

# **quarterly monitor**

**OF ECONOMIC TRENDS AND POLICIES IN SERBIA**

**Issue 46 • July–September 2016**

**Belgrade, December 2016**

#### PUBLISHER

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# Analytical and Notation Conventions

## Values

The data is shown in the currency we believe best reflects relevant economic processes, regardless of the currency in which it is published or is in official use in the cited transactions. For example, the balance of payments is shown in euros as most flows in Serbia's international trade are valued in euros and because this comes closest to the measurement of real flows. Banks' credit activity is also shown in euros as it is thus indexed in the majority of cases, but is shown in dinars in analyses of monetary flows as the aim is to describe the generation of dinar aggregates.

## Definitions of Aggregates and Indices

When local use and international conventions differ, we attempt to use international definitions wherever applicable to facilitate comparison.

**Flows** – In monetary accounts, the original data is stocks. Flows are taken as balance changes between two periods.

**New Economy** – Enterprises formed through private initiative

**Traditional Economy** – Enterprises that are/were state-owned or public companies

**Y-O-Y Indices** – We are more inclined to use this index (growth rate) than is the case in local practice. Comparison with the same period in the previous year informs about the process absorbing the effect of all seasonal variations which occurred over the previous year, especially in the observed seasons, and raises the change measure to the annual level.

## Notations

**CPI** – Consumer Price Index

**Cumulative** – Refers to incremental changes of an aggregate in several periods within one year, from the beginning of that year.

**H** – Primary money (high-powered money)

**IPPI** – Industrial Producers Price Index

**M1** – Cash in circulation and dinar sight deposits

**M2 in dinars** – In accordance with IMF definition: cash in circulation, sight and time deposits in both dinars and foreign currency. The same as M2 in the accepted methodology in Serbia

**M2** – Cash in circulation, sight and time deposits in both dinars and foreign currency (in accordance with the IMF definition; the same as M3 in accepted methodology in Serbia)

**NDA** – Net Domestic Assets

**NFA** – Net Foreign Assets

**RPI** – Retail Price Index

**y-o-y** – Index or growth relative to the same period of the previous year

## Abbreviations

**CEFTA** – Central European Free Trade Agreement

**EU** – European Union

**FDI** – Foreign Direct Investment

**FFCD** – Frozen Foreign Currency Deposit

**FREN** – Foundation for the Advancement of Economics

**GDP** – Gross Domestic Product

**GVA** – Gross Value Added

**IMF** – International Monetary Fund

**LRS** – Loan for the Rebirth of Serbia

**MAT** – *Macroeconomic Analyses and Trends*, publication of the Belgrade Institute of Economics

**NES** – National Employment Service

**NIP** – National Investment Plan

**NBS** – National Bank of Serbia

**OECD** – Organization for Economic Cooperation and Development

**PRO** – Public Revenue Office

**Q1, Q2, Q3, Q4** – 1st, 2nd, 3rd, and 4th quarters of the year

**QM** – *Quarterly Monitor*

**SORS** – Statistical Office of the Republic of Serbia

**SDF** – Serbian Development Fund

**SEE** – South East Europe

**SEPC** – Serbian Electric Power Company

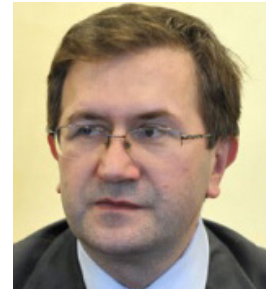
**SITC** – Standard International Trade Classification

**SME** – Small and Medium Enterprise

**VAT** – Value Added Tax

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## From the Editor



For the first time since 2008, Serbia has achieved a solid growth in economy, which is in fact widely spread over economic activities and is mostly generated in preferred manner- in investments and export. Serbia's economy growth in 2016 will amount to 2.5-3%, which is at a level of the expected average for the countries of Central and Eastern Europe of 2.7%. Although the growth of Serbian economy will be the highest in this year since the beginning of the crisis, it still reaches only a half of the average growth rate from the period of 2001-2008, and at the same time it is significantly lower than the growth some European countries such as Romania or Slovakia will achieve. High growth rates over an extended period of time are necessary in order to achieve a significant, and at the same time sustainable growth of the standard of living. As the average GDP growth of 6% in the period of 2001-2008 increased the average salary from 100 to almost 400 euros, thus the growth of 4-5% annually in the long term is essential for the future to significantly increase the standard of living. High growth rates are a must for Serbia to make up for a historic backlog over the next few decades and catch up with the developed European countries. However, unlike the pre-crisis period, when the growth was mostly generated by domestic demand, which led to high external and internal imbalances, sustainable economic growth in the future should be based primarily on investments and export, while domestic demand should increase more slowly than GDP.

