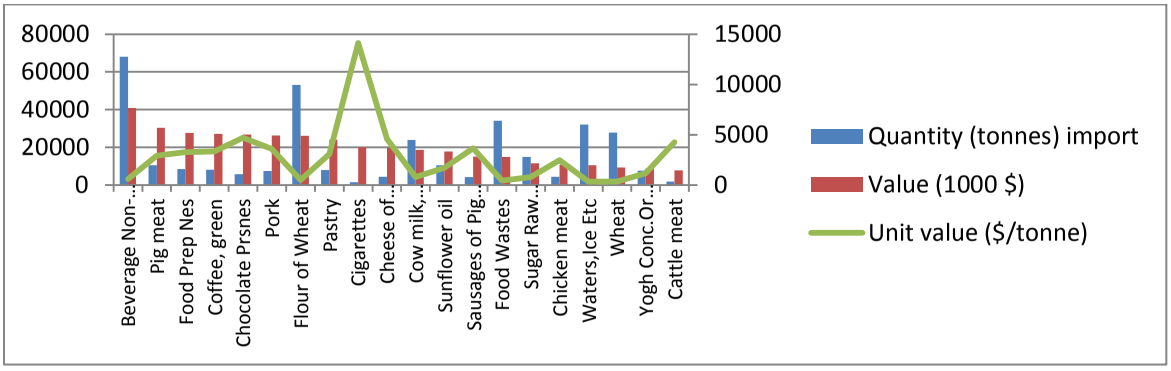
Macedonia export



Picture 78

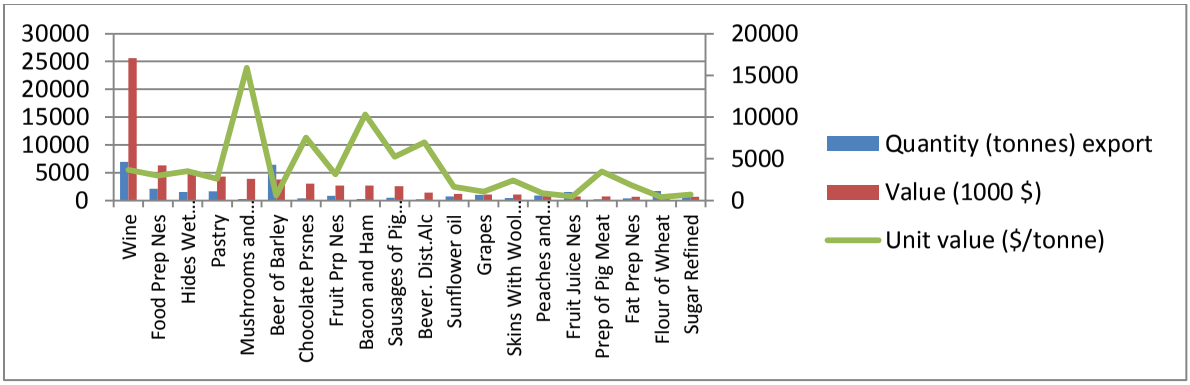
It is interesting to see on the small scale that what one country has in abundance the other neighboring lacks of. So Montenegro have the road toward sea, access to Italian, African coast and can its imported product trade further. Montenegro imports all kinds of beverages (Macedonia have in abundance), wheat (Serbia, Bulgaria would like to trade) pig meat (Bosnia, Serbia, Romania can trade etc.) .Montenegro exports wine, but can be also recognized as potential for food preparation, mushrooms, sausages production etc.

Montenegro import



Picture 79

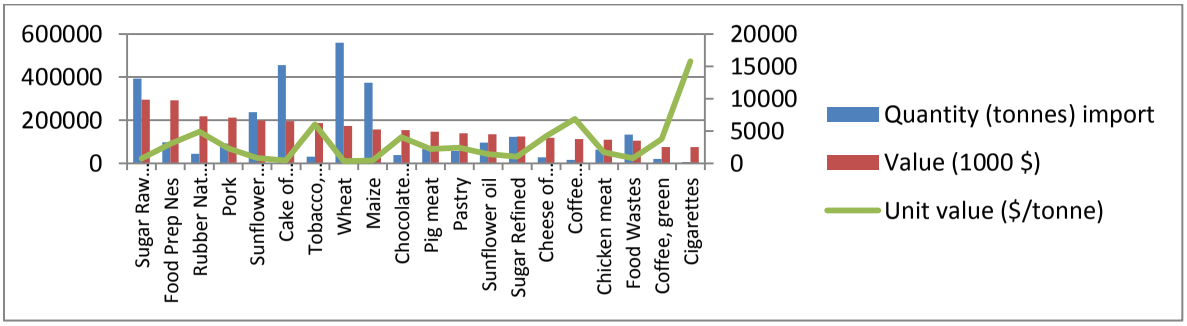
Montenegro export



Picture 80

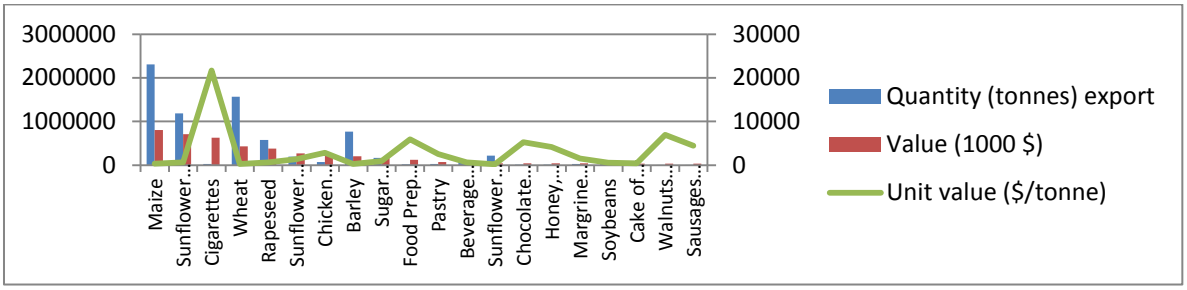
Romania imports wheat, maize, soybeans products ,sugar products and export maize , wheat, barley , cigarettes.

Romania Import



Picture 81

Romania Export



Picture 82

Numerous possibilities exist today, and besides trade potentials in good for money, good for good certain agreement can be established to incorporate manufacturing, industry, or energy trade as well.

Bulgari Export	Quantity (tonnes)	Bulgaria Export to :
Sunflower seed	1.040.710,00	Albania Montenegro
Wheat	2.137.202,00	Macedonia Albania
Rapeseed	475.837,00	Bosnia
Maize	938.936,00	Albania Montenegro
Tobacco, unmanufactured	47.277,00	Romania
Cigarettes	16.210,00	Romania
Sunflower oil	120.184,00	Albania Montenegro
Pastry	50.372,00	Serbia Bulgaria Romania Bosnia
Sugar Refined	111.947,00	Macedonia Albania
Chicken meat	39.470,00	Serbia
Barley		Serbia Montenegro Macedonia Bosnia

	343.115,00	
Fruit Prp Nes	42.878,00	
Food Wastes	32.055,00	
Wine	52.995,00	Montenegro Albania Romania
Cheese of Whole Cow Milk	17.187,00	Bosnia Albania Macedonia Montenegro Bosnia Romania
Chocolate Prsnes	13.669,00	
Offals Liver Duck	3.154,00	
Food Prep Nes	36.282,00	
Coffee Roasted	5.216,00	
Bread	11.280,00	

Bulgari Import	Quantity (tonnes)	Bulgaria Import from:
Sugar Refined	181.700,00	Serbia Romania Bosnia
Chicken meat	83.880,00	Bosnia Romania
Pork	64.227,00	Bosnia
Tobacco, unmanufactured	28.941,00	Macedonia Montenegro Albania
Food Prep Nes	35.614,00	Bosnia Macedonia Serbia Romania Montenegro
Chocolate Prsnes	21.843,00	Serbia
Pig meat	37.949,00	Montenegro Serbia Bosnia Romania
Sugar Raw Centrifugal	114.381,00	Serbia Romania Bosnia
Bever. Dist.Alc	13.773,00	Bosnia Serbia Macedonia Montenegro
Coffee, green	21.082,00	Macedonia
Pastry	27.708,00	Serbia Bulgaria Bosnia Romania
Cigarettes	6.171,00	Romania Serbia Bosnia Macedonia Montenegro Albania
Cake of Soybeans	121.800,00	

Beverage Non-Alc	72.122,00	Serbia, Macedonia Bosnia Romania
Milk Skimmed Dry	17.490,00	Romania
Maize	87.920,00	Romania Serbia Bosnia Macedonia Montenegro Albania
Palm oil	41.221,00	Romania
Cheese of Whole Cow Milk	9.153,00	Bosnia
Fruit Prp Nes	27.452,00	Macedonia Serbia Montenegro
Food Wastes	22.257,00	Serbia

Serbia Export	Quantity (tonnes) exoport	Serbia export to:
Maize	1.630.891,00	Romania Bosnia Bulgaria Albania
Fruit Prp Nes	168.928,00	Montenegro Bosnia Romania
Sugar Refined	191.827,00	Bosnia Montenegro Albania
Sunflower oil	80.004,00	Montenegro Macedonia Bosnia Albania
Wheat	323.419,00	Bosnia Montenegro Albania Macedonia
Pastry	29.983,00	Serbia Bulgaria Romania Bosnia
Beverage Non-Alc	153.812,00	Bulgaria Bosnia Montenegro Macedonia
Food Prep Nes	47.695,00	Bulgaria Bosnia
Beer of Barley	114.794,00	Montenegro Macedonia Bosnia
Chocolate Prsnes	17.228,00	Bosnia Bulgaria Montenegro
Apples	130.182,00	Bulgaria
Soybean oil	45.016,00	Montenegro Bosnia
Flour of Wheat	121.949,00	Bosnia Montenegro
Food Wastes	82.696,00	Whole Region
Fruit Juice Nes	7.461,00	Montenegro Albania Bulgaria
Vegetable Frozen	29.468,00	Whole region
Cow milk, whole, fresh	41.127,00	Whole region
Cigarettes	2.556,00	Whole region
Beet Pulp	156.309,00	Whole region
Sugar beet	432.552,00	Romania Bosnia Macedonia Montenegro

Serbia Import	Quantity (tonnes)	Serbia Import from:
Coffee, green	32.401,00	Bulgaria Montenegro Kosovo Montenegro
Food Prep Nes	31.641,00	Bosnia Macedonia Serbia Romania Montenegro
Cigarettes	5.962,00	Romania Bosnia Macedonia Romania Montenegro Albania
Rubber Nat Dry	12.278,00	Bulgaria Albania
Tobacco, unmanufactured	8.908,00	Bulgaria Macedonia Montenegro Albania
Bananas	52.435,00	
Wine	24.438,00	Macedonia Bulgaria Montenegro
Chocolate Prsnes	7.585,00	Bulgaria
Pastry	9.259,00	Serbia Bulgaria Bosnia Bulgaria Romania
Oranges	48.156,00	Macedonia Montenegro Albania
Bever. Dist.Alc	6.447,00	
Fruit Prp Nes	10.366,00	Macedonia Montenegro
Coffee Extracts	4.065,00	Bulgaria Montenegro Kosovo Montenegro
Palm oil	14.275,00	
Food Wastes	20.442,00	Serbia Bulgaria
Tomatoes	24.698,00	Macedonia
Tangerines, mandarins, clem.	22.953,00	Macedonia Montenegro
Sunflower seed	30.492,00	Bulgaria Romania
Pet Food	11.951,00	
Sausages of Pig Meat	5.976,00	Bosnia

Montenegro Export	Quantity (tonnes)	Montenegro export to:
Wine	6.958,00	Bosnia Bulgaria Romania Serbia
Food Prep Nes	2.122,00	Serbia Romania Bulgaria Albania
Hides Wet Salted Cattle	1.545,00	Whole region
Pastry	1.647,00	Serbia Bulgaria Romania Bosnia
Mushrooms and truffles	243,00	Serbia Bulgaria

Beer of Barley	6.416,00	Serbia Macedonia Bosnia
Chocolate Prsnes	400,00	Serbia Bulgaria
Fruit Prp Nes	856,00	Serbia Bulgaria Albania Macedonia
Bacon and Ham	261,00	Macedonia Bosnia
Sausages of Pig Meat	491,00	Serbia Bosnia Macedonia
Bever. Dist.Alc	204,00	Bulgaria Serbia
Sunflower oil	736,00	Montenegro Macedonia Bosnia Albania
Grapes	1.030,00	Macedonia Serbia Bulgaria
Skins With Wool Sheep	442,00	Albania
Peaches and nectarines	884,00	Serbia
Fruit Juice Nes	1.522,00	Bulgaria Romania Serbia
Prep of Pig Meat	200,00	Serbia Macedonia
Fat Prep Nes	381,00	Serbia
Flour of Wheat	1.709,00	Serbia Bulgaria Albania
Sugar Refined	913,00	Bosnia Macedonia

Import Montenegro	Quantity (tonnes)	Montenegro import from:
Beverage Non-Alc	68.005,00	Serbia, Macedonia Bosnia Romania
Pig meat	10.432,00	Serbia Bosnia Romania
Food Prep Nes	8.451,00	Bosnia Macedonia Serbia Romania Montenegro
Coffee, green	8.113,00	Bulgaria Kosovo
Chocolate Prsnes	5.689,00	Serbia Bulgaria
Pork	7.319,00	
Flour of Wheat	53.019,00	Serbia
Pastry	7.820,00	Serbia Bulgaria Bosnia Bulgaria Romania
Cigarettes	1.414,00	Romania Serbia Bosnia Macedonia Romania Albania
Cheese of Whole Cow Milk	4.320,00	Bulgaria Bosnia
Cow milk, whole, fresh	23.932,00	Serbia Bosnia
Sunflower oil	10.473,00	Romania Bulgaria

Sausages of Pig Meat	4.111,00	
Food Wastes	34.055,00	Serbia Bulgaria
Sugar Raw Centrifugal	14.865,00	Serbia Romania Bulgaria Bosnia
Chicken meat	4.350,00	Bulgaria Bosnia Romania
Waters,Ice Etc	32.049,00	
Wheat	27.706,00	Serbia Romania Bulgaria
Yogh Conc.Or Not	7.488,00	
Cattle meat	1.827,00	Montenegro Serbia Bulgaria Romania

Macedonia export	Quantity (tonnes) export	Macedonia export to:
Tobacco, unmanufactured	21.849,00	Serbia Romania Bulgaria
Wine	96.800,00	Montenegro Romania
Pastry	16.924,00	Serbia Bulgaria Romania Bosnia
Cigarettes	4.442,00	Serbia Romania Bulgaria
Tomatoes	42.020,00	Bulgaria Montenegro Bosnia
Sheep meat	3.081,00	Serbia Romania Bulgaria
Vegetables Preserved Nes	10.448,00	Serbia Romania Bulgaria
Apples	73.640,00	Macedonia Bosnia
Cabbages and other brassicas	60.881,00	All Balkans
Food Prep Nes	10.073,00	
Grapes	34.732,00	All Balkans centar trade
Sunflower oil		Montenegro Macedonia Bosnia

	11.188,00	Albania
Sausages of Pig Meat	5.347,00	
Chillies and peppers, green	34.502,00	
Vegetables in Vinegar	10.579,00	
Beverage Non-Alc	15.493,00	Bulgaria Bosnia Montenegro
Fruit Prp Nes	6.724,00	
Sugar Confectionery	3.466,00	
Chocolate Prsnes	2.914,00	
Vegetable Frozen	8.743,00	Whole region

Macedonia import	Quantity (tonnes) import	Macedonia import to:
Food Prep Nes	16.393,00	Bosnia Macedonia Serbia Romania Montenegro
Sunflower oil	37.593,00	Romania Bulgaria
Chicken meat	30.364,00	Bulgaria Bosnia Romania
Chocolate Prsnes	8.027,00	Serbia Bulgaria
Sugar Refined	36.962,00	Serbia Romania Bulgaria Bosnia
Cattle meat	8.198,00	Montenegro Serbia Bulgaria Romania
Wheat	78.326,00	Serbia Romania Bulgaria
Pork		

	7.738,00	
Sugar Raw Centrifugal	31.154,00	Serbia Romania Bulgaria Bosnia
Pastry	8.911,00	Serbia Bulgaria Bosnia Bulgaria Romania
Beverage Non-Alc	33.537,00	Serbia, Macedonia Bosnia Romania
Coffee, green	6.440,00	Bulgaria Montenegro Kosovo Montenegro
Maize	62.989,00	Romania, Serbia
Tobacco, unmanufactured	4.397,00	Bulgaria Macedonia Montenegro Albania
Flour of Wheat	30.459,00	Serbia
Cow milk, whole, fresh	17.460,00	Serbia Bosnia
Cake of Soybeans	25.487,00	
Plantains	19.087,00	
Cheese of Whole Cow Milk	2.478,00	Bulgaria Bosnia
Cigarettes	996,00	Romania Serbia Bosnia Romania Montenegro Albania

Bosnia Export	Quantity (tonnes)	Bosnia Export to:
Sugar Refined	71.900,00	Romania Bulgaria Montenegro
Hides Wet Salted Cattle	23.865,00	Whole region
Cow milk, whole, fresh	55.224,00	Bulgaria Romania
Sunflower oil	17.347,00	Montenegro Macedonia Bosnia Albania
Pastry	9.766,00	Serbia Bulgaria Romania Bosnia
Fruit Prp Nes	10.439,00	Montenegro Albania Serbia

Beverage Non-Alc	31.299,00	Bulgaria Montenegro Macedonia
Food Prep Nes	5.043,00	Serbia Montenegro Albania Bulgaria
Chicken meat	4.724,00	Bulgaria Romania
Meat of Chicken Canned	1.657,00	Bulgaria Romania
Chocolate Prsnes	2.355,00	Bulgaria Romania
Cigarettes	870,00	Serbia Romania Albania
Cake of Soybeans	17.726,00	Serbia Montenegro Macedonia
Other Fructose and Syrup	21.255,00	Macedonia Serbia Montenegro
Soybean oil	4.472,00	
Cheese of Whole Cow Milk	1.401,00	Bosnia Albania Macedonia Montenegro Romania
Sausages of Pig Meat	2.854,00	Serbia Montenegro
Hen eggs, in shell	3.151,00	Whole region
Bever. Dist.Alc	1.140,00	Bulgaria Serbia
Skins With Wool Sheep	2.290,00	Albania

Bosnia Import	Quantity (tonnes)	Bosnia Import from:
Sugar Raw Centrifugal	190.028,00	Serbia Romania Bulgaria
Food Prep Nes	34.817,00	Bosnia Macedonia Serbia Romania Montenegro
Wheat	344.172,00	Serbia Romania Bulgaria
Beer of Barley	137.823,00	Romania Bulgaria Serbia Montenegro
Chocolate Prsnes	17.916,00	Serbia Bulgaria
Cigarettes	6.277,00	Romania Serbia Bosnia Macedonia Romania Montenegro Albania
Pastry	24.044,00	Serbia Bulgaria Bosnia Bulgaria Romania
Beverage Non-Alc	99.674,00	Serbia, Macedonia Bosnia Romania
Sunflower oil	41.470,00	Romania Bulgaria
Coffee, green	19.454,00	Bulgaria Montenegro Kosovo Montenegro
Food Wastes	104.148,00	Serbia Bulgaria
Hides Wet Salted Cattle	19.938,00	Montenegro Bosnia
Maize	157.470,00	Serbia Romania

Cheese of Whole Cow Milk	8.008,00	Bulgaria Bosnia
Cattle meat	10.273,00	Montenegro Serbia Bulgaria Romania
Sausages of Pig Meat	8.274,00	
Cake of Soybeans	63.682,00	
Flour of Wheat	61.962,00	Serbia
Sunflower seed	44.816,00	Bulgaria Romania
Sugar Confectionery	6.622,00	Serbia Romania Bulgaria

Romania Export	Quantity (tonnes)	Romania export to:
Maize	2.310.666,00	Bulgaria Montenegro Albania
Sunflower seed	1.182.870,00	Bulgaria Montenegro Albania
Cigarettes	28.957,00	Bulgaria Montenegro Albania
Wheat	1.568.735,00	Bulgaria Montenegro Albania
Rapeseed	577.208,00	Bulgaria Montenegro Albania
Sunflower oil	193.792,00	Montenegro Macedonia Bosnia Albania
Chicken meat	73.182,00	Serbia Montenegro Albania
Barley	763.541,00	Serbia Montenegro Macedonia Bosnia
Sugar Refined	167.885,00	Macedonia
Food Prep Nes	19.934,00	Serbia Bulgaria Montenegro
Pastry	27.766,00	Serbia Bulgaria Romania Bosnia
Beverage Non-Alc	97.644,00	Bulgaria Bosnia Montenegro Macedonia
Sunflower Cake	215.237,00	Montenegro Macedonia Bosnia Albania
Chocolate Prsnes	7.973,00	Whole region
Honey, natural	9.899,00	Whole region
Margrine Short	26.927,00	Bulgaria
Soybeans	72.716,00	
Cake of Soybeans	80.678,00	
Walnuts Shelled	4.797,00	
Sausages of Pig Meat	7.158,00	

Romania Import	Quantity (tonnes) import	**Romania Import from:**
Sugar Raw Centrifugal	392.837,00	Serbia Bulgaria Bosnia
Food Prep Nes	96.862,00	Bosnia Macedonia Serbia Romania Montenegro
Rubber Nat Dry	44.300,00	
Pork	91.854,00	
Sunflower seed	237.377,00	Bulgaria
Cake of Soybeans	455.343,00	
Tobacco, unmanufactured	31.091,00	Bulgaria Macedonia Montenegro Albania
Wheat	559.139,00	Serbia Romania Bulgaria
Maize	373.881,00	Serbia Romania
Chocolate Prsnes	38.424,00	Serbia Bulgaria
Pig meat	65.844,00	Montenegro Serbia Bosnia
Pastry	57.177,00	Serbia Bulgaria Bosnia Bulgaria Romania
Sunflower oil	95.574,00	Romania Bulgaria
Sugar Refined	122.154,00	Serbia Bulgaria Bosnia
Cheese of Whole Cow Milk	28.266,00	Bulgaria Bosna
Coffee Roasted	16.425,00	Bulgaria Montenegro Kosovo Montenegro
Chicken meat	63.817,00	Bulgaria Bosna Romania

Food Wastes	133.590,00	Serbia Bulgaria
Coffee, green	20.261,00	Bulgaria Montenegro Kosovo Montenegro
Cigarettes	4.780,00	Romania Serbia Bosnia Macedonia Montenegro Albania

4. GDP RELATIONS

There is a vast literature about GDP formation, calculations and forecast possibilities and some of the relations are tackled as followed. Balkan countries have incorporated all aspects of GDP formation in its statistical calculations(Production, Expenditure and Income Approach) but are faced with uncertainties to the same degree as other market economies(inner inefficiencies, interrelation of GDP in global world that brings sudden GDP decline , other not visible factors incorporated in its picture). Crises of 2008 brought again attention to economic cycle as upward or downward trend of GPD expansion contraction in the level of economic activities around its long term trend. These fluctuation occurs along long term trend growth after rapid economic growth and periods of stagnation or decrease in activities. It was researches by numerous economist: J.C. Leonard de Sismondi (1819) (period of economic crises in existing economic equilibrium) ;Clement Juglar (1860) identified economic cycles as 7-11 years long, John Shumpeter (1883) stated that cycle has a four stages with recovery prosperity coming from increase in production, consumer confidence and aggregate demand:

a) expansion (increase in production , lower interest rates, etc.)

b) crises (stock exchange crashes, many companies went in crises, out of work etc.)

c) recession (drops in prices, output, again rise in interest rates etc.)

d) recovery (stocks recover, prices fall, economy grows, employment grows, etc)

Economist through time have different opinion about fluctuation time. Some of them purpose that it lasts around 3-5 years(Joseph Kitchin); ; 7-11 years (Junglar fixed investment cycle); 15-25 years (Simon Kuznets building cycle); 45-60 years (Nikolai Kontratiev long technological cycles).

