Sustainability of Serbian Public Debt:A Macroeconomics Analysis

PUBLIC DEBTS IN SERBIA. Period of Research PhD Thesis Abroad at University of Belgrade Faculty of Economics 1.1. History of economic developments of Serbia – brief overview (Macroeconomic Analysis) 1.2. Origin, dynamics and stucture of public debt 1.3. Political deteminants of public debt dynamics 1.4. Economic drivers of public debt dynamics (Fiscal Balance, Excange Rates, GDP dynamics, Interest rate) 1.5. Fiscal rules and public debt in managemenent 1.6. Econometric analisys of public debt sustainabuility.

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Summary

PART ONE

PUBLIC DEBTS IN SERBIA. Period of Research PhD Thesis Abroad at University of Belgrade Faculty of Economics

PART TWO

Financial markets and public debt sustainability in Serbia. Period of Research PhD Thesis Abroad at University of Belgrade Faculty of Economics

PART ONE
PUBLIC DEBTS IN SERBIA. Period of Research PhD Thesis Abroad at University of Belgrade Faculty of Economics

1.1. History of economic developments of Serbia – brief overview

I want to start my Thesis period abroad under the University of Belgrade Serbia Faculty introducing the Serbian History and economics contest. As we know **Serbia** is the **Republic of Serbia** is a sovereign state situated at the crossroads of Central and Southeast Europe in the southern Pannonian Plain and the central Balkans.

It borders Hungary to the north; Romania and Bulgaria to the east; Macedonia to the south; Croatia, Bosnia and Herzegovina, Montenegro to the west and claims a border with Albania through the disputed territory of Kosovo. Serbia numbers around 7 million residents. Its capital, Belgrade, ranks among the oldest[and largest cities in southeastern Europe.

Following the Slavic migrations to the Balkans postdating the 6th century, Serbs established several states in the early Middle Ages. The Serbian Kingdom obtained recognition by Rome and the Byzantine Empire in 1217, reaching its peak in 1346 as a relatively short-lived Serbian Empire. By the mid-16th century, the entire modern-day Serbia was annexed by the Ottomans, at times interrupted by the Habsburg Empire, which started expanding towards Central Serbia from the end of the 17th century, while maintaining a foothold in modern-day Vojvodina. In the early 19th century, the Serbian Revolution established the nation-state as the region's first constitutional monarchy, which subsequently expanded its territory.

Following disastrous casualties in World War I, and the subsequent unification of the former Habsburg crownland of Vojvodina (and other territories) with Serbia, the country co-founded Yugoslavia with other South Slavic peoples, which would exist in various political formations until the Yugoslav Wars of the 1990s.

During the breakup of Yugoslavia, Serbia formed a union with Montenegro, which dissolved peacefully in 2006. In 2008, the parliament of the province of Kosovo unilaterally declared independence, with mixed responses from the international community.

Serbia is a member of the UN, CoE, OSCE, PfP, BSEC, CEFTA and it is acceding to the WTO. Since 2014 the country has been negotiating its EU accession with perspective of joining the European union by 2025 and is the only country in the current enlargement agenda which is designated as "free" by Freedom House. Since 2007, Serbia formally adheres to the policy of military neutrality. An upper-middle income economy with a dominant service sector followed by the industrial sector and agriculture, the country ranks high by the Human Development Index (66th), Social Progress Index(45th) as well as the Global Peace Index (56th).

History

Prehistory

In merit of the Histiry of Serbia I start to talk about the Prehistory. In fact the Archeological evidence of Paleolithic settlements on the territory of present-day Serbia are scarce. A fragment of a human jaw, was found in Sićevo (Mala Balanica) and believed to be up to 525,000—397,000 years old.

Approximately around 6,500 years BC, during the Neolithic, the Starčevo, and Vinča cultures existed in or near modern-day Belgrade and dominated much of the Southeastern Europe, (as well as parts of Central Europe and Asia Minor). Two important local archeological sites from this era, Lepenski Vir and Vinča-Belo Brdo, still exist near the banks of the Danube.

Figure 1:Lepenski Vir culture figure, 7000 BC

Ancient History

I continuing my thesis to speak about the Iron Age, Thracians, Dacians, and Illyrians were encountered by the Ancient Greeks during their expansion into the south of modern Serbia in the 4th century BC; the northwesternmost point of Alexander the Great's empire being the town of Kale-Krševica. The Celtic tribe of Scordisci settled throughout the area in the 3rd century BC and formed a tribal state, building several fortifications, including their capital at Singidunum (present-day Belgrade) and Naissos (present-day Niš).

The Romans conquered much of the territory in the 2nd century BC. In 167 BC the Roman province of Illyricum was established; the remainder was conquered around 75 BC, forming the Roman province of Moesia Superior; the modern-day Srem region was conquered in 9 BC; and Bačka and Banat in 106 AD after the Dacian Wars. As a result of this, contemporary Serbia extends fully or partially over several former Roman provinces, including Moesia, Pannonia, Praevalitana, Dalmatia, Dacia and Macedonia.

Figure 1 Remnants of Felix Romuliana Imperial Palace, UNESCO World Heritage Site.

The chief towns of Upper Moesia (and wider) were: Singidunum (Belgrade), Viminacium (now Old Kostolac), Remesiana (now Bela Palanka), Naissos (Niš), and Sirmium (now Sremska Mitrovica), the latter of which served as a Roman capital during the Tetrarchy.[26] Seventeen Roman Emperors were born in the area of modern-day Serbia, second only to contemporary Italy.[27] The most famous of these was Constantine the Great, the first Christian Emperor, who issued an edict ordering religious tolerance throughout the Empire. When the Roman Empire was divided in 395, most of Serbia remained under the Eastern Roman Empire, while its northwestern parts were included in the Western Roman Empire. By the early 6th century, South Slavs were present throughout the Byzantine Empire in large numbers.

Middle Ages

I continuing to say that Serbs, a Slavic tribe that settled the Balkans in the 6th or early 7th century, established the Serbian Principality by the 8th century. It was said in 822 that the Serbs inhabited the greater part of Roman Dalmatia, their territory spanning what is today southwestern Serbia and parts of neighbouring countries. Meanwhile, the Byzantine Empire and Bulgarian Empire held other parts of the territory. Christianity was adopted by the Serbian rulers in ca. 870, and by the mid-10th-century the Serbian state stretched the Adriatic Sea by the Neretva, the Sava, the Morava, and Skadar. Between 1166 and 1371 Serbia was ruled by the Nemanjić dynasty (which legacy is especially cherished), under whom the state was elevated to a kingdom (and briefly an empire) and Serbian bishopric to an autocephalous archbishopric (through the effort of Sava, the country's patron saint). Monuments of the Nemanjić period survives in many monasteries (several being World Heritage) and fortifications. During these centuries the Serbian state (and influence) expanded significantly. The northern part, Vojvodina, was ruled by the Kingdom of Hungary. The period known as the Fall of the Serbian Empire saw the once-powerful state fragmented into duchies, culminating in the Battle of Kosovo (1389) against the rising Ottoman Empire. The Serbian Despotate was finally conquered by the Ottomans in 1459. The Ottoman threat and eventual conquest saw large migrations of Serbs to the west and north.

Figure 2 The Proclamation of Dušan's Law Codex in Skopje Fortress in 134

Ottoman and Habsburg Rule

In this section I explain the loss of independence to the Kingdom of Hungary and the Ottoman Empire, Serbia briefly regained sovereignty under Jovan Nenad in the 16th century. Three Habsburg invasions and numerous rebellions constantly challenged Ottoman rule. One famous incident was the Banat Uprising in 1595, which was part of the Long War between the Ottomans and the Habsburgs. The area of modern Vojvodina endured a century-long Ottoman occupation before being ceded to the Habsburg Empire at the end of the 17th century under the Treaty of Karlowitz.

In all Serb lands south of the rivers Danube and Sava, the nobility was eliminated and the peasantry was enserfed to Ottoman masters, while much of the clergy fled or were confined to the isolated monasteries. Under the Ottoman system, Serbs, as Christians, were considered an inferior class of people and subjected to heavy taxes, and a small portion of the Serbian populace experienced Islamisation. The Ottomans abolished the Serbian Patriarchate of Peć (1463), but reestablished it in 1557, providing for limited continuation of Serbian cultural traditions within the empire.

As the Great Serb Migrations depopulated most of southern Serbia, the Serbs sought refuge across the Danube River in Vojvodina to the north and the Military Frontier in the west, where they were granted rights by the Austrian crown under measures such as the Statuta Wallachorum of 1630. The ecclesiastical center of the Serbs also moved northwards, to the Metropolitanate of Sremski Karlovci, as the Serbian Patriarchate of Peć was once-again abolished by the Ottomans in 1766. Following several petitions, the Holy Roman Emperor Leopold I formally granted Serbs who wished to leave the right to their autonomous crownland.

In 1718–39, the Habsburg Monarchy occupied Central Serbia and established the "Kingdom of Serbia". Apart from Vojvodina and Northern Belgrade which were absorbed into the Habsburg Empire, Central Serbia was occupied by the Habsburgs again in 1686–91 and in 1788–92.

Revolution and independence

In this section I define that the Serbian Revolution for independence from the Ottoman Empire lasted eleven years, from 1804 until 1815. The revolution comprised two separate uprisings which gained autonomy from the Ottoman Empire that eventually evolved towards full independence (1835–1867). During the First Serbian Uprising, led by Duke Karađorđe Petrović, Serbia was independent for almost a decade before the Ottoman army was able to reoccupy the country. Shortly after this, the Second Serbian Uprising began. Led by Miloš Obrenović, it ended in 1815 with a compromise between Serbian revolutionaries and Ottoman authorities. Likewise, Serbia was one of the first nations in the Balkans to abolish feudalism. The Convention of Ackerman in 1826, the Treaty of Adrianople in 1829 and finally, the Hatt-i Sharif, recognized the suzerainty of Serbia. The first Serbian Constitution was adopted on 15 February 1835.

Following the clashes between the Ottoman army and Serbs in Belgrade in 1862, and under pressure from the Great Powers, by 1867 the last Turkish soldiers left the Principality, making the country *de facto* independent. By enacting a new constitution without consulting the Porte, Serbian diplomatsconfirmed the *de facto* independence of the country. In 1876, Serbia declared war on the Ottoman Empire, proclaiming its unification with Bosnia.

The formal independence of the country was internationally recognized at the Congress of Berlin in 1878, which formally ended the Russo-Turkish War; this treaty, however, prohibited Serbia from uniting with Bosnia by placing Bosnia under Austro-Hungarian occupation, alongside the occupation of Sanjak of Novi Pazar.[42] From 1815 to 1903, the Principality of Serbia was ruled by the House of Obrenović, save for the rule of Prince Aleksandar Karađorđevićbetween 1842 and 1858. In 1882, Serbia became a Kingdom, ruled by King Milan I. The House of Karađorđević, descendants of the revolutionary leader Karađorđe Petrović, assumed power in 1903 following the May Overthrow. In the north, the 1848 revolution in Austria led to the establishment of the autonomous territory of Serbian Vojvodina; by 1849, the region was transformed into the Voivodeship of Serbia and Banat of Temeschwar.

Balkan Wars, World War I and the First Yugoslavia

Here in the course of the First Balkan War in 1912, the Balkan League defeated the Ottoman Empire and captured its European territories, which enabled territorial expansion into Raška and Kosovo. The Second Balkan War soon ensued when Bulgaria turned on its former allies, but was defeated, resulting in the Treaty of Bucharest. In two years, Serbia enlarged its territory by 80% and its population by 50%;[citation needed] it also suffered high casualties on the eve of World War I, with around 20,000 dead. Austria-Hungary became wary of the rising regional power on its borders and its potential to become an anchor for unification of all South Slavs, and the relationship between the two countries became tense.

The assassination of Archduke Franz Ferdinand of Austria on 28 June 1914 in Sarajevo by Gavrilo Princip, a member of the Young Bosnia organization, led to Austria-Hungary declaring war on Serbia.[44] In defense of Serbia, and to maintain her status as a Great Power, Russia mobilized its troops, which resulted in Austria-Hungary's ally Germany declaring war on Russia. Serbia won the first major battles of World War I, including the Battle of Cer and Battle of Kolubara – marking the first Allied victories against the Central Powers in World War I.

Despite initial success, it was eventually overpowered by the Central Powers in 1915. Most of its army and some people fled through Albania to Greece and Corfu, suffering immense losses on the way. Serbia was occupied by the Central Powers. After the Central Powers military situation on other fronts worsened, the remains of the Serb army returned east and lead a final breakthrough through enemy lines on 15 September 1918, liberating Serbia and defeating the Austro-Hungarian Empire and Bulgaria.[47] Serbia, with its campaign, was a major Balkan Entente Power[48] which contributed significantly to the Allied victory in the Balkans in November 1918, especially by helping France force Bulgaria's capitulation. Serbia was classified as a minor Entente power.

Serbia's casualties accounted for 8% of the total Entente military deaths; 58% (243,600) soldiers of the Serbian army perished in the war.The total number of casualties is placed around 700,000,[52] more than 16% of Serbia's prewar size, and a majority (57%) of its overall male population. As the Austro-Hungarian Empire collapsed, the territory of Syrmia united with Serbia on 24 November 1918, followed by Banat, Bačka and Baranja a day later, thereby bringing the entire Vojvodina into the Serb Kingdom. On 26 November 1918, the Podgorica Assembly deposed the House of Petrović-Njegoš and united Montenegro with Serbia.[citation needed] On 1 December 1918, at Krsmanović's House at Terazije, Serbian Prince Regent Alexander of Serbia proclaimed the Kingdom of the Serbs, Croats, and Slovenes under King Peter I of Serbia.

King Peter was succeeded by his son, Alexander, in August 1921. Serb centralists and Croat autonomists clashed in the parliament, and most governments were fragile and short-lived. Nikola Pašić, a conservative prime minister, headed or dominated most governments until his death. King Alexander changed the name of the country to Yugoslavia and changed the internal divisions from the 33 oblasts to nine new banovinas. The effect of Alexander's dictatorship was to further alienate the non-Serbs from the idea of unity.

Alexander was assassinated in Marseille, during an official visit in 1934 by Vlado Chernozemski, member of the IMRO. Alexander was succeeded by his eleven-year-old son Peter II and a regency council was headed by his cousin, Prince Paul. In August 1939 the Cvetković–Maček Agreement established an autonomous Banate of Croatia as a solution to Croatian concerns.

World War II and the Second Yugoslavia

I start to define that in 1941, in spite of Yugoslav attempts to remain neutral in the war, the Axis powers invaded Yugoslavia. The territory of modern Serbia was divided between Hungary, Bulgaria, Independent State of Croatia (NDH) and Italy (greater Albania and Montenegro), while the remaining part of Serbia was placed under German Military administration, with Serbian puppet governments led by Milan Aćimović and Milan Nedić. The occupied territory was the scene of a civil war between royalist Chetniks commanded by Draža Mihailović and communist partisans commanded by Josip Broz Tito. Against these forces were arrayed Axis auxiliary units of the Serbian Volunteer Corps and the Serbian State Guard. Draginac and Loznica massacre of 2,950 villagers in Western Serbia in 1941 was the first large execution of civilians in occupied Serbia by Germans, with Kragujevac massacre and Novi Sad Raid of Jews and Serbs by Hungarian fascists being the most notorious, with over 3,000 victims in each case. After one year of occupation, around 16,000 Serbian Jews were murdered in the area, or around 90% of its pre-war Jewish population. Many concentration camps were established across the area. Banjica concentration camp was the largest concentration camp, with primary victims being Serbian Jews, Roma, and Serb political prisoners. During this period, hundreds of thousands of Serbs fled the Axis puppet state known as the Independent State of Croatia and sought refuge in Serbia, seeking to escape the large-scale persecution and genocide of Serbs, Jews, and Roma being committed by the Ustaše regime.

The Republic of Užice was a short-lived liberated territory established by the Partisans and the first liberated territory in World War II Europe, organized as a military mini-state that existed in the autumn of 1941 in the west of occupied Serbia. By late 1944, the Belgrade Offensive swung in favour of the partisans in the civil war; the partisans subsequently gained control of Yugoslavia. Following the Belgrade Offensive, the Syrmian Front was the last major military action of World War II in Serbia.

The victory of the Communist Partisans resulted in the abolition of the monarchy and a subsequent constitutional referendum. A one-party state was soon established in Yugoslavia by the League of Communists of Yugoslavia, between 60,000 and 70,000 people were killed in Serbia during the communist takeover. All opposition was suppressed and people deemed to be promoting opposition to socialism or promoting separatism were imprisoned or executed for sedition. Serbia became a constituent republic within the SFRY known as the Socialist Republic of Serbia, and had a republic-branch of the federal communist party, the League of Communists of Serbia. Serbia's most powerful and influential politician in Tito-era Yugoslavia was Aleksandar Ranković, one of the "big four" Yugoslav leaders, alongside Tito, Edvard Kardelj, and Milovan Đilas. Ranković was later removed from the office because of the disagreements regarding Kosovo's nomenklatura and the unity of Serbia. Ranković's dismissal was highly unpopular among Serbs. Pro-decentralization reformers in Yugoslavia succeeded in the late 1960s in attaining substantial decentralization of powers, creating substantial autonomy in Kosovo and Vojvodina, and recognizing a Yugoslav Muslim nationality.[67] As a result of these reforms, there was a massive overhaul of Kosovo's nomenklatura and police, that shifted from being Serb-dominated to ethnic Albanian-dominated through firing Serbs on a large scale. Further concessions were made to the ethnic Albanians of Kosovo in response to unrest, including the creation of the University of Pristina as an Albanian language institution. These changes created widespread fear among Serbs of being treated as second-class citizens.

Breakup of Yugoslavia and Political Transition

In 1989, Slobodan Milošević rose to power in Serbia. Milošević promised a reduction of powers for the autonomous provinces of Kosovo and Vojvodina, where his allies subsequently took over power, during the Anti-bureaucratic revolution. This ignited tensions between the communist leadership of the other republics, and awoke nationalism across the country that eventually resulted in its breakup, with Slovenia, Croatia, Bosnia and Herzegovina, Macedonia and Kosovo declaring independence. Serbia and Montenegro remained together as the Federal Republic of Yugoslavia (FRY). Fueled by ethnic tensions, the Yugoslav Wars erupted, with the most severe conflicts taking place in Croatia and Bosnia, where the large ethnic Serb communities opposed independence from Yugoslavia. The FRY remained outside the conflicts, but provided logistic, military and financial support to Serb forces in the wars. In response, the UN imposed sanctions against Serbia which led to political isolation and the collapse of the economy (GDP was $24 billion in 1990 to under $10 billion in 1993). Multi-party democracy was introduced in Serbia in 1990, officially dismantling the one-party system. Critics of Milošević claimed that the government continued to be authoritarian despite constitutional changes, as Milošević maintained strong political influence over the state media and security apparatus. When the ruling Socialist Party of Serbia refused to accept its defeat in municipal elections in 1996, Serbians engaged in large protests against the government.

In 1998, peace was broken again, when the situation in Kosovo worsened with continued clashes between the Albanian guerilla Kosovo Liberation Army and Yugoslav security forces. The confrontations led to the short Kosovo War (1998–99), in which NATO intervened, leading to the withdrawal of Serbian forces and the establishment of UN administration in the province.

After presidential elections in September 2000, opposition parties accused Milošević of electoral fraud. A campaign of civil resistance followed, led by the Democratic Opposition of Serbia (DOS), a broad coalition of anti-Milošević parties. This culminated on 5 October when half a million people from all over the country congregated in Belgrade, compelling Milošević to concede defeat. The fall of Milošević ended Yugoslavia's international isolation. Milošević was sent to the International Criminal Tribunal for the former Yugoslavia. The DOS announced that FR Yugoslavia would seek to join the European Union. In 2003, the Federal Republic of Yugoslavia was renamed Serbia and Montenegro; the EU opened negotiations with the country for the Stabilization and Association Agreement. Serbia's political climate remained tense and in 2003, the prime minister Zoran Đinđić was assassinated as result of a plot originating from circles of organized crime and former security officials.

On 21 May 2006, Montenegro held a referendum to determine whether to end its union with Serbia. The results showed 55.4% of voters in favor of independence, which was just above the 55% required by the referendum. On 5 June 2006, the National Assembly of Serbia declared Serbia to be the legal successor to the former state union. The Assembly of Kosovo unilaterally declared independence from Serbia on 17 February 2008. Serbia immediately condemned the declaration and continues to deny any statehood to Kosovo. The declaration has sparked varied responses from the international community, some welcoming it, while others condemned the unilateral move. Status-neutral talks between Serbia and Kosovo-Albanian authorities are held in Brussels, mediated by the EU.

In April 2008 Serbia was invited to join the Intensified Dialogue programme with NATO despite the diplomatic rift with the alliance over Kosovo. Serbia officially applied for membership in the European Union on 22 December 2009, and received candidate status on 1 March 2012, following a delay in December 2011. Following a positive recommendation of the European Commission and European Council in June 2013, negotiations to join the EU commenced in January 2014.

Politics

I start to talk about that in Serbia is a parliamentary republic, with the government divided into legislative, executive and judiciary branches. Serbia had one of the first modern constitutions in Europe, the 1835 Constitution (known as "Sretenje Constitution"), which was at the time considered among the most progressive and liberal constitutions in the world. Since then it has adopted 10 different constitutions. The current constitution was adopted in 2006 in the aftermath of Montenegro independence referendum which by consequence renewed the independence of Serbia itself. The Constitutional Court rules on matters regarding the Constitution.

The President of the Republic (Predsednik Republike) is the head of state, is elected by popular vote to a five-year term and is limited by the Constitution to a maximum of two terms. In addition to being the commander in chief of the armed forces, the president has the procedural duty of appointing the prime minister with the consent of the parliament, and has some influence on foreign policy. Aleksandar Vučić of the

Serbian Progressive Party is the current president following the 2017 presidential election. Seat of the presidency is Novi Dvor.

The Government (Vlada) is composed of the prime minister and cabinet ministers. The Government is responsible for proposing legislation and a budget, executing the laws, and guiding the foreign and internal policies. The current prime minister is Ana Brnabić of the Serbian Progressive Party.

The National Assembly (Narodna skupština) is a unicameral legislative body. The National Assembly has the power to enact laws, approve the budget, schedule presidential elections, select and dismiss the Prime Minister and other ministers, declare war, and ratify international treaties and agreements. It is composed of 250 proportionally elected members who serve four-year terms.

The largest political parties in Serbia are the centre-right Serbian Progressive Party, leftist Socialist Party of Serbia and far-right Serbian Radical Party.

Law and Criminal Justice

Law and Criminal Justin in my PhD thesis abroad is extrememly important where in Serbia has a three-tiered judicial system, made up of the Supreme Court of Cassation as the court of the last resort, Courts of Appeal as the appellate instance, and Basic and High courts as the general jurisdictions at first instance.

Courts of special jurisdictions are the Administrative Court, commercial courts (including the Commercial Court of Appeal at second instance) and misdemeanor courts (including High Misdemeanor Court at second instance). The judiciary is overseen by the Ministry of Justice. Serbia has a typical civil law legal system.

Law enforcement is the responsibility of the Serbian Police, which is subordinate to the Ministry of the Interior. Serbian Police fields 26,527 uniformed officers. National security and counterintelligence are the responsibility of the Security Intelligence Agency (BIA).

Foreign Relations

Serbia has established diplomatic relations with 188 UN member states, the Holy See, the Sovereign Military Order of Malta, and the European Union.[122] Foreign relations are conducted through the Ministry of Foreign Affairs. Serbia has a network of 65 embassies and 23 consulates internationally.[123] There are 65 foreign embassies, 5 consulates and 4 liaison offices in Serbia.[124]

Serbian foreign policy is focused on achieving the strategic goal of becoming a member state of the European Union (EU). Serbia started the process of joining the EU by signing of the Stabilisation and Association Agreement on 29 April 2008 and officially applied for membership in the European Union on 22 December 2009.[125] It received a full candidate status on 1 March 2012 and started accession talks on 21 January 2014.[126][127] The European Commission considers accession possible by 2025.[128]

The province of Kosovo declared independence from Serbia on 17 February 2008, which sparked varied responses from the international community, some welcoming it, while others condemn the unilateral move. In protest, Serbia initially recalled its ambassadors from countries that recognized Kosovo′s independence. The resolution of 26 December 2007 by the National Assembly stated that both the Kosovo declaration of independence and recognition thereof by any state would be gross violation of international law.

Serbia began cooperation and dialogue with NATO in 2006, when the country joined the Partnership for Peace programme and the Euro-Atlantic Partnership Council. The country′s military neutrality was formally proclaimed by a resolution adopted by Serbia′s parliament in December 2007, which makes joining any military alliance contingent on a popular referendum, a stance acknowledged by NATO. On the other hand, Serbia′s relations with Russia are habitually described by mass media as a ″centuries-old religious, ethnic and political alliance″and Russia is said to have sought to solidify its relationship with Serbia since the imposition of sanctions against Russia in 2014.

Military

In my PhD thesis is extremely important to talk about the Military aspect of Serbia. The Serbian Armed Forces are subordinate to the Ministry of Defence, and are composed of the Army and the Air Force. Although a landlocked country, Serbia operates a River Flotilla which patrols on the Danube, Sava, and Tisza rivers. The Serbian Chief of the General Staff reports to the Defence Minister. The Chief of Staff is appointed by the President, who is the Commander-in-chief. As of 2017, Serbia defence budget amounts to $503 million or an estimated 1.4% of the country's GDP. Traditionally having relied on a large number of conscripts, Serbian Armed Forces went through a period of downsizing, restructuring and professionalisation. Conscription was abolished in 2011. Serbian Armed Forces have 28,000 active troops, supplemented by the "active reserve" which numbers 20,000 members and "passive reserve" with about 170,000.

Serbia participates in the NATO Individual Partnership Action Plan program, but has no intention of joining NATO, due to significant popular rejection, largely a legacy of the NATO bombing of Yugoslavia in 1999. It is an observer member of the Collective Securities Treaty Organization (CSTO) The country also signed the Stability Pact for South Eastern Europe. The Serbian Armed Forces take part in several multinational peacekeeping missions, including deployments in Lebanon, Cyprus, Ivory Coast, and Liberia.