The fact that Serbia is still in the process of reaching moderate growth rates and the Government representatives are announcing high growth rates in the coming years raises important question- whether and to what extent have the conditions for the long-term and sustainable growth of the Serbian economy been fulfilled? It is quite indisputable that in past years a significant progress was achieved in a number of areas that are important for the economic growth, but it is also quite certain that the situation in many areas is still unsatisfactory. A significant progress in strengthening macroeconomic stability has been achieved: inflation is low and stable, fiscal and external deficit have been significantly reduced, while public and external debt crisis risks have been eliminated for now. However, macroeconomic stability is still fragile and there are risks for the deficit to increase again due to the problems in part of non-privatized and non-restructured companies. Deficit could increase even if there is an excessive increase in spending or reduction in taxes. Although year 2000

achieved significant progress in establishing functioning market economy, the situation in many areas is still not favorable for economic growth. The judiciary and administration are inefficient, corruption is high, infrastructure is in poor condition, and quality of education is low and maladjusted to the economy needs... Therefore, it can be concluded that to achieve a long-term sustainable growth we need a number of reforms, as well as the insistence on fiscal consolidation. In the case of Serbia, the stimulus may come primarily from public investments into infrastructure and private investments into capacities intended for export. The growth of domestic current spending stimulates the economy growth, only under the condition that it is not excessive in relation to domestic demand.

The latest statistical information suggest to what extent the economic trends in Serbia are still unstable. After a high growth rate in the first quarter, the growth in industrial production and exports slowed down in Q2 and July, and the external deficit increased. It is therefore estimated that along with the reforms aiming to improve the economic ambient, there is also a need for a short-term stimulus to accelerate the economic growth.

Despite widespread doubts that existed in domestic professional and general public two years ago concerning the fact whether fiscal consolidation will achieve any kind of success, the results so far exceed the expectations of even the biggest optimists. Fiscal deficit in this year, even after the takeover and settlement of some emergent obligations, such as Petrohemija's obligations to Nis, will amount to about 2% of GDP. The deficit in this year will be lesser by more than 2/3 of the deficit achieved in 2014. While Serbia had a highest fiscal deficit in Europe in 2014, this year its deficit will be at the level of the average of EU member states. The stop of a growth of public debt in relation to GDP already in this year will be the result of a significant drop of a fiscal deficit. The results of fiscal consolidation are yet more favorable if one takes into account that the economy in the first year of fiscal consolidation achieved a modest growth, and that in this year it will reach a solid growth rate.

Although the austerity measures made key contribution to fiscal consolidation, the contribution of the improved tax collection becomes increasingly important. Tax revenues stagnated in real terms last year, while in this year it will increase by about 7% in real terms, which significantly exceeds the GDP growth and consumption. The growth

of tax revenues, above the growth of tax base, can be partly explained by the increase in tax rates (introduction of the excise duty on electricity), while markedly highest contribution came from combating the gray economy. The effect of suppression of the gray economy on tax collection existed even in the last year, but it was overshadowed by the fall in tax bases, especially consumption. It is estimated that on the basis of the gray economy suppression, tax revenues in the last year increased by 0.5% of GDP, and in this year on the same basis by over 1% of GDP. Based on this, it can be concluded that the gray economy in Serbia is at the moment at the historically lowest level, but a more detailed analysis suggests that the level of tax collection from 2012 is still not reached! This result is a consequence of the fact that there was a significant growth of the gray economy from late 2012 to mid-2014, which was one of the causes of the growth in fiscal deficit in that period.

A relevant question is therefore which are the causes of an increase in gray economy from late 2012 until mid-2014? Did gray economy increased due to an increase in tax rates, deterioration in the economy or reduced Tax Administration efficiency in their work? The impact of the increased tax rates on gray economy growth can quite likely be rejected as the tax collection has been increasing for two years at the same tax rates. Similarly, the growth in gray economy cannot be explained by the poor economy state as the growth in tax collection started in the mid-2014, immediately after the floods, when Serbia was in recession. Therefore, the reduction in efficiency in tax collection can be identified as the most likely cause of the growth in gray economy from late 2012 to mid 2014.