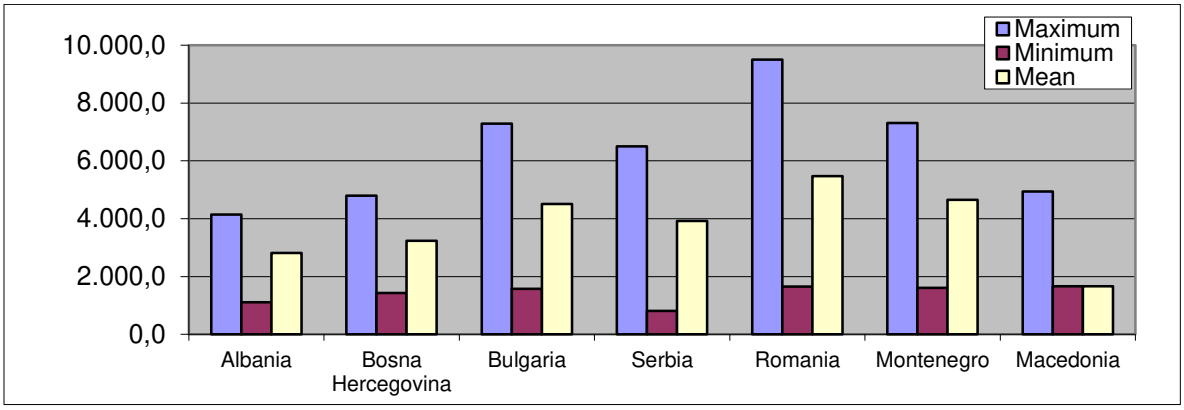
Economist also debated whether exogenous or endogenous reasons are behind cycles with two ground beliefs : classical school (exogenous-minimal Government intervention in economy is needed) or Keynesian (endogenous – it is on Government to intervene or run toe process). Somewhat on truck on recent crises causes was Henry Georg who contributed to economy with notion that land price fluctuation can distorts economic picture while decreasing productivity pushing aggregate supply on left, or making land more expensive for average buyer in a way pushing aggregate supply up. It was widely reasoned that behind the 2008 crises was large speculative bubble who originated in USA.

4.1. GDP as function of itself

What is already stated by many economies GDP have tendencies to vary and grow with time being related to the past performance. In that respect it is a representation of many form that all starts from basic notion:

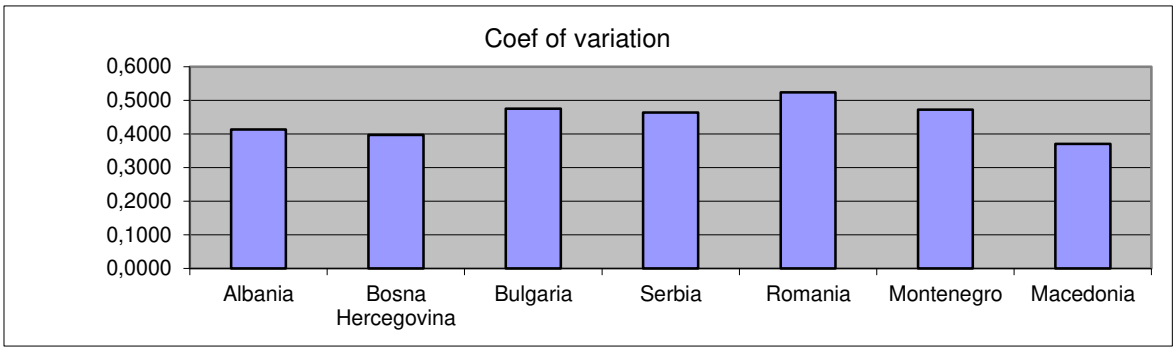
$GDP_t = a + GDP_{t+1} + e$

When relating past performance of GDP/capita with future in period of only ten years large discrepancies are obtained as result. This is specific to different path that Balkan economies have come considering EU process, solved or not privatization issues, strong and clear policy toward future economic path etc. From the picture 83 it is visible that Romania, Bulgaria had very large discrepancies from the first to last point of observation- GDP/ capita have grown very fast .

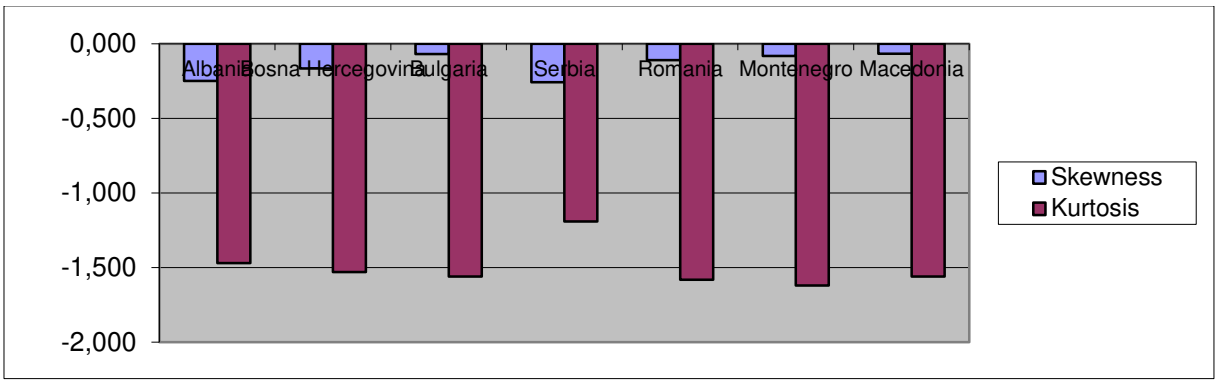


Picture 83 : Standard deviation GDP /capita USD

Coefficient of variation states that they have similar risk in their economies as part of region that is dependent upon each other.



Picture 84 : Coefficient of Variation



Picture 85: Skewness / Kurtosis

Current picture of correlation matrix states more or less GDP/capita relation toward each other. This picture can point toward economic structure that is more oriented toward trade, some to agriculture, or industrial activities and that can be changed over time or some relation revalued to bring new potential benefits to both economies.

Table13: Correlation Matrix of Variables

	Albania	Bosna Hercegovina	Bulgaria	Serbia	Romania	Montenegro	Macedonia
Albania	1,0000	0,9951	0,9940	0,9769	0,9820	0,9907	0,99136
Bosna Hercegovina	0,9951	1,0000	0,9950	0,9855	0,9900	0,9980	0,9966
Bulgaria	0,9940	0,9953	1,0000	0,9710	0,9809	0,9960	0,998
Serbia	0,9769	0,9856	0,9710	1,0000	0,9847	0,9810	0,972
Romania	0,9820	0,9901	0,9809	0,9850	1,0000	0,9890	0,981
Montenegro	0,9907	0,9980	0,9960	0,9813	0,9890	1,0000	0,9969
Macedonia	0,9913	0,9966	0,9980	0,9720	0,9810	0,9969	1
Max	Albania Bulgaria	Bosnia Montenegro	Bulgaria Macedonia	Serbia Bosnia	Romania Bosnia	Montenegro Bosnia	Macedonia Bulgaria
Min	Albania Serbia	Bosnia Serbia	Bulgaria Serbia	Serbia Bulgaria	Romania Bulgaria	Montenegro Serbia	Macedonia Serbia

When regressing the GDP/capita with intercept and its own value (time lag) results are obtained as follows. Negative growth in period 2008-2012, strong positive relation and almost perfect fit of future growth that is related to past performance (2000-2008).

Table 14: GDP /capita

APSOLUT		2001-2012	2001-2008	2008-2012
Albania	CON	450	10,66	4641
	GDPCAP(-1)	0,92	1,17	-0,168
Bosna i Hercegovina	CON	551	-189,69	6573
	GDPCAP(-1)	0,9	1,25	-0,45
Bulgaria	CON	710	-154,69	6808
	GDPCAP(-1)	0,93	1,26	-0,007
Serbia	CON	1105	290	8595
	GDPCAP(-1)	0,8	1,148	-0,52
Romania	CON	1136	-26,37	12108,6
	GDPCAP(-1)	0,88	1,26	-0,466
Montenegro	CON	834	-192	9751
	GDPCAP(-1)	0,91	1,28	-0,4147
Macedonia	CON	476	-360	5390
	GDPCAP(-1)	0,92	1,29	-0,1735

In the log form it is further accented situation of long term growth rate at all economies, where 2001-2008 brought almost linear trend to growth to all (although different to some extend where Serbia had lower than expected growth, others lower starting value than Serbia). Period of 2008-2012 brought difficulties to all economies stating that only past performance is not enough to evaluate GDP in future forecast.

Table 15: GDP/capita log form data

LOG FORM		2001-2012	2001-2008	2008-2012
Albania	CON	0,44	0,049	4,19
	GDPCAP(-1)	0,88	1,006	-0,165
Bosna i Hercegovina	CON	0,437	-0,165	5,23
	GDPCAP(-1)	0,88	1,068	-0,43
Bulgaria	CON	0,42	-0,078	3,88
	GDPCAP(-1)	0,89	1,04	-0,014
Serbia	CON	1,096	0,84	5,73
	GDPCAP(-1)	0,707	0,78	-0,53
Romania	CON	0,49	-0,12	5,75
	GDPCAP(-1)	0,87	1,06	-0,46
Montenegro	CON	0,5	-0,078	5,34
	GDPCAP(-1)	0,87	1,046	-0,39
Macedonia	CON	0,33	-0,368	4,26
	GDPCAP(-1)	0,91	1,125	-0,16

Table 16: GDP/capita log diff form data

LOG DIFF		2001-2012	2001-2008	2008-2012
Albania	CON	0,0078	0,018	0,004
	GDPCAP(-1)	0,42	0,178	0,105
Bosna i Hercegovina	CON	0,0075	0,019	0,0012
	GDPCAP(-1)	0,38	0,12	0,17
Bulgaria	CON	0,008	0,023	0,004
	GDPCAP(-1)	0,4	0,08	0,11
Serbia	CON	0,0058	0,018	-0,006
	GDPCAP(-1)	0,35	0,22	0,046
Romania	CON	0,007	0,028	-0,004
	GDPCAP(-1)	0,5	0,014	0,08
Montenegro	CON	0,0079	0,028	-0,0006
	GDPCAP(-1)	0,38	-0,18	0,27
Macedonia	CON	0,0097	0,0016	0,0022
	GDPCAP(-1)	0,167	0,14	0,15

Calculations for all countries shows that GDP in period of 2008-2012 could not be calculated only on past performance, and showed a very weak or even negative relation with spores regression results with real GDP values far from predicted model based on past performance regression results.

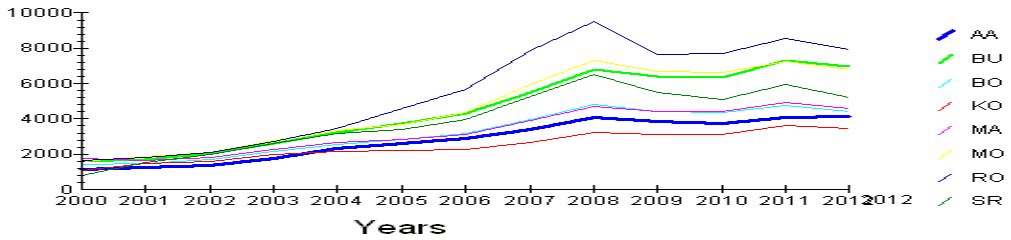
Table 17: GDP/capita absolute value relation

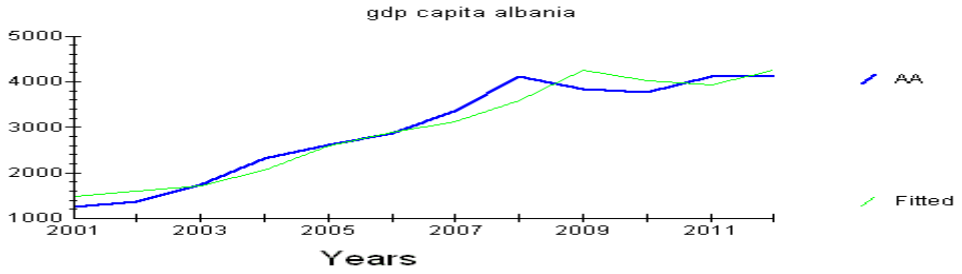
Country	Time	Dependent Variable	Regressor	Coefficient	s.e.	t (Prob)	R^2
Albania	2001-2012	Apsolut =GDP/capita (USD)	Intercept	450,65	2218,03	2,066(0,06)	
			GDP/cap(-1)	0,92	0,074	12,41(0,00)	93
Albania	2001-2012	Apsolut =GDP/capita (USD)	GDP/cap(-1)	1,07	0,0318	33,55(0,00)	91
Albania	2001-2008	Apsolut =GDP/capita (USD)	Intercept	10,66	173,46	0,061(0,95)	
			GDP/cap(-1)	1,174	0,0779	15,0668(0,00)	97

Albania	2001-2008	Apsolut =GDP/capita (USD)	GDP/cap(-1)	1,179	0,0254	46,32(0,00)	97
Albania	2008-2012	Apsolut =GDP/capita (USD)	Intercept	4641	1252	3,70(0,034)	
			GDP/cap(-1)	-0,168	0,325	-0,517(0,64)	8
Albania	2008-2012	Apsolut =GDP/capita (USD)	GDP/cap(-1)	1,0341	0,046	22,25(0,0)	-411
Bulgaria	2001-2012	Apsolut =GDP/capita (USD)	Intercept	710,38	377,29	1,88(0,088)	
			GDP/cap(-1)	0,93	0,079	11,81(0,00)	93
Bulgaria	2001-2012	Apsolut =GDP/capita (USD)	GDP/cap(-1)	1,0752	0,0373	28,77(0,00)	90
Bulgaria	2001-2008	Apsolut =GDP/capita (USD)	Intercept	-154,69	176,71	-0,87(0,41)	
			GDP/cap(-1)	1,26	0,052	23,41(0,0)	98
Bulgaria	2009-2012	Apsolut =GDP/capita (USD)	Intercept	6383	4,989	1,27(0,329)	
			GDP/cap(-1)	0,0549	0,742	0,074(0,948)	0,0027
Bosna/Herzegovina	2001-2012	Apsolut =GDP/capita (USD)	Intercept	551,54	293,79	1,877(0,09)	
			GDP/cap(-1)	0,904	0,087	10,38(0,0)	91
Bosna/Herzegovina	2001-2012	Apsolut =GDP/capita (USD)	GDP/cap(-1)	1,0564	0,0359	29,87(0,00)	88
Bosna/Herzegovina	2001-2008	Apsolut =GDP/capita (USD)	Intercept	-189,69	172,39	-1,1(0,31)	
			GDP/cap(-1)	1,2529	0,067	18,56(0,00)	98
Bosna/Herzegovina	2009-2012	Apsolut =GDP/capita (USD)	Intercept	6314	2176	2,90(0,001)	
			GDP/cap(-1)	-0,396	0,476	-0,83(0,49)	25

Bosna/Herzegovina	2009-2012	Apsolut =GDP/capita (USD)	GDP/cap(-1)	0,978	0,037	26,43(0,0)	-2,86
Macedonia	2001-2012	Apsolut =GDP/capita (USD)	Intercept	476,34	315,17	1,51(0,16)	90
			GDP/cap(-1)	0,92	0,092	10,03(0,00)	
Macedonia	2001-2008	Apsolut =GDP/capita (USD)	Intercept	-360,89	263,45	-1,36(0,22)	95
			GDP/cap(-1)	1,29	0,1	12,78(0,00)	
Macedonia	2009-2012	Apsolut =GDP/capita (USD)	Intercept	5992	3083	1,94(0,19)	
			GDP/cap(-1)	-0,302	0,66	-0,45(0,69)	9
Macedonia	2009-2012	Apsolut =GDP/capita (USD)	GDP/cap(-1)	0,99	0,0415	23,85(0,00)	-161
Montenegro	2001-2012	Apsolut =GDP/capita (USD)	Intercept	834,41	435,22	1,91(0,084)	
			GDP/cap(-1)	0,91	0,088	10,32(0,00)	91
Montenegro	2001-2008	Apsolut =GDP/capita (USD)	Intercept	-192,93	294,79	-0,65(0,537)	
			GDP/cap(-1)	1,28	0,084	15,17(0,0)	97
Montenegro	2009-2012	Apsolut =GDP/capita (USD)	Intercept	9416	3429	2,74(0,11)	
			GDP/cap(-1)	-0,367	0,49	-0,74(0,53)	21
Montenegro	2001-2012	Apsolut =GDP/capita (USD)	GDP/cap(-1)	1,0633	0,0417	25,46(0,0)	88
Romania	2001-2012	Apsolut =GDP/capita (USD)	Intercept	1136	646,86	1,75(0,105)	
			GDP/cap(-1)	0,88	0,108	8,13(0,00)	86

Romania	2001-2008	Apsolut =GDP/capita (USD)	Intercept	-26,37	269,38	-0,097(0,925)	
			GDP/cap(-1)	1,26	0,069	20,05(0,0)	98
Romania	2009-2012	Apsolut =GDP/capita (USD)	Intercept	9971	2395	4,16(0,053)	
			GDP/cap(-1)	-0,2418	0,28	-0,84(0,487)	26
Romania	2001-2012	Apsolut =GDP/capita (USD)	GDP/cap(-1)	1,0528	0,055	19,102(0,0)	82
Romania	2009-2012	Apsolut =GDP/capita (USD)	GDP/cap(-1)	0,943	0,065	14,42(0,001)	-611
Serbia	2001-2012	Apsolut =GDP/capita (USD)	Intercept	1105	462,27	2,39(0,038)	84
			GDP/cap(-1)	0,8	0,109	7,33(0,00)	
Serbia	2001-2008	Apsolut =GDP/capita (USD)	Intercept	290,35	281,59	1,031(0,342)	
			GDP/cap(-1)	1,148	0,089	12,7(0,00)	96
Serbia	2009-2012	Apsolut =GDP/capita (USD)	Intercept	6825	2464	2,76(0,109)	
			GDP/cap(-1)	-0,24225	0,426	-0,568(0,627)	13,9
Serbia	2001-2012	Apsolut =GDP/capita (USD)	GDP/cap(-1)	1,0439	0,055	18,8(0,0)	75
Serbia	2009-2012	Apsolut =GDP/capita (USD)	GDP/cap(-1)	0,933	0,0702	13,29(0,01)	-316




gdp capita albania
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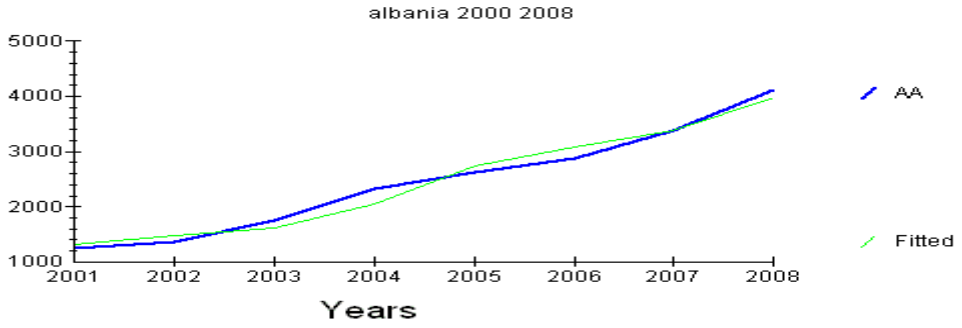
2011
Years
AA
Fitted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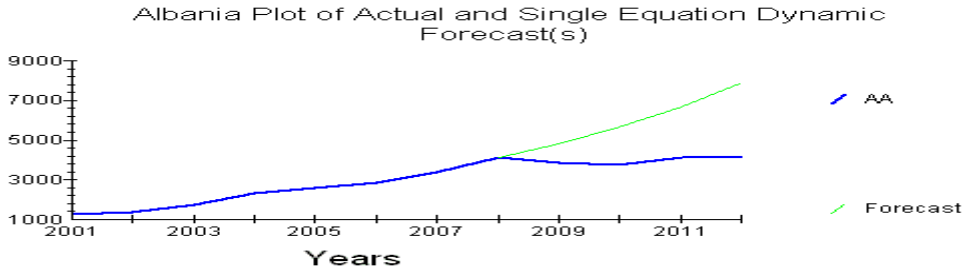
Albania Plot of Actual and Single Equation Dynamic Forecast(s)
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Years
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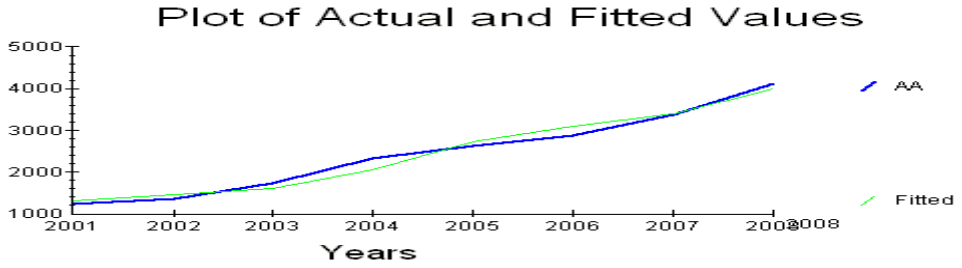
Forecast