Serbia is a major producer and exporter of military equipment in the region. Defence exports totaled around $483 million in 2016. Serbia exports across the world, notably to the Middle East, Africa, Southeast Asia, and North America. The defence industry has seen significant growth over the years and it continues to grow on a yearly basis.

Administrative Divisions

In order to analize the Serbian Public Debt is extremely important to analyze the Administrative Decisions. Infact Serbia is a unitary state composed of municipalities/cities, districts, and two autonomous provinces. In Serbia, excluding Kosovo, there are 138 municipalities (opštine) and 23 cities (gradovi), which form the basic units of local self-government. Apart from municipalities, there are 24 districts (okruzi, 10 most populated listed below), with the City of Belgrade constituting an additional district. Except for Belgrade, which has an elected local government, districts are regional centers of state authority, but have no powers of their own; they present purely administrative divisions.

Serbia has two autonomous provinces, Vojvodina in the north, and Kosovo and Metohija in the south, while the remaining area, "Central Serbia", never had its own regional authority. Following the Kosovo War, UN peacekeepers entered Kosovo, as per UNSC Resolution 1244. In 2008, Kosovo declared independence. The government of Serbia did not recognize the declaration, considering it illegal and illegitimate.

Demographics

The analysis of the demographic in Seria as of 2011 census, Serbia (excluding Kosovo) has a total population of 7,186,862 and the overall population density is medium as it stands at 92.8 inhabitants per square kilometer. The census was not conducted in Kosovo which held its own census that numbered their total population at 1,739,825, excluding Serb-inhabited North Kosovo, as Serbs from that area (about 50,000) boycotted the census. Serbia has been enduring a demographic crisis since the beginning of the 1990s, with a death rate that has continuously exceeded its birth rate, and a total fertility rate of 1.43 children per mother, one of the lowest in the world.

Serbia subsequently has one of the oldest populations in the world, with the average age of 42.9 years, and its population is shrinking at one of the fastest rates in the world. A fifth of all households consist of only one person, and just one-fourth of four and more persons. Average Life expectancy in Serbia at birth is 74.8 years.

During the 1990s, Serbia had the largest refugee population in Europe. Refugees and internally displaced persons (IDPs) in Serbia formed between 7% and 7.5% of its population at the time – about half a million refugees sought refuge in the country following the series of Yugoslav wars, mainly from Croatia (and to a lesser extent from Bosnia and Herzegovina) and the IDPs from Kosovo.

It is estimated that 300,000 people left Serbia during the 1990s, 20% of whom had a higher education.

Serbs with 5,988,150 are the largest ethnic group in Serbia, representing 83% of the total population (excluding Kosovo). With a population of 253,899, Hungarians are the largest ethnic minority in Serbia, concentrated predominantly in northern Vojvodina and representing 3.5% of the country's population (13% in Vojvodina). Romani population stands at 147,604 according to the 2011 census but unofficial estimates place their actual number between 400,000 and 500,000. Bosniaks with 145,278 are concentrated in Raška (Sandžak), in the southwest. Other minority group include Croats, Slovaks, Albanians, Montenegrins, Vlachs, Romanians, Macedonians and Bulgarians. Chinese, estimated at about 15,000, are the only significant immigrantminority.

The majority of the population, or 59.4%, reside in urban areas and some 16.1% in Belgrade alone. Belgrade is the only city with more than a million inhabitants and there are four more with over 100,000 inhabitants.

Economy

Here I talk about the Serbian Economy. Serbia has an emerging market economy in upper-middle income range. According to the IMF, Serbian nominal GDP in 2017 is officially estimated at $39.366 billion or $5,599 per capita while purchasing power parityGDP was $106.602 billion or $15,163 per capita. The economy is dominated by services which accounts for 60.8% of GDP, followed by industry with 31.3% of GDP, and agriculture at 7.9% of GDP. The official currency of Serbia is Serbian dinar (ISO code: RSD), and the central bank is National Bank of Serbia. The Belgrade Stock Exchange is the only stock exchange in the country, with market capitalization of $8.65 billion and BELEX15 as the main index representing the 15 most liquid stocks.

The economy has been affected by the global economic crisis. After almost a decade of strong economic growth (average of 4.45% per year), Serbia entered the recession in 2009 with negative growth of −3% and again in 2012 and 2014 with −1% and −1.8%, respectively. As the government was fighting effects of crisis the public debt has more than doubled: from pre-crisis level of just under 30% to about 70% of GDP and trending downwards recently to around 60%. Labor force stands at 3.1 million, of whom 56.2% are employed in services sector, 24.4% are employed in the agriculture and 19.4% are employed in industry. The average monthly net salary in November 2017 stood at 47,575 dinars or $480. The unemployment remains an acute problem, with rate of 13% as of 2017.

Since 2000, Serbia has attracted over $25 billion in foreign direct investment (FDI). Blue-chip corporations making investments include: Fiat Chrysler Automobiles, Siemens, Bosch, Philip Morris, Michelin, Coca-Cola, Carlsberg and others. In the energy sector, Russian energy giants, Gazprom and Lukoil have made large investments.

Serbia has an unfavorable trade balance: imports exceed exports by 23%. Serbia's exports, however, recorded a steady growth in last couple of years reaching $17 billion in 2017. The country has free trade agreements with the EFTA and CEFTA, a preferential trade regime with the European Union, a Generalized System of Preferences with the United States, and individual free trade agreements with Russia, Belarus, Kazakhstan, and Turkey.

Agriculture

Serbia has very favourable natural conditions (land and climate) for varied agricultural production. It has 5,056,000 ha of agricultural land (0.7 ha per capita), out of which 3,294,000 ha is arable land (0.45 ha per capita). In 2016, Serbia exported agricultural and food products worth $3.2 billion, and the export-import ratio was 178%. Agricultural exports constitute more than one-fifth of all Serbia's sales on the world market. Serbia is one of the largest provider of frozen fruit to the EU (largest to the French market, and 2nd largest to the German market). Agricultural production is most prominent in Vojvodina on the fertile Pannonian Plain.

Other agricultural regions include Mačva, Pomoravlje, Tamnava, Rasina, and Jablanica. In the structure of the agricultural production 70% is from the crop field production, and 30% is from the livestock production. Serbia is world's second largest producer of plums (582,485 tons; second to China), second largest of raspberries (89,602 tons, second to Poland), it is also a significant producer of maize (6.48 million tons, ranked 32nd in the world) and wheat (2.07 million tons, ranked 35th in the world). Other important agricultural products are: sunflower, sugar beet, soybean, potato, apple, pork meat, beef, poultry and dairy.

There are 56,000 ha of vineyards in Serbia, producing about 230 million litres of wine annually. Most famous viticulture regions are located in Vojvodina and Šumadija.

Industry

In Serbia the Automotive industry (with Fiat Chrysler Automobiles as a forebearer) is dominated by cluster located in Kragujevac and its vicinity, and contributes to export with about $2 billion. Serbia's mining industry is comparatively strong: Serbia is the 18th largest producer of coal (7th in the Europe) extracted from large deposits in Kolubara and Kostolac basins; it is also world's 23rd largest (3rd in Europe) producer of copper which is extracted by RTB Bor, a large domestic copper mining company; significant gold extraction is developed around Majdanpek. Serbia notably manufactures intel smartphones named Tesla smartphones.

Food industry is well known both regionally and internationally and is one of the strong points of the economy. Some of the international brand-names established production in Serbia: PepsiCo and Nestlé in food-processing sector; Coca-Cola (Belgrade), Heineken (Novi Sad) and Carlsberg (Bačka Palanka) in beverage industry; Nordzucker in sugar industry.Serbia's electronics industry had its peak in the 1980s and the industry today is only a third of what it was back then, but has witnessed a something of revival in last decade with investments of companies such as Siemens (wind turbines) in Subotica, Panasonic (lighting devices) in Svilajnac, and Gorenje (electrical home appliances) in Valjevo. The pharmaceutical industry in Serbia comprises a dozen manufacturers of generic drugs, of which Hemofarm in Vršac and Galenika in Belgrade, account for 80% of production volume. Domestic production meets over 60% of the local demand.

Energy

The energy sector is one of the largest and most important sectors to the country's economy. Serbia is a net exporter of electricity and importer of key fuels (such as oil and gas).

Serbia has an abundance of coal, and significant reserves of oil and gas. Serbia's proven reserves of 5.5 billion tons of coal lignite are the 5th largest in the world (second in Europe, after Germany). Coal is found in two large deposits: Kolubara (4 billion tons of reserves) and Kostolac (1.5 billion tons). Despite being small on a world scale, Serbia's oil and gas resources (77.4 million tons of oil equivalent and 48.1 billion cubic meters, respectively) have a certain regional importance since they are largest in the region of former Yugoslavia as well as the Balkans (excluding Romania). Almost 90% of the discovered oil and gas are to be found in Banat and those oil and gas fields are by size among the largest in the Pannonian basin but are average on a European scale.

The production of electricity in 2015 in Serbia was 36.5 billion kilowatt-hours (KWh), while the final electricity consumption amounted to 35.5 billion kilowatt-hours (KWh). Most of the electricity produced comes from thermal-power plants (72.7% of all electricity) and to a lesser degree from hydroelectric-power plants (27.3%). There are 6 lignite-operated thermal-power plants with an installed power of 3,936 MW; largest of which are 1,502 MW-Nikola Tesla 1 and 1,160 MW-Nikola Tesla 2, both in Obrenovac. Total installed power of 9 hydroelectric-power plants is 2,831 MW, largest of which is Đerdap 1 with capacity of 1,026 MW. In addition to this, there are mazute and gas-operated thermal-power plants with an installed power of 353 MW. The entire production of electricity is concentrated in Elektroprivreda Srbije (EPS), public electric-utility power company.

The current oil production in Serbia amounts to over 1.1 million tons of oil equivalent and satisfies some 43% of country's needs while the rest is imported. National petrol company, Naftna Industrija Srbije (NIS), was acquired in 2008 by Gazprom Neft. The company has completed $700 million modernisation of oil-refinery in Pančevo (capacity of 4.8 million tons) and is currently in the midst of converting oil refinery in Novi Sad into lubricants-only refinery. It also operates network of 334 filling stations in Serbia (74% of domestic market) and additional 36 stations in Bosnia and Herzegovina, 31 in Bulgaria, and 28 in Romania.There are 155 kilometers of crude oil pipelines connecting Pančevo and Novi Sad refineries as a part of trans-national Adria oil pipeline.

Serbia is heavily dependent on foreign sources of natural gas, with only 17% coming from domestic production (totalling 491 million cubic meters in 2012) and the rest is imported, mainly from Russia (via gas pipelines that run through Ukraine and Hungary). Srbijagas, public gas company, operates the natural gas transportation system which comprise 3,177 kilometers of trunk and regional natural gas pipelines and a 450 million cubic meter underground gas storage facility at Banatski Dvor.

Transport

Serbia has a strategic transportation location since the country's backbone, Morava Valley, represents by far the easiest route of land travel from continental Europe to Asia Minor and the Near East.

Serbian road network carries the bulk of traffic in the country. Total length of roads is 45,419 km of which 782 km are "class-Ia state roads" (i.e. motorways); 4,481 km are "class-Ib state roads" (national roads); 10,941 km are "class-II state roads" (regional roads) and 23,780 km are "municipal roads".The road network, except for the most of class-Ia roads, are of comparatively lower quality to the Western European standards because of lack of financial resources for their maintenance in the last 20 years.

There are currently 124 kilometers of motorways under construction: two sections 34 km-long of the A1 motorway (from south of Leskovac to Bujanovac), 67 km-long segment of A2 (between Belgrade and Ljig), and 23 kilometers on the A4 (east of Niš to the Bulgarian border). Coach transport is very extensive: almost every place in the country is connected by bus, from largest cities to the villages; in addition there are international routes (mainly to countries of Western Europe with large Serb diaspora). Routes, both domestic and international, are served by more than 100 bus companies, biggest of which are Lasta and Niš-Ekspres. As of 2015, there were 1,833,215 registered passenger cars or 1 passenger car per 3.8 inhabitants.

Serbia has 3,819 kilometers of rail tracks, of which 1,279 are electrified and 283 kilometers are double-track railroad. The major rail hub is Belgrade (and to a lesser degree Niš), while the most important railroads include: Belgrade–Bar (Montenegro), Belgrade–Šid–Zagreb (Croatia)/Belgrade–Niš–Sofia (Bulgaria) (part of Pan-European Corridor X), Belgrade–Subotica–Budapest (Hungary) and Niš–Thessaloniki (Greece). Although still a major mode of freight transportation, railroads face increasing problems with the maintenance of the infrastructure and lowering speeds. All rail services are operated by public rail company, Serbian Railways.There are only two airports with regular passenger traffic: Belgrade Nikola Tesla Airport served almost 5 million passengers in 2016, and is a hub of flagship carrier Air Serbia which carried some 2.6 million passengers in 2016.Niš Constantine the Great Airport is mainly catering low-cost airlines.

Serbia has a developed inland water transport since there are 1,716 kilometers of navigable inland waterways (1,043 km of navigable rivers and 673 km of navigable canals), which are almost all located in northern third of the country. The most important inland waterway is the Danube (part of Pan-European Corridor VII). Other navigable rivers include Sava, Tisza, Begej and Timiş River, all of which connect Serbia with Northern and Western Europe through the Rhine–Main–Danube Canal and North Sea route, to Eastern Europe via the Tisza, Begej and Danube Black Sea routes, and to Southern Europe via the Sava river. More than 2 million tons of cargo were transported on Serbian rivers and canals in 2016 while the largest river ports are: Novi Sad, Belgrade, Pančevo, Smederevo, Prahovo and Šabac.

Telecommunications

In conclusion I talk about the Fixed telephone lines connect 81% of households in Serbia, and with about 9.1 million users the number of cellphones surpasses the total population of by 28%. The largest mobile operator is Telekom Srbija with 4.2 million subscribers, followed by Telenor with 2.8 million users and Vip mobile with about 2 million. Some 58% of households have fixed-line (non-mobile) broadband Internet connection while 67% are provided with pay television services (i.e. 38% cable television, 17% IPTV, and 10% satellite). Digital television transition has been completed in 2015 with DVB-T2 standard for signal transmission.

Tourism

Serbia is not a mass-tourism destination but nevertheless has a diverse range of touristic products. In 2017, total of over 3 million tourists were recorded in accommodations, of which some 1.5 million were foreign. Foreign exchange earnings from tourism were estimated at $1.44 billion.

Tourism is mainly focused on the mountains and spas of the country, which are mostly visited by domestic tourists, as well as Belgrade and, to a lesser degree, Novi Sad, which are preferred choices of foreign tourists (almost two-thirds of all foreign visits are made to these two cities). The most famous mountain resorts are Kopaonik, Stara Planina, and Zlatibor. There are also many spas in Serbia, the biggest of which are Vrnjačka Banja, Soko Banja, and Banja Koviljača. City-break and conference tourism is developed in Belgrade and Novi Sad. Other touristic products that Serbia offer are natural wonders like Đavolja varoš, Christian pilgrimage to the many Orthodox monasteries across the country and the river cruising along the Danube. There are several internationally popular music festivals held in Serbia, such as EXIT (with 25–30,000 foreign visitors coming from 60 different countries) and the Guča trumpet festival.

1.2. Origin, Dynamics and Stucture of Serbian Public Debt

I start my PhD thesis to define what is the Origin of the Serbian Public Debt , the Dynamics and Its structure. I start to analyze that Serbia recorded a government debt equivalent to 61.50 percent of the country's Gross Domestic Product in 2017.

Government Debt to GDP in Serbia averaged 63.34 percent from 2000 until 2017, reaching an all time high of 201.20 percent in 2000 and a record low of 28.30 percent in 2008.

In the table 1 we can find the different value of the Serbian Public debt on GDP from 2008 to 2017.

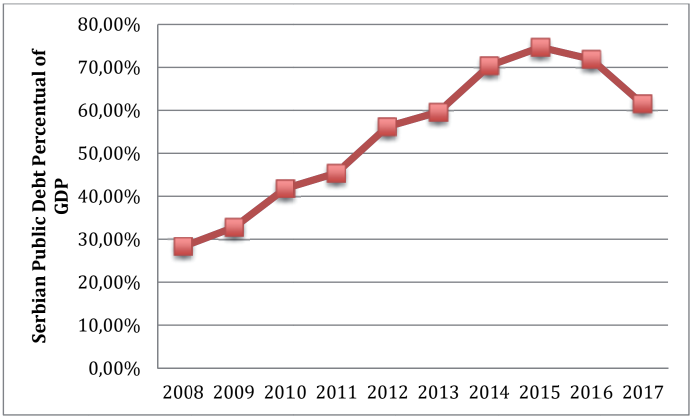
Figure 1 Serbian Public Debt on GDP from 2008 to 2017.

Year	Deby on GDP % Percentual
2008	28.3
2009	32.8
2010	41.8
2011	45.4
2012	56.2
2013	59.6
2014	70.4
2015	74.7
2016	71.9
2017	61.5

I can demonstrate that from 2008 the Serbian Public Debt on GDP it was around 28.3 %. But during the crisis this value tended to increase in fact in 2009 the Public debt on GDP increased of 4,5 % and in 2010 of 9 %. In 2010 we registred a huge increment related to the international financial crisis started in 2007 that in that case affected Serbian production on 2010. Also from 2011 to 2015 the Serbian Public debt to GDP increased up to achieve the value of 74.7% of GDP with an amouny of increment of 29,3% of GDP. We can say that in 2015 the Serbian Public had a peak and in 2016 it started to decrease in 2016 with 71,9% of GDP and 2017 of 61.5% of GDP. This decrement as I explain during my research after is due to the important Economic Policy adopted of the Serbian Government.

In the figure 1 I represent on the Graph the andament of the Serbian Public debt on GDP and we can see a peak in the year 2015, an increment from 2008 to 2015 and a decrement from 2015 to 2017.

Figure 1 Serbian Public Debt on GDP andament from 2008 to 2017.



Generally, Government debt as a percent of GDP is used by investors to measure a country ability to make future payments on its debt, thus affecting the country borrowing costs and government bond yields. This page provides - Serbia Government Debt To GDP - actual values, historical data, forecast, chart, statistics, economic calendar and news. Serbia Government Debt to GDP - actual data, historical chart and calendar of releases - was last updated on April of 2018.

The Origin of Serbian Public Debt

As I defined in the previous section the Serbian Public debt has its origins from the economy of Serbia as country. As we know the **economy of Serbia** is a service-based upper middle income economy with the tertiary sector accounting for two-thirds of total gross domestic product (GDP) and functions on the principles of the free market. Nominal GDP in 2017 amounted $39.366 billion, which is $5,599 per capita, while the GDP based on purchasing power parity (PPP) stood at $106.6022 billion, which is $15,163 per capita.

The strongest sectors in the economy are energy, automotive industry, machinery, mining, and agriculture. Primary industrial exports are automobiles, iron and steel, rubber, clothes, wheat, fruit and vegetables, nonferrous metals, electric appliances, metal products, weapons and ammunition. Trade plays a major role in Serbian economic output. The main trading partners are Germany, Italy, Russia, China, and neighboring Balkan countries.

Belgrade is the capital and economic heart of Serbia and home to most major Serbian and international companies operating in the country, as well as the National Bank of Serbia and the Belgrade Stock Exchange. Novi Sad is the second largest city and the most important economic hub after Belgrade. In fact in the late 1980s, at the beginning of the process of economic transition from a planned economy to a market economy, Serbia's economy had a favorable position in compare to the most of the Eastern Bloc countries, but it was gravely impacted by the Yugoslav Wars and UN sanctions and trade embargo during the 1990s. At the same time, country has experienced a serious "brain drain". After the overthrow of Slobodan Milošević in 2000, Serbia went through a process of transition to a market-based economy and experienced fast economic growth. During that period Serbian economy grew at 4-5% annually, average wages quadrupled, and economic and social opportunities dramatically improved. During the Great Recession, Serbia marked a decline in its economy of 3.1% in 2009, and following years of economic stagnation pre-crisis level of GDP was reached only in 2016.Since 2014, country is in the process of accession negotiations to join the European Union.

Serbian Economic Growth

I define that the average growth of Serbia's GDP in the last five years was a modest 1.2% per year. GDP structure by sector in 2015 was: services 67.1%, industry 25.2%, agriculture 7.7%

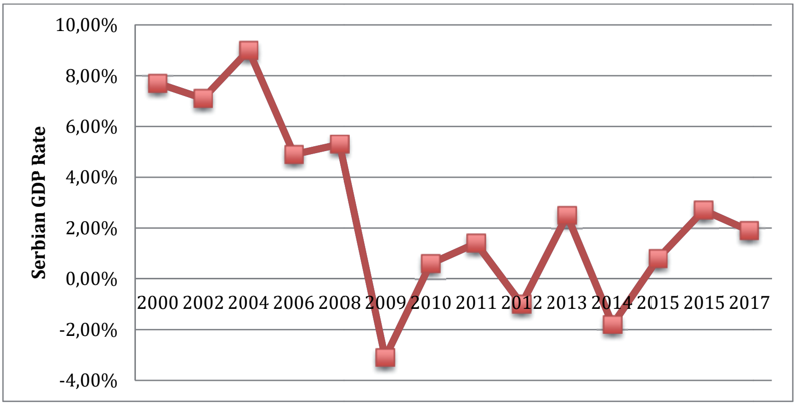
In the table 1 I show the different GDP rate during the period 2000 to 2017 and we can see that in the first years of 2000 Serbian GDP rate increased from 7.7% to 9.0%. During the Financial Crisis the Serbian GDP Rate felt drastically in 2009 from 5.3% of 2008 to -3.1% of 2009. From to 2010 to 2015 the Serbian GDP Grate had an alternace from 0.6% to -1.8%. In conclusion from 2016 the Serbian GDP Rate started to increased with 2.7% in 2016 and 1.9% in 2017.

Table 1 Serbian GDP Rate from 2000 to 2017.

Year	Serbian GDO Rate %
2000	7,70%
2002	7,10%
2004	9,00%
2006	4,90%
2008	5,30%
2009	-3,10%
2010	0,60%
2011	1,40%
2012	-1,00%
2013	2,50%
2014	-1,80%
2015	0,80%
2015	2,70%
2017	1,90%

In the Figure 1 indeed we have the graphical analysis of the Serbian GDP Rate and we can see that in the period of the crisis we have a negative value that represents the difficulty of the Serbian production to responds of the International financial Crisis.

Figure 1 Serbian GDP Rate from 2000 to 2017.



Dynamics and Structure of the Serbian Public Debt

In this section I describe the dynamics Serbia's public debt relative to GDP from 2000 to 2008 decreased by 140.1 percentage points, and then started increasing again as the government was fighting effects of worldwide 2008 financial crisis. In 2017, the public debt stood at 61.5% of GDP.

In the table 2 we can see the Serbian Public Debt Dynamics from the period 2000 to 2017 in terms of Billion of Euros and the percentual of GDP. After some analysis we can sey that from 2000 to 2015 and also during the International Financial Crisis the Serbian Public Debt is reduced considerably from 14.17 Billions of Euros in 2000 to 9.85 Billions of Euros in 2009 and in terms indeed of share of GDP 201,2% in 2000 to 32.8% of GDP in 2009.

Table 2 – Serbian Public Debt in Billions of Euros and in Share of GDP from 2000 to 2017.

Year	Serbian Public Debt in Billions of Euros	Serbian Public Debt Share of GDP
2000	14,17	201,2%
2002	13,43	68,3%
2004	11,02	52,6%
2006	9,35	35,9%
2008	8,78	28,3%
2009	9,85	32,8%
2010	12,16	41,8%
2011	14,78	45,4%
2012	17,72	56,2%
2013	20,14	59,6%
2014	22,76	70,4%
2015	24,81	74,7%
2015	24,71	71,9%
2017	23,21	61.5%

From the Figure 2 we can say that the Serbian Public Debt expressed in Billions of Euros decreased during the International Financial Crisis and increased after 2009, this is due by the prevention of the Serbian Government to increase its debt in of the as I will explain in the furthers chapters of my thesis.

Figure 2 Serbian Public Debt in Billions of Euros.

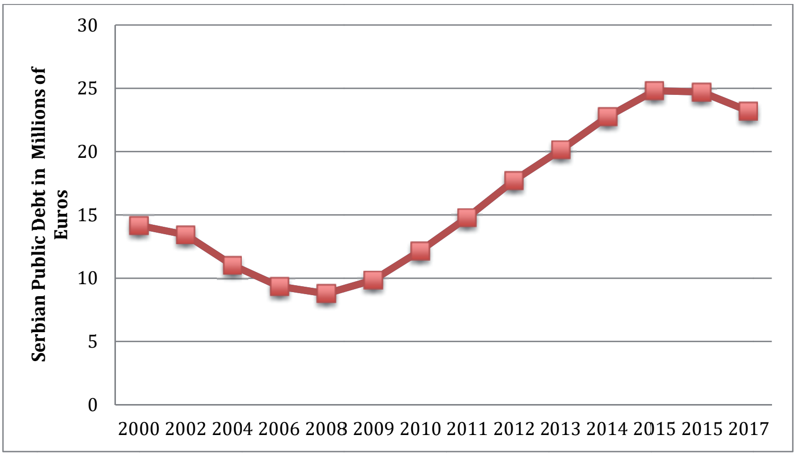
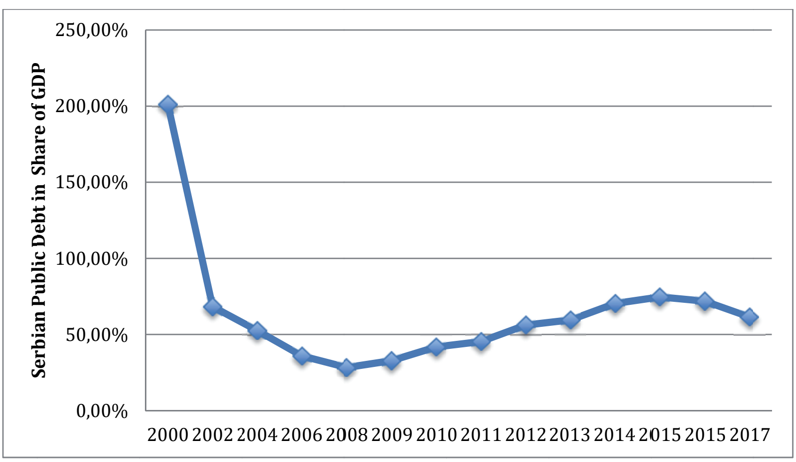


Figure 2 Serbian Public Debt in Share of GDP.