What happened during the aforementioned period with Tax Administration so the tax collection declined as much? During that period there was a reduction in Tax Administration work efficiency on several grounds, such as the shift of an experienced personnel and setting of the new ones without sufficient competence. A large number of managing positions remained vacant for a longer period of time, as the old directors were replaced, and the new ones had not been set yet, which led to a slowdown and blockade in decision-making. In addition, directors and tax inspectors obeyed the statements of the Government representatives and Tax Administration management, in which they were told that they need to rely on voluntary tax payments, wait for the introduction of modern cash registers, rather than to implement legal measures for tax collection and etc. From the mid-2014 the elimination of some major disruptions in the work of Tax Administration has been started- some personnel problems have been solved, punitive policy has been sharpened, enforced collection of claims has been implemented more resolutely, a number of inspectors participating in field control has been increased, some tax procedures have been simplified etc.

The experience with the collapse of Tax Administration and then with its recovery can serve to pull out more general lessons about the economic and political system in

Serbia. This experience shows the weakness of institutions in Serbia, how easily they give up law enforcement, the irresponsible leading of the personnel policy within them, as well as the strength of informal (illegal) impact on their work. Similar phenomena are present in other institutions, such as such as the judiciary, public administration, local government and others, but the consequences are less general there than in the case of Tax Administration. The growth of fiscal deficit and the risk of debt crisis prompted the government to implement harsh austerity measures, but also to improve the work of Tax Administration. Although Tax Administration in Serbia is still far from well-organized administrations that exist in developed countries, it was sufficient to implement some partial measures to significantly improve tax collection. If the systematic measures, such as improving of staff selection, establishing a modern organizational structure, additional simplification in tax procedures, better staff training, more efficient anti-corruption policy, more efficient cooperation with other governmental agencies and other, were implemented, the results would have been better. Even in the case of other institutions, the implementation of important partial measures could lead to a significant improvement in relatively short term, while the implementation of systematic measures would give even better and longer lasting results.

Labor Force Survey again contains information on the re-employment trends that are inconsistent with the movement of economic activity and tax revenues. According to the Survey, total employment in the second quarter grew by 6.7% or 174 thousand compared to the same period last year. At the same time the growth of formal employment is 2.7%, which is higher than data shown by the Central Registry (growth 0.1%), as well as the growth that would be expected on the basis of developments in economic activity and tax revenues, but the difference is still moving in the limits of statistical error. However, the growth of informal employment is as high as 23% (!?), which is in great discrepancy with the movement of economic activity and consumption. Additional doubt about the accuracy of data on the movement of non-formal, and hence total employment, is caused by the data from the Survey that most of the increase in informal employment was recorded in the agricultural sector and that it is 83 thousand or even 26% !? The total growth of formal and informal employment in agriculture amounted to 106 thousand (up 20%), which is not in accordance with the growth of total agricultural production, nor can it be explained by the changes in the structure of agricultural production or production technology. Finally, if one would believe in such strong employment growth in the overall economy, especially in agriculture, it would result in a large drop in productivity, which is unlikely. Therefore, we suggest that the published data on employment trends in the second quarter are checked in detail and adjusted to credibly maintain labor market trends.



# TRENDS

## 1. Review

At the end of the year, as a rule, we summarize the most important macroeconomic trends that marked the previous twelve months. Among them, by their significance, two particularly stand out. Economic activity finally “broke away” from years of stagnation – with growth of around 2.7% in 2016, GDP exceeded its level from 2008 and it is certain that it will continue to grow in the coming years. That GDP growth is significantly lower than the historical benchmark for Serbia (average GDP growth was 6% in 2002–2008 period), and it is lower also than the average of the neighbouring countries (3.5%) – however, it was achieved during the fiscal consolidation and in economically healthy and sustainable way, which constitutes a good basis for its further increase. Second important result refers to favourable fiscal trends and strong reduction of the government deficit to below 2% of GDP. That led to a slight decrease of the public debt to GDP ratio for the first time since 2008. Stopping the growth of public debt to GDP ratio is one of the crucial indicators of macroeconomic stabilization, as this eliminates the direct threat of crisis. However, the public debt is still too high, about 75% of GDP, so fiscal policy in the coming years will have to be very responsible and cautious. Beside these two particularly important results from 2016, the remaining macroeconomic developments could be assessed as mainly favourable. Inflation is extremely low and stable, the average price growth in 2016 was only slightly higher than 1%, which is perhaps too low for Serbia, as deflation was recorded in five months of 2016. Current account deficit continues to decline and is now at the level of about 4% of GDP, and employment is also slowly recovering, although probably much more modest than the latest data from the LFS show.