Plot of Actual and Fitted Values
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Years
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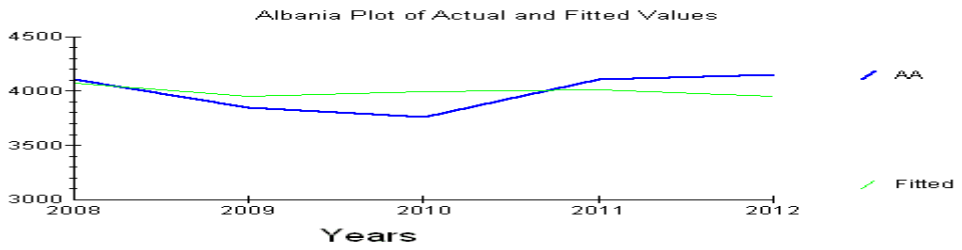
Fitted


Albania Plot of Actual and Fitted Values
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Years
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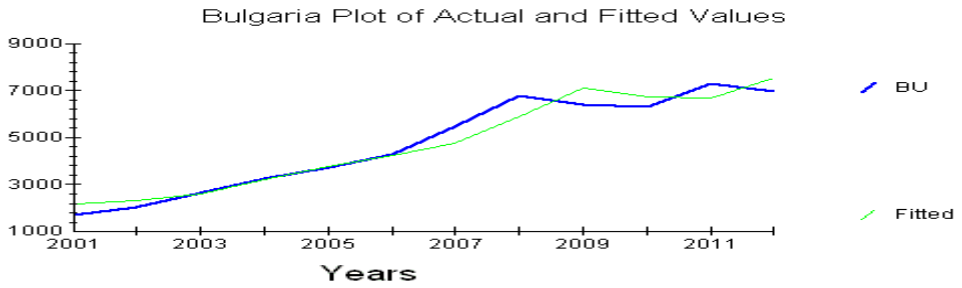
Fitted


Bulgaria Plot of Actual and Fitted Values
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Years
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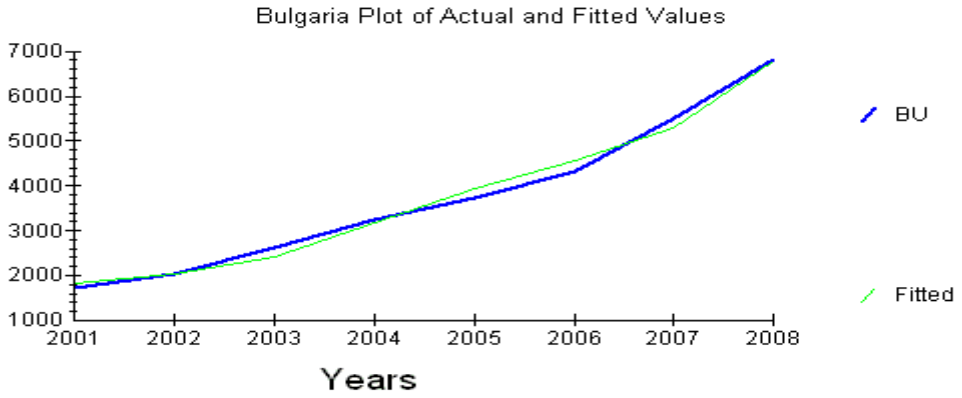
Bulgaria Plot of Actual and Fitted Values
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Years
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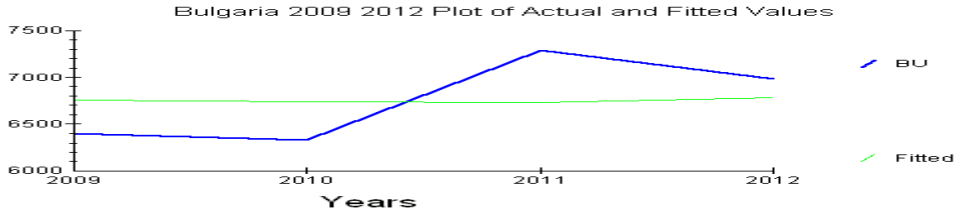
Fitted


Bulgaria 2009 2012 Plot of Actual and Fitted Values
7500
7000
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2009
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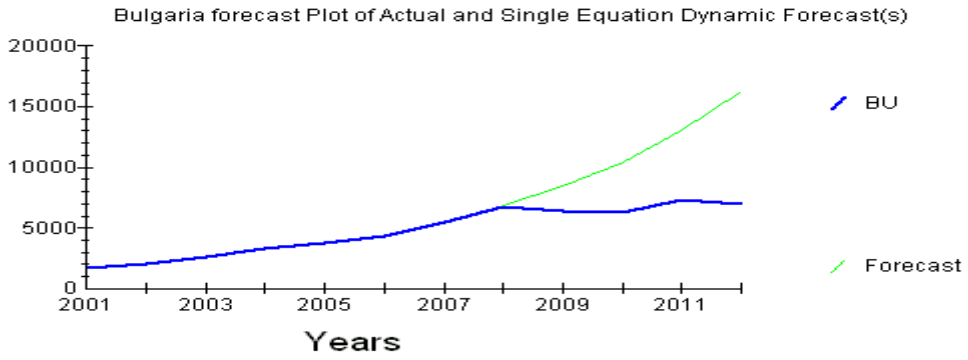
2012
Years
BU
Fitted


Bulgaria forecast Plot of Actual and Single Equation Dynamic Forecast(s)
20000
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2001
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2005
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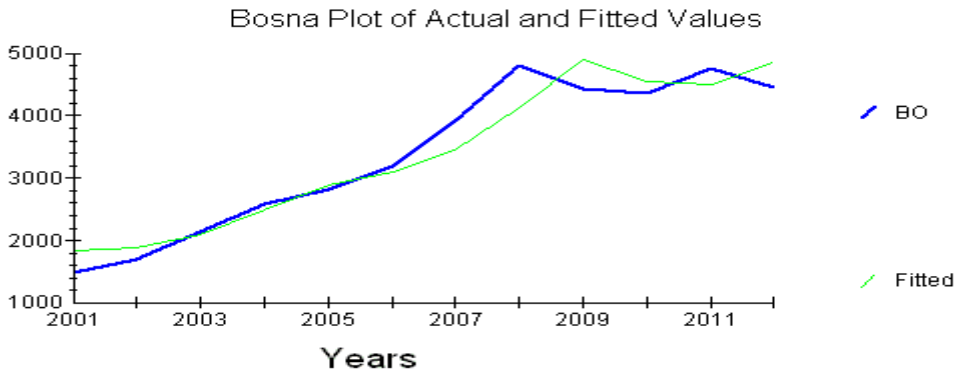
2011
Years
BU
Forecast


Bosna Plot of Actual and Fitted Values
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Years
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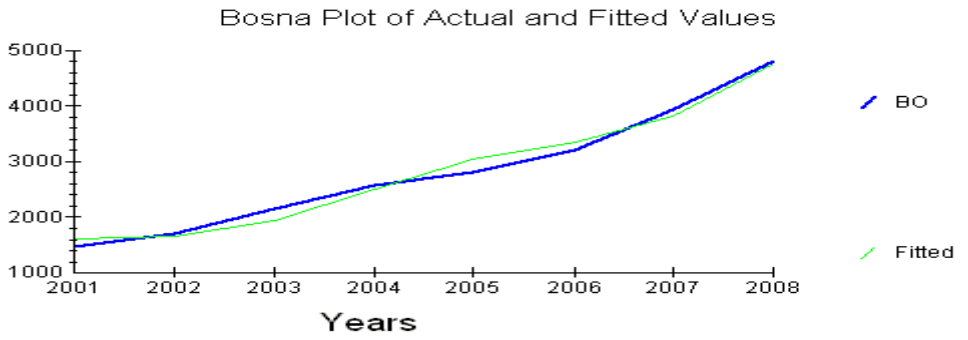
Bosna Plot of Actual and Fitted Values
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Years
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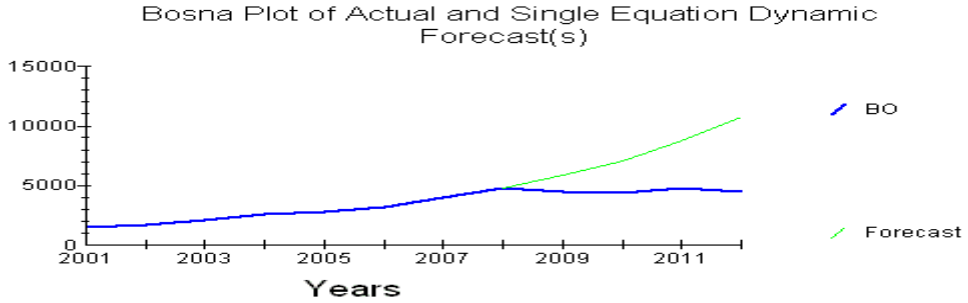
Fitted


Bosna Plot of Actual and Single Equation Dynamic Forecast(s)
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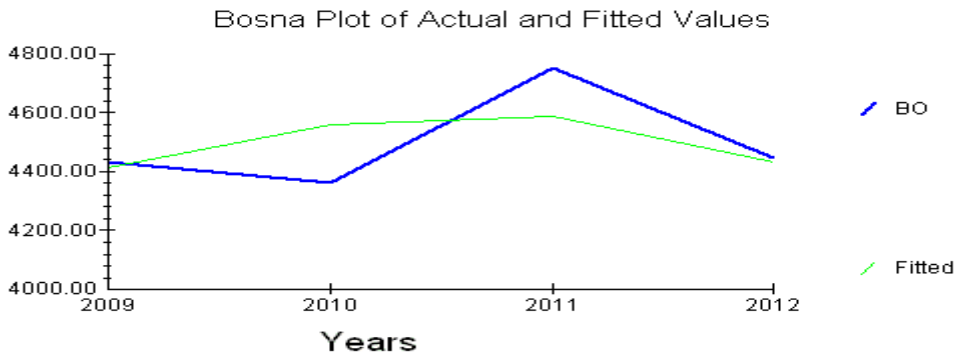
Years
BO
Forecast


Bosna Plot of Actual and Fitted Values
4800.00
4600.00
4400.00
4200.00
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2009
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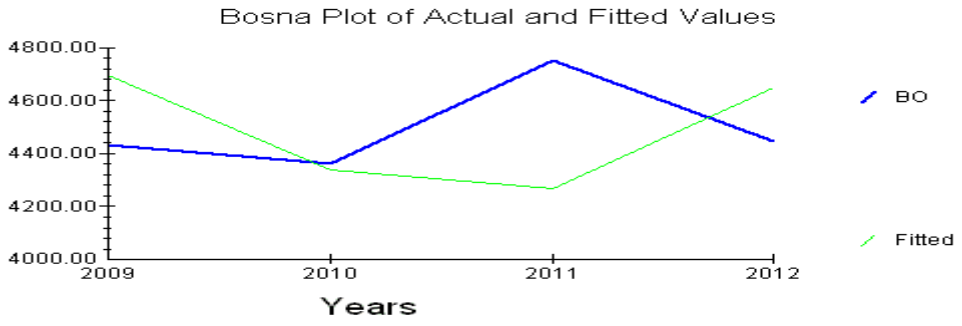
Years
BO
Fitted


Bosna Plot of Actual and Fitted Values
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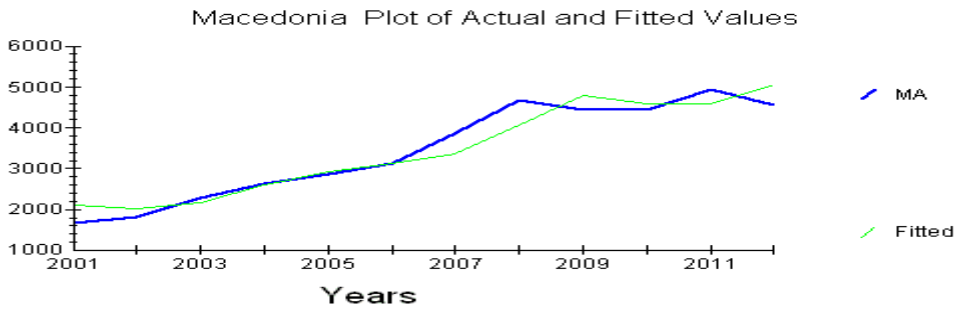
Macedonia Plot of Actual and Fitted Values
6000
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2000
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Years
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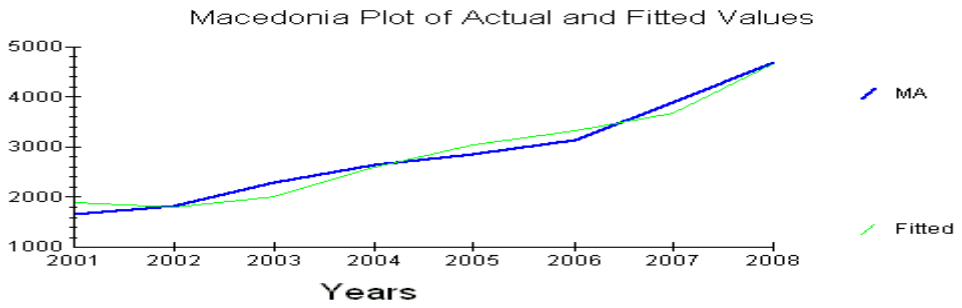
Fitted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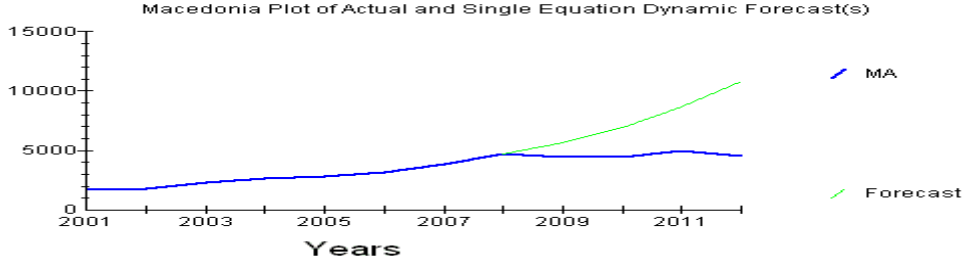
Macedonia Plot of Actual and Single Equation Dynamic Forecast(s)
15000
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2001
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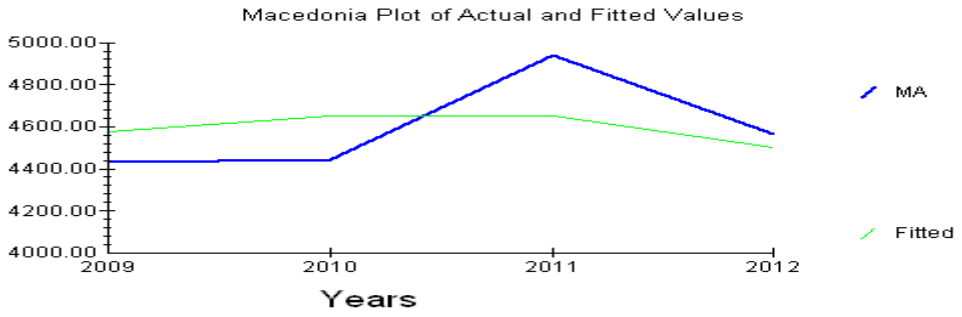
2009
2011
Years
MA
Forecast


Macedonia Plot of Actual and Fitted Values
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4600.00
4400.00
4200.00
4000.00
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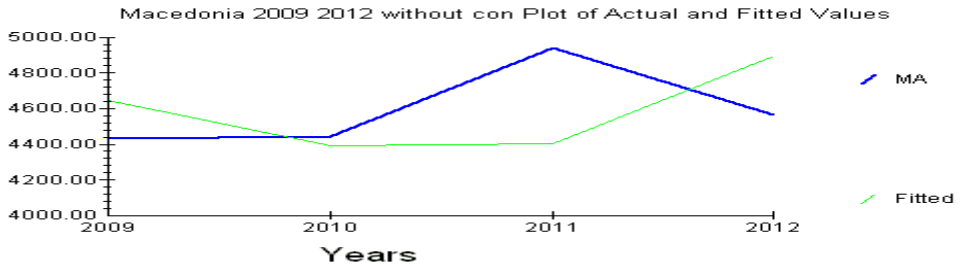
2010
2011
2012
Years
MA
Fitted


Macedonia 2009 2012 without con Plot of Actual and Fitted Values
5000.00
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4200.00
4000.00
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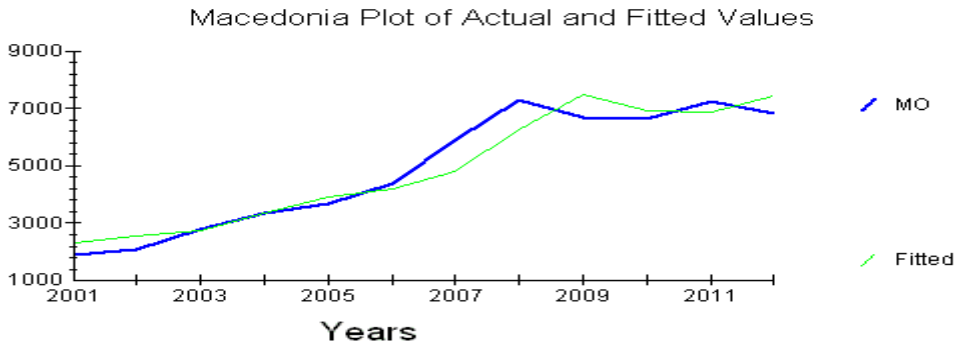
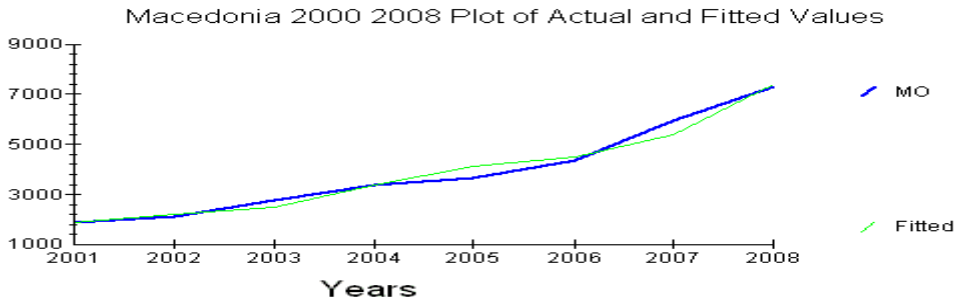
2011
2012
Years
MA
Fitted


Macedonia Plot of Actual and Fitted Values
9000
7000
5000
3000
1000
2001
2003
2005
2007
2009
2011
Years
MO
Fitted


Macedonia 2000 2008 Plot of Actual and Fitted Values
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7000
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3000
1000
2001
2002
2003
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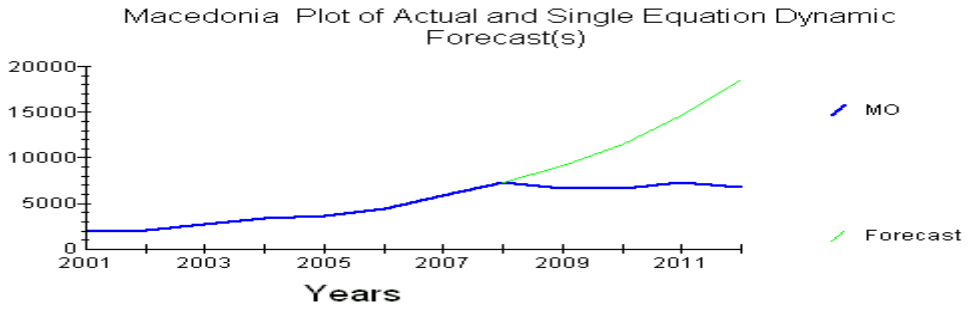
2008
Years
MO
Fitted


Macedonia Plot of Actual and Single Equation Dynamic Forecast(s)
20000
15000
10000
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2007
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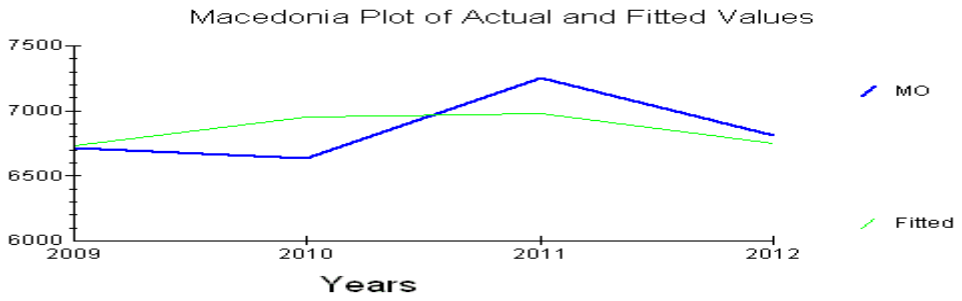
2011
Years
MO
Forecast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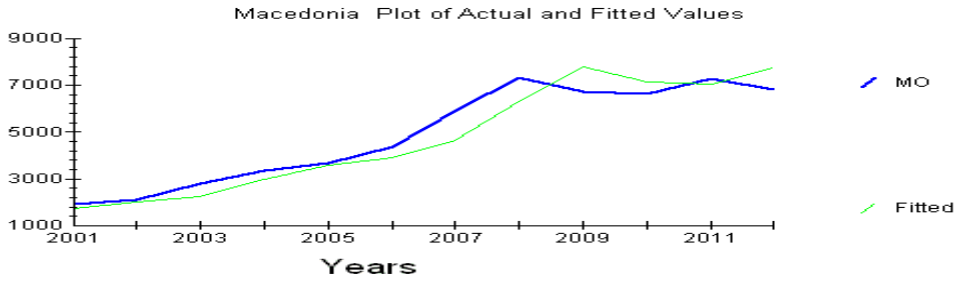
7500
7000
6500
6000
2009
2010
2011
2012
Years
MO
Fitted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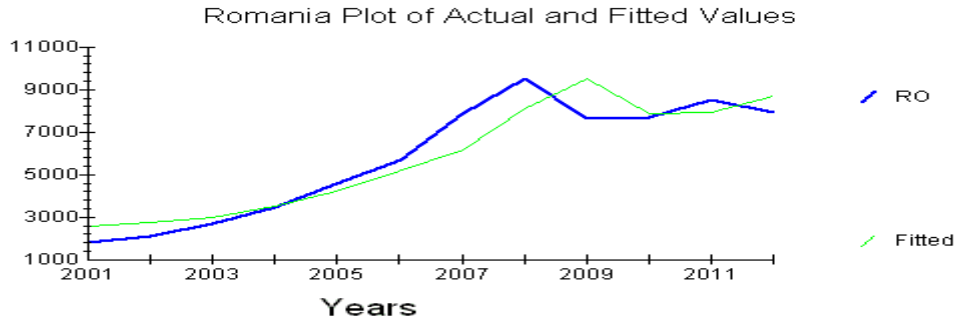
Years
MO
Fitted