In the Figure 2 we can see the andament of the Serbian Public Debt in Share of GDP in the period from 2000 to 2017. We can see that the Serbian Public Debt in Share of GDP decreased drastically from 2000 to 2008 for increase after 2008 till 2015. This andamanent is due of a huge effort of production (increment of GDP) of Serbia from the beginning years of 2000 characterized by a decrement of Public Debt in Terms of GDP (Decrement of Public Debt/GDP).

Public Debt Administration

I start to define that the Public Debt Administration is an important Serbian Institution that manage the Public Debt and its andament. It is an administrative authority within the Ministry of Finance of the Republic of Serbia, having the role in the public finance system of ensuring liquidity of the state and supporting governmental bodies, public enterprises and other state institutions in financing projects having the public importance.

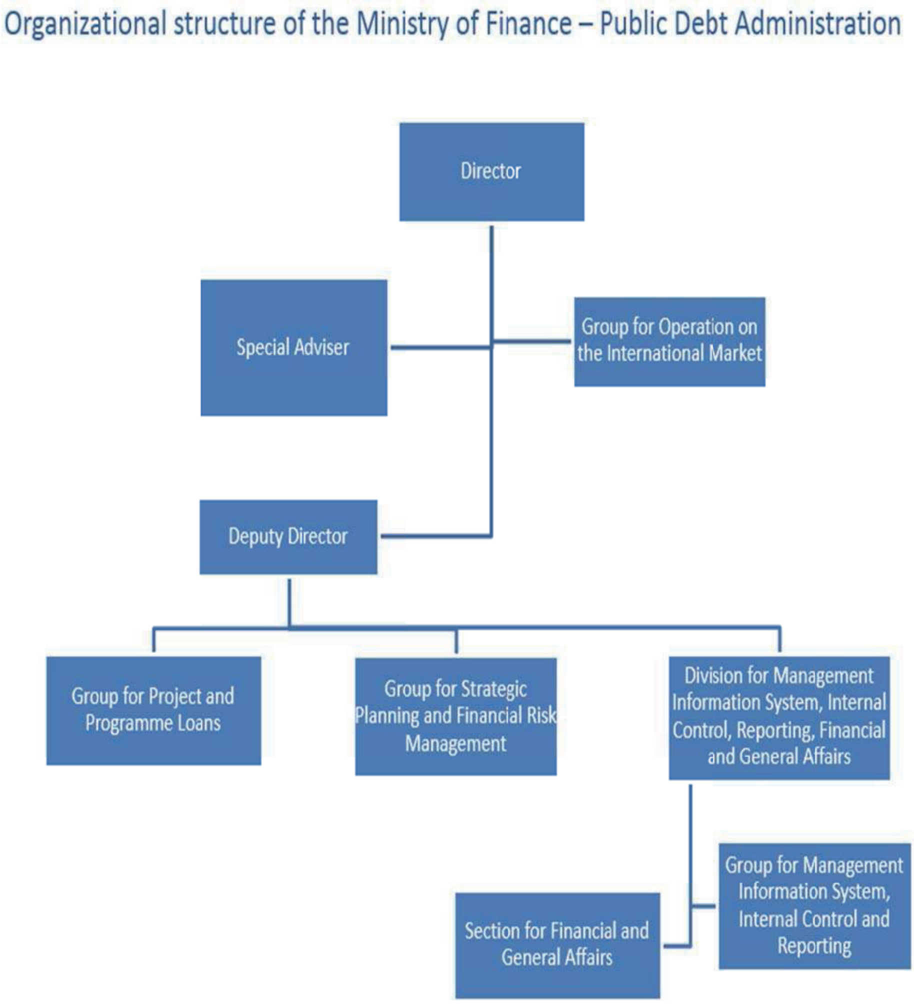
The Public Debt Administration is the holder of public debt policy, presenting one of the most important branches of macroeconomic policy and having stabilisation and development function. The activities of Public Debt Administration have been regulated by the Law on Budget System, Law on Budget of the Republic of Serbia and other laws and by-laws.

The Public Debt Administration performs tasks related to: borrowing on the financial market aimed at covering budget deficit of the Republic of Serbia and financing projects having the public importance, through the issuance of government securities and contracting loan agreements, issuing guarantees in favour of public enterprises, governmental agencies and local self-government units, public debt proceeds management, execution of public debt service, recording and reporting, preparing public debt management strategy, as well as other obligations in accordance with the Law.

The Public Debt Administration was established on 1 October 2009, in accordance with the recommendations of the World Bank.

In the Figure 1 we can see the organizational structure of the Ministry of Finance where the Public Debt Administration is included. We can see a director a staff department constituted by Special Adviser, group for Operation on the International Market. In the Bottom we can see the operational department in merit of the risk analysis and financial risk analysis and control.

Figure 1 Public Debt Administration Organizational Structure.



Serbian Public Debt Structure

In the Table 4 I define the constitution of the Serbian Public Debt in date November 2017 in terms of the singles voices of the National Account Balance. First the Public Debt is constituted or expressed by Euro, Dollars and Serbian Dinars. Second the main macro area are Direct Liabilites in terms of Total Domestic Debt, Total External Debt, Contingent Liabilities, and Not Guaranteed Local Governamental Debt.

We can see that the the Direct Liabilities constitutes the most amount of the Serbian Public Debt that is constitutes by the Total External Debt of 12,424,682,000 Euros that it is higher than the Total Domestic Debt of 9,195,120,000 Euros where the total external Debt is constituted by Eurobonds for 3,792,348,000 Euro.

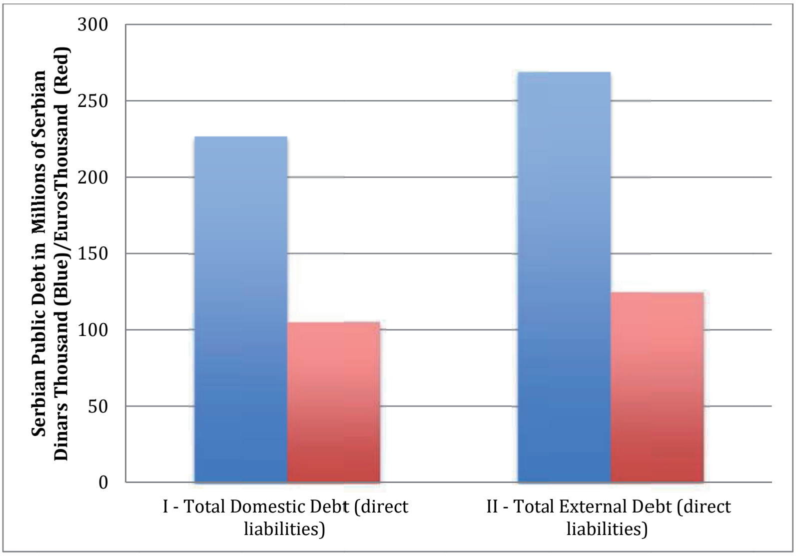
Table 4 Public Debt of the Republic of Serbia (dates from Public Debt Administration – Statistic November 2017)

PUBLIC DEBT OF THE REPUBLIC OF SERBIA			
DEBT STOCK OF THE REPUBLIC OF SERBIA ON NOVEMBER 30, 2017			
A. Direct Liabilities	EUR (Thousands)	USD (Thousands)	RSD (Millions)
I - Total Domestic Debt (direct liabilities)	9,195,120	10,910,929	1,098,034
II - Total External Debt (direct liabilities)	12,424,682	14,743,125	1,483,692
IBRD	2,135,627	2,534,134	255,026
IDA	319,237	378,807	38,122
EIB	1,088,714	1,291,867	130,009
EBRD	80,246	95,220	9,583
CEB	73,090	86,728	8,728
Foreign Government loans	2,974,679	3,529,753	355,221
Eurobonds	3,792,348	4,500,000	452,863
KfW Development Bank	89,909	106,686	10,736
Paris and London Club of Creditors	1,325,254	1,572,547	158,255
European Union	81,967	97,262	9,788
IMF	463,610	550,120	55,362
Commercial Bank loans	0	0	0

Total Direct Liabilities (I + II)	21,619,802	25,654,054	2,581,726
B. Contingent Liabilities	EUR	USD	RSD
III - Total Domestic Debt (contingent liabilities)	232,114	275,426	27,718
IV - Total External Debt (contingent liabilities)	1,594,148	1,891,616	190,365
EBRD	497,325	590,126	59,388
EIB	779,276	924,689	93,057
KfW	79,005	93,748	9,434
European Union	0	0	0
EUROFIMA	36,802	43,670	4,395
IDA	11,885	14,103	1,419
Japan International Cooperation Agency - JICA	28,950	34,352	3,457
Foreign Government loans	29,277	34,740	3,496
Commercial Bank loans	131,627	156,189	15,718
Total Contingent Liabilities (III + IV)	1,826,262	2,167,042	218,083
C. Non-Guaranteed Local Government Debt	EUR	USD	RSD
V - Total Domestic Non-Guaranteed Local Government Debt	226,596	268,879	27,059
VI - Total External Non-Guaranteed Local Government Debt	104,984	124,574	12,537
Total Non-Guaranteed Debt (V + VI)	331,580	393,453	39,596

In the figure 4 we can see the differents between the amount of Dinars and the amount of Euros for the Macroarea of the Serbian Public Debt Total Domestic Debt and Total External Debt.

Figure 4 – Serbian Public debt Constitution in Thousand Billions and Euros



We can can observe the difference of the Currency value between Serbian Dinanrs and Euros and in amount the differences between the representation of the Serbian Public Debt in Dinars and in Euros. Obviously if the Serbian Public Debt is represented in Euros is in terms of thousand is less than the representation in Serbian Dinars. This is a important characteristic to represent the Debt of a Nation in another currecy in order to compare the Debt of a nation between others foreign countries.

In the table 5 I represent the constitution of the Serbian Public Debt in terms of stock the the classification between Direct Libilities that are constituted of Domestic Debt, Eternal Debt and Total Direct Liabilities and in the table 6 I represent the other part of the Serbian Public Debt in terms of Contingent Liabilities that are constituted by Domestic Debt, Eternal Debt and Total Contingent Liabilities.

Table 5 – Serbian Public Debt in terms of Stock – Direct Liabilities in Millions of Euros.

Year	Domestic Debt	External Debt	Total Direct Liabilities
2000	4.108	10.059	14.167
2001	3.871	9.561	13.432
2002	4.152	7.230	11,382
2003	4.240	6.564	10.803
2004	4.064	5.267	9.331
2005	4.255	5.364	9.620
2006	3.837	4.746	8.583
2007	3.413	4.616	8.029
2008	3.162	4.691	7.853
2009	4.050	4.409	8.459
2010	4.572	5.873	10.444
2011	5.441	7.239	12.679
2012	6.496	8.621	15.117
2013	7.055	10.245	17.299
2014	8.225	11.992	20.217
2015	9.051	13.362	22.413
2016	8.768	13.908	22.677

From the tale 5 we can see that the Serbian Public debt is constituted in most of External Debt and this amount is increased from 2012 to now.

In the fugure 5 we can see the different amount of the Serbian Public Debt in terms of Domestic Debt and External Debt from the period 2000 to 2016 and in the figure 5.1 the andamanet of the Total Direct Liabilities of the Serbian Public Debt for the period 2000 to 2017. Is extremely important to see that in the figure 5 the amount of Serbian Public Debt in Domestic and External Public Debt during the first five years of the 2000 from 2000 to 2007 before the International Finacial Crisis and from 2007 to 2016 increased considerably especially the External Debt this in order to response to the International Financial Crises the Serbian Government increased its Public Debt respect to the foreign countries.

Figure 5 – Andament of the Serbian Public Debt – Direct Liabilities from the period 2000 – 2016 in Millions of Euros.

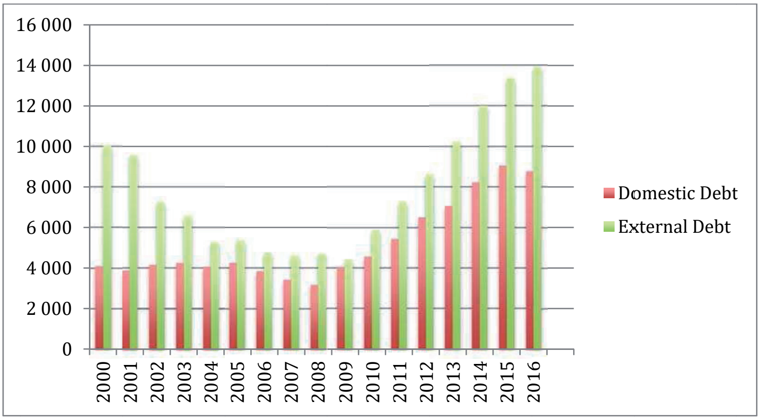
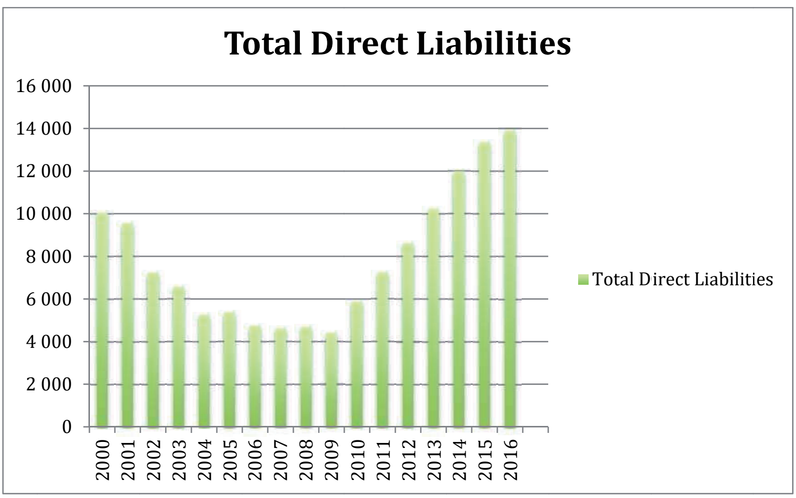


Figure 5.1 – Andament of the Serbian Public Debt – Total Direct Liabilities from the period 2000 – 2016 in Millions of Euros.



In the table 6 indeed we can see the amount of the Serbian Public Debt in terms of Contingent Liabilities from the same period 2000 to 2016.

Table 6 – Serbian Public Debt in terms of Stock – Contingent Liabilities in Millions of Euros.

Year	Domestic Debt	External Debt	Total Contingent Liabilities
2000	0	0	0
2001	0	2	2
2002	0	147	147
2003	0	220	220
2004	0	344	344
2005	0	663	663
2006	0	769	769
2007	0	846	846
2008	0	929	929
2009	135	1.257	1.392
2010	340	1.372	1.712
2011	536	1.574	2.110
2012	723	1.878	2.600
2013	857	1.985	2.545
2014	608	1.790	2.397
2015	382	1.763	2.144
2016	232	1.594	1.826

From the figure 6 we can see the adamanent ot the Contingent Libilities as a structure of the Serbian Public Debt and from the first years of 2000 the Contingent liabilities were zero as a value and they started to increase from 2002 with the peak of 2013 after they staretd to decreased. In the figure 6.1 we can see the andament of the total contingent liabilities from the period 2000 to 2016.

Figure 6 – Andament of the Serbian Public Debt – Contingent Liabilities from the period 2000 – 2016 in Millions of Euros.

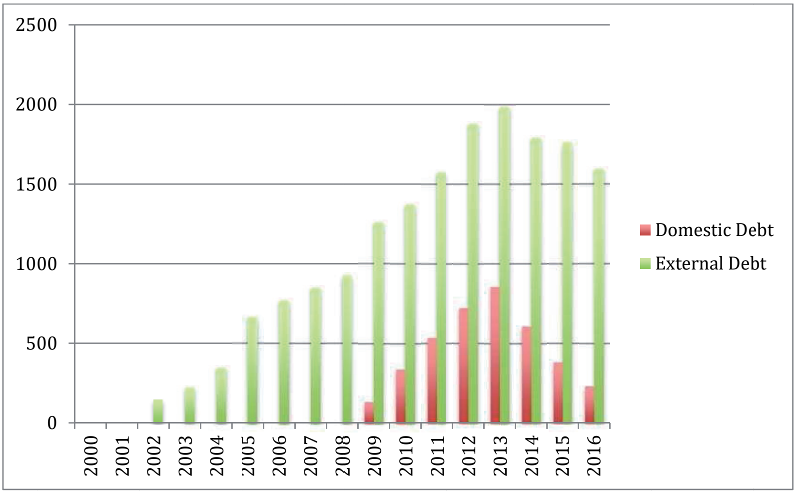
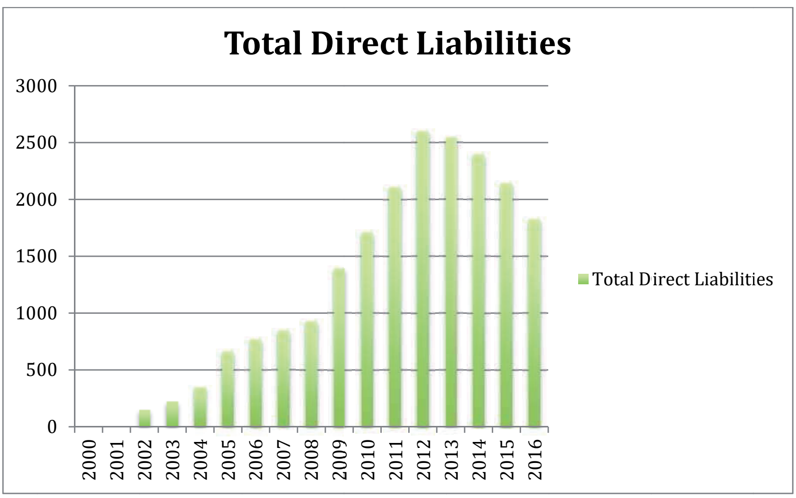


Figure 6.1 – Andament of the Serbian Public Debt – Total Contingent Liabilities from the period 2000 – 2016 in Millions of Euros.

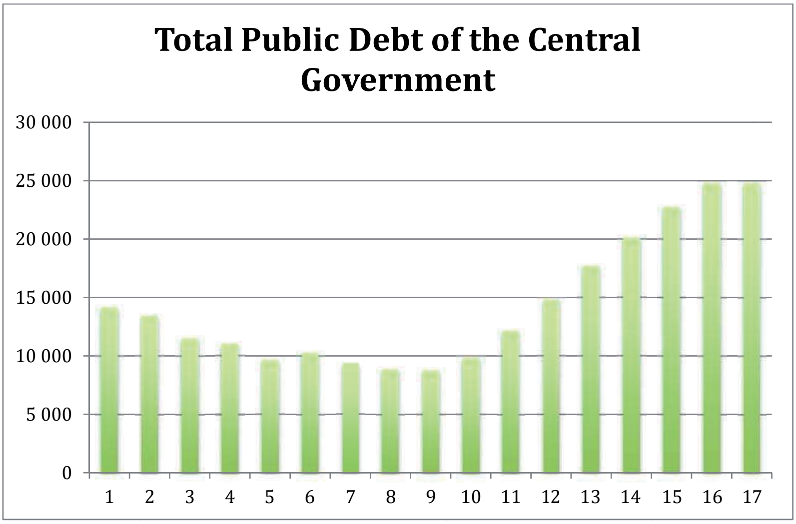


In the last table 7 we can see the total Serbian Public Debt of the Central Government for the period from 2000 to 2016 as the sum of the Debt of the Direct Liabilities and Contingent Liabilities. we observe the same andament of the values in Direct Current Liabilities of the Serbian Public Debt as the period analyzed.

Table 7 – Serbian Public Debt in terms of Stock – Total Central Government Debt in Millions of Euros.

Year	Total Public Debt of the Central Government
2000	14.167
2001	13.434
2002	11.529
2003	11.023
2004	9.676
2005	10.283
2006	9.352
2007	8.875
2008	8.781
2009	9.851
2010	12.157
2011	14.789
2012	17.717
2013	20.141
2014	22.762
2015	24.810
2016	24.822

Figure 7 – Andament of the Serbian Public Debt – Total Public Debt of the Central Government in Stock from the period 2000 – 2016 in Millions of Euros.



Local Serbian Government Debt and Structure

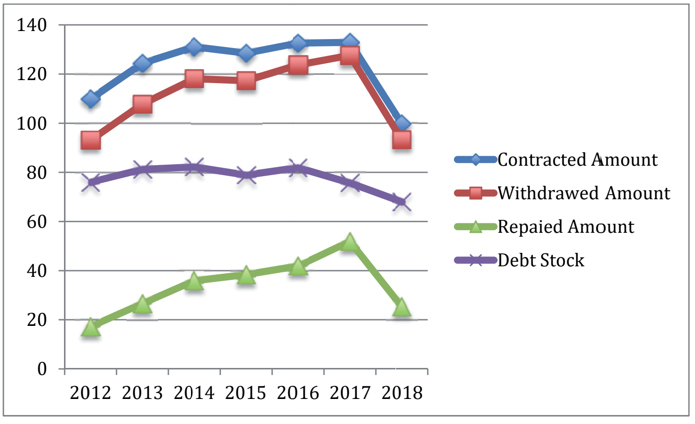
In this section I analyze the the local Government Debt and Structure, this part is extremely important because we can see the trends of the Local Government Debt in the Table 7 we can see that the Local Government Debt is constituted by three important parts "Contracted Amount", "Withdrawed Amount", "Repaied Amount" and "Debt Stock". The Contracted amount it can be considered the amount of the Serbian Local Government Debt in which the Government has constracted with different financial institution, the Withdrawed Amount is considered the amount of the Local Serbian Debt in which the Government has withdrawed from the National Accountability of the Serbian Public Debt and in conclusion the Debt Stock is the amount of the Serbian Public Debt that is a fixed value defined that I have analyzed before.

In the Table 7 we see the trend of the Local Serbian Government Debt of the period 2012 to 2017. In the figure 7 indeed I show the graph of the andament of the Local Serbian Government Debt and the Contracted amount in blue is the highest value followed by the withdrawed amount in red . In the middle we found the Stock Debt in purple with the lowest amount is the Repaid amount in green due to the fact that the amount of Public Debt repaid by the Government is the amount lower respect to the total amount.

Table 7 – Local Serbian Government Debt trend of the period 2012-2017 in Billions of Serbian Dinars.

Years	Contracted Amount	Withdrawed Amount	Repaid Amount	Debt Stock
2012	109.9	93.1	17.2	76
2013	124.4	107.8	26.6	81.2
2014	131.1	118.1	35.9	82.2
2015	128.5	117.3	38.4	78.9
2016	132.6	123.7	41.9	81.9
2017	132.9	127.6	51.9	75.7
2018	99.8	93.3	25.3	68

Figure 7 – Local Serbian Government Debt trend of the period 2012-2017 in Billions of Serbian Dinars andament.



In conclusion from the figure 7 we can see that the local Government Debt increases from the year 2012 to 2017 and after 2017 starts to decrease.

Guaranteed Vs Non-Guaranteed Debt

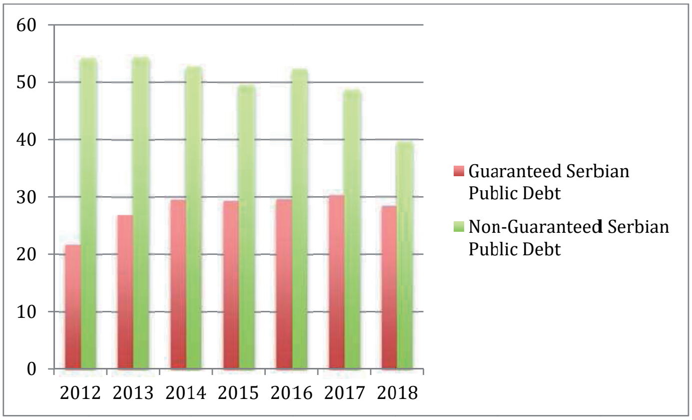
In this section I analyzed the relationship between Guaranteed Serbian Public Debt and Non-Guaranteed Serbian Public Debt. The Serbian Guaranteed Public Debt is the Debt in which the Serbian Government can repay in short run in terms of liquidity and financial assets. In fact a loan guarantee, in finance, is a promise by one party (the guarantor) to assume the debt obligation of a borrower if that borrower defaults. A guarantee can be limited or unlimited, making the guarantor liable for only a portion or all of the debt. In the other hand the Non-Guaranteed Serbian Public Debt is the amount of the Serbian Public debt in which the Serbian Government cannot repay the amount of the debt in short and in the long run.

In the Table 8 I anlyze the difference in terms of the amount of the Guaranteed Serbian Public Debt and Non-Guaranteed Serbian Public Debt in the period of 2012 to 2018. We can see obviously that the amount of the Non-Guaranteed Serbian Public Debt is much higher than the Guaranteed Serbian Public Debt this difference is highest during the years 2015 and 2016. In the figure 8 I show that the difference between Guaranteed Serbian Public Debt and Non-Guaranteed Serbian Public Debt started to increase from the year 2012 to 2016 and it started to decrease from 2016 to 2018.

Table 8 - Guaranteed Serbian Public Debt and Non-Guaranteed Serbian Public Debt in the period of 2012 to 2018 in Billions of Serbian Dinars.

Years	Guaranteed Serbian Public Debt	Non-Guaranteed Serbian Public Debt
2012	21,7	54,2
2013	26,9	54,4
2014	29,5	52,7
2015	29,3	49,6
2016	29,6	52,3
2017	30,3	48,7
2018	28,4	39,6

Figure 8 - Guaranteed Serbian Public Debt and Non-Guaranteed Serbian Public Debt in the period of 2012 to 2018 in Billions of Serbian Dinars andament.