The achieved favourable macroeconomic trends are not only the result of domestic economic policies, but also favourable regional trends. This is indicated by the fact that along with Serbia three neighbouring countries (Bulgaria, Romania and Croatia) in 2016 positively surprised with significantly faster economic growth than expected, on average, by 0.9 p.p, which is the same as Serbia. External incentives to growth of economies in the region were provided by the global decline in oil prices, low interest rates for borrowing in euros and solid import growth of the Eurozone (3.5% in real terms). However, in order for favourable international trends to “raise” particular economy, domestic economic policies had to create the appropriate conditions. This is well-illustrated by the fact that countries with the internal problems, such as Bosnia and Herzegovina and Macedonia, this year did not benefit from the favourable international circumstances. Their economic growth even fell short of expectations. Probably the Serbian economy would not feel this favourable economic moment if the Government did not begin a program of macroeconomic stabilization at the end of 2014, which included politically very unpopular measures such as the reductions in pensions and salaries in the public sector. In addition, we should not forget important reforms to improve the Labour Law, the Law on Pension and Disability Insurance and the Law on Planning and Construction, and also an important guarantee of macroeconomic stability certainly is the concluded precautionary arrangement with the IMF.

It is, however, very dangerous to presume that job is completed with these measures and that it is now completely certain that Serbia’s economic growth will automatically continue to accelerate in the coming years with the improvement of other macroeconomic parameters. On the contrary, favourable international circumstances will not last forever and the Government has to recognize and take advantage of this good moment for addressing major structural problems of the domestic economy. Only in this way will it be possible for Serbia’s economic growth to continue to accelerate and to remain high even when the international situation is reversed – and this is, sooner or later, bound to happen. Unfortunately, the reforms almost stopped in 2016. Inefficient public sector, and within it, especially non-privatized state-owned enterprises continue to make

debt and thereby create fiscal risks. Also, there is no progress in reforming the health care and education, the judiciary is still very inefficient, the informal economy is widespread, but there are many other problems, which are in a little more detail explained in the section *From the Editor* of this QM issue. For all these reasons, 2017 could be a very important year for the long-term prospects of the domestic economy. In it we will see whether the Government will continue to implement a responsible fiscal policy and, most importantly, finally start implementing the most difficult reforms that were postponed for years - or will passively wait for the completion of the Arrangement with the IMF, satisfying with the achieved so far. The latter would have negative implications for long-term development of Serbia.

The growth of economic activity in Serbia in 2016 will be around 2.7%. We assess this as a good result, as economic activity continues to accelerate based on the economically sound and sustainable way - with a relatively strong investment growth of about 6% (see Section 2. "Economic Activity"). GDP growth in 2016, however, is still slightly lower than the average of the countries in the region, which is about 3.5%, but the Serbian economy is gradually catching up with this average. Additional approaching to regional trends is expected in 2017, which is predicted to have continued acceleration of economic growth in Serbia of 3%, and this prediction is also confirmed by the analysis of QM. Although at first glance GDP growth of 3% in 2017 seems only as slight acceleration compared to 2.7% in 2016, it should be borne in mind that during 2016 agriculture had a high growth (around 8%) due to the comparison with the dry 2015, which will not be repeated in 2017 - and so the planned acceleration of GDP growth is quite satisfactory. Another reason for satisfaction, if the forecasted growth is achieved, is that it is estimated that in 2017 rebalance of domestic economy will continue in the direction of further increase of investments and net exports, with a decrease in the share of personal and government consumption in GDP. For long-term sustainable high economic growth of over 4%, however, there is a need of a few more years of relatively strong increase in investment in order for their share in GDP to increase from the current 18.5% to about 25%. The Government could significantly contribute to this trend by improving investment environment and by continuing with policies that ensure macroeconomic stability.