Romania Plot of Actual and Fitted Values
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9000
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2001
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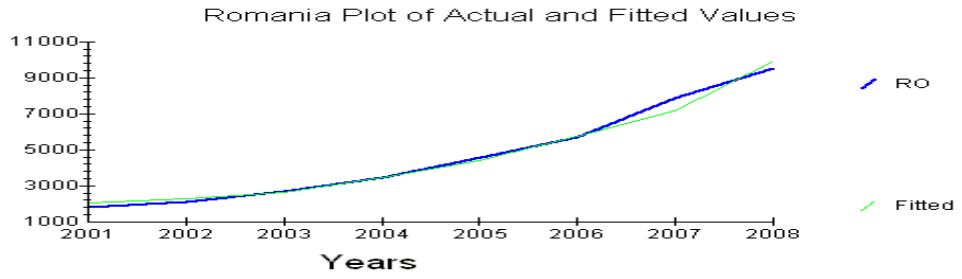
2011
Years
RO
Fitted


Romania Plot of Actual and Fitted Values
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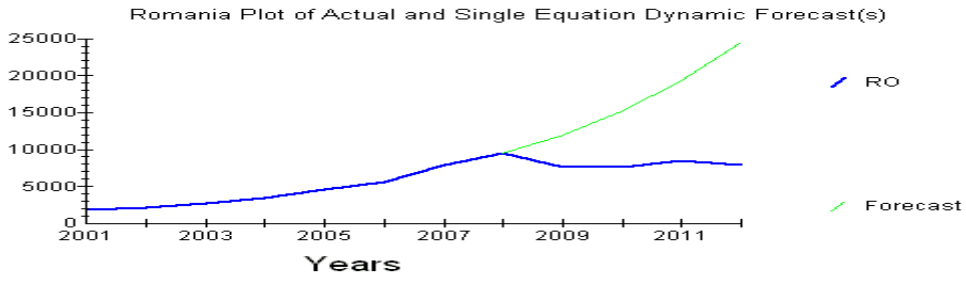
Romania Plot of Actual and Single Equation Dynamic Forecast(s)
25000
20000
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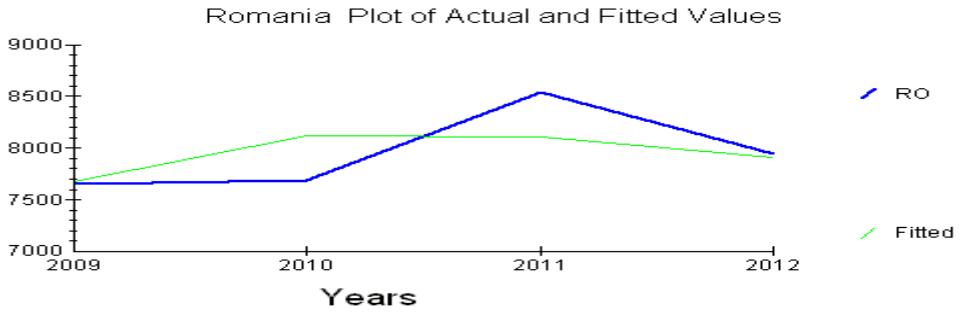
Years
RO
Forecast


Romania Plot of Actual and Fitted Values
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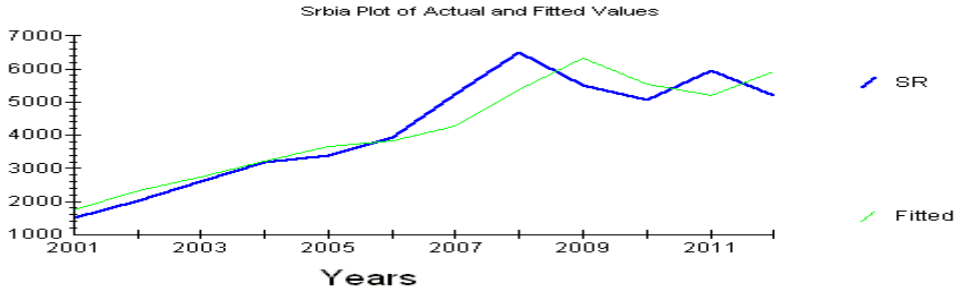
2012
Years
RO
Fitted


Srbia Plot of Actual and Fitted Values
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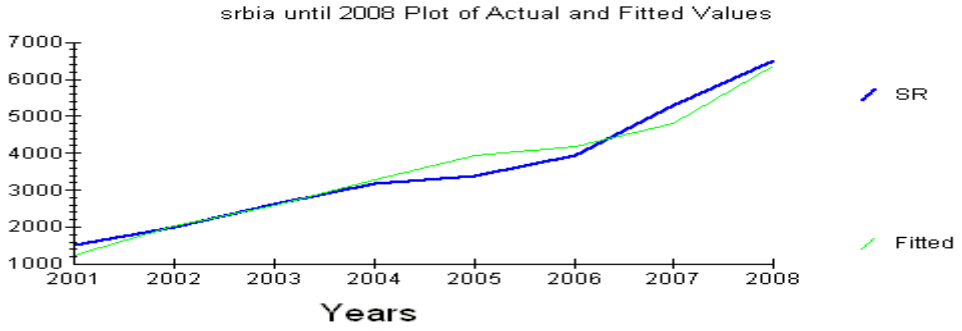
Years
SR
Fitted


srbia until 2008 Plot of Actual and Fitted Values
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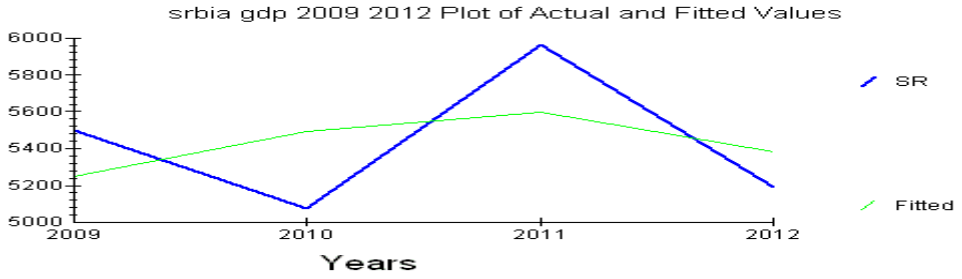
Years
SR
Fitted


srbia gdp 2009 2012 Plot of Actual and Fitted Values
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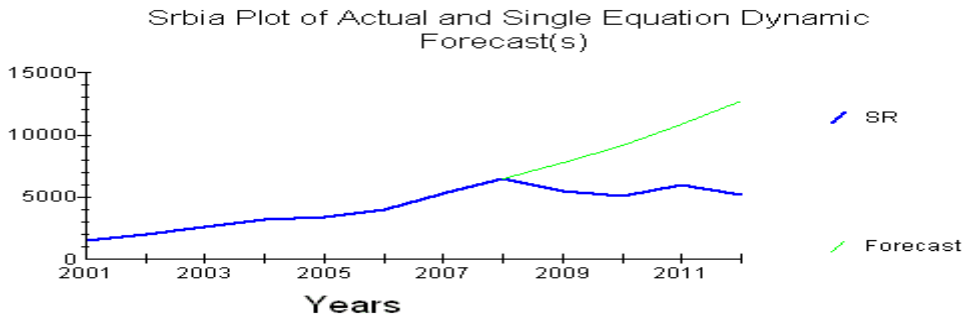
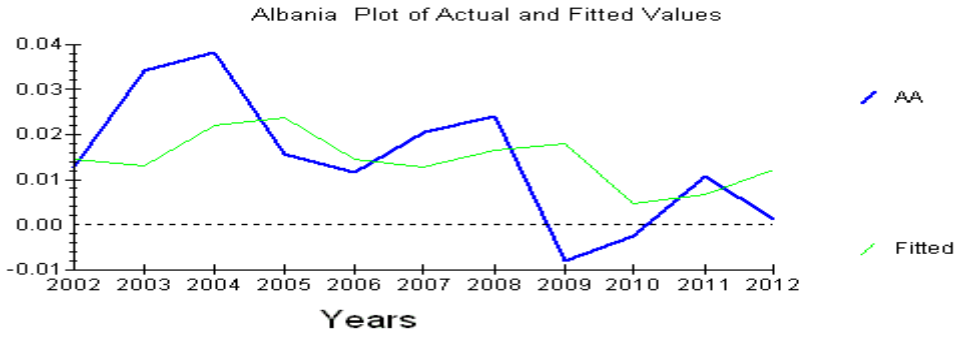
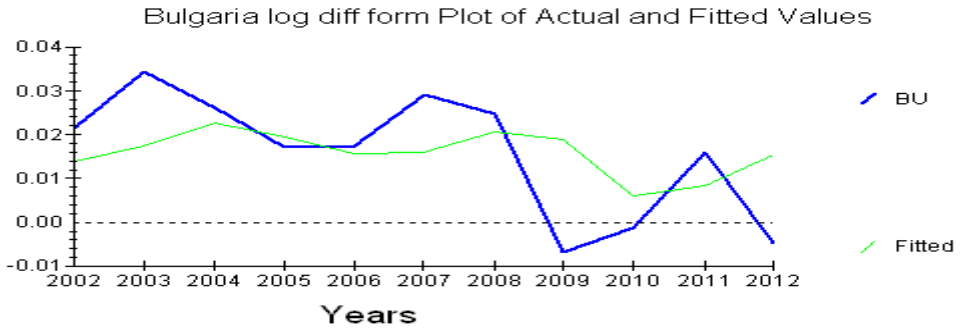
5600
5400
5200
5000
2009
2010
2011
2012
Years
SR
Fitted


Srbia Plot of Actual and Single Equation Dynamic Forecast(s)
15000
10000
5000
0
2001
2003
2005
2007
2009
2011
Years
SR
Forecast


Albania Plot of Actual and Fitted Values
0.04
0.03
0.02
0.01
0.00
-0.01
2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012
Years
AA
Fitted


Bulgaria log diff form Plot of Actual and Fitted Values
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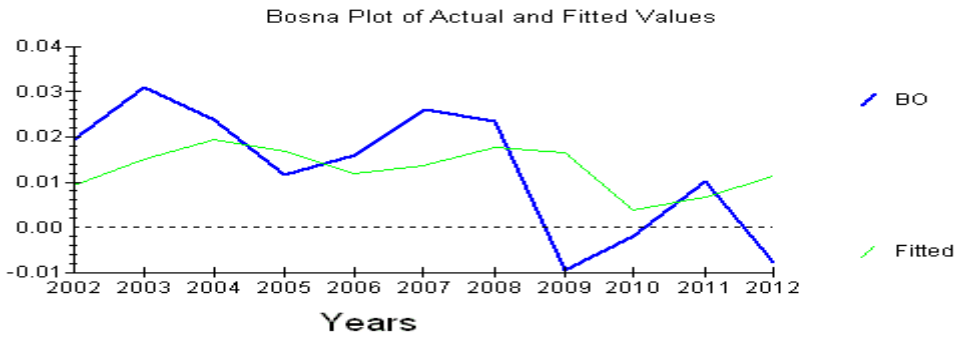
0.03
0.02
0.01
0.00
-0.01
2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012
Years
BU
Fitted


Bosna Plot of Actual and Fitted Values
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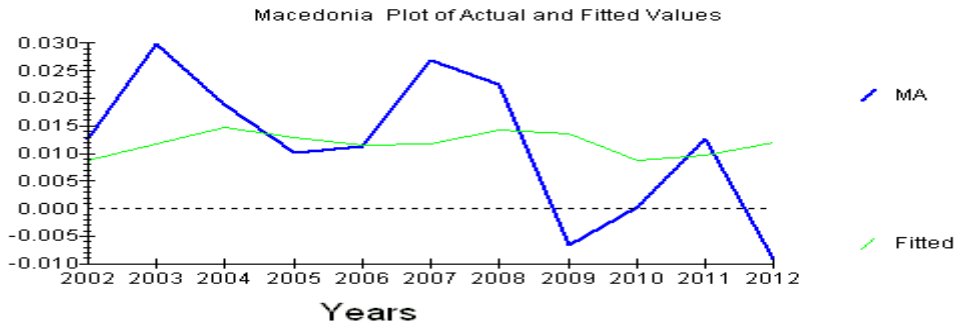
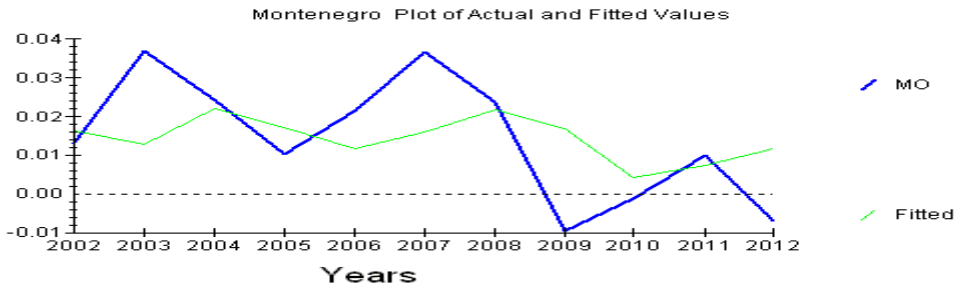
0.03
0.02
0.01
0.00
-0.01
2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012
Years
BO
Fitted


Macedonia Plot of Actual and Fitted Values
0.030
0.025
0.020
0.015
0.010
0.005
0.000
-0.005
-0.010
2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012
Years
MA
Fitted


Montenegro Plot of Actual and Fitted Values
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0.03
0.02
0.01
0.00
-0.01
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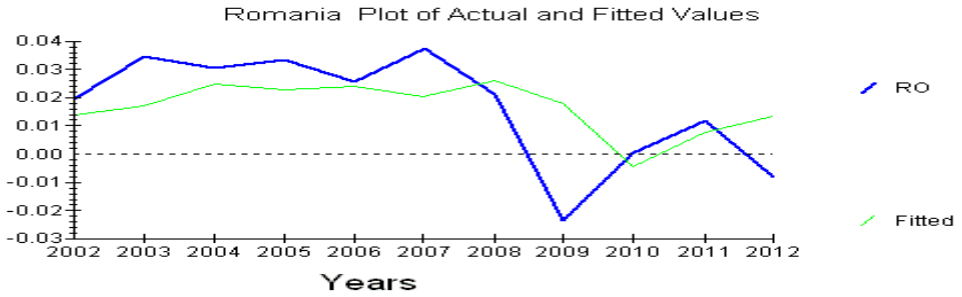
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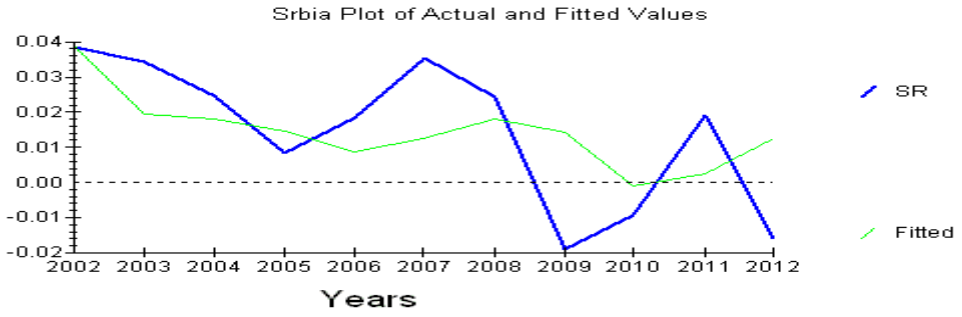
Srbia Plot of Actual and Fitted Values
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4.2. GDP -as Value Added

Part of production process is creation of new goods and this is represented by Value Added in Agriculture, Industry, Manufacturing etc. For all economies agriculture is still important part of economy with biggest economy Romania having the largest impact from this part of human occupation. Serbia also stresses huge importance in the field, while the Montenegro has the least impact in observed group. Highest risk from not having developed or fluctuation in this filed is observed in Macedonia and Montenegro.

Sample period :2001 to 2012

Variable(s)	:	AGAL	AGBO	AGSR	AGROM	AGMONT	AGMAC
Maximum	:	9.3420	9.1120	9.6300	10.1320	8.5530	9.0040
Minimum	:	8.9800	8.6900	9.0440	9.6130	8.0460	8.5280
Mean	:	9.1859	8.9277	9.4093	9.9368	8.3327	8.8008
Std. Deviation	:	.13274	.15266	.15322	.17275	.17889	.17274
Skewness	:	-.49458	-.53021	-.96129	-.62022	-.19678	-.37726
Kurtosis - 3	:	-1.3286	-1.3191	.80194	-.90862	-1.3009	-1.2095
Coef of Variation:		.014450	.017100	.016284	.017385	.021468	.019628

Although relationship between economies varies through time it is observed weakening relation toward Serbia agricultural business where new type of policy in form of pricing, presentation, new market potential, can again induce growth.

Estimated Correlation Matrix of Variables

	AGAL	AGBO	AGSR	AGROM	AGMONT	AGMAC
AGAL	1.0000	.99093	.91048	.96276	.96776	.97832
AGBO	.99093	1.0000	.89679	.96329	.95009	.96344
AGSR	.91048	.89679	1.0000	.94676	.90034	.87139
AGROM	.96276	.96329	.94676	1.0000	.90970	.91589
AGMONT	.96776	.95009	.90034	.90970	1.0000	.98502
AGMAC	.97832	.96344	.87139	.91589	.98502	1.0000

Industry production is important in Romania,Bulgaria and Serbia with Albania and Macedonia as the least developed industrial nations (lowest coef of variation or risks).

Sample period :2001 to 2012						
Variable(s)	: IAC	IBO	IBU	ISR	IROM	IMONT
Maximum	: 9.3160	9.6500	10.1570	10.0520	10.8400	8.8850
Minimum	: 8.7940	9.0280	9.4730	9.2290	10.0770	8.3210
Mean	: 9.1135	9.3630	9.8659	9.7698	10.5028	8.6468
Std. Deviation	: .18064	.23325	.25057	.25069	.28868	.19687
Skewness	: -.73557	-.26101	-.30964	-.85780	-.21582	-.19910
Kurtosis - 3	: -1.0128	-1.4212	-1.3907	-.22936	-1.5187	-1.3358
Coef of Variation:	.019821	.024912	.025397	.025660	.027487	.022768

Sample period :2001 to 2012	
Variable(s)	: IMAC
Maximum	: 9.4060
Minimum	: 8.9650
Mean	: 9.1966
Std. Deviation	: .17076
Skewness	: -.089304
Kurtosis - 3	: -1.5289
Coef of Variation:	.018568

Although it is visible that some completion or driving force in industrial cooperation exist from correlation between variables it can still be changed or diverted with common or shared industrial production(one product is made in several regions). Low level of strength today exist between Albania Macedonia, Bosna Serbia, Bulgaria Serbia, Romania Serbia , Montenegro Albania what can be part of macroeconomic or political views, or as a result of competition processes.

	IAC	IBO	IBU	ISR	IROM	IMONT
IAC	1.0000	.95767	.95428	.96561	.94163	.93335
IBO	.95767	1.0000	.99253	.95342	.99005	.99032
IBU	.95428	.99253	1.0000	.96508	.99616	.98964
ISR	.96561	.95342	.96508	1.0000	.95352	.96292
IROM	.94163	.99005	.99616	.95352	1.0000	.98754
IMONT	.93335	.99032	.98964	.96292	.98754	1.0000
IMAC	.91574	.98774	.98287	.91298	.98666	.97854

Manufacturing is also of the highest strength in Romania(largest population and GDP), but is significant in Serbia and Bulgaria also two similar countries but one in EU and other still in process.

Sample period :2001 to 2012						
Variable(s)	MAL	MBO	MBU	MSR	MROM	MMONT
Maximum	9.3160	9.3260	9.8830	9.8260	10.6000	8.3870
Minimum	8.5740	8.6700	9.2980	9.1210	9.6780	7.9610
Mean	8.9602	9.0314	9.6098	9.5671	10.2961	8.2382
Std. Deviation	.29187	.24444	.20598	.21059	.34968	.12020
Skewness	-.13117	-.26551	-.26560	-.68804	-.82887	-1.0018
Kurtosis - 3	-1.5600	-1.4331	-1.3191	-.39130	-.94904	.31597
Coef of Variation:	.032574	.027065	.021435	.022012	.033963	.014591

Sample period :2001 to 2012	
Variable(s)	MMAC
Maximum	9.2270
Minimum	8.7650
Mean	8.9757
Std. Deviation	.16069
Skewness	.026748
Kurtosis - 3	-1.3738
Coef of Variation:	.017903

The lowest coorelation in variables exist Romania Albania, Bosna Montenegro,Bulgaria Montenegro, Serbia Macedonia, Romania Macedonia, Montenegro Macedonia . Although it is only statistical observation this can be starting point to future cooperation instead of competition in field.