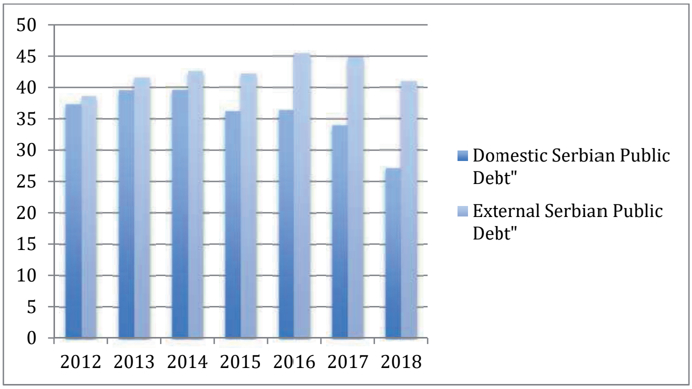


In the Table 9 indeed I analyze the difference between the External and Domestic Serbian Public Debt in the period 2012 to 2018. In this case the difference between External and Internal is lower that the condition of the Guaranteed and Non-Guaranteed Serbian Public Debt. It is xpalined by the fact that the Serbian Public Debt is constituted both by External and Domestic currency but this difference is higher during the lasts years in 2016 and 2017 due to the huge internationalization strategy adopted by the Serbian Government. In the figure 9 I show the andament of this difference.

Table 9 - Domestic Serbian Public Debt and External Serbian Public Debt in the period of 2012 to 2018 in Billions of Serbian Dinars.

Years	Domestic Serbian Public Debt	External Serbian Public Debt
2012	37,3	38,6
2013	39,6	41,6
2014	39,6	42,6
2015	36,2	42,2
2016	36,4	45,5
2017	34,0	44,9
2018	27,1	41,0

Figure 9 - Domestic Serbian Public Debt and External Serbian Public Debt in the period of 2012 to 2018 in Billions of Serbian Dinars andament.



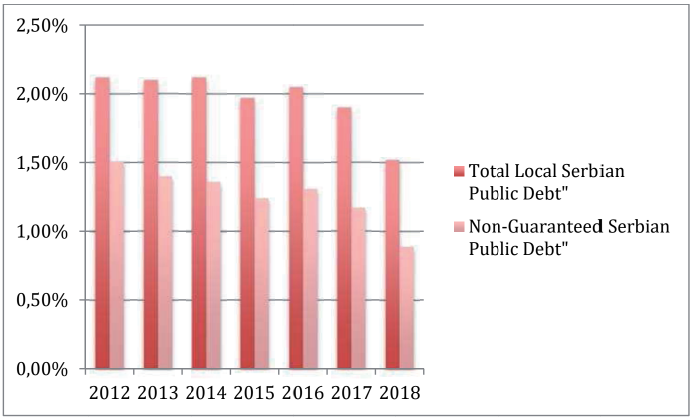
Total Local Government Debt in Percentage of GDP

In this last section I analyze the relationship between the Total Government Debt as analyzed before in terms of percentage of the GDP. In the table 10 I show the percentage of Serbian GDP of the Total Local Government Debt and the Non-Guaranteed Debt in the period 2012 to 2018. We can see that the Total Local Government Debt is much higher than the Non-Guaranteed Debt because the Total Governement debt included also the Guaranteed debt and the Non-Guaranteed Debt. This comparison represents the difficulty of the Serbian Government to repay the Total amount of Debt in terms of GDP. In the figure 10 I represent the andament in which in this difference between Total Local Debt and Non-Guaranteed Debt is higher from 2012 to 2015 and lower from 2015 to 2018.

Table 10 – Total Local Serbian Public Debt and Non-Guaranteed Serbian Public Debt in the period of 2012 to 2018 in Billions of Serbian Dinars.

Years	Total Local Serbian Public Debt	Non-Guaranteed Serbian Public Debt
2012	2,12%	1,51%
2013	2,10%	1,40%
2014	2,12%	1,36%
2015	1,97%	1,24%
2016	2,05%	1,31%
2017	1,90%	1,17%
2018	1,52%	0,89%

Figure 10 – Total Local Serbian Public Debt and Non-Guaranteed Serbian Public Debt in the period of 2012 to 2018 in Billions of Serbian Dinars andament.



Fiscal Consolidation and Growth In Serbia

I this section of my thesis I explain the another characteristic of the Serbian Public Debt despite the encouraging progress in economic and fiscal trends in 2015 and 2016, Serbia is still far from high economic growth rates and well-organized and healthy public finances. In this PhD thesis, I provide an in-depth analysis of the drivers of the Public Debt in Serbia recovery and the fiscal deficit decrease from the previous two years. In both cases, the analyses have shown that the observed improvements rest, to a large extent, on short-term and unplanned factors that are easily exhausted. Economic activity was under a significant impact of external growth drivers in the last two years – a strong drop in oil and food prices, decreased interest rates for Euro-based loans and faster recovery of the region and the Eurozone. This is why practically all countries in the region, and not just Serbia, experienced GDP growths exceeding forecasts by about 1 p.p. of GDP in 2015 and 2016. The fiscal deficit was decreased primarily through a surprisingly high public revenue collection, while the planned savings were not achieved, for the most part. Fiscal risks, particularly those pertaining to poor business performances of public and state-owned enterprises, practically remain the same in 2017 as they were in 2014. All this indicates that the improved economic and fiscal trends leave no room for complacency, but should be observed as a rare opportunity to implement structural reform measures in a somewhat more favourable environment and without a direct pressure of an impending crisis. If this opportunity is missed now, the reforms will have to be implemented in a far less favourable environment and will thus be far more difficult.

In the first chapter, we analyzed economic growth drivers in Serbia in the last two years and GDP growth perspectives for 2017 and medium term. In 2016, Serbia achieved a GDP growth of 2.7%, the highest since the crisis of 2008 erupted. However, comparative analysis shows that other countries in the region have also enjoyed record-breaking growth in the post-crisis period, except that their growth was, on average, higher than Serbia's and amounted to 3.6%. Another common feature for almost all the observed countries, including Serbia, is that they achieved a far greater economic growth in 2015 and 2016 than forecasted. In Croatia, for example, GDP growth in 2015 was forecasted at 0.2%, while the achieved growth reached 1.6%; GDP growth in Romania in 2015 reached 3.7% instead of the expected 2.7%; in Hungary, it was 3.1% instead of 2.4% and in Bulgaria, instead of 0.8% which was forecasted, the achieved GDP growth reached as much as 3.6%. Similar positive deviations from forecasts reoccurred in 2016. This unexpected economic growth increase in almost all countries in the region indicates that domestic economic policy is not the only factor affecting the economic growth acceleration – but rather that this faster economic growth was also due to some favourable circumstance at the international level, which was not a part of the planned economic policies (drop in the price of commodities, especially oil and gas, interest rate decrease in Europe and a faster recovery of the Eurozone and the region).

Additional confirmation and quantitative qualification of the assumption that the unusually high economic growth in the countries in the region in 2015 and 2016 was strongly influenced by favourable circumstances on the international stage, was found in the uniform pattern in which individual GDP components in the countries in the region deviated from initial forecasts. The idea for this analysis came from a paper by Blanchard and Leigh (2013), in which the regular pattern in economic growth forecast errors for developed countries was used to assess their fiscal multipliers. In that paper, the deviation of the achieved growth from the forecasts was attributed to an unexpectedly large impact of fiscal consolidation on GDP. We believe that the reasons behind a systemic, positive deviation of GDP growth and its components from the forecasts in the countries in the region lie in the effects of unplanned external circumstances on all observed economies. Economic growth in the countries in the region in 2015 and 2016 exceeded forecasts due to an unexpected acceleration in real private consumption growth, by 1.7% compared to forecasts. However, the real private consumption growth did not spill over entirely to GDP growth acceleration, as a part of this larger consumption was covered by increased imports and not just by increased domestic production. In assessing the impact of the GDP components that showed a systemic forecast error in 2015 and 2016, we can say with great certainty that the influence of external factors on economic growth acceleration in the region in the previous two years amounted to about 1 p.p.

Unlike in the region, it seems that there were two trends simultaneously driving the economic growth in Serbia during 2015 and 2016. A relatively successful implementation of fiscal consolidation, which brought about macroeconomic stability with the reformed Labour Law, Law on Planning and Construction etc., probably contributed to Serbia catching up to a certain extent to the economic growth of the countries in the region.

However, the achieved growth in Serbia in 2015 and 2016 would most likely be about 1 p.p. lower, just like in the countries in the region, had it not been surprisingly accelerated by the favourable international factors.

Sooner or later the favourable international circumstances are bound to change, but Serbian economy is still not meeting the requirements for a high economic growth without the assistance of favourable external drivers. Another information that points out the structural weaknesses of Serbian economy which stand in the way of high GDP growth rates is the fact that since the end of the first wave of the world economic crisis of 2008, Serbian economic growth has been significantly lagging behind other comparable countries. Average GDP growth in Serbia in the period

2010-2016 was about 0.5%, while, at the same time, the average economic growth in CEE countries amounted to 2.5% and of the countries in the region, about 2%. Of all the CEE countries, only Croatia recorded a lower economic growth than Serbia in the last seven years.

The main structural obstacle to high and sustainable GDP growth rates in Serbia comes from extremely low share of investments in GDP of about 18%, which is among the lowest in the entire Central and Eastern Europe. To ensure high and sustainable GDP growth, share of investments in Serbian GDP would have to increase, at least, to the regional average of about 23% and probably more. The analysis shows that there are several different issues keeping the share of investments in the GDP at such a low level. The largest part of the gap between the actual and the needed investment level in Serbia (about 3% of GDP), of about 3% of GDP, pertains to the investments of the private sector. Insufficient private sector investments, by all accounts, are the result of a poor investment climate, also indicated by the low ranks Serbia holds in all relevant international research studies (WB, WEF, Transparency International). Within private sector investments, there are indications that domestic small and medium enterprises and entrepreneurs seem to be suffering the most, as they are the ones most affected by the poor business climate in Serbia. In addition to insufficient investments from the private sector, the government is also implementing public investments both inefficiently and insufficiently; they would have to increase by at least 1% of GDP. To add to that, poor management of public and state-owned enterprises has led to their investments falling short of the necessary level by at least 1% of GDP as well.

It would therefore be necessary to use this period of favourable international circumstances to implement comprehensive reforms and measures aimed at increasing investments. In terms of public investments, in addition to large capital projects (the realization of which is improving), more attention needs to be paid to the investments into local infrastructure which are often not as prominent in the public discussions (access to clean drinking water, sewer system, waste water treatment etc.). In the segment of public enterprises, low investments from *EPS* present a special cause for concern (they are kept at a level lower than the depreciation) since a lack of energy capacities could have long-term negative consequences on the country's economic growth. Delays in the resolution of the fate of state-owned enterprises, spanning several years, lead to this significant share of Serbian economy investing next to nothing. In some cases, the lack of investments from state-owned enterprises can also represent an environmental issue (rehabilitation of the tailings pond in copper mine company *RTB Bor*, for example). Finally, the largest influence of the Government on the increase of investment would have to be indirect, through the improvement of the bad business climate. In improving the investment climate, special attention should be paid to the issues of the rule of law and corruption, since Serbia has been rated particularly poorly in these indicators, by all relevant international institutions.

In the second chapter, we analyzed the results of 2015-2017 fiscal consolidation, which had two fundamental objectives: *first*, to reign in the uncontrolled public debt growth (and neutralize the direct danger of a public debt crisis); and the *second*, to successfully reform public finance in Serbia and thus set it firmly on a path that is sustainable in the long run. To meet the first objective, the Government planned to decrease the fiscal deficit from 6.6% of GDP in 2014 to 3.8% of GDP in 2017, which was supposed to stabilize the public debt at the level of about 78% of GDP at the end of the period. Even though we are just at the beginning of the last year covered by the initial plan, it is clear that this specific fiscal objective is practically already fulfilled, and even surpassed. The general government deficit in 2017 should amount to 1.7 % of GDP, which is by about 750 Mln Euros less than planned at the end of 2014. In addition, the public debt growth was stopped already in 2016 and the latest forecasts indicate that it will amount to about 73% of GDP at the end of 2017 – which is a whooping 5 p.p. of GDP, or 1.8 Bln Euros less than envisaged. However, what casts a shadow over these indisputable fiscal improvements is the fact that less than a modest progress has been made in the implementation of the reform part of the fiscal consolidation (primarily the reform of public and state-owned enterprises). Successful implementation of the reform was supposed to ensure a significant improvement in the structure of public expenditures and adjust their level to the strength of the national economy, to reduce future fiscal risks and support a high and sustainable economic growth in the medium and long term – but our analyses show that for the large part this has not yet occurred.

The fiscal consolidation of 2015-2017 would surely have failed had it truly relied on the expenditure austerity measures (from the 2014 plan), which were aimed at decreasing the excessive public expenditures (and rightly so). Namely, only a little over a half of the initially planned savings have been achieved, which is why the public expenditures will exceed the initial plan by about 650 Mln Euros in the last year of the programme implementation. General government downsizing was particularly unsuccessful, as it is likely that not even a third of the planned savings will be achieved – even though the number of employees was supposed to be decreased by 75,000, the latest data show that the actual decrease was a mere 17,000. The savings from the planned salary and pension freeze in the period of 2015-2017 have not been achieved, either. Not only has the decision on the salary and pension freeze already been suspended twice (in 2016 and 2017), but the expected savings from the decrease of salaries and pensions in real terms were further decreased by the fact that the inflation remained far below the forecast throughout the entire period. Due to insufficient implementation of the planned austerity measures on the expenditure side, the structure of public expenditure will deviate significantly in 2017 from what was originally planned (and optimal). Some of the basic budget imbalances are still present: although decreased, wage and pension bill still exceeds the sustainable level, subsidies will be larger by about 1 p.p. of GDP than in comparable countries, while public investments are insufficient and should be increased by at least 1 p.p. of GDP.

However, the fiscal consolidation was actually rescued by a surprisingly good public revenue collection, exceeding the initial forecast by 1.4 Mln Euros in 2017 – which makes up more than enough for all the missed saving opportunities. The largest contribution to such a strong public revenue growth comes from a more efficient tax collection (700-800 Mln Euros), due to well targeted *ad hoc* grey economy suppression measures, implemented by the Tax Administration in the field. In addition, a better than forecasted macroeconomic environment, especially the more favourable increased transfers from public and state-owned enterprises into the budget, on the grounds of the made profit – which are questionable from the view point of economic justifiability. Having in mind the magnitude of the operational issues some of these enterprises face (such as EPS or Telekom), the short-term benefit that the government is to achieve from the increased withdrawal of their liquid funds, could be smaller than the damage that could arise if these enterprises are excessively financially drained.

Contrary to the original intentions, practically 50% of the permanent fiscal deficit decrease has been achieved through unplanned public revenue growth and, to a lesser extent, some non-systemic savings in public expenditures – the sustainability of which will still be in question if they are not supported by reforms. Namely, the tax collection increase was achieved with the existing (inadequate) Tax Administration capacities: average age of employees is unfavourable, there is an insufficient number of tax inspectors, analytical capacities are weak, organisational structure and information system are outdated etc. This is why we believe that there is a pronounced risk that the achieved collection rate will not be maintained without the modernization of the Tax Administration. Even though unsuccessful general government downsizing, certain savings have been achieved nevertheless, due to natural outflow of the retiring employees combined with the employment ban. Moreover, previous attempts to decrease the number of general government employees (IMF arrangements 2002-2006 and 2009-2010) have shown that most often these effects were only short-lived. Statistics show that soon after the arrangements ended the number of general government employees bounced back to the previous level, or even exceeded it. To prevent similar situations from repeating in the following years, it is necessary to initiate a reform of the largest public systems, primarily healthcare and education as soon as possible. One of the outcomes of these reforms would be a clearly defined number and structure of the employees needed, which would prevent an excessive and unjustified increase in employment once the employment ban has been lifted. Fiscal risks are threatening to annul all that has been accomplished thus far, as other reform goals have not been met as well. This is especially true for the reform of public enterprises and the completion of privatization of state- owned enterprises as it is seriously overdue, even though it was one of the main objectives of the initiated fiscal consolidation. *Serbian Railways* are practically the only public enterprise in which necessary measures have been undertaken: the enterprise has been divided into four independent companies, a new manner of subsidizing increases efficiency, a large downsizing has been planned etc. There are certain problems and delays in the implementation of the planned reform measures, but despite this, *Serbian Railways* are the public enterprise that has went the furthest in the restructuring process. On the other hand, essential reforms of the *EPS* have been delayed for years, even though the enormous debt of this enterprise (in excess of 1 Bln Euros), which could fall to the budget, represents the largest fiscal risk. *Srbijagas's* performance depends directly on the resolution of problems in enterprises that are failing to pay for the delivered gas (petrochemical companies *Petrohemija, Azotara, MSK* and others), which has not yet occurred, so these companies continue to accumulate debt. Therefore, it is probably a matter of time before Srbijagas runs into liquidity problems again, which will require the issue of new guarantees for loans – regardless of the fact that the government has explicitly undertaken not to do that anymore. Finally, after the first and encouraging wave of resolving the status of enterprises undergoing privatization in 2015, it seems that the process has ground to a halt in 2016 (with the exception of the sale of the steel mill *Železara Smederevo* to the Chinese company *Hesteel*). There are no sustainable solutions on the horizon for the remaining enterprises from this group (copper mine *RTB Bor*, pharmaceutical company *Galenika*, agricultural corporation *PKB*, coal mine *Resavica*, furniture company *Simpo* and others), so the fiscal risk from their poor business performances keeps increasing.

When it is all summed up, it is important to note, once again, that the fiscal consolidation of 2015-2017 successfully resolved some acute issues in Serbian public finances – a high deficit of 2014 was decreased more than it was originally planned, while the strong growth of public debt was stopped a year earlier than expected. However, with the public debt currently reaching about 75% of GDP, Serbia is still a highly indebted country – a single external "shock" would be sufficient to bring it back to the brink of a public debt crisis. In order to lower the public debt to a safer level (about 50% of GDP), additional savings have to be made which would lower the deficit to 0.5% of GDP and maintain it at that level in the long run. Our analysis shows that this can be achieved in an economically desirable manner. It would be necessary to keep decreasing total public expenditures and achieve a fiscal balance at a level lower than the present 44-45% of GDP, with fine-tuning the structure of public spending (increase in public investments combined with a decrease of, e.g. subsidies). Together with a Tax Administration reform that would allow additional improvements in public revenue collection, this would open up some room for incentives to economic growth through a moderate reduction of the tax burdens on the economy.

Economic Growth in Serbia: Externals vs Internal Drivers

In this chapter I explain the Serbian economic growth that it cannot be observed in isolation from the economic trends in the region. In 2015 and 2016, growth in the countries in the region reached the highest value since the outbreak of the 2008 crisis, amounting to about 3.5%, on average. A larger economic growth in the region also had a positive effect on Serbian economy, as economies in the region are closely connected (Serbia places a third of its export into the countries in the region). In this chapter, we analyzed the reasons behind the accelerated growth in the region (and in Serbia) in the last two years. Comparative analysis has shown that the countries in the region enjoyed a strong positive effect from external drivers, which increased their economic growth in the last two years by about 1 p.p. on average. These favourable exogenous economic growth drivers were a sudden drop in food and oil prices, low interest rates and Eurozone recovery.

Since the outbreak of the crisis, Serbian economic growth has been lagging well behind the average growth, not only among the countries in the region, but in the entire CEE as well. The reasons for the lag can be found in internal structural problems of the Serbian economy, reflected in the extremely low share of investments in the GDP of about 18%. On the other hand, average share of investments in the GDP in the CEE countries is 22%, and in the countries in the region, almost 23%. Low investment share is influenced as well by a poor investment climate, indicated by the poor ranking of Serbia in the relevant studies of competitiveness and corruption (WB, WEF, Transparency International) Due to a poor climate, the private sector in Serbia, and especially small and medium enterprises and entrepreneurs, invest far less than those in other comparable countries. In addition, we discovered that the direct influence of the government on the overall low level of investment, is stemming from insufficient funds being used for public investments, as well as from the poor management of public and state-owned enterprises that, instead of having a positive impact on economic growth, waste their resources and threaten the fiscal stability with their losses and debts.

In the first and most comprehensive section of this chapter, we analyzed economic growth in Serbia in 2015 and 2016 in a regional context. We showed that a significant part of the economic recovery has come from outside, due to favourable effects of international economic drivers. In the second section, we point out the main structural weaknesses of the Serbian economy, which stand in the way of a high and sustainable economic growth. In this section we also discuss the necessary economic policies for a permanent increase of Serbian economic growth.

Favorable Circumstances of International Market

In this section I define the analysis of the period 2013 – 2016 and the preliminary results for 2016 show an economic growth in Serbia of 2.7%, compared to 0.8% in 2015. GDP growth rate of 2.7% in Serbia in 2016 is the largest since the crisis that erupted in the second half of 2008 and, with this growth, the pre-crisis production level has finally been exceeded, after eight years. In addition, in both observed years (2015 and 2016) the achieved GDP growth was far better than initially planned. For

2015, it was expected that the Serbian economy would undergo a mild recession; in 2016, expectations were that it would achieve a 1.5-2% growth, meaning that the achieved growth in both 2015 and 2016 was about 1 p.p. larger than originally forecasted.

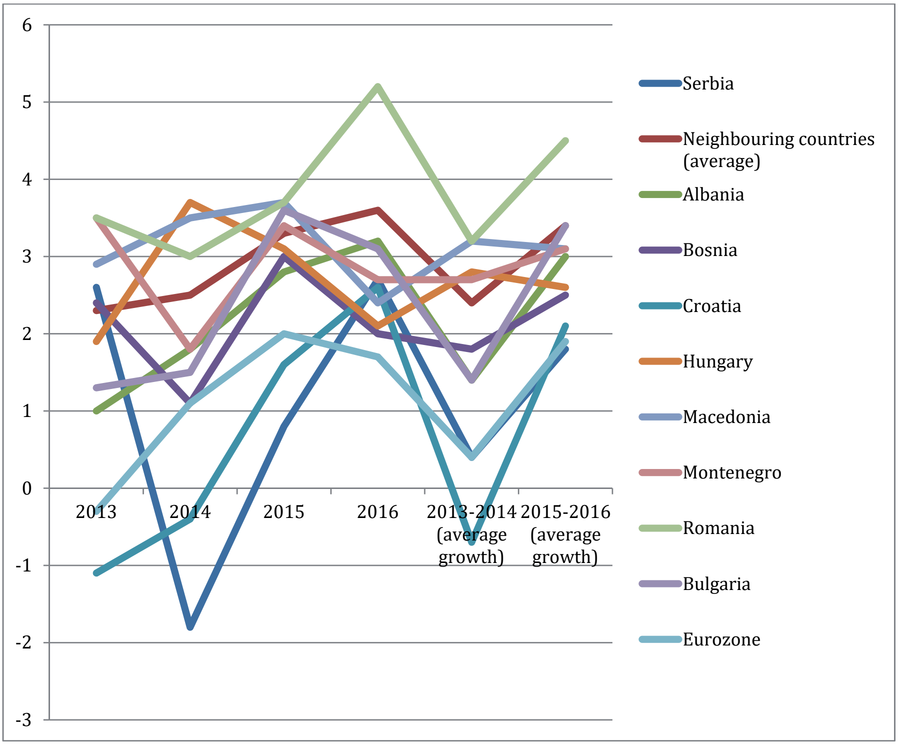
However, put into the regional context, the achieved GDP growth in Serbia in the last two years is not as spectacular as it may seem at first glance. GDP trends from 2013 onwards in all countries in the region (and in the Euro zone) are presented in Table 1. The Table shows that Serbian growth in 2016 remained below average in comparison with the neighbouring countries, despite the significant acceleration. This is because the economic activity in the region has shown significant acceleration in 2015 and 2016, compared to 2013 and 2014 and thus the region continues to maintain its advantage over the economic growth in Serbia. With the latest acceleration, the achieved GDP in the countries in the region amounts to about 3.5%, therefore just like Serbia, the region has also experienced a record economic growth since the outbreak of the 2008 crisis.

In the table 1 I show the GDP growth in Serbia and in the near countries in the period 2013 -2016. We can see that Serbia has the a negative GDP growth during 2014 a recession and positive in all other years, Romania, Montenegro and Hungary are the countries with the most level of GDP Growth higher that the average level of Eurozone. In the figure 1 indeed I show the GDP growth in Serbia and in the near countries in the period 2013 -2016 andament and we can see that Serbian presents the worst GDP felt in 2014 and Albania presents the highest peak.

Table 1 GDP growth un Serbia and the near countries in the period of 2013-2016.

Countries	2013	2014	2015	2016	2013-2014 (average growth)	2015-2016 (average growth)
Serbia	2,6	-1,8	0,8	2,7	0,4	1,8
Neighbouring countries (average)	2,3	2,5	3,3	3,6	2,4	3,4
Albania	1,0	1,8	2,8	3,2	1,4	3,0
Bosnia	2,4	1,1	3,0	2,0	1,8	2,5
Croatia	-1,1	-0,4	1,6	2,6	-0,7	2,1
Hungary	1,9	3,7	3,1	2,1	2,8	2,6
Macedonia	2,9	3,5	3,7	2,4	3,2	3,1
Montenegro	3,5	1,8	3,4	2,7	2,7	3,1
Romania	3,5	3,0	3,7	5,2	3,2	4,5
Bulgaria	1,3	1,5	3,6	3,1	1,4	3,4
Eurozone	-0,3	1,1	2,0	1,7	0,4	1,9

Figure 1 GDP growth un Serbia and the near countries in the period of 2013-2016 andament.



Insufficient Investment – The Main Obstacle to Serbian Economic Growth And The Influence of the Serbian Public Debt

In this section, I shall look at internal weaknesses of Serbian economy, which have prevented high GDP growth rates in the period since the end of the first wave of the world economic crisis. Namely, since 2010, economic growth in Serbia has been very low and lagged far behind the other countries of Central and Eastern Europe (including countries in the region). Average GDP growth in Serbia in the period 2010-2016 was about 0.5%, while, at the same time, the average economic growth in CEE countries amounted to 2.5% and of the countries in the region, about 2%. Of all the CEE countries, only Croatia recorded a lower economic growth than Serbia in the last seven years.

The main structural cause of the low economic growth in Serbia and the lag behind other CEE countries lies in the insufficient share of investments in the GDP, which has been present for years. For a high and sustainable economic growth in Serbia, the share of investments in the GDP should be about 25%, i.e. at least at the level of the regional average, which is 23% (Table 5). However, Serbian economy (including both the public and the private sector) has been investing, on average, only about 18% of the GDP since 2010. Insufficient investments are not only a direct obstacle to economic growth, but they contribute to macroeconomic imbalance as well. This can also be seen from Table 5, where we compared the GDP structure by consumption components in Serbia and in CEE and countries in the region. Table 5 shows that, in addition to the low share of investments, Serbian economy also deviates from the CEE average by a low share of export and a high share of private consumption. A strong increase in investments, especially investments into the production of tradable commodities, would not only directly lead to economic growth acceleration, but would also improve the overall GDP structure. In other words, the growth of investments would significantly accelerate the growth of export. Through a high and sustainable economic growth based on investments and export, Serbian economy would gradually increase their share in the GDP, lowering the excessive share of the private consumption.