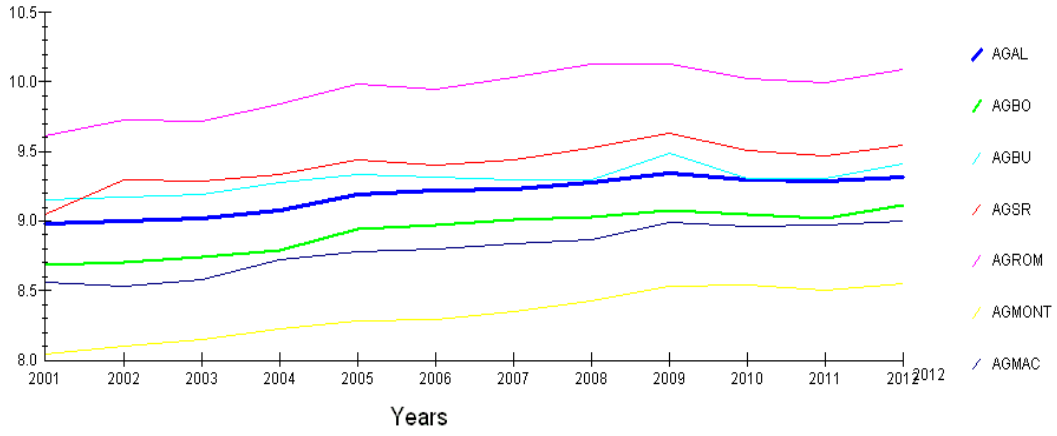
	MAL	MBO	MBU	MSR	MROM	MMONT
MAL	1.0000	.99068	.97306	.94433	.93186	.86840
MBO	.99068	1.0000	.98616	.96306	.95237	.90234
MBU	.97306	.98616	1.0000	.95082	.95873	.89843
MSR	.94433	.96306	.95082	1.0000	.94288	.97329
MROM	.93186	.95237	.95873	.94288	1.0000	.93176
MMONT	.86840	.90234	.89843	.97329	.93176	1.0000
MMAC	.98418	.97212	.93214	.92479	.89897	.85519

The largest economies Romania, Bulgaria and Serbia have the largest production followed by smaller economies that do not have natural potentials, or lack history of industrial or

manufacturing production. 2008 brought reduction in agriculture and industry by all major economies and to lesser extent (except Serbia) manufacturing production.

Table 18: VA, Agriculture, Industry, Manufacturing

Country	Time	Dependent Variable	Regressor	Coefficient	s.e.	t (Prob)
Sum Agriculture	2001-2012	Sum Agriculture	intercept	-1,4475	2,135	-6,77(0,518)
			Albania –agri VA	1,4558	0,912	1,59(0,171)
			Bosnia-agri VA	0,47	0,556	0,846(0,436)
			Bulgaria agri VA	1,616	0,254	6,35(0,001)
			Romania agri VA	1,7	0,282	6,027(0,002)
			Montenegro ag VA	2,235	0,374	5,96(0,002)
			Macedonia ag VA	-0,318	0,52	-0,612(0,567)
Sum manufacturing	2001-2012	Sum manufacturing	intercept	-0,085	0,069	-1,229(0,288)
			Albania manf VA	0,98	0,0139	70,68
			Bosnia mf VA	0,99	0,0146	68,06
			Bulgaria mf VA	1,0104	0,0126	79,85
			Serbia mf VA	1,0117	0,015	67,025
			Romania mf VA	0,998	0,0035	282,87
			Montenegro mfVA	0,986	0,0203	48,39
			Macedonia mfVA	1,016	0,0175	57,88
Sum industry	2001-2012	Sum industry	intercept	0,032	0,039	0,824
			Albania indVA	0,988	0,0081	120,69
			Bosnia ind VA	1,017	0,014	72,40
			Bulgaria ind VA	1,013	0,0087	115,17
			Serbia ind VA	1,004	0,00639	157
			Romania ind VA	0,989	0,00618	160
			Montenegro in VA	0,99	0,0133	74
			Macedonia in VA	0,99	0,0096	103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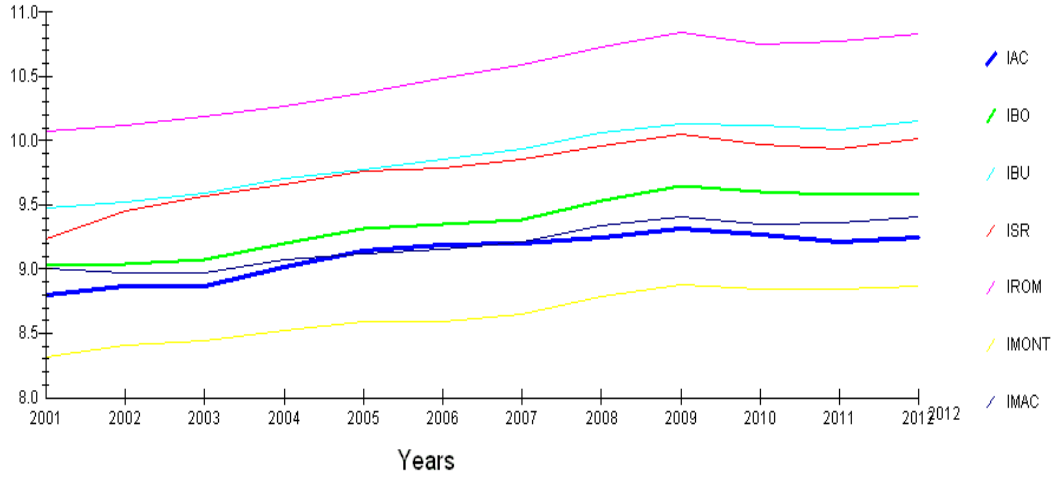
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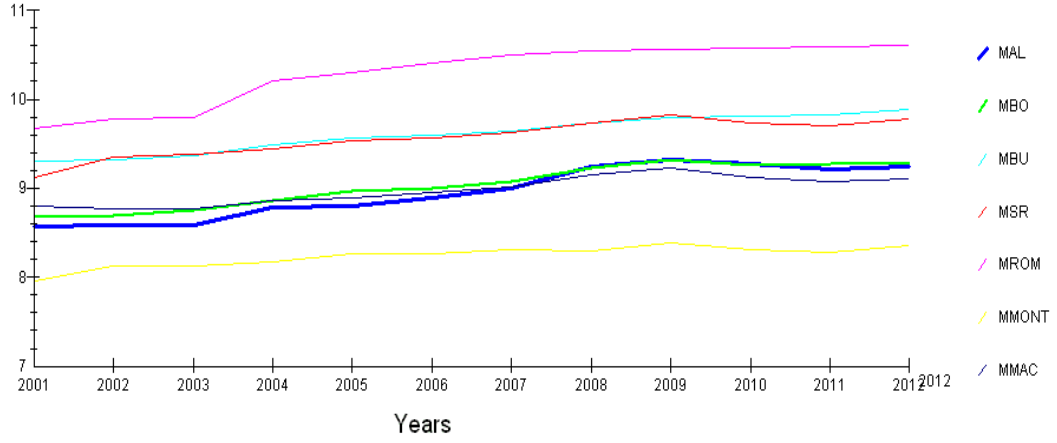
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In that respect it is visible that in GDP total structure in Albania still significant role is obtained from agricultural resources, in Bosnia Manufacturing, Serbia and Romania industry, and Macedonia agriculture and industry production. While all showed sensible to world crises future results are dependent upon not just its owns strategies, cost management , presentation but from regional cooperation, sharing and presenting product on third market as capable to be produce in line with cost standards that are reached in China, Brazil or some other bigger market (USA, South East Asia).

Table 19: VA per country

Country	Time	Dependent Variable	Regressor	Coefficient	s.e.	t (Prob)
Albania	2001-2012	GDP Albania(log)	Intercept	-2,75	1,16	-2,36
			Agriculture Albania VA	1,25	0,329	3,79
			Industry Albania VA	-0,005	0,179	-0,027
			Manufacturing Albania VA	0,132	0,073	1,812
Bosna H.	2001-2012	GDP Bosna(log)	Intercept	1,868	0,42	4,35
			Agriculture Bosna VA	0,24	0,099	2,46
			Industry Bosna VA	0,1	0,34	0,29
			Manufacturing Bosna VA	0,55	0,32	1,74
Srbia	2001-2012	GDP Srbia(log)	Intercept	-0,1225	0,41	-0,29
			Agriculture Srbia VA	0,092	0,11	0,77
			Industry Srbia VA	1,217	0,149	8,14
			Manufacturing Srbia VA	-0,235	0,202	-1,16
Romania	2001-2012	GDP Romania(log)	Intercept	0,45	0,52	0,86
			Agriculture Romania VA	0,16	0,103	1,58
			Industry Romania VA	0,76	0,054	14,06
			Manufacturing Romania VA	0,085	0,55	1,53

Montenegro	2001-2012	GDP Montenegro(log)	Intercept	-2,0078	0,57	-3,4
			Agriculture Montenegro VA	0,49	0,34	1,43
			Industry Montenegro VA	0,69	0,32	2,16
			Manufacturing Montenegro VA	0,15	0,13	1,14
Macedonia	2001-2012	GDP Macedonia(log)	Intercept	0,3728	0,19	1,89
			Agriculture Macedonia VA	0,469	0,094	4,95
			Industry Macedonia VA	0,612	0,15	4,01
			Manufacturing Macedonia VA	-0,038	0,102	-0,37

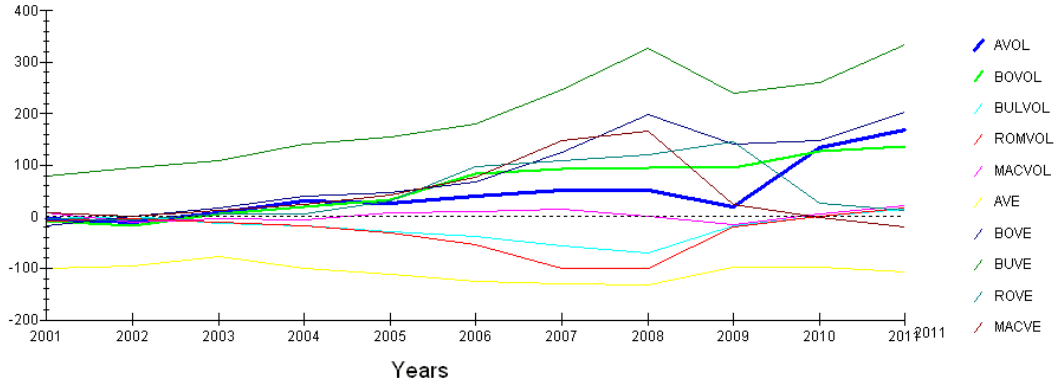
4.3. GDP as % trade

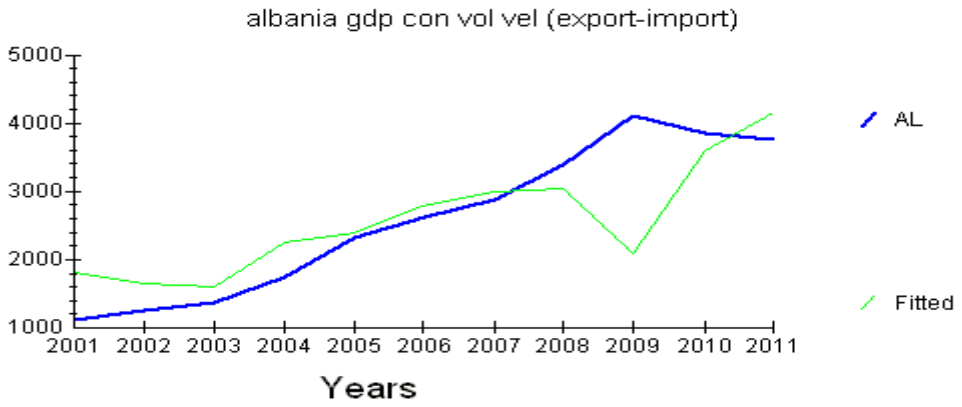
Very strong and linear relation with trade exist in almost all economies on Balkan till crises. After 2008 economies show difference in structure where Bosnia and Albania continued with strong increase in trade % GDP, while other slowed down import/export trend or adapted expectations to be in line with GDP rise. (Romania)

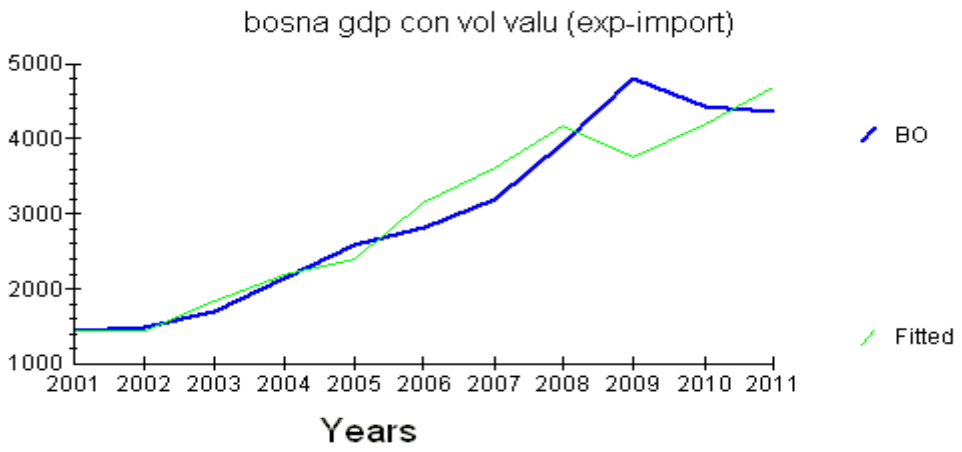
Table 20: Trade (Export-Import) Volume and Value /Relation to GDP/capita

Country	Time	Dependent Variable	Regressor	Coefficient	s.e.	t (Prob)	R2
Albania	2001-2011	Apsolut =GDP/capita (USD)	Intercept	258,56	1675,9	0,15(0,88)	
			Net Trade Volume(Ex-Import)	13,11	4,74	2,76(0,024)	
			Net Trade Value(Export-Import)	-16,061	15,78	-1,02(0,34)	55
Bosnia Herzegovina	2001-2011	Apsolut =GDP/capita (USD)	Intercept	1667	211,49	7,88(0,00)	
			Net Trade Volume(Ex-Import)	11,99	6,97	1,72(0,12)	
			Net Trade Value(Export-Import)	6,81	4,91	1,38(0,20)	89
Bulgaria	2001-2011	Apsolut =GDP/capita (USD)	Intercept	205,1	650,27	0,31(0,76)	
			Net Trade Volume(Ex-Import)	13,88	18,02	1,25(0,24)	
			Net Trade Value(Export-Import)	20,9	3,12	6,68(0,0)	84

Romania	2001-2011	Apsolut =GDP/capita (USD)	Intercept	3534	786,38	4,49(0,002)	
			Net Trade Volume(Ex-Import)	54,81	15,05	3,64(0,007)	
			Net Trade Value(Export-Import)	42,23	21,69	1,95(0,087)	64



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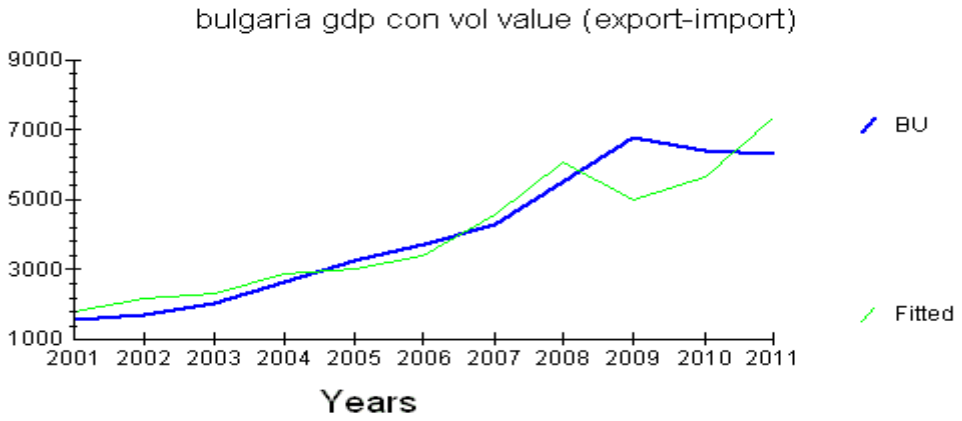
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4.4. GDP USA /EU

What is further examined in regression is the linear relation between GDP/capita of each country with GDP/capita of largest economies such as USA and EU. It is visible from calculation and graph that GDP follows trend in its value as the largest force and direction or lag in time with the largest economies. Fall in GDP is smaller in Balkan economies in the first years of crises but shows signs of long term weaknesses after the crises in the largest economies such as EU,USA have passed or economies recovered. Long term problems brought increased debt, rising unemployment and further lower level of regional cooperation than could be done.

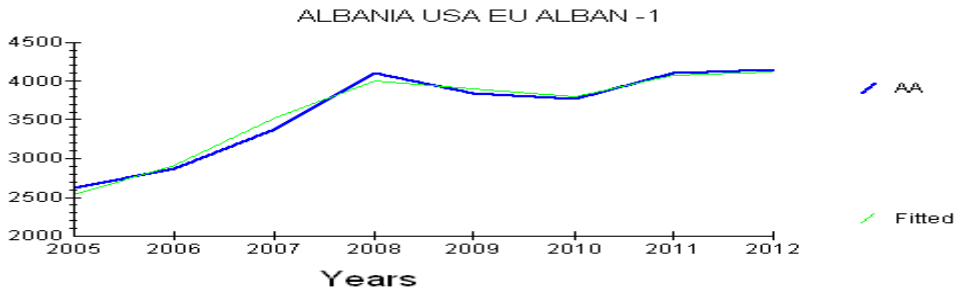
$$GDP_t = a + GDP_{t-1} + GDP_{usa} + GDP_{EU} + e$$

Table 21: GDP/ country - USA EU GDP /capita

Country	Time	Dependent Variable	Regressor	Coefficient	s.e.	t (Prob)	R2
Albania	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-29,36	1074	-2,73(0,052)	98
			GDP/capita (-1)	0,45	0,088	5,11(0,007)	
			USA	0,042	0,032	1,32(0,255)	
			EU	0,094	0,02	4,64(0,010)	
Albania	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-6,168	2129	-2,89(0,034)	85
			USA	0,14	0,062	2,26(0,073)	
			EU	0,1	0,049	2,05(0,095)	
Bulgaria	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-15657	4633	-3,37(0,02)	85
			USA	0,313	0,133	2,34(0,067)	
			EU	0,218	0,108	2,014(0,10)	

Bulgaria	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-6346	2355	-2,69(0,054)	98
			GDP/capita (-1)	0,49	0,086	5,73(0,005)	
			USA	0,057	0,066	0,86(0,438)	
			EU	0,21	0,0399	5,33(0,006)	
Bosna	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-2483	903,76	-2,74(0,051)	99
			GDP/capita (-1)	0,44	0,058	7,58(0,002)	
			USA	-0,0077	0,025	-0,29(0,78)	
			EU	0,16	0,017	9,34(0,001)	
Bosna	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-6508	2566	-2,53(0,052)	85
			USA	0,104	0,074	1,41(0,217)	
			EU	0,177	0,06	2,95(0,032)	
Macedonia	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-7567	2968	-2,54(0,051)	82
			USA	0,145	0,085	1,69(0,151)	
			EU	0,153	0,069	2,2(0,079)	
Macedonia	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-2296	1481	-1,54(0,19)	97
			GDP/capita (-1)	0,52	0,094	5,51(0,005)	
			USA	-0,0117	0,043	-0,27(0,80)	
			EU	0,15	0,026	5,74(0,005)	
Montenegro	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-6198	1233	-5,025(0,007)	99
			GDP/capita (-1)	0,447	0,04	10,59(0,0)	
			USA	0,012	0,034	0,35(0,7389	
			EU	0,28	0,023	12,33(0,00)	

Montenegro	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-14268	4675	-3,051(0,028)	86
			USA	0,215	0,135	1,59(0,17)	
			EU	0,319	0,109	2,92(0,033)	
Romania	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-13926	2516	-5,53(0,003)	97
			USA	0,1168	0,0727	1,606(0,169)	
			EU	0,49	0,058	8,34(0,00)	
Romania	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-10592	1902	-5,56(0,005)	99
			GDP/capita (-1)	0,159	0,052	3,025(0,039)	
			USA	0,051	0,049	1,02(0,365)	
			EU	0,448	0,038	11,52(0,00)	
Serbia	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-4359	933,09	-4,67(0,01)	99
			GDP/capita (-1)	0,22	0,042	5,208(0,006)	
			USA	-0,051	0,026	-1,96(0,121)	
			EU	0,33	0,0196	16,87(0,00)	
Serbia	2005-2012	Apsolut =GDP/capita (USD)	Intercept	-6659	2051	-3,24(0,0239	95
			USA	0,0065	0,059	0,11(0,91)	
			EU	0,35	0,047	7,35(0,00)	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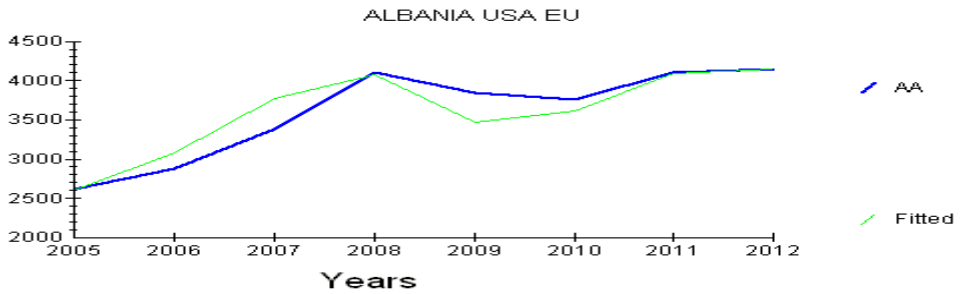
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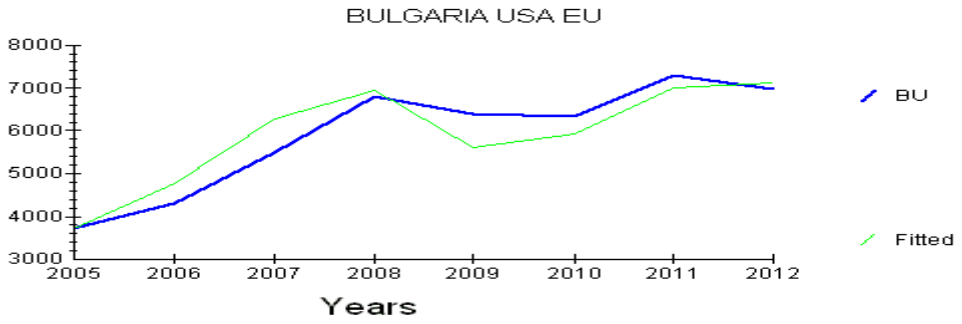
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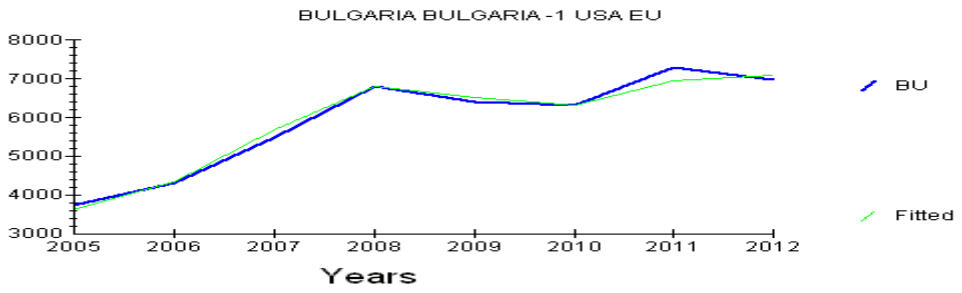
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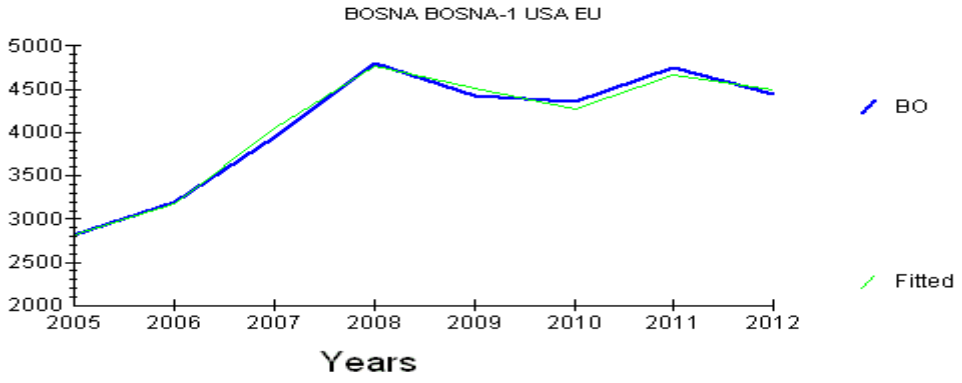
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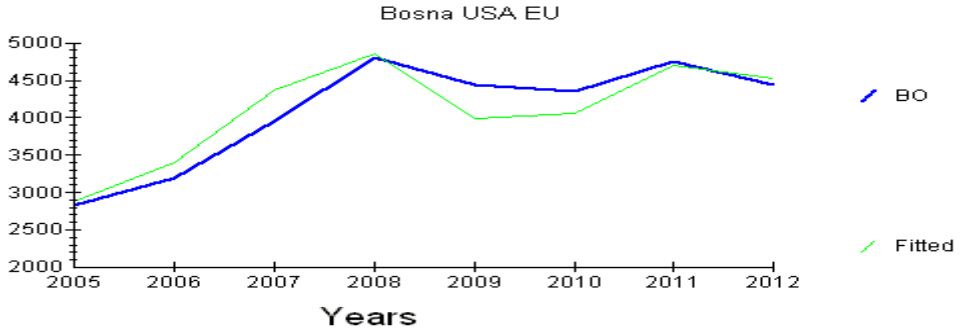
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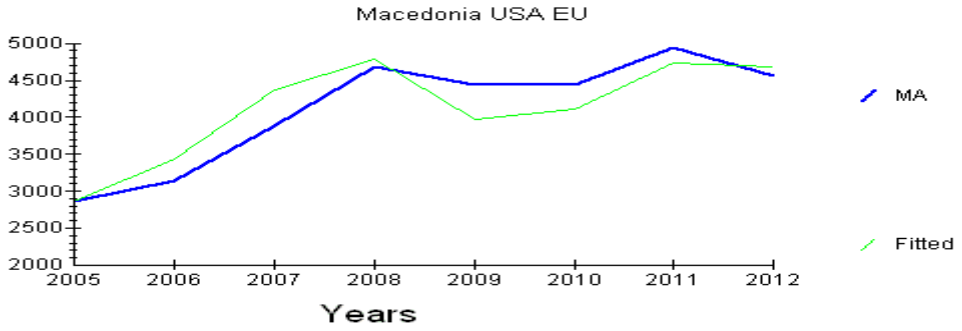
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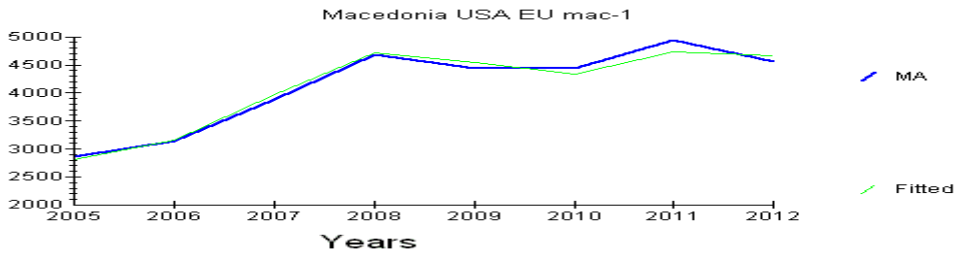
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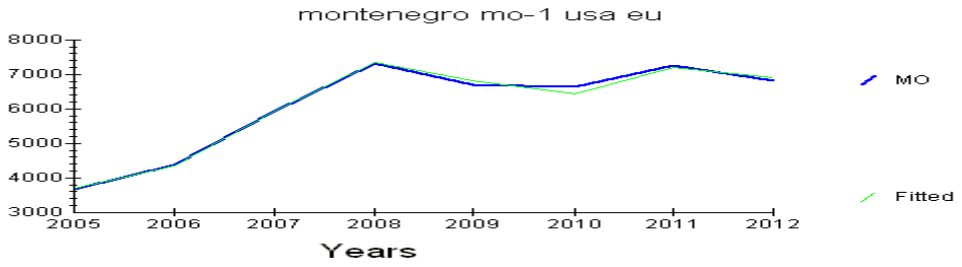
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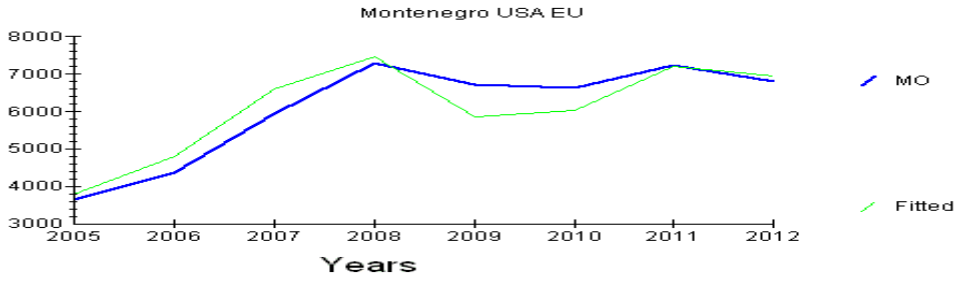
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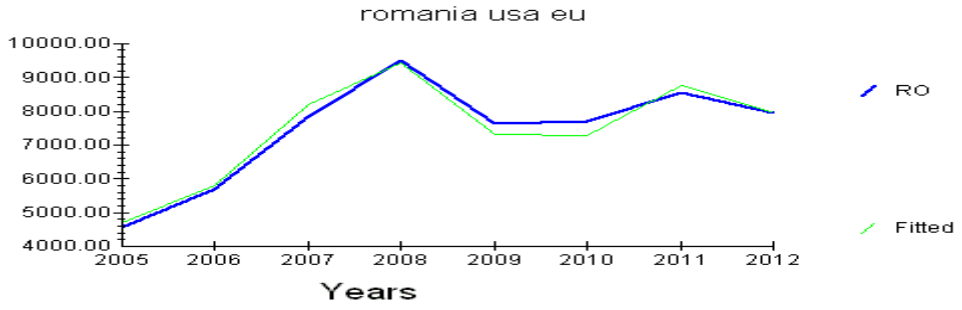
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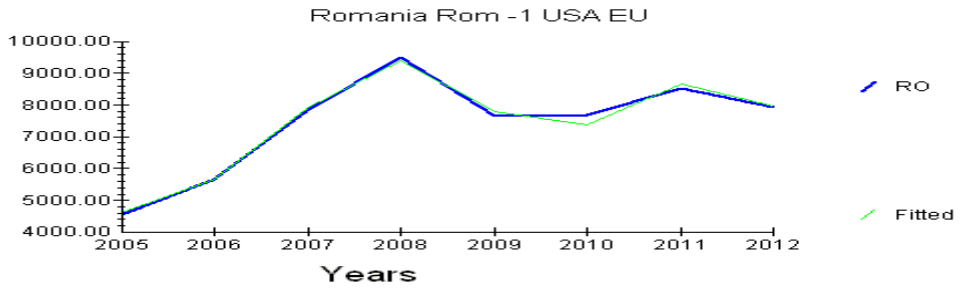
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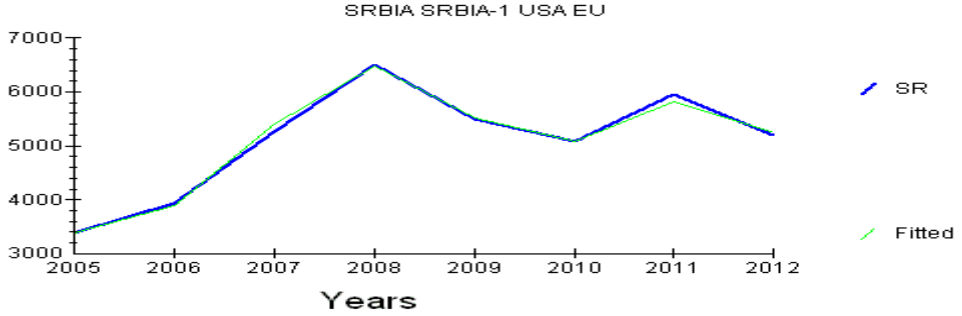
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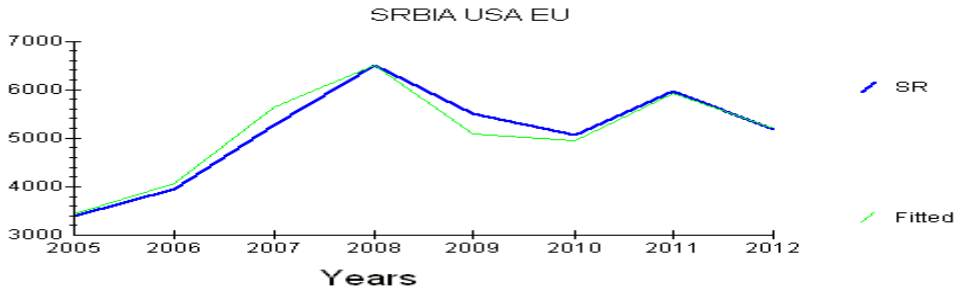
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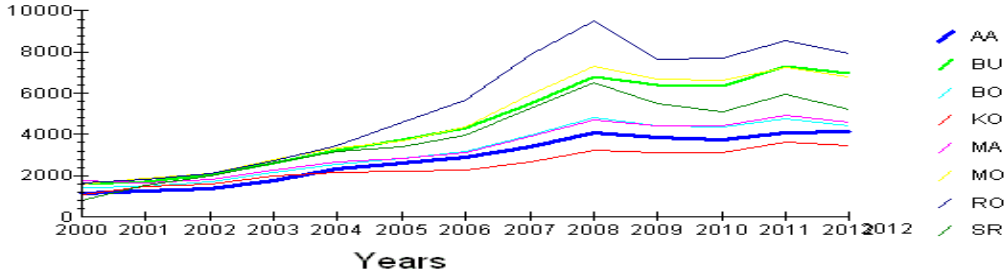
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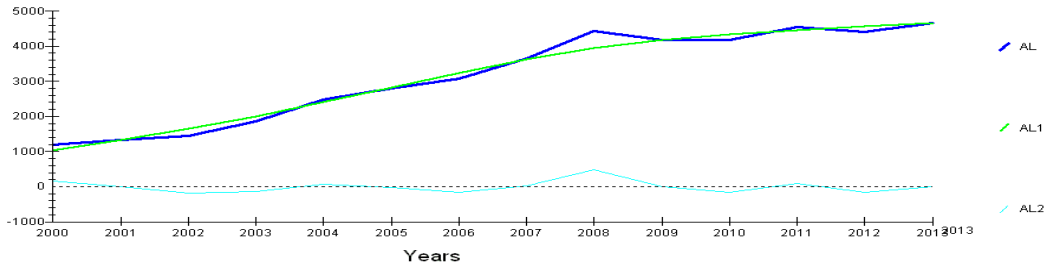
4.5. GDP CYCLUSES

GDP/capita= trend+ cycles +e

What is further examined are natural cycles in economic activities. Each GDP/capita result is a relation of trend and cycles.

Albania



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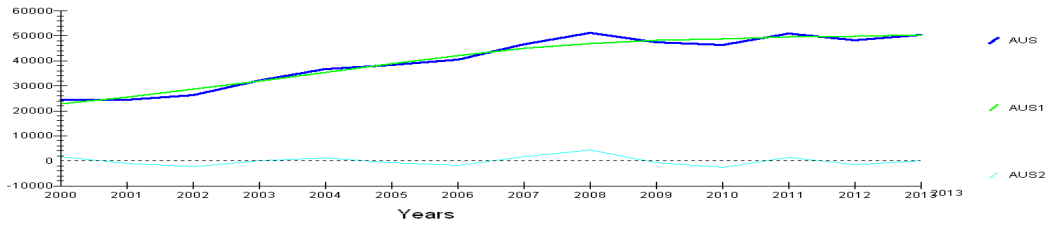
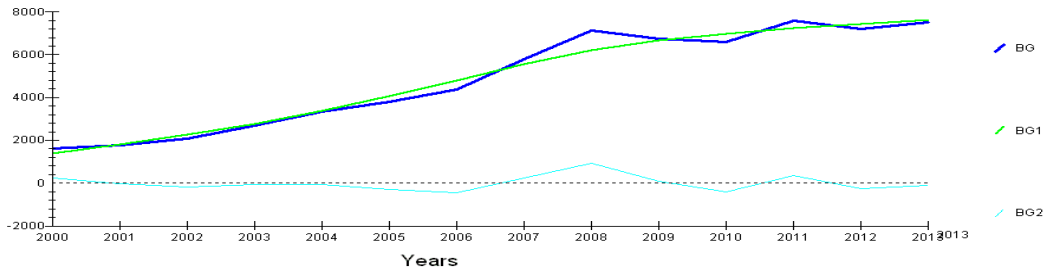
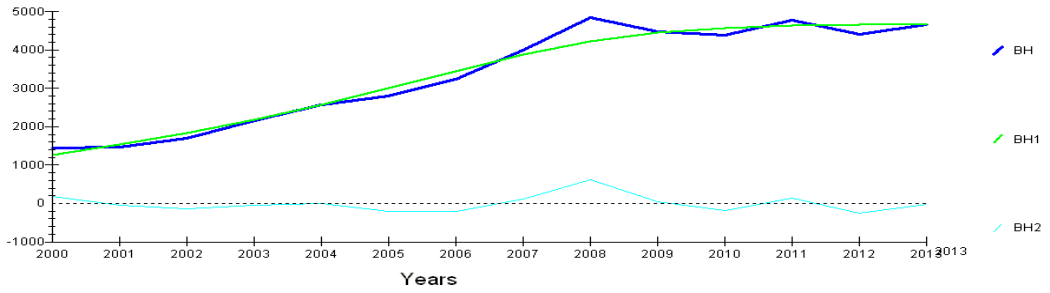


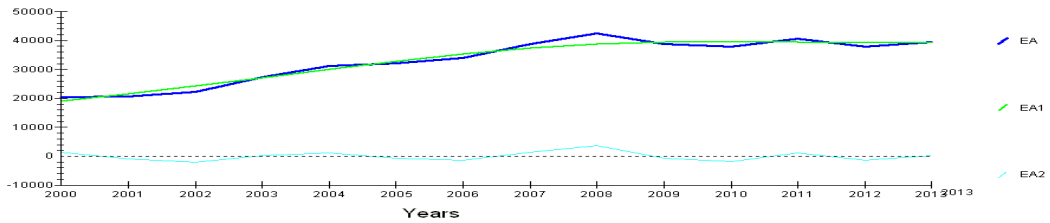
Bulgaria



Bosna Hercegovina



Euro Area



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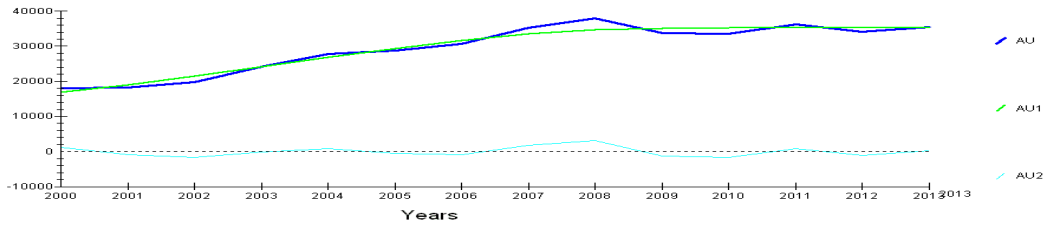

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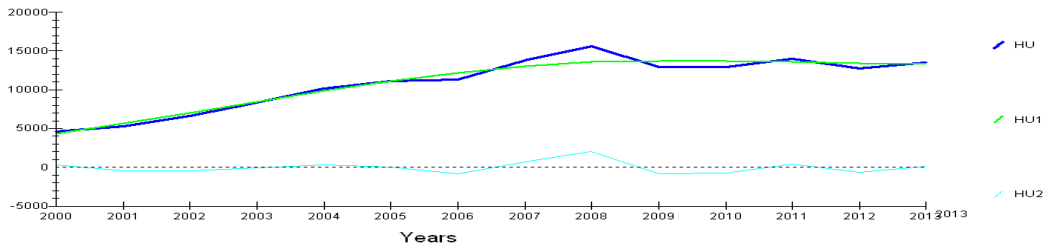

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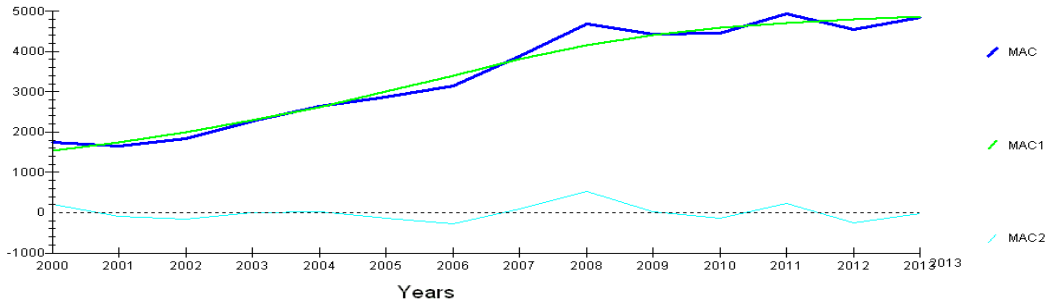
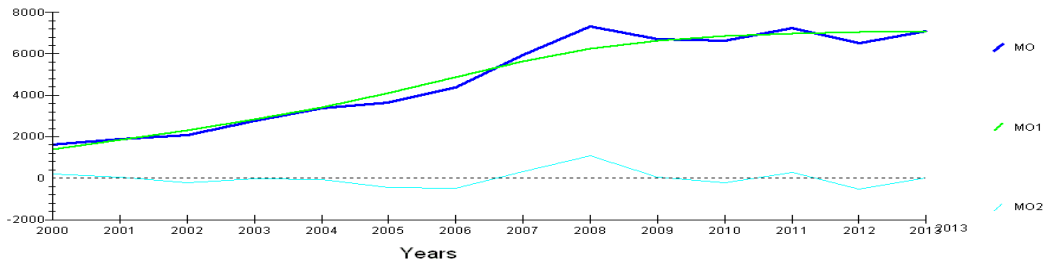


Montenegro



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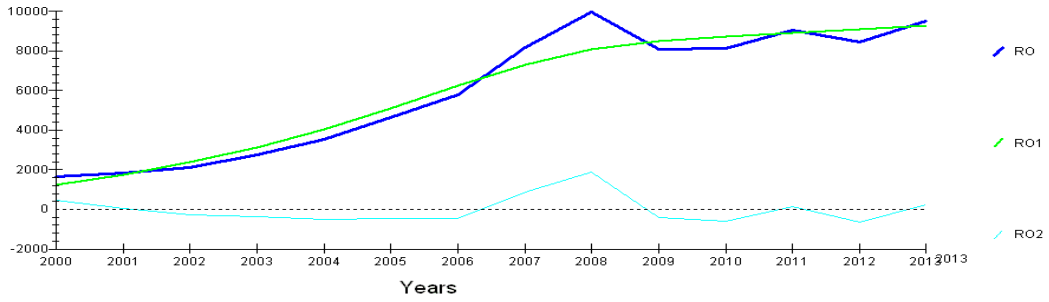

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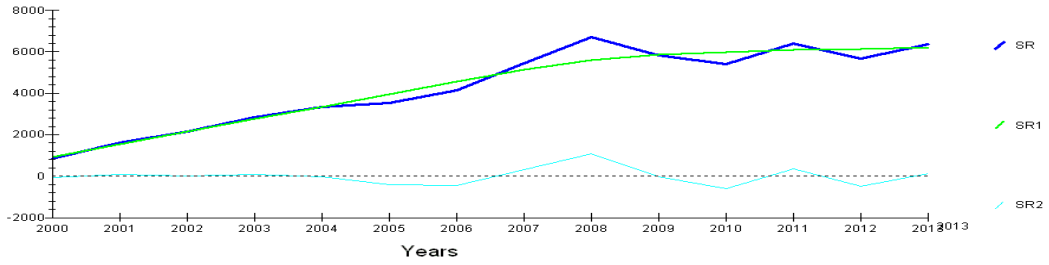