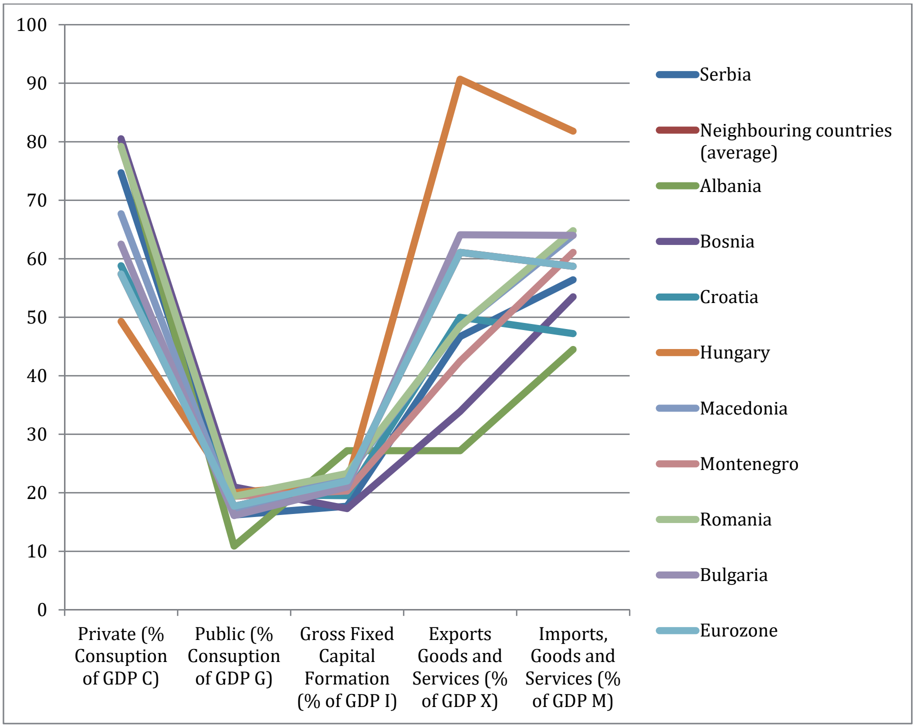
In the Table 2 I show the GDP % structure by Consuption in CEE in 2015 while in the figure 2 I show the GDP % structure by Consuption in CEE in 2015 adament. In the Figure 2 indeed I show the GDP % structure by Consuption in CEE in 2015 adament where in terms of exports Hungary presents the most value while the consumption of Public expenditure G is lower for alla countries with the Gross Fized Capital.

Table 2: GDP Structure by Consuption in CEE in 2015 in % of GDP.

Countries	Private (% Consuption of GDP C)	Public (% Consuption of GDP G)	Gross Fixed Capital Formation (% of GDP I)	Exports Goods and Services (% of GDP X)	Imports, Goods and Services (% of GDP M)
Serbia	74,7	16,2	17,7	46,7	56,4
Neighbouring countries (average)	57,4	17,7	22,0	61,1	58,7
Albania	80,0	10,9	27,2	27,2	44,5
Bosnia	80,5	21,0	17,3	33,9	53,5
Croatia	58,8	19,7	19,5	50,0	47,2
Hungary	49,3	20,0	21,7	90,7	81,8
Macedonia	67,7	16,7	23,0	48,5	64,0
Montenegro	79,2	19,4	20,3	42,5	61,1
Romania	79,2	19,4	23,3	48,5	64,8
Bulgaria	62,5	16,1	21,0	64,1	64,0
Eurozone	57,4	17,7	22,0	61,1	58,7

To analyze investments in Serbia, we have classified them into *public investments*; investments of the *public and state-owned enterprises* and investments of the *private sector.* The analysis shows that the government is implementing *public investments* both inefficiently and insufficiently; they would have to increase by at least 1% of GDP. In addition, poor management of *public and state-owned enterprises* has led to their investments falling short of the necessary level by at least 1% of GDP as well. Nevertheless, the largest gap in investments, of about 3% of GDP, pertains to the *private sector*. Within investments of the private sector, there are indications that the situation varies among the different enterprises. Investments of domestic, small and medium enterprises and entrepreneurs, by all accounts, seem to be suffering the most, as they are the ones most affected by the poor business climate in Serbia. On the other hand, large domestic and foreign enterprises find it easier to invest and thus invest more. Economic policies favouring investment increase (and economic growth acceleration) therefore pertain to: 1) increase in the share of public investments in the GDP (by at least 1% of GDP) 2) improvement of the performance of public enterprises and resolution of the fate of state-owned enterprises (investment increase by at least 1% of GDP); and 3) improvement of the investment climate to foster private investment, primarily from small and medium enterprises (by about 3% of GDP).

Figure 2: GDP Structure by Consuption in CEE in 2015 in % of GDP andament.



Public Investmemts

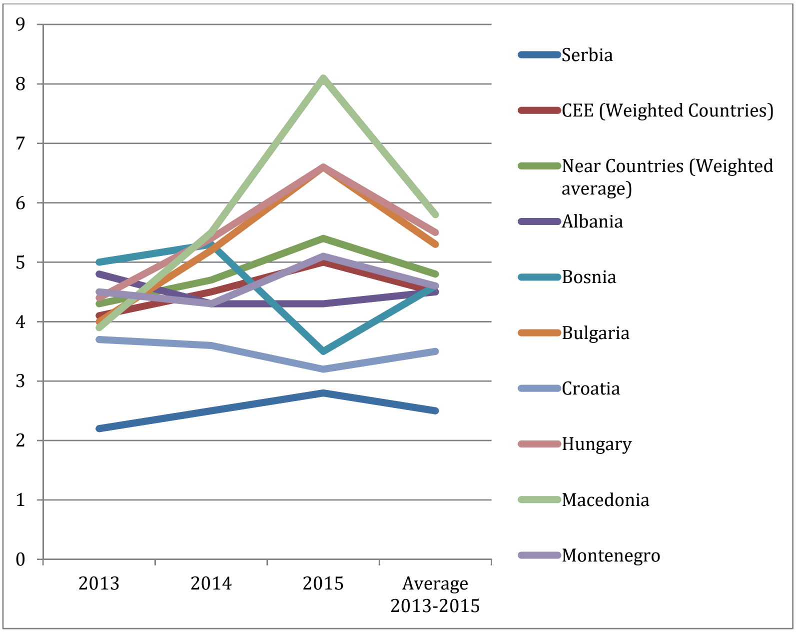
In this section I talk about the Public investments which have a double significance for the achievement of a high and sustainable economic growth in Serbia. Namely, while they are being implemented, public investments have a positive impact on GDP and represent the public expenditures of the highest quality (greatest impact on GDP growth). However, public investments do not spur economic growth only in the short term, but also in the medium term, as they improve the quality of infrastructure in the country, which, at the moment, is not satisfactory. Even though public investment increase represents the best anti-recession state policy, in the previous years, Serbia held the infamous record with the lowest share of public investment in GDP in the entire CEE in the table 2.

In the Table 2 I show the amount of Public Investment in Serbia in terms of GDP, during the period 2013-2015 and in the Figure 2 I show the amount of Public Investment in Serbia in terms of GDP, during the period 2013-2015 andament. We can see from the figure 2 that the most value in therms of Public Investments in % GDP followed by Hungary and Bulgary, Serbia indeed has the lowest amount of Public Investment in % of GDP dues to the fact that the Serbian Government does not invest in Public Infrastructure but in 2016, there was an encouraging growth of public investments in Serbia, reaching 3.3% of GDP in that year. However, the average share of investments in GDP in CEE countries is about 4.5%, while in the countries in the region, that percentage is even higher, about 4.8% of GDP. Therefore, the increase that occurred in Serbia in 2016 is still insufficient.

Table 2 – Public Investment in Serbia in GDP % during 2013-2015.

Countries	2013	2014	2015	Average 2013-2015
Serbia	2,2	2,5	2,8	2,5
CEE (Weighted Countries)	4,1	4,5	5,0	4,5
Near Countries (Weighted average)	4,3	4,7	5,4	4,8
Albania	4,8	4,3	4,3	4,5
Bosnia	5,0	5,3	3,5	4,6
Bulgaria	4,0	5,2	6,6	5,3
Croatia	3,7	3,6	3,2	3,5
Hungary	4,4	5,4	6,6	5,5
Macedonia	3,9	5,5	8,1	5,8
Montenegro	4,5	4,3	5,1	4,6

Figure 2 – Public Investment in Serbia in GDP % during 2013-2015 andament.



Analysis of public investments in Serbia shows that the main reason for their poor implementation lies in the inefficiency of the administration, as other preconditions for public investment growth have been met: 1) there are indisputable investment priorities (construction of road and railway corridors, local infrastructure, i.e. water supply and sewers, clinical centres etc.); 2) the current state of infrastructure in Serbia has been rated as poor in all relevant research studies, so there is a great need for government investments; and 3) for a large number of projects, funding has been provided from international institutions under favourable conditions.

Therefore, Serbia should increase the share of public investments from the current level (in 2016) of 3.3% of GDP by about 1% of GDP in the upcoming years, to close the gap to the CEE average. Almost a half of this increase should come from large projects at the national level, which are mostly known and often mentioned in public (road corridors etc.). However, we would like to note that the other half of the public investment increase (of at least 0.5% of GDP) should be implemented at the local level, which the public does not get to hear about as often. Serbia is one of the rare European countries in which the local governments are still failing, in the second decade of the 21st century, to provide access to basic services to their population, in line with their competencies. Thus, for example, only 70% of the public water supply networks in Central Serbia comply with all quality requirements; in Vojvodina, this percentage is as low as 16%. Only about 60% of the population is connected to the sewers, compared to the European average exceeding 80%. As an additional illustration of the impermissibly low quality of local infrastructure, a very low share of waste water in Serbia (only about 10-15% of the overall discharge) is treated, while almost the entire quantity of waste water in Europe undergoes treatment.

Investments of Public and States-Owned Enterprises

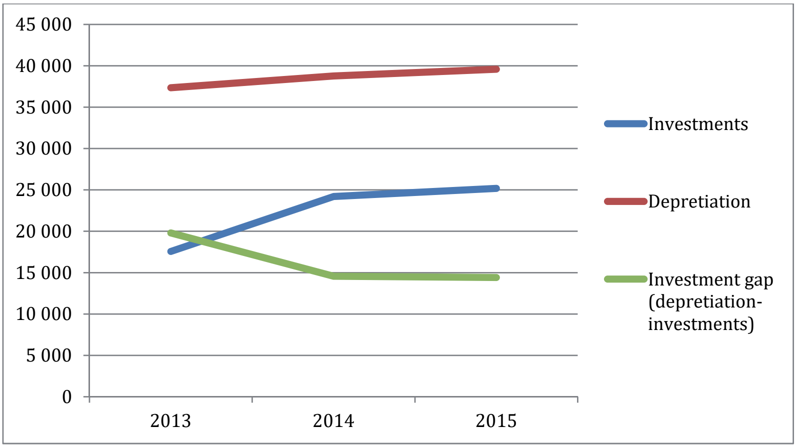
The second part of investments under direct government control, which are not being implemented to a satisfactory degree, pertain to investments of public and state-owned enterprises. Many years of poor management have led these enterprises to become indebted loss-makers, instead of using their profit and investments to drive economic growth. As a good illustration of the problem of insufficient investments from public and state-owned enterprises, we have presented data from financial reports of the largest public enterprise, EPS, pertaining to its investments and depreciation, in Table 2. The Table shows that EPS has not invested sufficiently for years, keeping its investments well below the depreciation. Not only is such a business model unsustainable for the enterprise itself, but it can act as a large impediment for economic growth in the upcoming years: with such low investments from EPS, Serbia will not have the energy capacity to support this growth.

In the Table 2 I show the amount of the Investments and Depratiations of the Private and Public Enterprises in Serbia during the period 2013 and 2015 and in the fugure 2 the andament of the Investments and Depratiations of the Private and Public Enterprises in Serbia during the period 2013 and 2015.

Table 2 Investment and Depreciation at EPS 2013-2015

Millions of rsd	2013	2014	2015
Investments	17.556	24.210	25184
Depretiation	37.354	38.775	39.592
Investment gap (depretiation-investments)	19.798	14.564	14.408

Figure 2 Investment and Depreciation at EPS 2013-2015 andament in millions of rsd.



From the figure 2 we can see that the level of Depretiation is higher than the level of Investment during the priod 2013 and 2015 dues to the fact that the variation of the currency exchange rate is Serbia is very changable. In fact in the Table 2 indicates that EPS alone should be investing 0.5% of GDP more than it currently does, to bring its investments above the level of depreciation, i.e. to increase production capacities instead of decreasing them. EPS, however, although it is the largest enterprise, is not the only public or state-owned enterprises with insufficient investments. The situation in large state-owned enterprises (*RTB Bor, Azotara, Petrohemija* etc) is especially alarming, as in some places, the lack of investments also represents an environmental hazard (rehabilitation of the mine tailings of RTB Bor, for example). We therefore estimate that there is a gap in investments in Serbia of at least 1% of GDP, as a consequence of poor business performance of public and state-owned enterprises. Thus, important leverage for investment increase and economic growth acceleration in Serbia encompasses: 1) reform of public enterprises; their problems have been known for a long time, but the resolution keeps getting delayed; and 2) resolution of the fate of failing state-owned enterprises that should be privatized or undergo bankruptcy. In this context, there is a problem with the Government's policy from the previous years, reflected in collection of large dividends from public enterprises into the budget (with the funds ending up, for the most part, in current expenditures) instead of encouraging these enterprises to increase their investments.

Private Sector Invesments in Serbia

By increasing public investments, reforming public enterprises and privatizing state-owned enterprises, the Government could directly affect the share of overall investments in Serbia, increasing it from the current level of 18% of GDP to 20-21% of GDP. This would be an important step in closing the gap to the desired level of investments in Serbia, which is 25% of the GDP; however, the largest share of the necessary increase would have to be implemented in the private sector. The role of the administration in encouraging private investment is indirect, but very important and pertains primarily to improvements in the business climate in Serbia, which has been rated very poorly by the relevant international institutions. The best rank Serbia holds, the 47th place, is on the Doing Business List of the World Bank, on which Serbia has climbed by 7 ranks in the last year. However, on list of the World Economic Forum (WEF), which is more comprehensive than that of the World Bank, Serbia ranks at the very poor 90th position, with a modest improvement of 4 positions in the last year. Finally, according to the Index of Corruption Perception, measured by Transparency International, Serbia has been stagnating for several years at the quite low, 72nd position.

In all of the observed lists, Serbia ranks particularly poorly in institutional efficiency and the rule of law. In Figure 1, we have presented some of the characteristic indicators from all three relevant research studies pertaining to corporate legal protection, i.e. protection of their property rights, contract enforcement, court efficiency and corruption perception – where Serbia is among the lowest ranking CEE countries in all research studies.

Although Serbia holds a low 90th rank in the overall WEF competitiveness ranking list, on the Protection of property rights it ranks even worse, at 126th position, and in Efficiency of legal framework in settling disputes, at the 132nd position (Figure 3). The situation is similar when it comes to the Doing Business List and its Enforcing contracts3 indicator, where Serbia is ranked far lower than its overall rank in the 47th position – it holds the 61st position. According to World Bank research, the time to resolve a dispute, counted from the moment the plaintiff files the lawsuit in court until payment amounts to 635 days in Serbia, which is 150 days longer than the average in the region according to World Bank classification (Europe and Central Asia). In addition, the costs of such procedures are almost double in Serbia; while the quality of court decisions is significantly lower than average in the corresponding region. In the Tables 1-4 I show the Serbian and CEE Selected indicators from competitiveness studies: Corruption Perception, Protection of Poperty rights, Efficiency of legal framework in setting disputes, Enforcing contracts.

Table 1 Corruption Perception in Serbia and CEE.

Countries	Corruption Perception
Poland	25
Lithuania	40
Laitvia	45
Czech Rep.	50
Slovakia	59
Croatia	60
Hungary	62
Romania	62
Montenegro	70
Serbia	75
Bulgaria	78
Macedonia	90

Table 2 Protection of Property Rights in Serbia and CEE.

Countries	Corruption Perception
Poland	45
Lithuania	48
Laitvia	48
Czech Rep.	70
Slovakia	80
Croatia	90
Hungary	100
Romania	105
Montenegro	110
Serbia	115
Bulgaria	125
Macedonia	130

Table 3 Effciency of Legal Framework in Setting Disputes in Serbia and CEE.

Countries	Corruption Perception
Poland	60
Lithuania	70
Laitvia	75
Czech Rep.	99
Slovakia	100
Croatia	110
Hungary	115
Romania	120
Montenegro	125
Serbia	125
Bulgaria	125
Macedonia	130

Table 4 Enforcing Contracts in Serbia and CEE.

Countries	Corruption Perception
Poland	10
Lithuania	12
Laitvia	15
Czech Rep.	20
Slovakia	30
Croatia	35
Hungary	40
Romania	45
Montenegro	50
Serbia	60
Bulgaria	65
Macedonia	80

In the Figures 1-4 I show the Serbian and CEE Selected indicators from competitiveness studies: Corruption Perception, Protection of Poperty rights, Efficiency of legal framework in setting disputes, Enforcing contracts andaments.

Figure 1 Corruption Perception in Serbia and CEE andament.

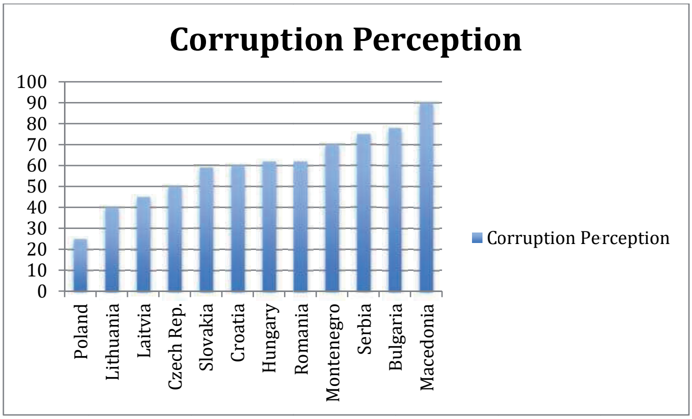


Table 2 Protection of Property Rights in Serbia and CEE andament.

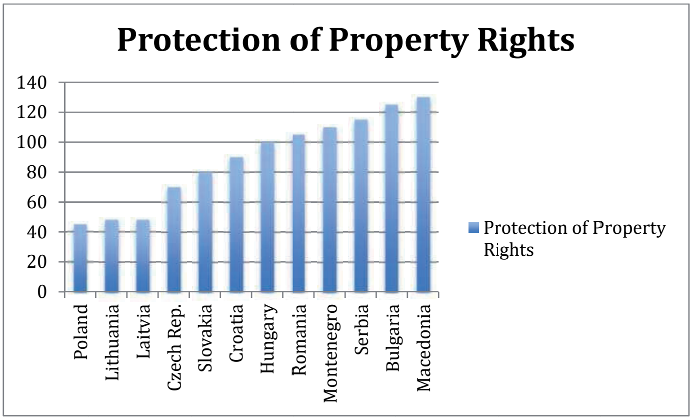


Figure 3 Effciency of Legal Framework in Setting Disputes in Serbia and CEE andament.

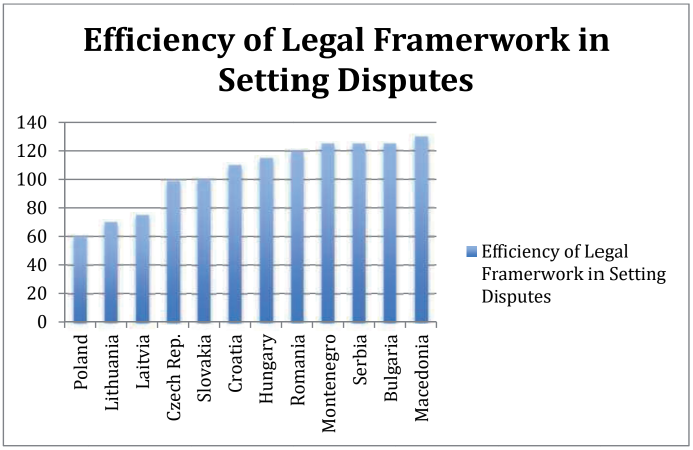
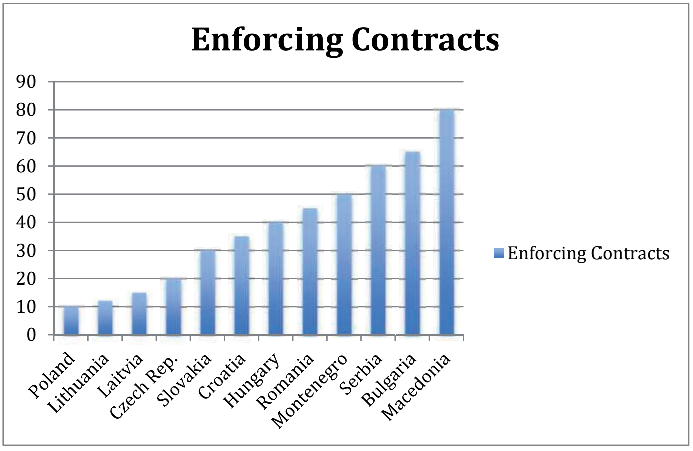


Figure 4 Enforcing Contracts in Serbia and CEE andament.



In merit of the Figure 1-4 we can see that Poland presents the lower level of Corruptions, Legal Framework, Power of the Contracts and property Rights while Macedonia, Bulgaria and Serbia present the highest level of Corruptions, Legal Framework, Power of the Contracts and property Rights. In fact there are indications that the issues with poor business climate have the highest impact on low investments of domestic, small and medium enterprises and entrepreneurs (SMEEs), while foreign and large domestic enterprises have an easier time finding ways to invest in Serbia.

This is indirectly suggested by several different indicators. For example, SMEEs participate with a share of about two thirds in the number employees and in the turnover of the non-financial sector of Serbian economy – but their investments fall far short of that, i.e. over a half of the investments from the non-financial sector comes from the large enterprises.4 An indicator that indirectly shows that foreign enterprises find it somewhat easier to invest in Serbia than the domestic enterprises is the net FDI in Serbia, which amounted to 5.4% of GDP in 2015, a little above the average of the countries in the region (only Montenegro and Albania have higher foreign direct investments relative to GDP). Although this topic warrants additional research, the indicators point to a logical conclusion – that the poor business environment has the largest negative impact on the investments of the domestic SMEEs, while large and foreign enterprises find it somehow easier to overcome the barriers to investments, even in poor investment climates.

Serbian Fiscal Consolidation 2015 – 2017

The end of 2014 marked the beginning of a three-year period of fiscal consolidation. Its objective was to reign in an uncontrolled public debt growth first and then to set Serbian public finances firmly on sustainable grounds. To meet the first objective, the Government planned to decrease the fiscal deficit from 6.6% of GDP in 2014 to 3.8% of GDP in 2017, which was supposed to stop the public debt growth at the level of about 78% of GDP. Although we are only at the beginning of the third (and final) year that the initial plan pertains to, it is already clear that the core fiscal objectives have been fulfilled, and even surpassed. Namely, in the budget plan for 2017, forecast for the general government deficit is 1.7% of GDP this year (in our view, it is realistic), which is about 750 Mln Euros less than originally planned. As fiscal deficits through the entire period 2015-2017 will be smaller than their initially targeted values (from 2014 plan), public debt trend will also be more favourable (see Figure 2). A mild shift in the growth of public debt occurred already in 2016, while the latest forecasts show that at the end of 2017, public debt will amount to about 73% of GDP. This means that at the end of the three-year fiscal consolidation programme, the national public debt will be smaller than initially forecasted by about 5 p.p. of GDP, or 1.8 Bln Euros.

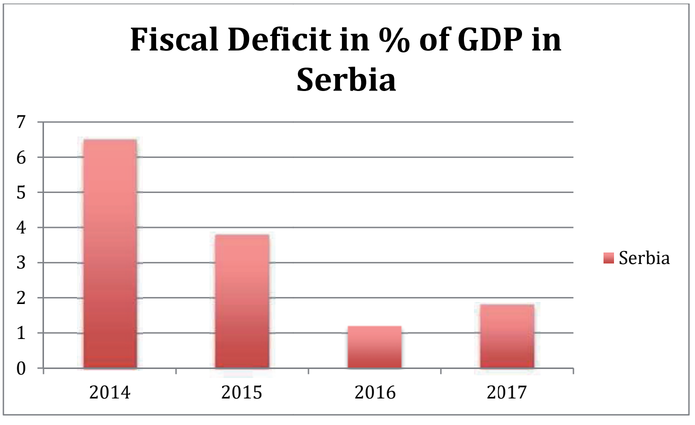
In the first part of this chapter, we analyzed the surprisingly good fiscal results and showed that they are founded, for the large part, on the strong unforeseen increase in public revenue, rather than on the expenditure austerity measures from the initial fiscal consolidation plan for 2015-2017. In the second part of the chapter, we focused on the issues of sustainability of the achieved results and showed that approximately a half of the permanent fiscal deficit decrease would still hang in the balance – if it not supported by the appropriate structural reforms. Finally, we showed that due to unsatisfactory results in the implementation of the reform segment of the programme (primarily the reforms in public and state-owned enterprises), Serbian public finance is still under threat from the same fiscal risks that could practically annul all the results achieved so far. Taking all this into consideration, as well as the fact that a public debt of 75% of GDP is still too high for a country like Serbia, a somewhat more restrictive fiscal policy accompanied by a far more decisive implementation of structural reforms in the years to come has no true alternative. In the Table 2 I show the Planned and Actual Fiscal Deficit and Public Debt 2014-2017 and in the Figure 2 Planned and Actual Fiscal Deficit and Public Debt 2014-2017 andament.

Table 2 – Republic of Serbia – Planned and Actual Fiscal Deficit and Public Debt 2014-2017 in % of GDP.

Country	2014	2015	2016	2017
Serbia	6,5	3,8	1,2	1,8

In the table 2 we can see that the fiscal deficit is higest in the 2014 and lowest in 2016 in Serbia.

Figure 2 – Republic of Serbia – Planned and Actual Fiscal Deficit and Public Debt 2014-2017 in % of GDP andament.



Why Serbian Fiscal Results Exceeded Expectations and Influence the Serbian Public Debt?

The initial fiscal consolidation plan from the end of 2014 envisaged austerity measures primarily aimed at the decrease of the unsustainably high public expenditures – according to the three-year plan of the Government, by 1.7 Bln Euros (over 5% of the GDP).5 These austerity measures were designed to address the largest sources of fiscal imbalance – excessive wage and pension bill, as well as very generous subsidies compared to similar countries, relative to the economic power of the national economy. As early as at the end of 2014, there was a linear cut of public sector salaries exceeding 25,000 dinars by 10% and a progressive pension cut (approximately equivalent to a linear cut in the amount of about 5%). Additional savings on the largest items in budget expenditures were supposed to come from a salary freeze in the period 2015-2017 (i.e. a decrease in real terms) and from a very ambitious plan of general government downsizing by about 5% annually (in total, encompassing about 75,000 employees). The remaining permanent fiscal deficit decrease was supposed to be ensured by several smaller measures, such as a subsidy cut for agriculture and public media services (companies *RTS* and *RTV*) and an introduction of excise on electricity and a gas transit fee. While the aforementioned austerity measures were expected to mitigate the existing structural imbalance between public expenditure and public revenue, the second pillar of fiscal consolidation (reform of public and completion of privatization of state-owned enterprises) was supposed to ensure the sustainability of such savings. Bad performance of state-owned enterprises and the spill- over of their enormous losses to the public finance was recognized as the largest fiscal risk, by far, exactly because this had been the reason behind the failure of the first fiscal consolidation attempt in the period 2012-2014. [13]

Although the set objectives were in principle adequate, at the end of 2014 the Fiscal Council assessed that the initial plan of fiscal consolidation for 2015-2017 lacked plausibility, as some of the austerity measures were not well designed.6 This assessment pertained in particular to the planned cut of the wage bill of almost 30% in real terms in only three years, which was assessed not only as difficult, but also as economically questionable. For example, this would transform Serbia, in a very short time period, from a country spending about 2 p.p. of the GDP more than the comparable countries on these purposes, to a country spending 1 p.p. of GDP less than the CEE average. However, it was completely unrealistic to expect that the number of general government employees would be decreased by 15% in a three-year period without prior sectoral analyses, which would identify precisely where these superfluous employees were. The plan for the real decrease in salaries and pensions based on their freeze until 2017 was not too plausible either – after they had already been cut in November 2014. One of the austerity measures envisaged that, starting from 2015, the budget would no longer cover the losses of state-owned enterprises by issuing new guarantees; it too was not supported by adequate reforms in the largest public (Srbijagas, EPS, Železnice Srbije) and state-owned (RTB Bor, Petrohemija, Azotara, MSK etc.) enterprises. Without a clear reform plan, it was just a matter of time when the need for state aid, in the form of direct or indirect subsidies to one of the loss-making enterprises, would arise again.

Analysis of the fiscal plans for 2017 reveals that only slightly over a half of the originally planned savings have been accomplished. As can be seen from Table 8, public expenditure decrease, relative to GDP, was smaller than planned, so in the last year of programme implementation, public expenditures are expected to exceed the initial plan by about 650 Mln Euros. The largest savings were achieved on the wage and pension bill, primarily due to the salary and pension cut from November 2014; in addition, the parametric pension reform7 from 2014 also brought somewhat larger savings than had been planned. However, the remaining austerity measures, aimed at decreasing the largest budget expenditures, have failed to yield the desired results. According to the latest data, the number of general government employees has been decreased by a mere 17,000 (the downsizing planned for this year calls for an additional 5,000), meaning that not even a third of the originally planned savings is likely to be achieved. In addition, a decrease in salaries and pensions planned for the period of 2015-2017, in real terms, practically has not happened at all, as the inflation was significantly lower than forecasted, but also because the decision on the salary and pension freeze has already been suspended twice.8 Consequently, the expected wage and pension bill in 2017 is 450-500 Mln Euros larger than planned at the end of 2014. Significant savings have been achieved through a decrease in subsidies for agriculture and public media services, even though these measures were implemented with a certain delay. Introduction of a gas transit fee was expected to yield 60 Mln Euros in annual revenue for Srbijagas (which was the amount by which budget expenditures for the activation of guarantees for this public enterprise were to be decreased); however, the revenue collected on these grounds fell short of a half of the planned amount.

Taking into consideration all the missed opportunities for savings, fiscal consolidation 2015-2017 would surely have failed had it rested exclusively on the austerity measures from the 2014 plan. However, this was not the case. Public revenue collection was a very positive surprise, so the fiscal deficit in 2017 will actually be significantly lower than planned at the beginning of the fiscal consolidation – 1.7% of GDP instead of 3.8% of GDP. As was shown in Table 1, total public revenue in 2017 is expected to exceed the initial plan by about 4 p.p. of GDP (1.4 Bln Euros), which is more than sufficient to make up for the missed savings on public expenditures, of about 650 Mln Euros. A more detailed analysis shows there are three basic sources of public revenue increase beyond the original expectations: a strong growth in one-off non-tax revenue, partly as a result of decisions at the discretion of the Government, more favourable macroeconomic trends and a visible increase in the tax revenue collection efficiency.

In 2017, non-tax revenue will exceed the level envisaged in the initial fiscal consolidation plan by about 0.6 p.p. of GDP or about 200 Mln Euros. This will continue the trend of surprisingly large non-tax revenue, established in the previous two years, as the plan for 2015 was exceeded by 1 p.p. of GDP, and in 2016, by as much as 1.6 p.p. of GDP. Unusually high revenues coming from the profit of public and state-owned enterprises (including local public enterprises) and other one-off payments into the budget contributed significantly to a greater decrease in the fiscal deficit in 2015 and 2016 than originally planned.9 Seeing as how there are no significant one-off payments planned for 2017 on other grounds, the 200 Mln Euro increase in non-tax revenue, compared to the original plan, rests predominantly on a greater withdrawal of liquid assets from public and state-owned enterprises. Taking into account the performance reported by some enterprises, the planned amount of non-tax revenue may be achievable, but its economic justification is questionable. Namely, the largest payments are expected to come from *EPS* and *Telekom* – two large enterprises owned by the state, which have been underinvesting for years (with *EPS* heavily indebted, as well). EPS's investments are often insufficient to cover depreciation, slowly diminishing the energy capacities, which can be a significant obstacle to acceleration of economic growth in medium and long term. Telekom's problems are perhaps not as obvious, but this state-owned enterprise is facing sharp competition in the telecommunication market and is continually losing its market share. With all this in mind, the short-term benefit that the general government is to achieve from the unusually high payments, coming from the profit of these enterprises, could be smaller than the damage that could arise if these enterprises are excessively financially drained.

Table 1 – Serbian Fiscal Consolidation 2015-2017 in % of GDP.

% in GDP	2014 IMF Program Scenario	2015 IMF Program Scenario	2016 IMF Program Scenario	2017 IMF Program Scenario	2014 Execution	2015 Execution	2016 Execution	2017 Execution
Revenue	**40.9**	**40.3**	**39.2**	**38.5**	**41,5**	**41.9**	**43.8**	**42.4**
Taxes	36.6	35.6	34.7	34.1	36.8	36.2	3.7	3.7
Personal Income Tax	3.7	3.6	3.4	3.4	3.7	3.6	12.5	12.6
Social Security Contributions	12.9	12.2	11.7	11.5	13.0	12.5	12.5	12.6
Taxes On Profits	1.9	1.9	1.9	1.9	1.9	1.5	1.9	1.8
Value-added taxes	10.4	10.1	9.8	9.6	10.5	10.3	10.8	10.6
Exercises	5.5	5.7	5.8	5.6	5.4	5.8	6.3	6.2
Taxes on International Trade	0.8	0.7	0.7	0.7	0.8	0.8	0.9	0.9
Other Taxes	1.4	1.4	1.4	1.4	1.5	1.6	1.6	1.5
Non-Tax Revenues	4.1	4.5	4.3	4.2	4.4	5.5	5.9	4.8
Grants	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Expenditure	**48.4**	**46.2**	**43.9**	**42.3**	**48.1**	**45.6**	**45.2**	**44.1**
Current expenditure	44.7	42.2	40	38.7	43.1	42.0		9.9
Wages and salaries	11.8	10.7	9.7	8.9	11.7	10.4		9.8
Good and services	7.8	7.6	7.4	8.5	7.9	7.5	8.1	8
interests	3	3.5	3.9	4	2.9	3.2	3.1	3.1
subsidies	4	2.6	2.3	2.4	3.0	3.3	2.7	2.4
transfers	18.1	17.8	16.7	16	3.0	3.3	2.7	2.4

pension	13.1	12.4	11.8	11.3	17.8	17.6	17.1	16.5
Capital expenditures	5	5.4	4.8	4.7	13.0	12.1	11.8	11.6
Net lendind	2.6	3.1	3.1	3	4.8	5.4	5.3	4.9
amortization	0.3	0.1	0.1	0.1	2.5	2.8	3.3	3.3
Fiscal balance	**-7.5**	**-5.9**	**-4.7**	**-3.8**	**-6.6**	**-3.7**	**-1.4**	**-1.7**
Real GDP Growth	**-2**	**-0.5**	**1.5**	**2**	**-1.8**	**0.8**	**2.7**	**3**
GDP Nominal (billions of RSD)	**3881**	**3967**	**4191**	**4450**	**3908**	**4043**	**4203**	**4397**
Average Consumer Price (%)	**2.1**	2.7	4	4	2.1	1.4	1.2	2.4
Gross Debt (% of GDP)	**69.9**	76.4	78.4	78	71.9	76	74.5	72.9

A more favourable macroeconomic environment than forecasted at the end of 2014, especially the more favourable labour market trends, will lead to an increase in public revenue in the amount of 400-500 Mln Euros compared to the initial plan. Employment and average wage trends have significantly exceeded expectations on which the fiscal consolidation programme was drafted, leading to very positive trends in collection of revenue from social contributions and income taxes. In total these tax revenues were planned to come to about 16.3% of GDP in 2017, meaning that the initial plan will probably be exceeded by about 1.5 p.p. of GDP. It is indisputable that in part, this improvement comes as a result of a stronger recovery of the private sector, but it is important to emphasize that an inconsistent implementation of some of the fiscal consolidation measures has contributed, to a certain extent, to the larger collection of this type of revenue. First of all, the total number of employees in economy has not been decreased to the planned extent due to the fact that the general government downsizing has fallen short of its aim and because of the delay in reforms of the public enterprises and the resolution of the fate of enterprises undergoing privatization. In addition, selective salary increase in the public sector in 2016 and 2017 had an impact, albeit a modest one, on the increase of average salaries in the entire economy compared to the original plan, which was based on the assumption that the salaries would remain frozen for three years. Bearing all this in mind, it could be said that a part of the unaccomplished fiscal adjustment of public expenditures has been compensated by the consequentially larger social contribution revenue and income tax revenue.

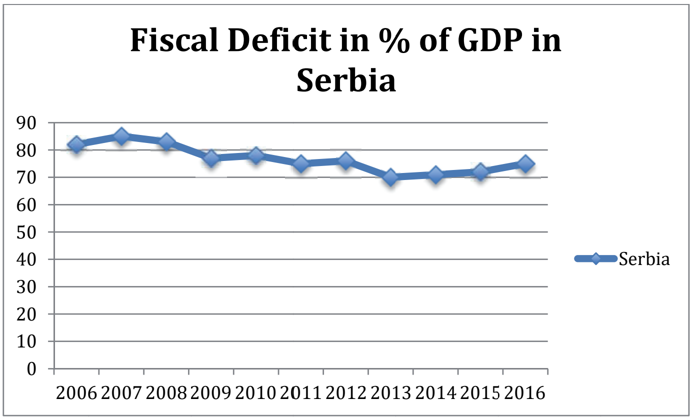
Still, it was the more efficient tax revenue collection that probably contributed the most to the increase in public revenue compared to the initial plan (700-800 Mln Euros), which can primarily be seen in VAT and excise revenue. Furthermore, in VAT revenue, almost the entire overperformance compared to the original plan comes from improved collection (in excise revenue, the increase is partially due to favourable macroeconomic trends and subsequent amendments in the legislation). Namely, even though the domestic consumption in the period 2015- 2017, in real terms, was truly a positive surprise, the inflation was significantly lower than expected – meaning that the tax base (nominal domestic consumption) did not fundamentally deviate from the original forecasts. In Figure 3, we have shown the trend of the coefficient of relative collection efficiency (c-efficiency), which is obtained by correlating the actual amount of revenue collected from VAT with a hypothetical amount that would have been collected assuming perfect collection. This indicator firmly corroborates the previous conclusion, that after a sharp dive in VAT collection efficiency in 2013, over the last several years there has been a trend of improved collection efficiency, which was most pronounced in 2016.[10] There are quite clear indications that these additional tax revenues has been collected through *ad hoc* measures that the Tax Administration implemented in the field, without having its capacities strengthened or its organisational structure modified. However, since a "normal" VAT collection rate from the period 2009-2012 has almost been matched in 2016, it is likely that the positive effect of these grey economy suppression measures has been exhausted for the most part.

A slower growth of interest expenditure is another contributor to the expectation-exceeding fiscal result, as in 2017 this category of expenditure will be by about 300 Mln Euros (0.9 p.p. of GDP) lower than originally planned. Being that one of the determinants of interest expenditure is the level of public debt, one part of the achieved savings (slightly under 0.2 p.p. of GDP) can be explained by the fact that the public debt will be smaller than expected at the end of 2017 (about 73% of GDP instead of 78% of GDP). However, the majority of savings on interest expenditure (over 0.7 p.p. of GDP) come from significantly more favourable lending conditions in the period 2015-2017, compared to expectations. The initial fiscal consolidation plan from the end of 2014 envisaged a gradual increase in implicit average interest rate on Serbian public debt from 4.2% at the time to 5.1% in 2017, but this did not occur – the implicit average interest rate remained at the level of about 4.2%. Even though this was probably somewhat supported by the decrease in country risk premiums, due to a successful beginning of fiscal consolidation and signing of the arrangement with the IMF, the main reason certainly lies in the global interest rate decrease. Due to interest rates that are at a historical low in the developed countries, investors looking for greater returns increased their demand for securities of developing countries, significantly lowering the price of lending for all countries in the region, including Serbia. It remains to be seen, however, how long such favourable lending conditions will last. It is expected that the American FED will accelerate the increase of the reference interest rate in 2017, which will certainly influence the interest rates in the rest of the world.

Table 3 – Collection Efficiency of VAT of Serbia.

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Serbia	82	85	83	77	78	75	76	70	71	72	75

Figure 3 – Collection Efficiency of VAT of Serbia andament 2006-2016.



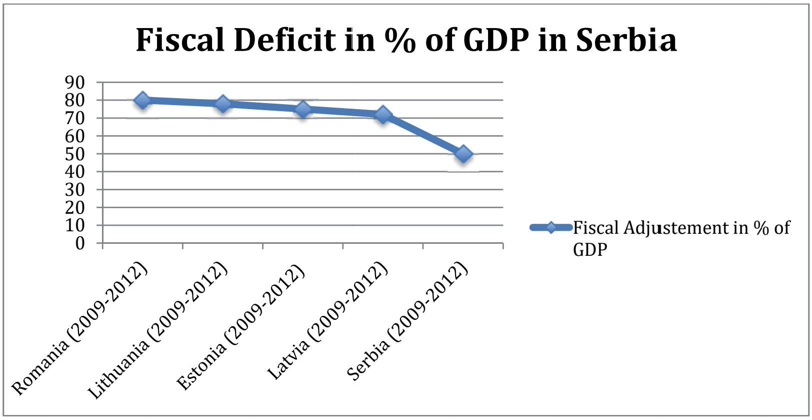
How sustainable are the achieved results of the Fiscal Balance in Serbia?

Realization of the quantitative objectives of 2015-2017 fiscal consolidation (decrease of the fiscal deficit and arrest of the public debt growth) was more than successful, but it was achieved in a manner that is far different than originally planned. The issue of fiscal adjustment quality often takes the back seat, but the structure of the achieved savings is very important for the sustainability of the achieved results and a lasting recovery of public finance. Namely, empirical research strongly suggests that fiscal consolidations founded mostly on austerity measures on the expenditure side (preserving the level of expenditures for public investments) have several important advantages compared to fiscal consolidations based on revenue measures: they are more plausible, their results are more permanent and if they are supported by structural reforms, they have a more favourable impact on economic growth in medium and long term. [1] [2] We analyzed experiences of four Central and Eastern European countries (Romania, Lithuania, Estonia and Latvia) which, in the period following the outbreak of the economic crisis in 2008, were successful in implementing very ambitious fiscal consolidations. Without exception, the permanent fiscal deficit decrease was achieved thanks to savings on public expenditures, which account for between 2/3 and 4/5 of the fiscal adjustment (see Table 4 amd Figure 4).

Table 4 – Fiscal Adjustment: exoenditure vs Revenue Measures in % of GDP from 2009 to 2012.

	Romania (2009-2012)	Lithuania (2009-2012)	Estonia (2009-2012)	Latvia (2009-2012)	Serbia (2009-2012)
Fiscal Adjustement in % of GDP	80	78	75	72	50

Figure 4 – Fiscal Adjustment: exoenditure vs Revenue Measures in % of GDP from 2009 to 2012 adnament.



We ca see from the fugure 4 that Serbia presents the better fiscal deficit adjustment procedure and Romania the worst Fiscal deficit.

Although the Serbian fiscal consolidation of 2015-2017 was initially envisaged to achieve the largest part of the permanent fiscal deficit decrease through austerity measures on the expenditure side, the success was lukewarm.11 Contrary to the original intentions, almost 50% of the fiscal deficit decrease was achieved thanks to an unplanned growth in public revenue. The final result is a public revenue and expenditure structure in 2017 that deviates significantly from that which was originally planned and would be optimal, which casts a shadow over the achieved fiscal adjustment. Namely, some of the basic imbalances in the budget remain: although decreased, wage and pension bill still exceed the sustainable level, subsidies will be larger by about 1 p.p. of GDP than in comparable countries, while public investments are insufficient and should be increased by at least 1 p.p. of GDP. It's good that the strong growth of interest expenditures has been stopped, but that too could prove to be a temporary success if there is a significant deterioration in lending terms for countries like Serbia in the years to come. Another consequence of an altered fiscal adjustment structure is that the level of public expenditure of about 45% of GDP is pretty high compared to the strength of Serbian economy. However, a much larger problem at the moment is that the fiscal deficit decrease achieved through better tax revenue collection and some non-systemic savings on public expenditures may not be maintained, if it is not supported by the necessary structural reform.

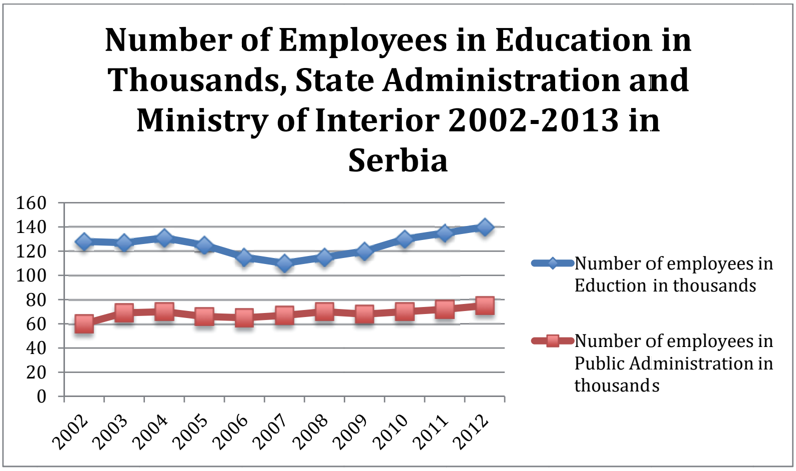
As we already mentioned, improvement in tax revenue collection in the previous two years mostly relied on grey economy suppression using well-targeted *ad hoc* measures that the Tax Administration implemented in the field. This is a commendable result, bearing in mind the inadequacies of tax administration capacities: average age of employees is over 50, salaries are not competitive compared to the private sector, analytical capacities are weak, organisational structure and information system are outdated etc. It is especially alarming that there are only about 500 tax inspectors, while international experiences indicate that a country like Serbia should have at least 1,000 adequately qualified tax inspectors.12 Hence, we believe that there is a pronounced risk that the current tax revenue collection level will not be maintained without the modernization of the Tax Administration, which would put all achieved results of the fiscal consolidation in serious jeopardy. A good plan for thorough Tax Administration reform for the period 2015-2020 has been in existence for several years, but its implementation is very slow. We also emphasize that a successful modernization of the Tax Administration is not only necessary to secure the results achieved in tax revenue collection, but also to ensure additional revenue from grey economy suppression in the upcoming years. Being that not all objectives of fiscal consolidation have been achieved according to plan, this could be of crucial importance for the continuation of the fiscal consolidation and a lasting recovery of Serbian public finance.

Even though general government downsizing was unsuccessful, certain savings (0.2-0.3% of GDP) have nevertheless been achieved, due to natural outflow of the retiring employees with a very restrictive replacement rate (5:1). Being that the targeted lay-offs based on precise analyses that identify superfluous employees have not taken place, these savings were not in essence systematic and are most probably unsustainable – as both productive and non-productive employees are retiring. In the long run, too strong a reliance on the natural outflow through retirement and on the new employment ban represents a serious hazard for the functioning of some important systems (e.g. education or healthcare sectors), as it could lead to a drop in the quality of service they provide. [5] Moreover, previous attempts to decrease the number of general government employees have shown that the effects were, most often, only short-lived. To illustrate this, the previous arrangements between Serbia and the IMF also lead to a linear downsizing (2002-2006 and 2009-2010). However, soon after the Arrangement ended, statistics show that the number of general government employees bounced back to the previous level, or even exceeded it (see Figure 5). To prevent similar situations from repeating in the following years, it is necessary to initiate a reform of the largest public systems, primarily healthcare and education, as soon as possible. One of the outcomes of these reforms would be a clearly defined number and structure of the employees needed, which would prevent an excessive and unjustified increase of employment once the employment ban has been lifted (most likely at the end of 2017).

Table 5 – Number of Employees in Education, State Administration and Ministry of Interior 2002-2013.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of employees in Eduction in thousands	128	127	131	125	115	110	115	120	130	135	140
Number of employees in Public Administration in thousands	60	69	70	66	65	67	70	68	70	72	75

Figure 5 – Number of Employees in Education, State Administration and Ministry of Interior 2002-2013 andament.



From the Figure 5 we can see that we have a gap from the number of the students that wors in education and the number of the students that work in Public Administration. Fiscal risks are threatening to annul all that has been accomplished thus far, as other reform goals have not been met as well. This is especially true for the reform of public enterprises and the completion of privatization of state- owned enterprises as it is seriously overdue, even though it was one of the main objectives of the initiated fiscal consolidation. *Serbian Railways* are practically the only public enterprise in which necessary measures have been undertaken: the enterprise has been divided into four independent companies, a new manner of subsidizing increases efficiency, a large downsizing has been planned etc. There are certain problems and delays in the implementation of the planned reform measures, but despite this, *Serbian Railways* are the public enterprise that has went the furthest in the restructuring process. On the other hand, essential reforms of the *EPS* have been delayed for years, even though the enormous debt of this enterprise (in excess of 1 Bln Euros), which could fall to the budget, represents the largest fiscal risk. *Srbijagas's* performance depends directly on the resolution of problems in enterprises that are failing to pay for the delivered gas (petrochemical companies *Petrohemija, Azotara, MSK* and others), which has not yet occurred, so these companies continue to accumulate debt. Therefore, it is probably a matter of time before Srbijagas runs into liquidity problems again, which will require the issue of new guarantees for loans – regardless of the fact that the government has explicitly undertaken not to do that anymore. Finally, after the first and encouraging wave of resolving the status of enterprises undergoing privatization in 2015, it seems that the process has ground to a halt in 2016 (with the exception of the sale of the steel mill *Železara Smederevo* to the Chinese company *Hesteel*). There are no sustainable solutions on the horizon for the remaining enterprises from this group (copper mine *RTB Bor*, pharmaceutical company *Galenika*, agricultural corporation *PKB*, coal mine *Resavica*, furniture company *Simpo* and others), so the fiscal risk from their poor business performances keeps increasing. Bad performance of public and state-owned enterprises already represents too great a burden on public finance, and since the hot-spots have not been addressed, new expenditures to cover their losses are almost inevitable. Namely, analysis of the Budget of the Republic of Serbia for 2017 reveals that the repayment of old debt of public and state-owned enterprises (made prior to 2015) comprises the largest part of the planned fiscal deficit in this year. In the overall total, these expenditures have reached the amount of 40 Bln dinars or 0.9% of GDP, while the total fiscal deficit is planned at 75 Bln dinars (1.7% of GDP). Without competition, the largest part of these expenditures comes from activated guarantees of Srbijagas (about 200 Mln Euros), together with Železnice Srbije (35 Mln Euros), Air Serbia (10 Mln Euros), Galenika (10 Mln Euros), Železara Smederevo (5 Mln Euros), subsidy for RTB Bor (2 Bln dinars). What is problematic is that the well-known mechanisms that generate these expenditures are repeating in 2016: state-owned enterprises, local public enterprises and local governments have accumulated arrears, to Srbijagas and EPS of around 160 m Euros in that year alone. We emphasize that this is a problem in the making, which threatens to increase public expenditures in the future – whether through the issuance of a new guarantee to Srbijagas, to be repaid by the government, or through financial exhaustion of the EPS, the debts of which can also be transferred to the budget (despite the fact they were not covered by guarantees).