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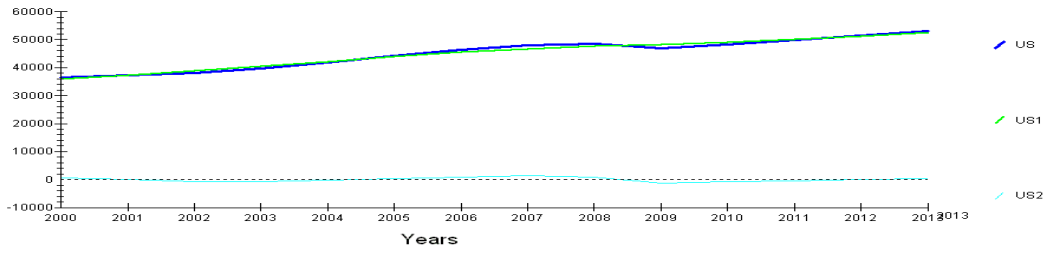
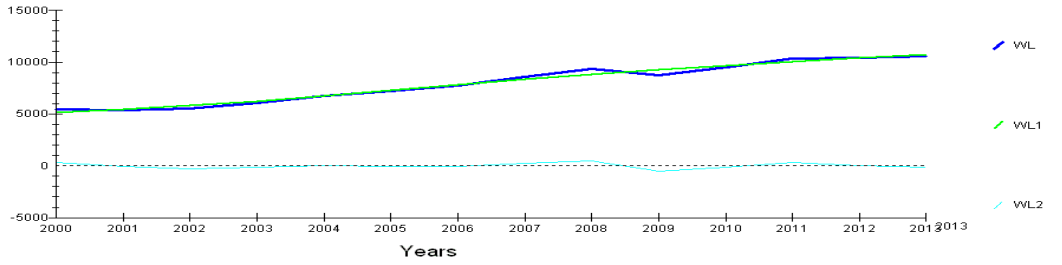


World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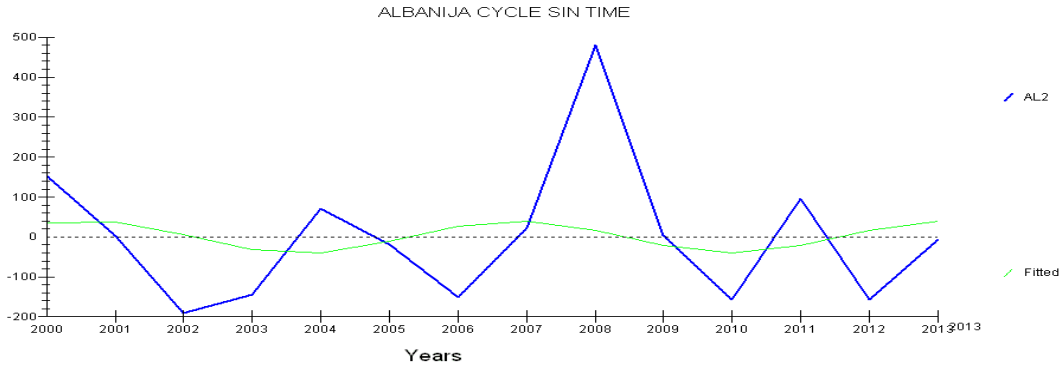
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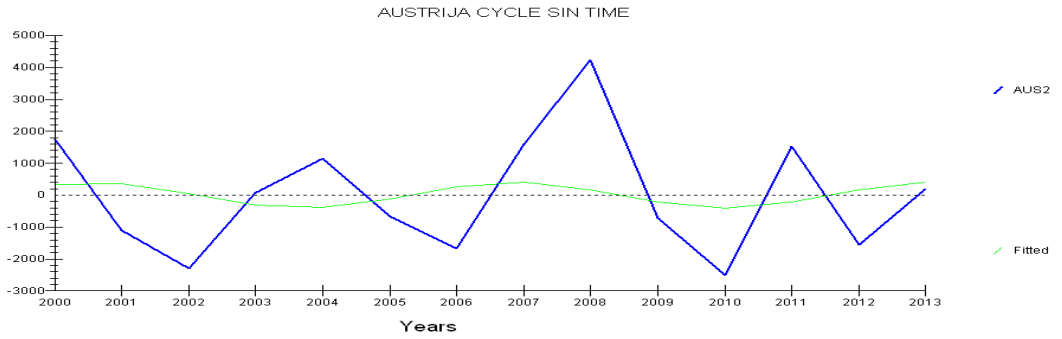
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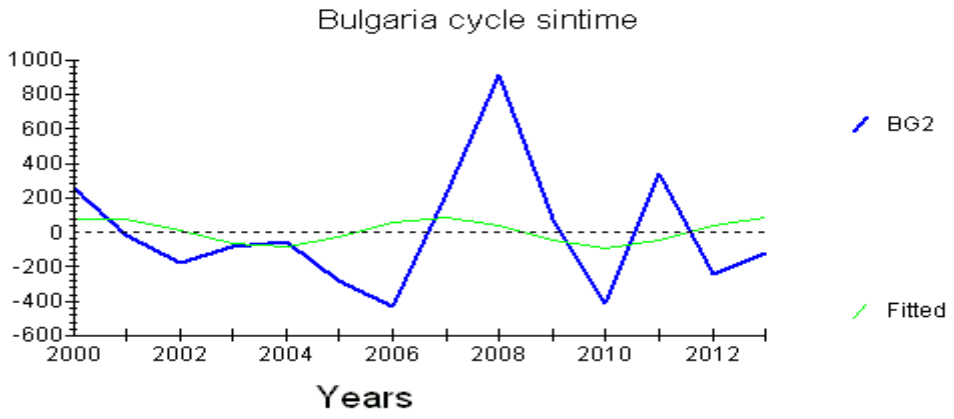
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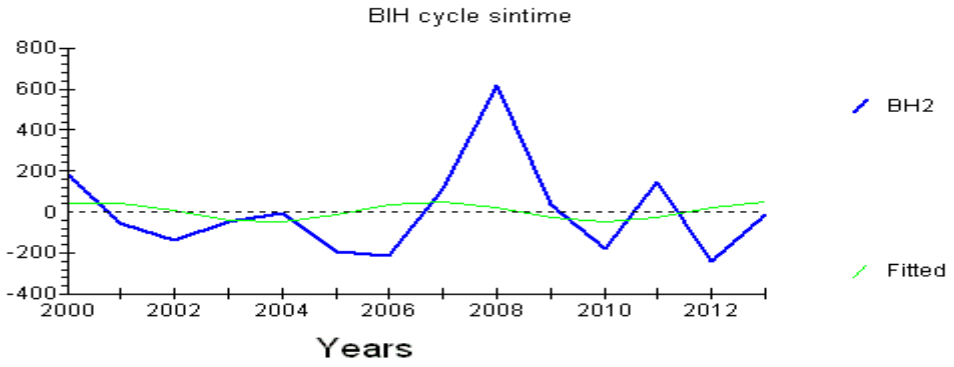
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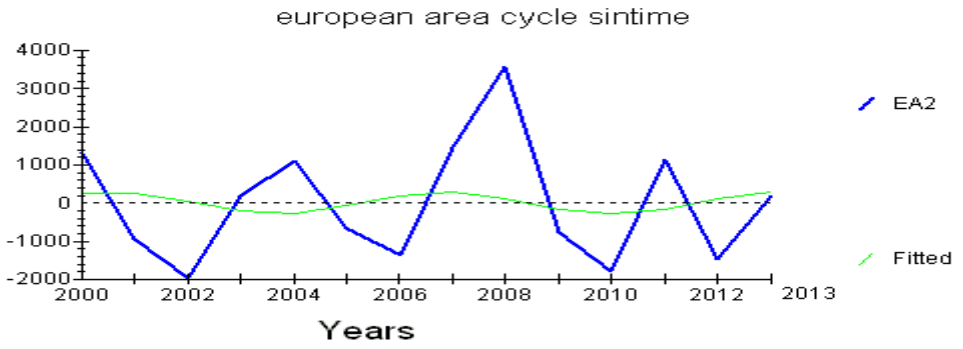
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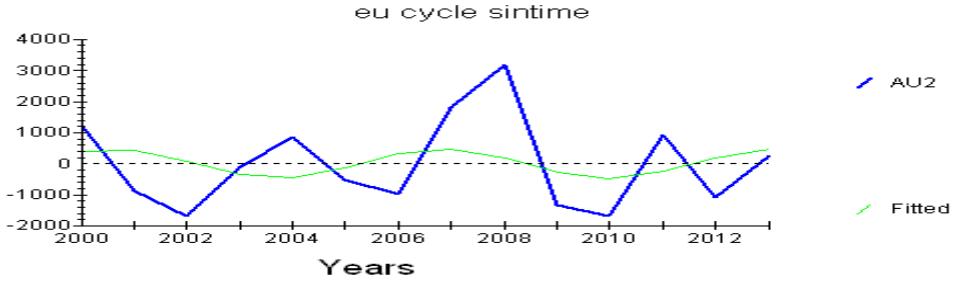
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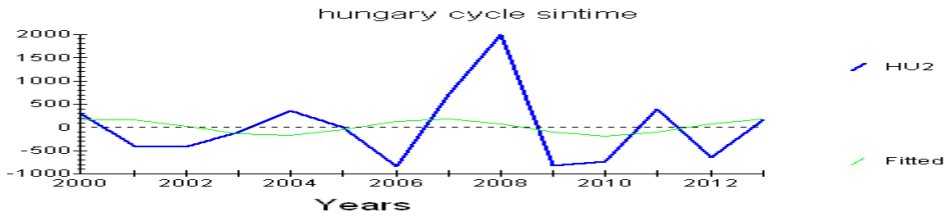
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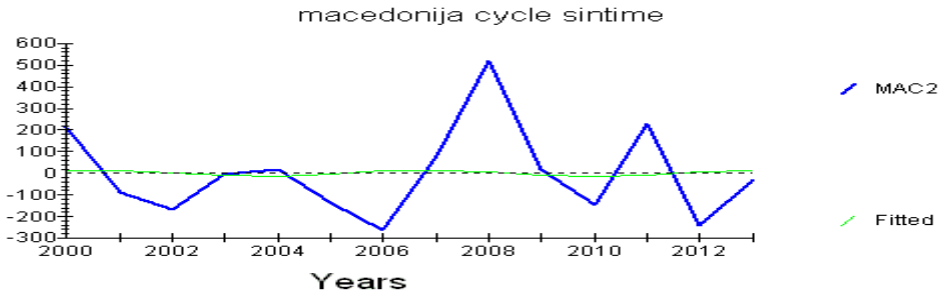
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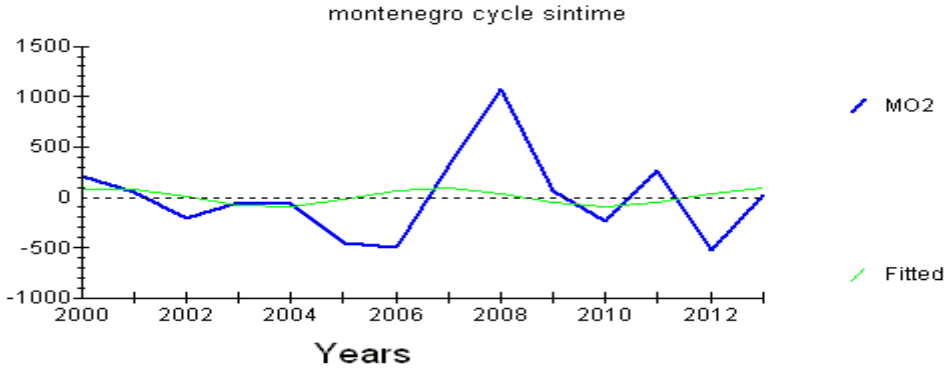
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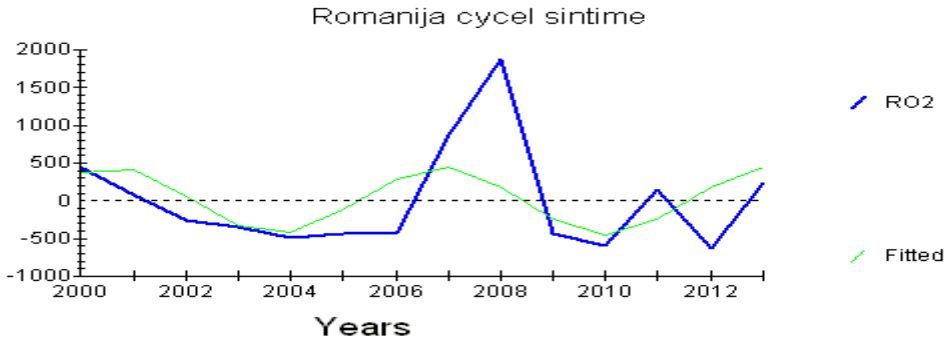
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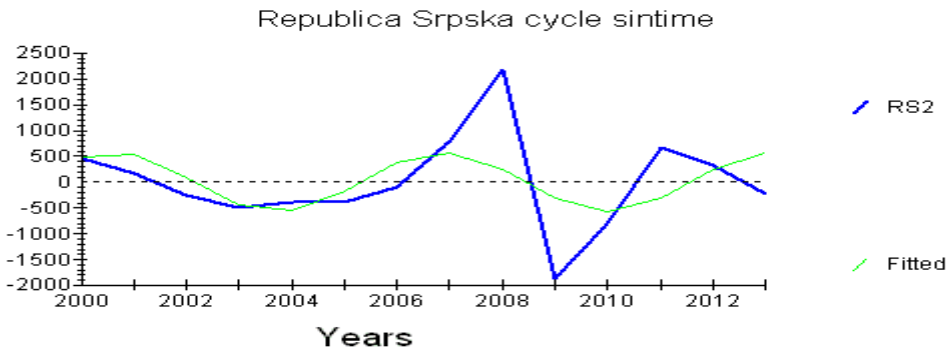
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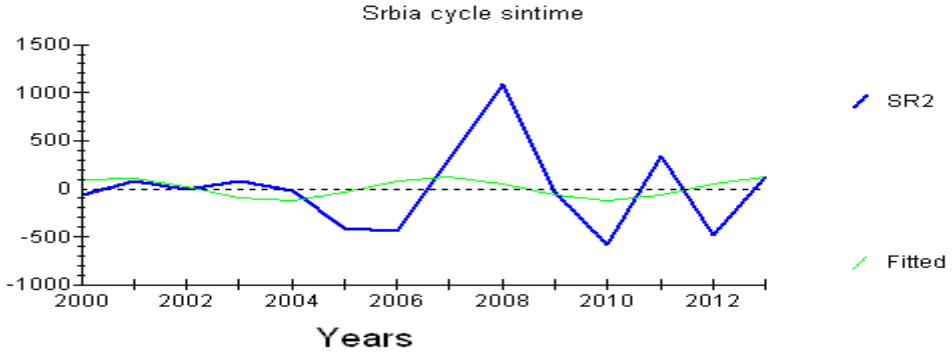
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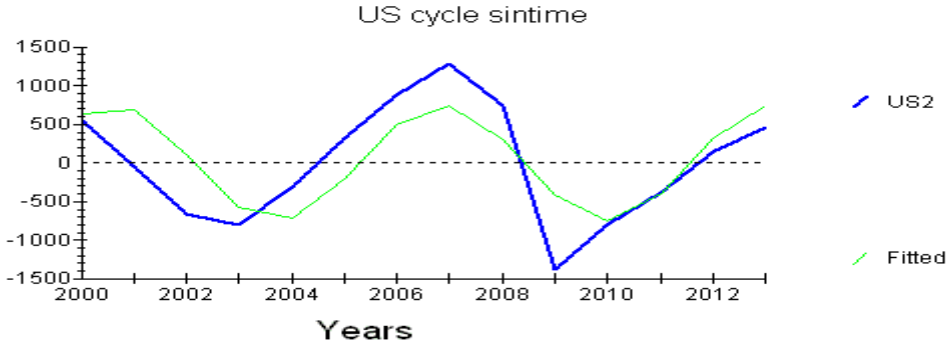
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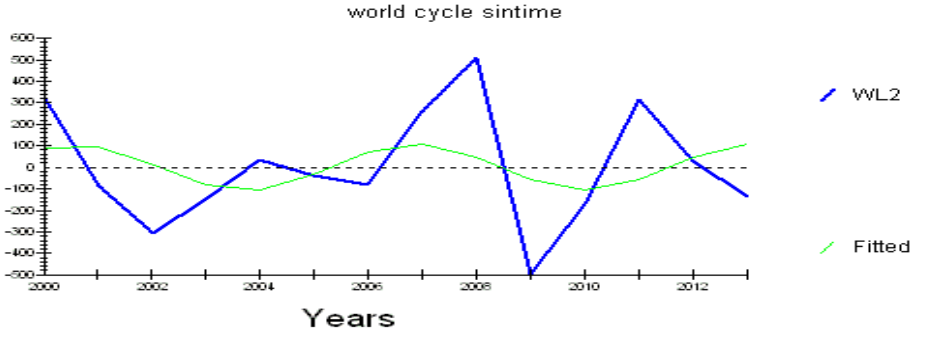
world cycle sintime
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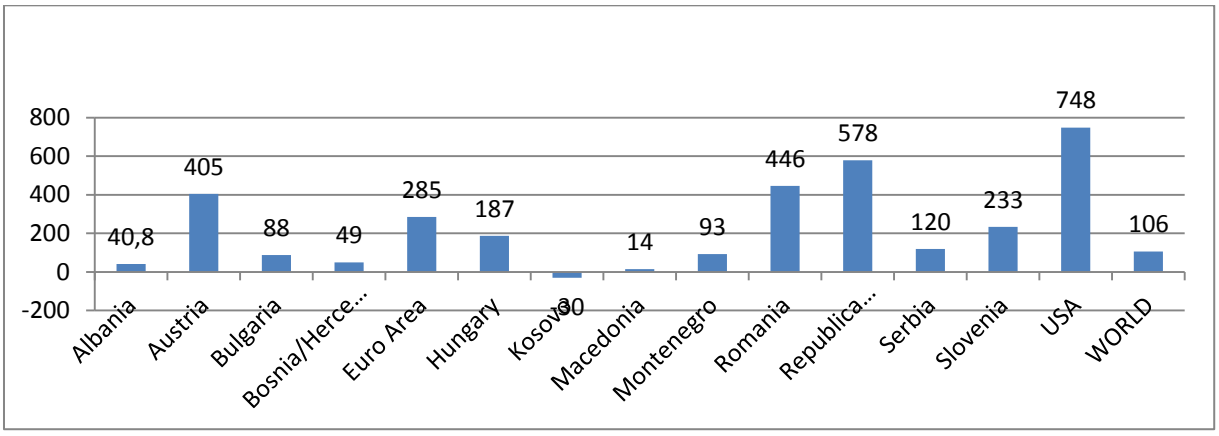
After regressing cycle of each economy GDP/ capita with sin time it is visible from results that USA have the strongest relation of its economy toward natural cycle and this relation is stronger in more developed economies that are linked with USA with economic and political relations more. It has lower value in Bosnia Albania Macedonia.

GDP/capita $_1$=HP(GDP/capita; lambda)

GDP/capita$_2$=GDP/capita-GDP/capita$_1$

GDP/capita$_2$= a * sin time +e

a number from regression GDP/capita=a*sinus time



Picture 86

4.6. GDP RELATION

Very simple picture of GDP relation that is dependent upon itself is somewhat broadened in today's complex world. In a situation that almost no economies are independent this means more complicated work for the forecast economist.

So the basic formula of

GDP f(GDP $_{t-1}$; GDP %, log diff GDP form) need to be put into more complex environment

GDP f(Production function, Consumption function, Income function) where

Production function f(GDP at market prices, GVA Gross Value Added, Tax on Product,Import Duties, Subsidies etc)

Consumption function f(Final Consumption, Gross fixed Capital Formation,Changes in inventories, Export of goods and services, import of Goods and services etc)

Income function f(Compensation of employees, gross operating surpluses, taxes on product, subsidies etc).

As basic relation income equation is a sum of decision and processes regarding investment, government expenditure, consumption level, Net amount of export/import.

Y= I+C+G+(X-M) +e

	Related to
Investment decisions	Amortization, Depreciation; Foreign/Local; Long term Infrastructure/Short term facility ;Energy; Production; Selling center; Loan opportunity, Interest rate
Consumption	Adaptive/Rational expectations in consumption; Durables/ short term good; Time of year; Population structure; Loan possibilities;
Government	Policy toward subsidy, taxes, privatization, legislation on environment, input to entrepreneur production, fiscal

	/monetary policy influence; cooperation with other Governments in region, etc
Export	Prices, quantity ,quality of good, market presentation, brand, specific or good for broad consumption,
Import	Taxes, Possibility of domestic production, Subsidy of domestic good, technical skills, natural potentials of country , debt increase, interest rates etc

$GDP_{t\ country} = f(GDP_{t-1\ country}, GDP_{t-1\ region}, GDP_{t-1\ leading\ world\ economies}) + e$

Besides real observable effects on GDP some non visible effects are related to it in later periods or strongly influence future scenarios.