Finally, almost every year there are unplanned one-off expenditures that increase the fiscal deficit, which, as it seems now, will continue in the years to come. The main source of these expenditures also lies in the poor performance of public and state-owned enterprises, but it is not the only source. Thus, in 2016 the government took over the payment of Petrohemija to NIS (about 100 Mln Euros); in 2015 it was the debt of Srbijagas, also to NIS (about 200 Mln Euros) as well as army pensions arrears, in line with the decision of the Constitutional court (about 75 Mln Euros); in 2014, it was JAT's debt (about 170 Mln Euros) etc. Although it is hard to forecast the magnitude of these expenditures and the exact time they accrue, it is already possible to identify a few obligations that may fall to the budget in the future. For example, it is well known that RTB Bor's debt to NIS amounts to over 40 m Euros, whereas Galenika has an unguaranteed debt to banks in the amount of about 70 Mln Euros – which, just as is the case with some other enterprises, can be taken over as public debt at any time. We would also like to point out the problem of healthcare institutions accumulating arrears (hospital, health centres, pharmacy etc.), which have grown to almost 12 Bln dinars by February 2017 (the annual increase amounts to 2-3 Bln dinars). Payment of the accumulated arrears in healthcare has already fallen to the budget, when in 2013 obligations in the amount of about 5 Bln dinars were taken over, so it would not be a great surprise if it was to happen again. There is a similar problem in some local governments, and it is estimated that the arrears of the local administrations surpass 10 Bln dinars. A special risk comes from potential expenses grounded in disputes that the state is losing in international courts. For example, the International Court of Human Rights in Strasbourg has, in deliberating on the lawsuit filed by those with savings in Invest banka in Bosnia and Herzegovina, decided that Serbia is obliged to pay out the old foreign currency savings, in the amount estimated to about 200-300 Mln Euros.

When it is all summed up, the fiscal consolidation of 2015-2017 successfully resolved some acute issues in Serbian public finance – a high deficit of 2014 was decreased more than was originally planned, while the strong growth of public debt was stopped a year earlier than expected. Although it is an undisputedly good result, the general condition of public finance is still far from good – which is why it is dangerous that the general, and a part of the professional audience, form an opinion that the fiscal consolidation has practically been completed. Namely, with the public debt reaching about 75% of GDP, Serbia is still a highly indebted country – a single external "shock" would be sufficient to bring it back to the brink of a public debt crisis. This is why it will still be necessary, in the upcoming years, to implement a somewhat more restrictive fiscal policy and to permanently decrease the fiscal deficit down to 0.5% of GDP. Even with such a small fiscal deficit, it would take almost an entire decade to bring the public debt down to about 50% of GDP, which is the level of debt that would allow Serbia to await the next crisis relatively prepared – and this next crisis will surely happen in the long run. Our analysis of the fiscal consolidation 2015-2017 shows that this is possible in an economically desirable manner. It would be necessary to keep decreasing total public expenditures and achieve a fiscal balance at a level lower than the present 44-45% of GDP, with fine-tuning the structure of public spending (increase in public investments combined with a decrease in e.g. subsidies). Thus, together with a Tax Administration reform that would allow additional improvements in public revenue collection, some room would be opened for incentives to economic growth through a moderate reduction of the tax burden on the economy. However, none of it will be possible unless the resolution of accumulated problems in the unreformed public sector (primarily in public and state-owned enterprises) is accelerated, as expenditures that could fall to the budget could quite easily neutralize the results achieved so far.

1.3. Political Deteminants Of Public Debt Dynamics

In this section of my PhD thesis I define the main Political determinants of the Serbian Public Debt. In Serbia the main political determinant that are “Sysstem of Authorities”, “Government”, “Ministry of Finance”, “Economy”, “Public Finance” and the most important the “Public Debt Administration” with “Legislation and “Public Procurement”.

System of Authorities

I start to define that the Republic of Serbia as we know is a democratic state, having a clear division of powers into legislative, executive and judicial.

According to the Constitution of the Republic of Serbia, presenting the supreme legislative act, legislative powers are executed by the National Assembly of the Republic of Serbia. The National Assembly is composed of 250 deputies directly elected in parliamentary elections. Proposals of laws are submitted to the National Assembly to be discussed and adopted. In order to establish and enable the functioning of the Government, being the holder of executive power, the support of the majority of deputies has to be ensured. Leading parties in the National Assembly, following the completion of the last parliamentary elections are: Serbian Progressive Party, Democratic Party, Socialist Party of Serbia and Democratic Party of Serbia. The parties of national minorities are also represented in the Parliament.

According the Constitution, in Serbia operates the presidential-parliamentary system of authority. The executive power is presented by the Government, which is composed of the Ministries, while the President represents unity of the country and has separate responsibilities delegated by the Constitution. The Government is led by the Prime Minister and Ministers, whose term of office lasts for the same period of time as the term of office of deputies, i.e. four years. The President of the Republic of Serbia is elected directly in presidential elections, having the term of office of five years. Ivica Dacic (Socialist Party of Serbia) is currently the Prime Minister of the Republic of Serbia, whereas Tomislav Nikolic (Serbian Progressive Party) is the President of the Republic of Serbia.

The role of the judiciary is to preserve and protect legal order in the Republic of Serbia. It is within the competence of independent and separate state authorities, i.e. courts. There are the Constitional Court and the Supreme Court of Cassationin the Republic of Serbia, whereas other courts are divided into courts having general and specific competences.

The Government

I start to define that the Government of the Republic of Serbia is the holder of the executive power and also for the definition for the politics of the Serbian Public Debt. In fact the appointment of the Government is conducted according to the following procedure: the President of the Republic proposes the candidate for the Prime Minister to the National Assembly. Following this, the candidate presents the Government's Programme and proposes its composition. The Deputies of the National Assembly simultaneously vote on the Government's Programme and election of the Prime Minister and Members of the Government. The Government is elected if the majority of the total number of deputies votes in favour of the programme and the proposal. The Government's term of office lasts for four years, commencing with taking an oath before the National Assembly.

The Government is composed of: the Prime Minister, one or more Deputy Prime Ministers and Ministers. The Government executes laws adopted by the National Assembly, conducts policy and directs and controls the activities of the Ministries. In addition to this, the Government adopts decisions, regulations, decrees and conclusions, adopts the Memorandum on Budget and proposes to the National Assembly laws and other general acts.

State Administration

State administration is a part of the executive power of the Republic of Serbia, and it one of the most important Poliical Determinants of the Serbian Public Debt owing to which the Government manages, implements and controls tasks at the level of the state. The state administration is obliged to prepare drafts of laws, regulations and other acts for the Government, to propose strategies and other measures significant for the improvement of the activities of the Government, monitor and define situations in the areas within its competences as well as execute laws, other regulations and general acts of the Government, i.e. the National Assembly. State administration is composed of state administration authorities, and those are ministries, administrative authorities within the ministries and special organizations. State administration authorities perform their activities independently. However, they are accountable to the Government and obliged to act in accordance with the Constitution and the law, implying that they are impartial and politically neutral in their work.

Ministries are established to perform state administration affairs more successfully in one or several mutually interconnected fields. They are composed of one or several administrative authorities, such as administrations, inspectorates and directorates. There are eighteen Ministries in the Republic of Serbia led by Ministers. They are as follows:

1. Ministry of Finance
2. Ministry of Economy
3. Ministry of Agriculture, Forestry and Water Management
4. Ministry of Environmental Protection
5. Ministry of Construction, Transport and Infrastructure
6. Ministry of Mining and Energy
7. Ministry of Trade, Tourism and Telecommunications
8. Ministry of Justice
9. Ministry of Public Administration and Local Self-Government
10. Ministry of the Interior
11. Ministry of Defence
12. Ministry for European Integration
13. Ministry of Foreign Affairs
14. Ministry of Education, Science and Technological Development
15. Ministry of Health

16. Ministry of Labour, Employment, Veteran and Social Affairs
17. Ministry of Youth and Sport
18. Ministry of Culture and the Media

The Government 89 a salso three ministers without portfolio responsible for population policy, regional development and coordination of the work of public companies and innovation and technology. Types of special organizations are secretariats and bureaus, i.e. agencies. Special organizations are established so as to perform expert tasks requiring greater level of independence compared to the independence of administrative authorities within Ministries.

Civil servants perform tasks within the scope of work of state administration authorities and the Serbian Public Debt.

State administration authorities are obliged to provide insight into their activities to the public.

Ministry Of Finance

The Ministry of Finance is he other Serbian Public Institution for the determination of the Serbian Public Debt and is one of the most important departments in the Government of the Republic of Serbia. The leadership of the Ministry of Finance is composed of the Minister, State Secretaries and Assistant Ministers. There are fourteen departments within the Ministry of Finance, headed by Assistant Ministers, and nine Administrations, headed by Directors of Administrations. Mr. Dusan Vujovic is currently the Minister of Finance.

According to the Law on Ministries ("*Official Gazette of RS*", No. 44/2014, 14/2015, 54/2015 and 96/2015 - other lex), the Ministry of Finance has several competences. The most important are related to performing state administration tasks dealing with: the state budget; defining consolidated balance of public revenues and public expenditures; system and policy relating to taxes, tariffs and other public revenues; public expenditure policy; management of available public funds of the Republic of Serbia; public debt and financial assets of the Republic of Serbia; regulating public property rights, property rights and other real rights of the Republic of Serbia, autonomous province and local self-government units; public procurement;

macroeconomic and fiscal analysis, quantification of economic policy measures; foreign currency exchange system and foreign loan relations; system of financial relations with other countries and international financing organizations; customs system; customs tariffs; non-tariff barriers and free zones; basics of the system of social insurance contributions; banking system; personal and property insurance; system of payments and payment operations; securities and capital market; privatization and rehabilitation of banks and other financial organizations; coordination of the system of management and implementation of the programs financed from EU funds

Departments

According to the current organizational structure, there are following departments within the Ministry of Finance with the power to influence the Serbian Public Debt:

1. Department of Macroeconomic and Fiscal Analyses and Forecasting
2. Budget Department
3. Fiscal System Department
4. Customs System and Policy Department
5. Financial System Department
6. Department for Internal Control and Internal Revision
7. Department for Management of EU Funds
8. Department for Contracting and Financing of EU Funded Projects
9. Department of Property and Legal Affairs
10. Department for International Cooperation and EU Integration
11. Department for Control of Public Funds

Administrationa

There are seven Administrations within the Ministry of Finance that one one them Public Debt Admnistration influence the politics of the Public Debt of Serbia:

Tax Administration
Public Debt Administration
Treasury Administration
Customs Administration
Tobacco Administration

Anti-Money Laundering Administration
Free Economic Zones Administration

The Serbian Economy

In this section I talk about the Serbian Economy as the influence of the Serbian Public Debt. In fact the economy of the Republic of Serbia is based on providing different sorts of services, industry and agriculture. The economy of the Republic of Serbia is composed of the following economic branches:

- Banking and insurance
- Wood processing industry
- Energy
- Construction industry
- Creative industry
- Chemistry, pharmacy, rubber and nonmetals
- Information science
- Utility services
- Metalworking and electrical industry
- Agriculture
- Metal mines and metallurgy
- Transport
- Textile and leather industry
- Trade
- Tourism and hospitality industry
- Private security

GDP growth in 2017 amounted to 1.9% and was led by all sectors (except agriculture). Outside of shocks in agriculture and energy sector from the beginning of the year, Serbian economy grew at a level of 3.0%. Expected real GDP growth rate for 2018 is 3.5%. Growth accelerated owing to macroeconomic stabilization, improved business environment, higher government capital spending, effects of monetary policy easing, implementation of structural reforms and demand growth.

The most important economic sector of the Republic of Serbia is industrial production. The industrial production in the Republic of Serbia in December 2017, when compared to December 2016, increased by 0.5% and in relation to 2016 average, it increased by 6.9%. The industrial production in 2017, compared with 2016, increased by 3.5%. Manufacturing increased by 6.4% in 2017, related to 2016. The Republic of Serbia performs international trade in goods mostly with the EU Member States. The overall external trade in the Republic of Serbia for the period January – December 2017 amounted to:

- USD 38,93 billion - which was an increase of 15.3% compared to the same period 2016;
- EUR 34,46 billion - which was an increase of 13.0% compared to the same period 2016.

Besides relying on its own capacity, growth and development of Serbian economy depends on the market conditions in EU countries, as main foreign trade partners that influence the Serbian Public Debt.

Economy Policy

The economy policy is extremely important for the determination of a policy for the Serbian Public Debt. In fat the state acts as a market participant, realising the said role through the implementation of economic policy measures. The holders of economic policy are state institutions, whereas the basic types of economic policy are: fiscal, monetary, international trade and public debt policy.

The fiscal policy is implemented by the Government of the Republic of Serbia, i.e. the Ministry of Finance. Fiscal policy aims at management of public revenues and public expenditures at the state level, with the aim of achieving their balance. The fiscal policy may be expansive and restrictive, depending on whether fiscal rates are being decreased and public consumption increased or interest rates increased and the public consumption decreased. The Republic of Serbia is leading an expansive policy, having low tax rates (the VAT rate is amongst the lowest in Europe, general VAT rate amounting to 20% and special VAT rate amounting to 8%) and increased public consumption (social benefits and subsidies).

The monetary policy of the state is led by the National Bank of Serbia, being the central bank. The monetary policy is implemented through the measures relating to the management of interest rates, money supply and intervention on foreign-exchange market, having as the basic objective stability of prices. The monetary policy may be expansive and restrictive, depending on whether the money supply is increased or interest rates are decreased. The National Bank of Serbia leads restrictive monetary policy, with the projected inflation for the year 2017 amounting to 3.0 +/- 1.5%. The exchange rate regime is a managed float regime, i.e. it is formed on the basis of demand and offer in terms of currencies, with the National Bank having the right to intervene on the foreign-exchange market so as to prevent high daily fluctuations.

The Republic of Serbia is dependent on international trade, primarily owing to deficiencies of natural energy resources (oil and natural gas), and impossibility to settle domestic demand by domestic debt. Owing to this, there is a high foreign trade deficit, decreasing in recent years. Serbia is the Member of Central European Free Trade Agreement (CEFTA), realizing a positive foreign trade balance. Trade agreements signed with the European Union, Russian Federation and Turkey are especially important for Serbia. The customs policy of Serbia is getting less important, owing to the fact that the country strives to the membership in the European Union. EU Member States are the main foreign trade partners to Serbia, implying that customs duties have to be decreased owing to the implementation of the Trade Agreement. Endeavouring to obtain a full-fledged membership in the World Trade Organization imposes similar obligations to Serbia. International trade of the Republic of Serbia is becoming increasingly important also owing to the implementation of the new model of economic growth and development, which is based on the increase of exports (export oriented growth model).

In conclusion the public debt policy is within the competence of the Ministry of Finance, i.e. the Public Debt Administration, being a separate administrative authority. The borrowing is executed through the issuance of state securities and contracting loan agreements both in the domestic and the foreign market. Financial resources collected in this manner may be used for covering budget deficit, financing infrastructural projects, debt servicing, procurement of assets etc. The institution competent for public debt policy is obliged to execute its duties in accordance with the situation in the market (interest rates, exchange rate, projections) in the most optimum way possible.

Public Finance

Public Finance is one of the most important action by the Government that can influence the Public Debt of Serbia. In accordance with the Constitution in fact, the Serbian economy is represented as a market economy, with an open and free market and free entrepreneurship. It is characterised by independence of economic operators and equality of private and other types of assets.

The assets may be private, cooperative and public. Public assets are divided into state assets, assets of the autonomous province and assets pertaining to local self-government units. State property, presenting a form of public property, encompasses natural resources, goods which are stipulated by the Law as goods of public interest, as well as assets used by state authorities of the Republic of Serbia.

Public finance presents financial activities of the state and other public legal entities being entrusted the role of collecting and spending financial resources in order to attain goals beneficial to everyone.

The state performs its financial function through the public finance system with the aim of satisfying certain public needs and provision of funds to finance mentioned needs. The public finance system can also be divided into the system of public revenues and public expenditures. Public revenues are divided into tax and non-tax revenues, presenting funds collected owing to the system of taxes (property taxes, personal income taxes, consumption taxes, corporate income taxes), customs duties, excise duties, taxes, benefits and other resources. Public needs are financed by the means of expenditures. Those needs may be administrative, security, social, economic, cultural and other extraordinary needs.

The system of proceeds and outflows should be separated from the system of revenues and expenditures. Proceeds are composed of public debt proceeds (through state securities and loans) and sale of assets, whereas outflows are composed of outlays, deriving from the execution of public debt service and acquisition of assets. All public revenues and expenditures, i.e. proceeds and outflows are presented in the budget, being the basic public finance institution.

The budget presents an annual plan of revenues and expenditures, which is developed and adopted in accordance with the legal procedure, usually at the end of the year for the following year. It is drawn up by the Ministry of Finance (Budget Department), adopted by the Government and submitted by the National Assembly for public discussion. After the public discussion, it should be approved by the majority of deputies. The budget is adopted in the same way as a Law.

The collection of revenues and financing of expenditures according to the budget plan is called budget execution being within the competence of the Treasury Administration of the Republic of Serbia. If the planned framework is not realized, i.e. there was a budget breakthrough, the budget has to be revised, i.e. the Law on Budget has to be amended. In case there is the deficiency of revenues over expenditures at the end of the year, we deal with a budget deficit, whereas in the opposite situation, we deal with a budget surplus. The deficit may be financed by the sale of state assets, or borrowing on the domestic or foreign market, which is within the competence of the Public Debt Administration.

In conclusion the most acceptable situation for the budget in terms of the Serbian Public Debt is to be balanced, i.e. to collect during the year the amount of funds needed for financing yearly public revenues, implying there is no deficit, whose occasional coverage may cost state a lot, and there is no surplus, implying that more funds than necessary have been taken from the economy and citizens.

1.4. Economic Drivers Of Public Debt Dynamics (Fiscal Balance, Excange Rates, GDP dynamics, Interest rate)

Fiscal Balance and GDP Dynamics

In this section of my thesis I explain the main economic drivers of the Public Debt Dynamics. In late 2010 the National Assembly of Serbia adopted the Amendments to the Budget System Law which introduced numerical fiscal rules and stipulates the establishment of Fiscal Council as one of the main economic driver of the Serbian Public Debt. Numerical rules were introduced for total public debt, deficit, as well as for total wage and pension expenditures, as follows:

a) Total public debt, not including future restitution claims, shall not exceed 45% of GDP.

Public debt, according to this Law, includes all the direct government debt and all issued general government guarantees, whether called or not. The Law stipulates that if the public debt ceiling is compromised, the Government has to submit to the Parliament (as part of the budget documentation) The Program on Debt Reduction.

b) Deficit rule is defined by a following formula:

c) $dt = dt-1 - a(dt-1-d^*)-b(gt-g^*)$ (The deficit is question is consolidated public deficit that incudes general government budget, autonomous provinces budgets, local authorities' budgets and the public funds (health insurance, pension insurance and social security).

One of the main characteristics of a good rule is that it is clear and that it is easily observable whether the rule is violated or not. That is not the case with the Serbian deficit rule. It requires certain level of knowledge of mathematics even to understand what the formula means, let alone to actually calculate the allowed deficit. So, general public, media and politicians almost

$$dt = dt-1 - 0.3(dt-1-1\%) - 0.4(gt - 4\%)$$

d) The Law also introduced indexation rules (effective "freezing") for public sector wages and pension for 2011 – 2015 period, as a measure to control fiscal expenditures. It also stipulates that these rules shall also apply in post 2015 period, until share of pensions in GDP drops below 10% and share of wages in GDP drops below 8%.

The Law also specifies an important exception for capital expenditures, i.e. public investments – if the share of capital expenditures is above 4% of GDP (in 2011) or above 5% (in 2012 – 2015 period), the part above that threshold shall not be counted as deficit, but not more than 2% of GDP in total: further complication of the rule.
The Law was amended 9 times since 2010 (which is a vivid example of the time consistency problem, as most of the changes included wage and pension increases), but key rules, on debt and deficit, were not amended (as they did not, in fact, represent an obstacle anyway).

There are several flaws with the rules as defined:

a) Deficit rule is too complicated.

One of the main characteristics of a good rule is that it is clear and that it is easily observable whether the rule is violated or not. That is not the case with the Serbian deficit rule. It requires certain level of knowledge of mathematics even to understand

what the formula means, let alone to actually calculate the allowed deficit. So, general public, media and politicians almost completely ignored this rule in the public debate, as it is too complicated. All of the focus was on the debt rule, due to the fact that it is simple and straightforward.

b) Deficit rule is very difficult to implement as dt-1 and gt are forecasts, not actual/historic numbers.

Budget is usually prepared in autumn. That means that at the point when the main aggregates for the next year need to be defined (such as total deficit), the actual numbers for current year are still unknown. That means that parameter dt-1 is unknown and instead of using actual numbers the government has to use projections, i.e. to forecast future values. That also means that the government has substantial latitude in this process.

If revenues and expenditures were more or less stable during the year this would not necessarily present a problem. But since spending of some items in the last two or three months of the year are especially large (most notably for capital investments, but also for some goods and services), estimating exact deficit even at the central level is not easy, let alone estimating deficits at other levels (such as local level). For example, in 2015 the deficit in December alone was higher than in previous 11 months combined (similar situation also occurred in 2014, so this is not extraordinary situation).

Similarly, gt is also a projection. Since every 1 percentage point of deviation from the 4% long term growth rate allows additional 0.4% of GDP deficit, the Government has an incentive to project lower expected growth rate. On the other hand, this may balance the Government's incentive to project higher expected growth rate when forecasting revenues. Furthermore, as already pointed out, g* is just a speculation, with the deficit prone Government has an incentive to specify higher potential growth rate.

c) Debt ceiling was lacking credibility as at the time of adoption of the Law (October 2010) debt was already above 40% of GDP.

It is rather unclear why 45% ceiling was adopted at the point when public debt was already very close to the ceiling. Basically, the only way that could justify such a decision was if the Government was certain in the success of the pending Telekom privatisation and was certain that a large share of privatization proceeds will be used for reducing the debt and/or financing of the deficit without new spending. But, that privatisation never occurred, so this rule was breeched within a year after adoption. If this explanation is true that is testimony of myopic government who enacted debt ceiling rule only taking into account near-term future.

d) Two rules could be contradictory.

The Law does not resolve potential contradictions between the rules. For example, if the debt is at 43% of GDP, but deficit formula allows 4% deficit, is the maximum allowed deficit 4% (as deficit rule says) or 2% (which would be consistent with debt rule)?

e) Deficit numbers are easily manipulated

Budget accounting in Serbia is still cash based with unclear rules and practice which items should be treated as revenues/expenditures ("above the line") and which items should be treated as financing operations ("below the line"). That means that the government can easily hide the actual deficit by shifting spending below the line, or shifting some receipts as revenues above the line. For example, instead of giving a direct subsidy to a company (which would clearly be an expenditure), the government may either: a) take over some debt from the company and then repay the debt "below the line"; or even b) issue bonds and transfer them to the company (when they mature, the government "pays back the debt" below the line). These kinds of transactions became more frequent in the period after the fiscal rules were adopted and these transactions were recognized as expenditure only by the next government (which, therefore, not only did not suffer any political cost, but was actually able to shift additional blame to the previous government). Furthermore, many expenditures can easily be reclassified as capital expenditures and use the public investment by-pass provision for higher deficit to be allowed.

f) Debt rule does not clearly define when is the debt/GDP ratio calculated and what GDP should be taken into account.

Nominal GDP in Serbia is calculated and presented once per year, and it can take more than 12 months after the year is over for official numbers to be published. That means that current debt/GDP ratio always has to be based on some projection of GDP. That is probably a problem on its own, but a more serious problem is that the Law does not stipulate which projections to use. For example, if the debt/GDP ratio is calculated on a monthly level in August 2015, which nominal GDP (growth) projections should be taken into account: a) 2015 calendar year; or b) most recent four quarters (July 2014 – June 2015)?

The Government has selected the easiest, the most convenient, but also the most deceptive mechanism, by using calendar year. For example, this means that without no new borrowing debt/GDP ratio falls from January 1st onward as the denominator becomes larger. This is the consequences of governments in principle projects positive economic growth, however it is sluggish. Nonetheless, with recession hits the country during the year, the debt/GDP ratio calculated in this way is higher than the actual debt ratio.

g) The most important flaw of the Serbian fiscal rules was that they were defined by a Law.

An ordinary law simply cannot limit the power of the National Assembly, as it can adopt any legislation which is in accordance with the Constitution. For example, although Budget System Law defined that the deficit cannot be higher than some formula-defined level (for example, 3% of GDP), the Parliament can still adopt the annual budget which envisages a deficit of 4% per year, and there is hardly anything that can been done about it. In that sense, any numerical fiscal rule defined by the Law simply cannot be effectively enforced and therefore represents only a wishful thinking, not a legally binding constraint.

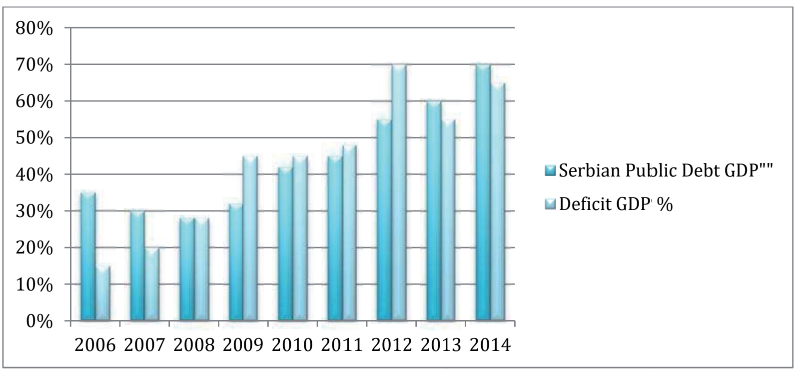
Not surprisingly, the effects of the Serbian numerical fiscal rules were negligible, if any. The following graph shows the dynamics of total sovereign debt and public deficit (right scale), while the vertical line shows the time when the numerical fiscal rules were introduced – not just that deficit was not reduced, but has actually increased after the adoption of the law, resulting in continuous increase of the public debt.

In the table 1 I show the consolidated fiscal deficit and Public debt in Serbia in terms of percentual GDP.

Table 1 – Consolidated Fiscal Deficit and Public Debt in Serbia (as % of GDP).

Years	Debt/GDP Percentual	Deficit/GDP (Percentual)
2006	35%	15%
2007	30%	20%
2008	28%	28%
2009	32%	45%
2010	42%	45%
2011	45%	48%
2012	55%	70%
2013	60%	55%
2014	70%	65%

Figure 1 – Consolidated Fiscal Deficit and Public Debt in Serbia (as % of GDP) andament.



From the Figure 1 we can see that in 2006 the Serbian Public Debt as percentual of GDP is higher than the Deficit in percentual of GDP. Ti 2008. From 2008 to 2012 the period of the International Financial Crisis the level of Deficit in percentual of GDP was higher than the Serbian Public Debt in percentual of GDP. This fact is due by the condition that in the priod of crisis the Serbian Government as main fiscal policy to respond of the International Fiancial Crisis increase the level of deficit and reduce the level of the Public Debt.

1.5. Fiscal Rules and Public Debt in Managemenent

Numerical Fiscal Rules in Serbia

In this section I talk about the Fiscal Rules in Serbia as determinants of the Serbian Public Debt. Depending on the extent to which they constrain the Serbian government in the conduct of fiscal policy, there are hard and soft fiscal rules. Hard rules are those which are established by the Constitution or by law and establish clear limits, although they do not have to completely eliminate the possibility of discretionary fiscal policy (Ayusion-i-Casalas et al., 2007). On the other hand, numerical rules could be soft rules, based just on political declarations and essentially non- binding agreement between political actors (for example, the coalition agreement, or expose of the new prime minister). These rules can also help to establish budget discipline, but they are usually considered to have less power.

There is also a sceptical view of the numerical fiscal rules. Von Hagen (2005) believes that numerical fiscal rules can be harmful if not followed by the right intention to bring public finances in order. On the other hand, if there is a real intention, then the fiscal rules are of secondary importance. Wyplosz (2002) suggests that very strict rules may impede the conduct of fiscal policy to such an extent that they become counterproductive. Von Hagen and Wolff (2004) have dealt with the issue of to what extent rules are implementable and effective, drawing attention to “creative” accounting that may effectively bypass the rules.

According to Kopits and Symansky (1998), the ideal fiscal rules should have the following characteristics: well-defined, transparent, simple, sufficiently flexible, in line with the ultimate goal, appropriate, and consistent and in accordance with the planned structural reforms. The authors believe that there are obvious trade-offs between these desirable characteristics, for example between flexibility and feasibility. The right balance should be found. Inman and Bohn (1996) in their review of the debt and the deficit in the American states suggested the following four characteristics of good fiscal rules: the appropriate moment to verify compliance with the rule (beginning or end of the year), it should not be difficult to verify if the rule is violated by being circumvented, strong enforcement mechanism and that rule cannot easily be changed, but only in exceptional situations.

Political economy of fiscal rules should be taken into account because it is expected from politicians, who want to spend the other people's money on their constituency, to self-impose the rules. Even if they impose the rules during economic boom, there is nothing that prevents the rule changes again when recession hits. It also requires that voters are sufficiently aware and well-informed to subsequently punish fiscally irresponsible government. But, as demonstrated by Caplan (2007) this is rarely the case, because economic issues in general are often of secondary importance to voters, let alone the details of fiscal policy. Especially if the rules are too complicated to be understood by voters and if there is room for interpretation of what happened.

Generally, if the rules are well designed and implemented, they can remove the deficit bias, but the rules are largely disappointing in practice. One problem is with the time consistency of rules, because a situation can always arise in which the implementation of the rule is very expensive for the political leaders.

This means that the rule should be flexible enough to allow some discretion in exceptional circumstances, which means that it is important to define exceptions very precisely. Also, there is a trade-off between flexibility on one hand and whether the rule is simple and understandable to ordinary citizens on the other hand. For example, completely banning deficits is very clear and precise, but not only it limits discretion, it also directly imposes pro-cyclical fiscal policy. On the other hand, if requirements for a balanced budget over the business cycle is introduced, the rule suddenly becomes not only incomprehensible to ordinary citizens, but also de facto unenforceable because the correcting the deficit by the stage of the business cycle is very controversial area of macroeconomics and allows great latitude in decision-making.

Rules can be manipulated in other ways. For example, the government can always achieve balanced budget ex ante by making unrealistic revenue projections. Of course, it is possible to analyse ex post compliance with the rules, but then it is usually too late to do something from the legal standpoint.

A good balance between the rule being effective and being complicated/ understandable is one of the key conditions for the rule be successful. On the one hand, the rule should make economic sense, as to have beneficial impact to national economy, in order to have the support of voters and their elected representatives – politicians. But, on the other hand, the rule should be clear and simple and it should be easy to monitor its implementation and to reduce the scope for discretion and manipulation. The optimal balance between the two features probably depends primarily on the institutional environment in which the rules are enforced, i.e. administrative capacity of the country, as well as the level of the local political awareness.

It is inevitable that as rules become more complex, they ceteris paribus become less and less clear and transparent, which means that monitoring the implementation becomes more difficult, and therefore undermines the incentives to decision makers to follow those rules. Complex rules also leave plenty of room for disagreement and discussion, which creates the opportunity for politicians to make discretionary decisions.

Essentially there are two concepts of rules regarding their enforcement. One is "hard" rules that are legal rules, and hence ultimately applied by the court, and the other kind are "soft" rules, which essentially boils down to monitoring and enforcement by the public (constituency and/or taxpayers), politicians (both those in power and those in opposition), but also by the financial markets which may, though not necessarily "punish" fiscally irresponsible government by increasing the costs of borrowing. In that sense, although Serbian fiscal rules are defined in the Law, they are effectively soft rules as their enforcement does not rely on courts.

Of course, there is a link between the strength of the rules ("hard" or "soft") and the extent how well they are developed. If the rule is soft, then it should be rather simple and not well developed, since we expect “penalty” for its violation is from not highly sophisticated voters and other politicians. If the rule is "hard", it is necessary that all details are prescribed, and it must be well developed, but then such a rule can lack transparency. For example, if the Constitution stipulates that the structural deficit cannot be higher than 3% of GDP, it is necessary to have a very detailed regulations about what is the meaning of the term "structural deficit", how it is calculated, i.e. how structural deficit is separated from the total, how GDP is calculated etc., so that the court can make a decision.

Regarding soft rules, it is obvious that the rule should not be "deficit must not be higher than 3% of GDP during the economic cycle" because for the general public is not clear what "over the economic cycle" means. In such a situation, the government can always claim that the economy is right now in a recession and that therefore additional fiscal stimulus is required, hence the higher deficit is needed. Since the issue of identification of stage of the business cycle is very controversial, even in the academic terms, let alone in the political arena, this rule is inappropriate and non-transparent.

There was a relatively simple rule in the European Union that the deficit must not be higher than 3% (one of the Maastricht criteria). However, many (both economists and politicians) have argued that such a rule was too rigid and that simply did not leave enough room for countercyclical fiscal policy in conditions in prolonged recession. That is one of reasons for moving from monitoring a simple deficit to "structurally adjusted deficit" that takes into account the stage of the business cycle. The goal is to solve the problem of rigidity, but at the expense of transparency, because it is undoubtedly very difficult to determine at what stage of the business cycle the economy is. During 2003, the European Commission has changed the methodology of calculating the deficit, but only after numerous conflicts and much confusion.

In this sense, perhaps "optimal level of complexity” should be considered, as the level that represents the optimal trade-off between complexity and transparency of rules, and that optimal level probably differs from country to country, depending on the institutional environment in which it is implemented. More complex rules are likely more favourable for countries where the institutional development level is higher, while the simpler rules are probably more suitable for institutionally less developed countries, with small administrative capacity. For example, if there is a widespread suspicion in an institution that collects economic statistics, a complex rule, which takes into account the phase of the business cycle will simply not be credible.

So, if the rules are difficult to implement due to low administrative capacity, then it is necessary that they are simple. On the other hand, when the administrative capacity allows for the implementation of the rules, then they can, but not necessarily should, be more complex.

Public Debt Law and Management in Serbia

In this section I want to andalyze the Public Debt Manangement in terms of Public Debt Law in Serbia. In fact this Law regulates conditions, manner and procedure under which the Republic of Serbia (hereinafter referred to as: the Republic) may borrow; manner and procedure under which units of territorial autonomy and local self-government (hereinafter referred to as: local government), Republic Health Fund, Republic Pension and Disability Insurance Fund and Labor Market Agency (hereinafter referred to as: organization for compulsory social insurance), public companies and other domestic legal entities founded by the Republic (hereinafter referred to as: legal entities) may borrow, issuing guaranties of the Republic and manner and procedure for managing public debt and keeping public debt record.

As we know certain terms used in this Law have the following meaning:

1. Debt is a monetary obligation or liability for borrowed money;
2. Public Debt of the Republic is: Debt of the Republic, based on agreements concluded by the Republic; Debt of the Republic based on issuing securities (hereinafter referred to as: government securities); Debt of the Republic based on contracts/agreements according to which obligations of the Republic, pursuant to previously concluded agreements, have been rescheduled; Debt of the Republic,based on the guaranty issued by the Republic (here in after referred to as: guaranty); Debt of local government and legal entities indicated in Article 1 here of for which the Republic has issued guarantees.
3. Borrowing is taking loans and issuing government securities for covering budget deficit, liquidity deficit and public debt refinancing and investment project financing; as well as issuing guaranties and counter-guaranties;
4. GuarantyisacontingentliabilityoftheRepublictopayduebutunpaidfinancial liability in the event when local government or legal entity has failed to make payment when due;
5. Government securities are short-term and long-term securities issued by the Republic;
6. Financial institutions, in the sense of this law, are banks, insurance companies, broker-dealer associations, pension funds and investment funds;
7. Primary market is a market on which government securities are initially sold directly or through intermediaries;
8. Foreign currency is a currency of a foreign country;
9. Privileged information is information which is not publicly available but it is significant for determining price of government securities and the use of which may result in a financial benefit.

In fact according to the Public Debt Law, the legal basis for the borrowing of the Republic of Serbia, the public debt shall include all the direct liabilities of the Republic, based on borrowings, as well as the guarantees issued by the Republic of Serbia for public enterprises', local governments' and other legal persons` borrowings. The Republic may borrow in domestic or foreign currency, in order to finance budget deficit, current liquidity ratio deficit, to refinance an outstanding debt, to finance investment projects, and to assume liabilities based on the issued guarantees. The provisions of the Public Debt Law indicate that the public debt shall be an unconditional and и irrevocable liability of the Republic of Serbia with regard to the repayment of the principal, the interest and the remaining costs.

The basic principle of public debt management is the provision of regular servicing of the budgetary needs at the lowest possible costs and an acceptable level of risk.

For the purpose of formulation of the Public Debt Management Strategy a quantitative approach was used, by identifying possible restrictions through macroeconomic indicators, analysis of costs and risks and market conditions which affect the management of public debt. The analysis involved the use of financing instruments available in the domestic and international financial markets. The Public Debt Management Strategy is based on the principles that define the need for transparent and predictable process of borrowing with the permanent development of the government securities market and acceptable level of exposure to financial risks.

By analysing possible borrowing strategies, the World Bank model MTDS indicates that the borrowing structure that is based on dinar-denominated and euro-denominated securities issue represents the best option in terms of costs (risks). The borrowing strategy of the Republic of Serbia, applied in the last five years and based on the combination of financing from current resources and funds, mostly or partially from concessionary financing sources, showed that in situations when concessionary financing sources may be ensured, these funds should be used, because in this way, financing costs are reduced with an acceptable risk, which achieves the primary objective of public debt management. The situation on domestic and international financial market, successful implementation of fiscal consolidation measures, along with good coordination between fiscal and monetary policy in the last two years led to the significant decline in the borrowing in dinar- denominated and euro-denominated securities, as well as to the reduction of the risk premium for Serbian securities to the historical minimum. New framework of the analysis of possible borrowing strategies is based on the comparison between the strategy applied during the last five years and the strategies exclusively based on the market financial instruments denominated in dinars and in euros.

The fiscal strategy envisages the reduction of public debt of the general government level in the next period by 2020 at the level of 56.3% of GDP, in which case, in accordance with the Public Debt Management Guidelines defined by the World Bank and IMF, within the Public Debt Management Strategy, the stress- scenario analysis of the effects of the foreign currency exchange rate of the domestic currency (RSD) against the currencies in which the public debt of the Republic of Serbia is denominated, was conducted.

Significant progress has been made in the last five years in terms of increase in the average maturity of dinar-denominated securities and reduction of the costs of financing on the basis of this form of borrowing, which reduced the exposure to the refinancing risk. The Public Debt Management Strategy defines basic measures for further development of dinar-denominated securities market, because the development of this market shall create one of the necessary preconditions for raising the credit rating of the Republic of Serbia and reducing the exposure of the public debt to the foreign exchange risk. It is important to mention that in the mentioned period, the average coupon rate of dinar-denominated securities was reduced from 12.4% to 6.9%. Public Debt Management Strategy defines the basic measures for further continuing development of the market of dinar-denominated securities, since the development of this market shall create one of the necessary preconditions for increasing the credit rating of the Republic of Serbia and the reduction of the exposure of public debt to the foreign exchange risk.

Public Debt Balance and Structure in the period from 2014 to 30 September 2017 in Relation with the Public Debt Management in Serbia

In this section I define that at the end of September 2017, the total public debt of general government level was RSD 2,913.2 billion, i.e. 65.2% of GDP. That included RSD 2,651.7 billion of direct liabilities, RSD 220.1 billion of indirect liabilities, whereas RSD 41.0 billion referred to the non-guaranteed debt of local government units and RSD 389.6 million to non-guaranteed debt of PE „Roads of Serbia“.

1.6. Econometric analisys of public debt sustainabuility

PART TWO
Financial markets and public debt sustainability in Serbia. Period of Research PhD Thesis Abroad at University of Belgrade Faculty of Economics

CONCLUSIONS

The Serbian Government responses: Proposals for Serbia

In this section I explain the possible solutions and recommendations that the Governments can adopts. The recommendation that follows is based on a few observations on Serbia:

. (1) Law based numerical fiscal rules are not likely to be effective in Serbia as the National Assembly is not constrained to adopt new legislation that will undermine the rules and even amend the legislation that provides these rules. This is especially true because of the fact that political parties dominate the parliament, not MPs, which is inevitable consequence of the proportional representation in its pure form (one constituency and closed list) as is specified by the Constitution and election legislation.

. (2) Lack of well developed, efficient and independent civil service in Serbia, rendering the lack of administrative capacity needed for swift, efficient and impartial enforcement of the fiscal rules. Perhaps the most warring is the national statistical office well needed for enforcement of complicated fiscal rules. The Ministry of Finance administrative capacity is also low and unfortunately decreasing. Though the Fiscal Council contribution to sound public finances in Serbia is significant, that authority is still institutionally young and fragile.

. (3) Preferences of the Serbian constituency towards simple issues of political life over rather complicated, difficult to follow issues and those which are not perceived as something that directly influence welfare of the voter. Serbian median voter has rather limited capacity to absorb abundance of specific information dealing with the fiscal process its outcomes and the implication for long-term economic progress of the country and improved welfare of the voter himself/herself.

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According to the observation (1) Serbia should introduce constitutional constraints, i.e. numerical fiscal rules should be introduced to the Constitutions. Only technical details of enforcement of the fiscal rules should be stipulated by law.

According to the observations (2) and (3), the proposed rules must be simple, understandable and straightforward, with minimum of the latitude in their implementation. That limits the options for the main target of the fiscal control. One option is (consolidated) structural fiscal deficit, as total deficit is maybe not good target, due to the "straightjacket" it creates in the time of recession with limited opportunity for countercyclical fiscal policy. It has been demonstrated in the section four of the paper that Germany, Slovenia and Spain only target structural deficit as the fiscal rule.

Targeting structural fiscal deficit creates two methodological issues:

- Identifying the stage in the business cycle;
- Identifying one-off factors on both revenue and expenditure sides

Of course, all countries that apply targeting structural deficits face these problems, but there is a lack of administrative capacity of Serbian authorities in charge of fiscal policy making (primarily Ministry of Finance) and in charge of monitoring macroeconomic developments. Furthermore, these authorities are not independent from both executive and legislative government, creating a risk of their influence to the decisions about stage of the business cycle, for example, with substantial impact of the deficit that is within the numerical rules. The Constitutional court that will be in charge on enforcing these rules will inevitably base its decision on the calculations delivered by these authorities, and that would inevitable undermine the independence of the Constitutional Court.

The importance of the accurate identification of the structural deficit in Serbia is that the country can still expect relatively significant privatisation proceed, either from selling of state owned equity or assets. The privatisation proceeds are not considered to be fiscal revenue and are therefore only used for financing of the public deficit. This would imply that privatisation proceeds cannot be used for any additional budgetary expenditures. Nonetheless, the rule of the thumb would be that privatisation proceeds should not be used for expanding any of the recurring expenditures, i.e. entitlements (pensions, public sector wages, social programs, etc.), but they should be used exclusively or one-off expenditures, like public investments.

The alternative to the deficit rule is sovereign debt rule as a numerical fiscal rule, applied by Poland and Slovakia. This rule is very simple and straightforward as the debt-to-GDP ratio is a well-defined indicators, used by most countries for macroeconomic purposes and common in in debt sustainability analysis. Accordingly the level of the country sovereign debt measured as debt-to-GDP ratio should be the primary numerical fiscal rule.

The enforcement of such a numerical fiscal rule leaves some open methodological issues, most of them based on the classification of the sovereign debt, i.e. whether some obligation should be classified as sovereign debt. First of all, it is the status of sovereign guarantees. Current Serbian Public Debt Law treats all issued guarantees as public debt, even in cases when the borrower (usually a state owned enterprise) is perfectly capable of servicing the debt. In some other jurisdictions, only called guarantees are included in the debt. It should be recommended that Serbia should continue with a more conservative approach – all issued guarantees should be considered as public debt.

Furthermore, the deposit insurance creates obligations to the budget and these obligations must be serviced from the budget in the case of bank failure. Common contemporary practice is not to include insured deposits in the sovereign debt, though that insurance creates fiscal risk. The main difference between sovereign guarantees (that should be included in the debt) and deposits that are insured is that deposit insurance premium is paid to the Deposit Insurance Agency that is obliged to pay the insured amount of deposit to the depositor if the bank fails. Only if the insurance fund of the Agency is not enough for all insured deposits to be paid out, the government steps in and supplements the amount that should be paid to depositors. Although there is some fiscal risk in deposit insurance, the insured deposits should not be included in the sovereign debt. This attitude is already confirmed in the Public Debt Law and that law should not be amended regarding the status of insured deposits. However, once fiscal risk materializes (a bank fails) payments and liabilities arising from deposit insurance will "eat" part of the deficit and/or debt space.

Another methodological dilemma is the treatment of the PPPs. It can be expected that strict numerical fiscal rules will provide more incentives for the Government to enter the PPPs as a way to avoid direct debt increase. In that case the crucial question is the treatment of the risk, i.e. risk distribution between the public and the private partner. For example if there is a toll highway concession contract with the provision that the Government guarantees minimum traffic of 12,000 AAVPD, if the traffic is below the threshold, the Government is obliged to pay the difference of the toll, i.e. government debt is created. As in the case of deposit insurance, this kind of fiscal risk cannot be dealt with classifying it as a sovereign debt, if not for some other reason than for the reason that the figure of the debt is not available ex ante. Nonetheless, if the debt ceiling has already been reached, that these PPP contract (international or domestic) should not been ratified in the National Parliament, as they should be considered as violation of the fiscal rule. In they are ratified by a law, that law should be considered violation of the Constitution.

The fiscal rule that is consisted only of the permitted level (ceiling) of the sovereign debt to GDP ratio creates one huge fiscal risk and that is the risk of ample borrowing of fiscally irresponsible government when the level of the sovereign debt to GDP ratio is low. Accordingly the pace of the borrowing of fiscal irresponsible government should be checked and balanced. The best way to do than is to constrain annual "net new borrowing" of the government, i.e. annual "incremental debt" - the increase of the debt during the year. If net new borrowing is negative, the level of debt will decrease. Net new borrowing is not necessarily equal to the fiscal deficit, as there are one-off revenues (receipts) that are not classified as budgetary revenues like, for example, privatisation proceeds either from sale of capital or assents. With privatisation proceeds net new borrowing is lower than the total deficit.7

The new net borrowing limit should be specified in relation to the level of the debt to GDP ceiling and the proximity of the debt to that ceiling. If, for example, the debt to GDP ceiling is 80% than it is recommended to apply the following net new borrowing ceiling scheme.

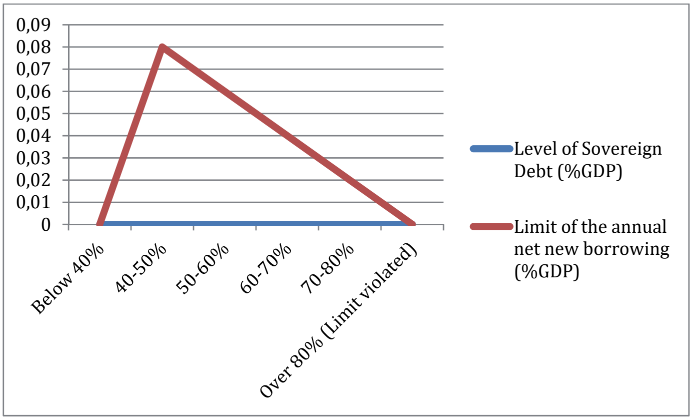
In the table 1 I show the possible limit of the net new borrowing for the Serbian Government from below to 40% of GDP to 70% of the level of sovereign debt (%GDP). In fact from below 40% of the level of sovereign debt we don't have limit of borrowing, between 40-50% of the level of sovereign debt we have 8% of the limit in terms of borrowing % of GDP, between 50-60% of the level of sovereign debt we have 6% of the limit in terms of borrowing % of GDP, between 60-70% of the level of sovereign debt we have 4% of the limit in terms of borrowing % of GDP, and between 70-80% of the level of sovereign debt we have 2% of the limit in terms of borrowing % of GDP, over 80% of the level of sovereign debt we have the condition of the limit of the sovereign debt is violated and the Government cannot set a new net borrowing.

In the figure 1 I show this andament of the table 1 where we can see that the best solution os a level of sovereign debt between 40 and 50% of GDP with the possibility of the Serbian borrowing of 8%.

Table 1 Limit of the Serbian Government of the annual net borrowing in % of GDP in relation of the Level of sovereign debt as (% GDP).

Level of Sovereign Debt (% GDP)	Limit of the annual net new borrowing (% GDP)
Below 40%	No limit
40-50%	8%
50-60%	6%
60-70%	4%
70-80%	2%
Over 80% (Limit violated)	No new net borrowing

Figure1 Limit of the Serbian Government of the annual net borrowing in % of GDP in relation of the Level of sovereign debt as (% GDP) andament.



This pattern of the changing of the limit for the annual net new borrowing produces the following outcome: if the Government indulges in the maximum amount of annual net borrowing every year, it takes five years to reach the ceiling of the debt-to-GDP ratio. That period is longer that the constitutional mandate of government.

Finally, the ceiling of the debt-to-GDP rule should have priority over annual net new borrowing rule for any ambiguity to be removed. That means that if the level of debt-to-GDP ratio is 79%, ceiling for the net new borrowing in that year is 1% of the GDP. The same effect can be made if both rules are cumulative condition for new net borrowing.

The issue of the specification of the concrete value of the ceiling for the level of debt-to-GDP ratio is beyond the scope of this. The 80% ceiling has been used only as an example for calculation of the decreasing ceiling for the annual new net borrowing. This issue is linked to the issue of debt sustainability and that issue is rather complex and not straightforward (IMF, 2013), as many factors should be taken into account. The best way forward would be that the Fiscal Council, as a part of the preparation of the proposal for changes the constitution specifies the ceiling of the debt-to-GDP ratio for Serbia.

The mechanism of the implementation is based on the Constitutional Court review of every piece of legislation that violates the recommended numerical fiscal rules. Fiscal Council could prepare the basic analysis providing information for the Constitutional Court review.

There is a possibility that ceiling of the debt-to-GDP ratio is violated for u number of reasons, which are not under direct Government controls, like:

- Change of the exchange rate of RSD as well as exchange rate among the currencies that the Serbian debt is consisted of.8
- Decrease of the GDP due to the recession.
- Decrease of the GDP due to its recalculation.
- Increase of the debt due to the activation of some governments obligation like deposit insurance, risk allocation in PPPs etc.

In all these cases, if the ceiling of the level of debt-to-GDP ratio is violated, any new net borrowing will violate the fiscal rules. But, as the cause for debt increase was not a direct Government and/or Parliament action, there is not action to be ruled unconstitutional,.

This structure of fiscal rules provide solid foundation for fiscal discipline. Nonetheless, it is evident that if the level of debt-to-GDP ratio is very close to the ceiling, the room for fiscal deficit as the ground for countercyclical fiscal policy is very limited. That insight should be considered within the following framework. First, this creates strong incentives for governments not to run huge fiscal deficits during the boom times and to leave the room for the deficit as demand management tool. Second, as there is still substantial value of state-owned capital and property, selling of that property in the time of recession can create fiscal expansion as the countercyclical policy. Finally, countercyclical fiscal policy in Serbia should not be overvalued and its impact should not be overestimated. It has been demonstrated (Petrović and Brčerević, 2014) that fiscal multiplier in Serbia is low, its impact rather negligible and the demand side for the growth should be net export (Petrović, 2011) rather than aggressive fiscal stance. Accordingly, the proposed solution provides for sufficient countercyclical fiscal policy in recession.

Conclusions

In this conclusion I want to define the recommendations for numerical fiscal rules in Serbia are based on the insights about inherent bias of fiscal policy towards expenditures and, because of that, continuous fiscal deficit and excessive sovereign debt. Hard numerical rules are superior to the soft for Serbia, because of the long tradition of substantial latitude of the Serbian legislators in the decision making process, especially budgeting. The rules should be simple and understandable, without much of the latitude in the implementation. Accordingly it is recommended that simple and straightforward numeric fiscal rules should be in introduced in the Constitution, i.e. that constitutional fiscal rules should be introduced in Serbia. There should be two cumulative numerical fiscal rule. The primary one about the ceiling of the sovereign debt and the secondary one about the ceiling on net new borrowing. Neither of the rules can be violated. The ceiling on the debt level should be predetermined by the Constitution. The ceiling on the new net borrowing should depend on the distance of the sovereign debt to the debt ceiling. An illustrative example with the debt ceiling of 80% is provided. Nonetheless, a specific sovereign debt ceiling as a part of constitutional amendments proposal should be specified by the Fiscal Council, taking into account projections of the fiscal deficit and debt sustainability analysis. Accordingly, this contribution remains silent on the specific constitutional debt ceiling for Serbia.