Re Real /or measured effect	i Not visible/not incorporated immediately-time lag in real values
GDP t-1; investment, consumption, (durables, non durables) , housing, Government consumption, investment, export, import, growth rates,	Wealth distribution, non market transactions, underground economy, asset value, non monetary economy, quality improvements, what is being produced, sustainability of growth, externalities, environmental dangers, issues, Perception of Human Development Index, Sustainable Economic welfare, Future Orientation Index, interventions –all kinds- in other areas/regions, Social Progress Index etc

$GDP_{t\ country} = a1*GDP_{t-1\ (real)} + a2*GDP_{t-1\ (i)} + e$

$GDP_{t\ country} = a1*GDP_{t-1\ (real)} + a2*GDP_{t-1\ (i)} + b1*GDP_{region\ t-1\ (real)} + b2*GDP_{region\ t-1\ (i)} + c1*GDP_{t-1\ world\ real} + c2*_{GDP\ t-1\ I} + e$

6. Conclusion

Countries situated on the Balkan Peninsula started from the similar point of economic development (history of planned economies, large industrial facilities, good developed energy infrastructure, reliance on Russian oil gas, good or equal social structure , or equality, lower level of GDP/capita in comparison with EU area etc.) but with time their GDP/capita differentiated due to different position on local/global market. While Romania and Bulgaria had manage to become a member of EU Community they experienced a large increase in GDP growth due to EU funds, prospects of larger market, potential force that would link EU /Eastern markets etc. They showed themselves somewhat resilient toward big decline in 2008 crises but if long term structural problems are not solved they can experience lower than expected growth rates further(low level of cooperation, rising unemployment rates, larger interest rates , growing debt, low level of utilization of existing resources etc.) .Albania had been for long very closed country to outside world and recent opening brought large and significant rise in GDP/capita that comes from utilization of natural resources and service industry. Further developments will depend upon cooperation in region and developing of industry tourism potentials. Countries of Ex Yugoslavia still solving a issues of privatization, and learn how to operate in market filed. Slowing GDP growth , implies necessity of cooperation in field of energy, industry and agriculture that would boost economic prosperity further.

What is further established is that GDP relation to past performance can be used for further predictions only to certain degree- it is also related to economic cycles, economies of USA, EU as larger world economic forces and are dependent upon each other policy and strengths. In that respect further GDP capita is dependent open its own production, income, and expenditure policy but varies with regional and world economic forces and decision as well to extent that can provoke GDP/capita slow down or decline. As a result of this reasoning good measure of local diversification together with regional policy and economic cooperation can bring benefits if future negative world economic cycles appear.

Literature:

-Wikipedia.org

-IEA.org

-EIA.org

-World Bank

-Energy Community

-**Statistical Offices :**

-*Statistic Serbia*

-*Statistic Montenegro*

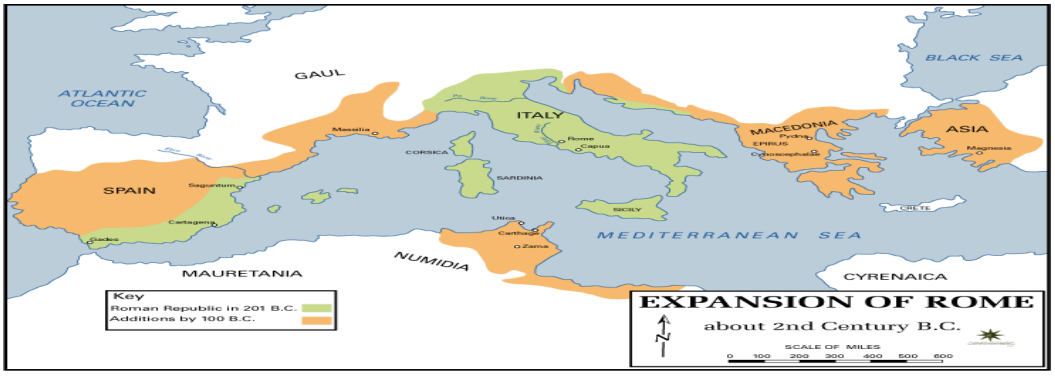
-*Statistic Macedonia*

-*Statistic Bosna Herzegovina*

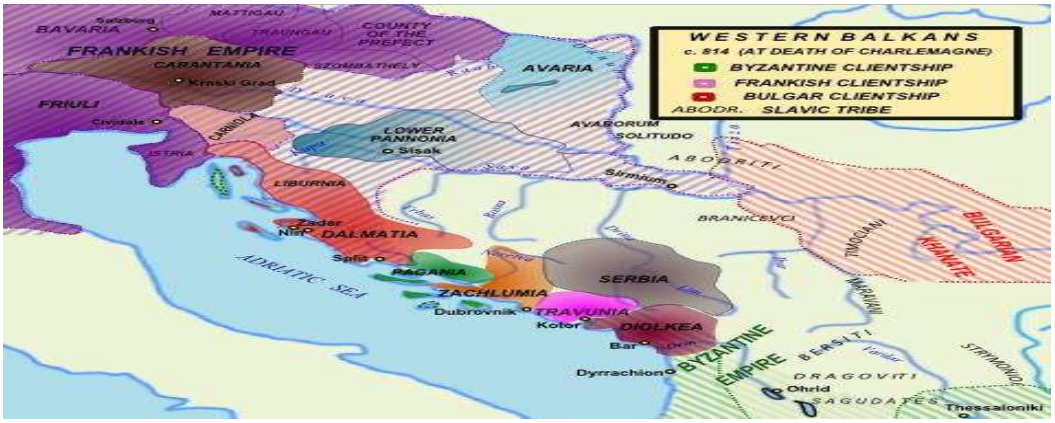
-*Statistic Romania*

-*Statistic Bulgaria*

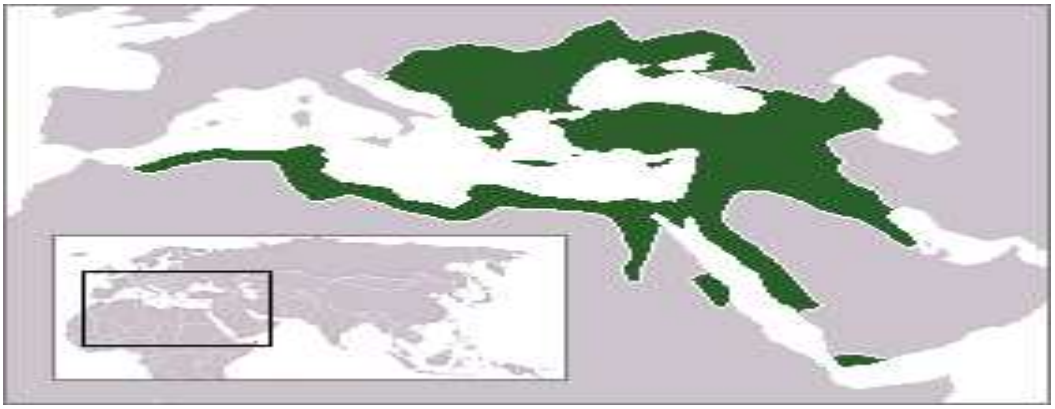
ANEX I



Roman Republic 200 BC



814 AD



Ottoman Empire AD 1683

French Ilirian Province AD 1810

Austria Hungary AD 1905

ANEX II

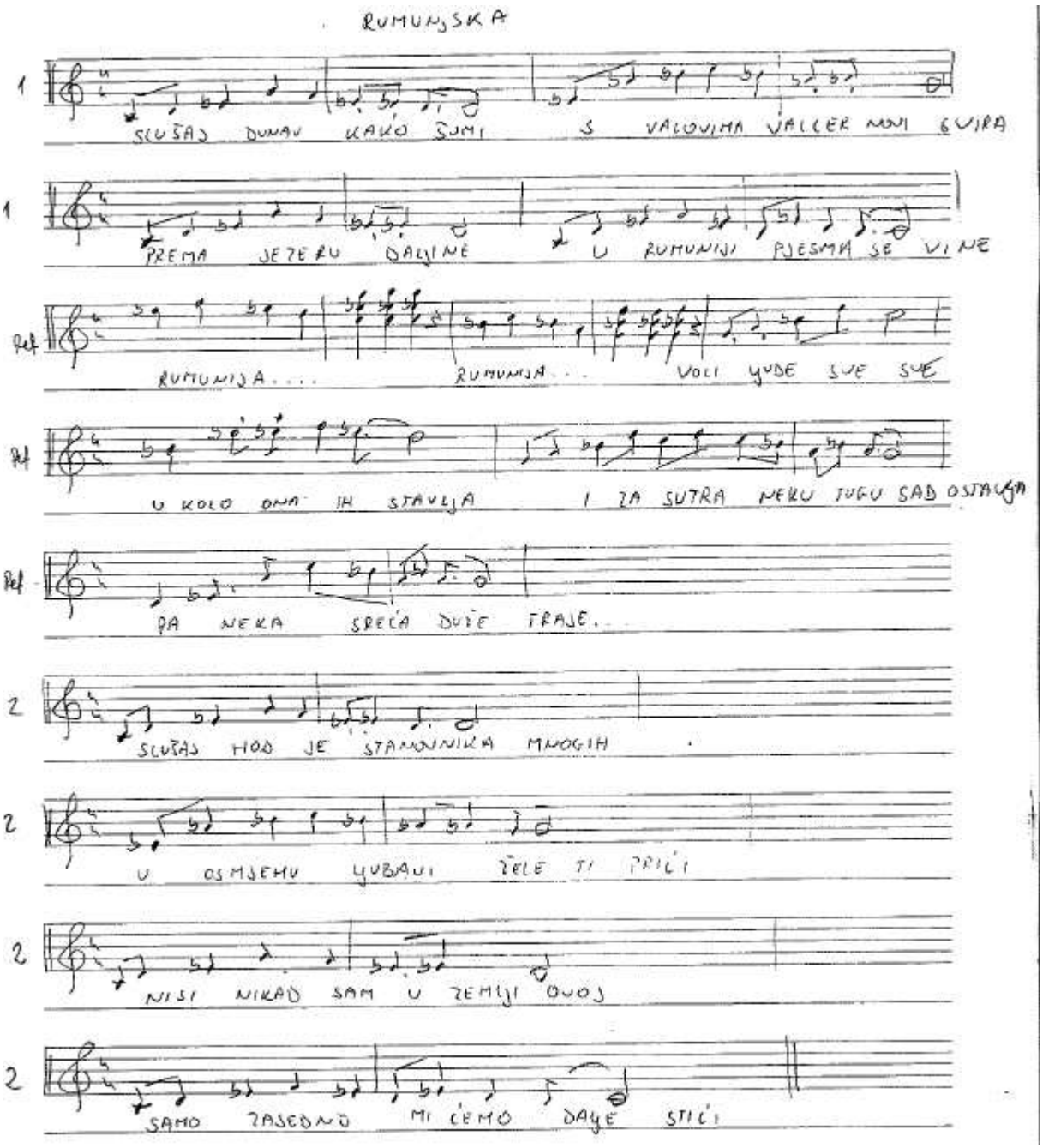
MONTENEGRO


1
ZAPLESI SAMO BRZO LUPI NOGOM O POD
1
DJEVOJKU U KOLO POVEDI TU SVATKO RITMA JE PUN
1
A A A A A Aaaa NEGO 'O STA
Ref.
TAMNI KANJONI KRIJU BRZU RIJEKU
Ref.
ONA KOJA BISTRI IZVOR SKRIVA SVE ZAJEDNO U MORSKOM VALU
Ref.
SA SUNCEM PLOVE ZALOM
2
ZAPJEVAJ SNAŽNO GLASOM ČVRSTIM JAKIM Sova t
2
CRNOGORAC KADA ZBORI KO DA VJETAR ZAPUHNE
2
Aaaa Aaaa NEGO STA
3
ZAGRLI SVE NA SVIJETU PA ZAR NISI JAK KO STIJENA
3
OSMJEH SREĆE NE ČUVAJ ZA SUTRA I DANAS ON JE SNAGA ČELIČNA AL LIJEPA
3
Aaaa Aaaa NEGO STA


MAKEDONIA
1
MAKEDONKO MAKEDONKO LIJEPA NA IZVOR VODE TI ME ODVEDI
1
TAMO LJUBAV SNIVA SAMA ONA MOJE SVIJET NIKAD SE NE OTJELI
Ref.
SUNCE I SMIJEH I IGRA I KIŠA SVE U ŽARU MAKEDONSKE BAJKE
Ref.
NA STOLU POGAČA U SRCU LJUBAV TO ZEMLJA O KOJOJ PIŠU SE BAJKE
2
MAKEDONČE MAKEDONČE DRAGI TI ŠTO OSMJEHOM SUNČEV SJAJ IZMAMIŠ
2
U OKU SJAJ U RUCI CVIJET TI PRUŽAŠ UZDAH MILINE TI OSJEĆAJ MAMIŠ
3
ZEMLJO UZ RIJEKU PLAVU ZELENO BIJE PLES VINA
3
AKO ŽELIŠ NJIHOVU ISTINSKU ŽRAVU MAKEDONSKI TU JE VEŽ

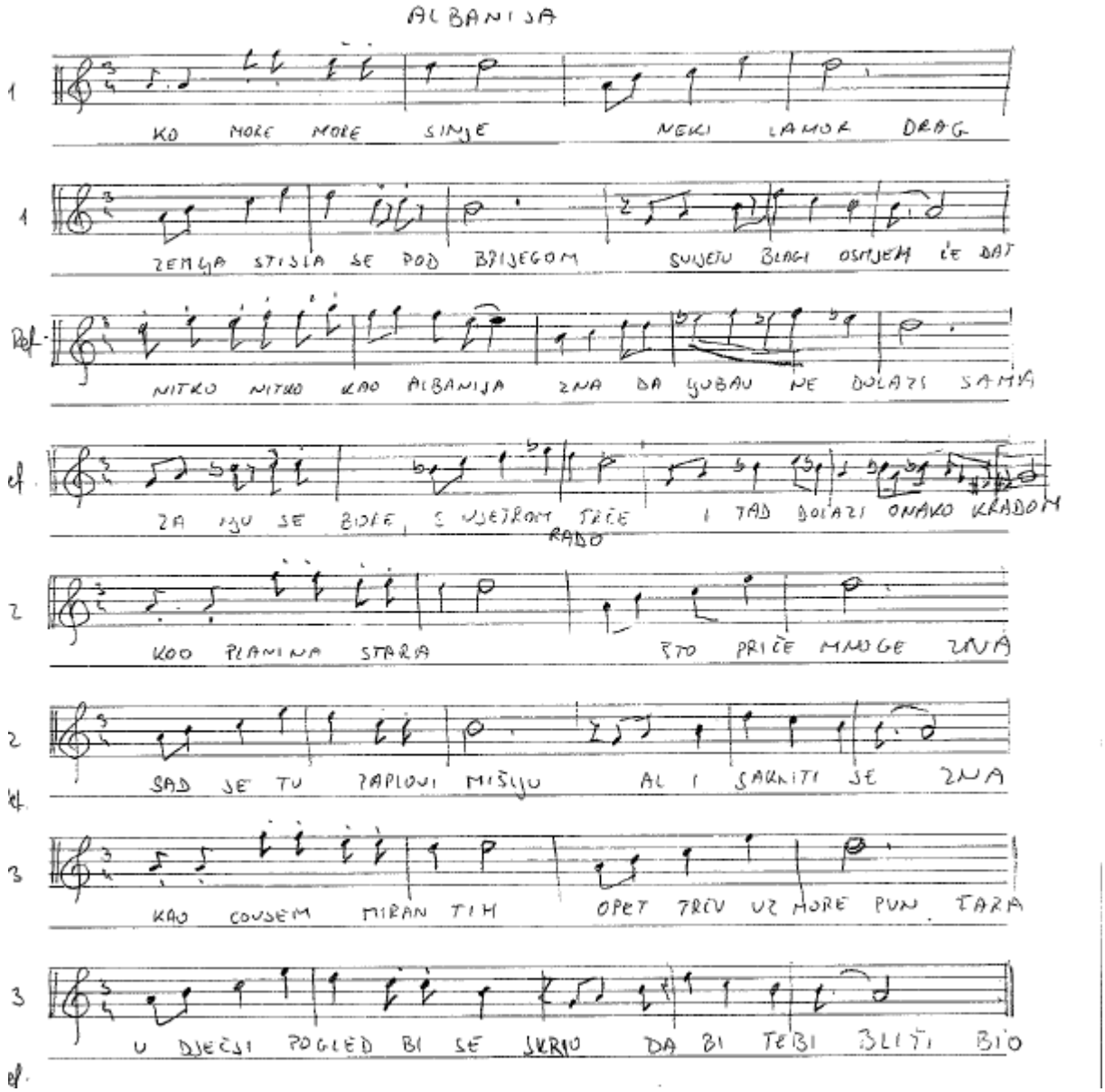

BOSNA
1
PITAM SE DA LI ĆU IKADA VIŠE PROĆI VRLEJINA BOSNE MOJE
1
U RIJECI ZAPLESKAT PASTRVI ŽIVOJ RAŠIRIT RUKE KO KRILA ŠTO PLOVE
Ref
KAO DRŽAVA OD TISUĆU SLOVA A OPET TO NEPREGLEDNO MNOŠTVO
Ref
UZVIKUJE HIMNU NEKU NOVU KOJA NAJLJEPŠE PJEVA SE U ZBORU
2
NISAM NI SLUTIO NEKAD DA OSTAVIT ĆU SARAJEVSKI DRUM
2
ZVUK TRŠNICE BIT ĆE PJESMA DALEKA A OPET ŽIVA U SRCU MOM
3
KAO DRAGULJ SA PUNO BOJA SVAKI SIJA ROSEBNIM SJAJEM
3
TAKO PLOVI BOSNA MOJA U TIHOM JUTRU KROZ VIJAJET
4
ZALSTA BUDUĆNOST IDE BRŽE MODOM RAKETNIM BRZINA SE VIJE
4
BOSNA LJEPŠA NO IKADA STOJI POLAKO PLOVI U MISLIMA MOJIM


RUSIJA
1
KRILA LEĆE PREMA VEĆOTI MENIH U OBLAK BIJELI SUNCE GNIJEZDO SKRILO
1
TAMO GLEDA ČOVJEK RUKE PRUŽA NJEGA SRCE RISKO IZNJEDRILO
Ref.
VRIJEME JE DA SE PROLIJE GORUO VINO
Ref.
ZABORAVE RAZBIJENE ČAŠE U NOVI LET ČOVJEK SAMO IDE
Ref.
A PONIZNOST NJEMU KRILO VIJE LJUBAV... LJUBAV ON JE SAMA
Ref.
ČOVJEK.. LJUBAV ON JE PRAVA LJUBAV LJUBAV LJUBAV..
2
PLOVE BRODOVI MOREM SINJEM U PLAVETNILU NEBA SVAK OTOK JE SNOVA
2
PUNA SAMA PJESMA IDE NOVA I SVAK JE NOTA POSEBNA PRAVA
3
ZELENILO SVUDA BEZ KRAJA ČUJEŠ DIŽE GLAVU ZABORAVI SAN
3
U ROSI LJUBAVI ON SE KUPA ŽELI SVAKOME DOBAR DAN
Ref 2
VRIJEME JE.. DA SE RODI LJUBAV I MA KAKO DALEKO BIO NJEZIN TRAG
Ref 2
PUT ĆE ZEMLJI MOJOJ DATI UPOZ PO LJUBAC ILI SAN


RUMUNJSKA
1
SLUŠAJ DUNAV KAKO ŠUMI S VALOVIMA VALCER MOJ GVIRA
1
PREMA JEZERU OALJENE U RUMUNIJI PJESMA SE VIJE
Ref
RUMUNIJA.... RUMUNIJA... VOLI LJUDE SVE SVE
Ref
U KOLO ONA IH STAVLJA I ZA SUTRA NEKU TUGU SAD OSTAVLJA
Ref
DA NEKA SREĆA DUŽE TRAJE..
2
SLUŠAJ HOD JE STANOVNIKA MNOGIH
2
U OSMJEHU LJUBAVI ŽELE TI PRIĆI
2
NISI NIKAD SAM U ZEMLJI OVOJ
2
SAMO ZAJEDNO MI ĆEMO DALJE STIĆI

BUGARSKA


1
IZLAZI SUNCE NA ISTOČNOJ STRANI U GROŽĐU SE ZRAKE PLETU
1
MEĐU VOĆEM PJEŠAMA NEŽNA GUBAVI PJEVA I IZDALEKA
Ref.
NIJE KOLO NITI SVIRKA ŠTO BUGARSKOJ PLETE NJEŽNI VEZ
Ref.
TO JE SNAGA BISEĆI MILE U NJOJ STOJI CIJELI SVIJET
2
MOMCI JURE ČISTOM ŽIVOTA SPOMINJU SE PJESME STARE
2
U RIDARSKOM ČAMCU MREŽU PLETU NJEŽNO POJEL' U SVE SVOJE DANE
3
DJEVOJKAMA NISKA BISERA OD BISERA NJEN JE VEZ
3
ZEMLJA ZELENI SE CIJELA RUŽA CRVENIH DUGI JE REJ


ALBANIJA
1
KO MORE MORE SINJE NEKI LAMOR DRAG
1
ZEMLJA STISLA SE POD BRIJEGOM SUNCU BLAGI OSMJEH ĆE DAT
Ref.
NITKO NITKO KAO ALBANIJA ZNA DA LJUBAV NE DOLAZI SAMA
cl.
ZA NJU SE BIJE, S VJETROM TEČE I TAD DOLAZI ONAKO KRADOM
RADO
2
KOO PLANINA STARA ŠTO PRIČE MNOGE ZNA
2
SAD JE TU ZAPLOVI MIŠLJU AL I SAKRITI SE ZNA
cl.
3
KAO COVJEK MIRAN TIH OPET TREĆU UZ MORE PUN TAMA
3
U DJEČJI POGLED BI SE SKRIO DA BI TEBI BLIŽI BIO
cl.

SRBIJA


1 NIGDJE NIGDJE NA SVIJETU OSMIJEH NIJE TAKO ŠIROK DUG
1 U DUNAV ON SE SLIVA KO NEKI DOBAR DRUG
Ref ZAŠTO ZAŠTO DA ZABORAVIM PRELIJEPI BRDOVITI KRAJ
Ref. U SVAKOM MOLITVA STOJI KOJU ĆU BOGU JA DAT
Ref. Aaa Aaa Aa Aaa Aaa Aaaa
Ref Aaa Aaa Aaa Aaa Aaa Aaa
2 ZAR NISI VIDIO KRUŠKU KO SUNCE OD ZLATA STOJI
2 U ODSJAJU MJESEČEVE SJENE ONA LJUBAV MOJU BROJI
3 ZAŠTO DA ODEM DALEKO U NEKI STRANI NEPOZNAT KRAJ
3 TU KRAJ RIJEKE VODA LIJEPO ŠUMI KRAJ OVOJ SVIMA KRUH ĆE DA DA
4 ZAR NISI VIDIO LJUDE U KOLU MIRA SADA STOJE
4 PUTUJU VRTOM SNOVA KO DA SVIJETOM DALEKIM PLOVE