Balance of payments trends continue to solidly improve in 2016. (see Section 4 "Balance of Payments and Foreign Trade"). Current account deficit will be reduced to only 4% of GDP, which is the lowest value in the last fifteen years. A high current account deficit in the period 2005-2008, which at one point exceeded 20% of GDP, was one of the largest and most dangerous macroeconomic imbalances in Serbia, which is why it is very important that this problem is now under control. It's also good that the current deficit reduction in 2016 is mainly based on high export growth of about 10% (with a slightly slower import growth of about 5%). These developments led to the increase of the coverage of imports by exports to almost 80%, and when we add the trade of services to the trade of goods (where Serbia has a positive balance in trade with the world), the coverage of imports by exports grows at over 85%. Also, it is very positive that this, reduced, current account deficit is completely covered by the healthiest capital inflow from abroad and foreign direct investments. In 2017, we expect the current account deficit to fall below 4% of GDP, while in the medium-term the objective of the economic policy should be the further gradual reduction, and then a surplus. Slower growth of domestic demand from the GDP growth, as well as maintaining the dinar exchange rate at a competitive level could play a key role in that. In the future the level of the current account deficit is likely to be positively affected by the assessed economic growth of the Eurozone and negatively by the initiated and expected rise in energy prices on the world market.

Inflation in 2016 was very low (see Section 5 "Prices and the Exchange Rate"). Average price increase will amount to 1.1-1.2%, which is the lowest average annual inflation since we have monitored it. Although the low and stable inflation is economically desirable, mild acceleration in inflation compared to its current level would be economically desirable, because it would avoid the risk of deflation - during 2016 there was a fall in prices in even five months. Also, it is not good for the credibility of NBS that inflation is below the target corridor for too long, and inflation was last time in the corridor of the NBS in February 2014. For all these reasons it is



acceptable to expect (and plan) mild acceleration of price growth in 2017. This will, along with (reasonable) lowering of the NBS target band at  $3 \pm 1.5\%$ , introduce inflation in early 2017 in the boundaries of the new corridor, in which it should be retained over a longer period.

Developments in the labour market in 2016 are gradually improving, but the true measure of these improvements is the growth of the registered employment of about 1%, which is monitored on the basis of the data from the Central Registry of Compulsory Social Security, and not, hardly possible, increase in the total employment of 6% shown by the Labour force Survey (LFS). Namely, the trends of the overall employment and unemployment measured by this survey in 2016, as in previous years, significantly differ from other macroeconomic and fiscal trends, which is why we express our doubt about their credibility (see Section 3 “Labour Market”). According to this survey, for several years there has been a strong growth in employment, well above the growth of production. Although at first glance, strong employment growth and reduced unemployment, as shown by the LFS, sounds like a positive economic trend, when put into the context of a much smaller increase of GDP implies a huge reduction in the average productivity since 2012 - which totally relativizes the previous assessment. This, apparently, did not happen, because exports in the reporting period had a very strong growth. In 2017 we expect a continuation of mild positive labour market developments and the (actual) employment growth of 1 to 1.5%. Real wages in 2016 recorded a growth of 2.5-3%, which is in line with movements in economic activity and it is likely that their growth in 2017 will continue at a similar pace as in 2016. Increase of wages in 2017 will be affected by the increase of the minimum wage as of January 1, but, on the other hand, a slight acceleration in inflation will affect their real decrease, so we expect that the real wage growth in 2017 will be around 3%.

From the fiscal standpoint in 2016 good and important results had been achieved (see Section 6 “Fiscal Flows and Policy”). The general government deficit will be below 2% of GDP, which is only half of the planned deficit for this year. Also, achieved level of deficit leads to halting of the growth of public debt to GDP ratio for the first time since 2008. This reduces the chances for a public debt crisis, which was a real danger two years ago. However, we should bear in mind that the public debt is still very high (74-75% of GDP) and that it is therefore necessary to significantly reduce it in order for Serbia to be closer to a sustainable level of public debt (below 40% of GDP) – and for this to happen a period longer than a decade will be required. Also, behind such large deficit reduction there are no savings on expenditures, but largely unplanned growth of income. The growth of tax revenues was mainly a result of the suppression of the grey economy and the consequent improvement of the collection rate, which we single out as one of the most positive fiscal flows in 2016 and a part of the increase in revenues is owed to better macroeconomic conditions. However, it is not certain whether a similar pace of increase of public revenues could be maintained and continued in the future - certain one-off payments from 2016 will certainly not be repeated in the coming years, and the increase in tax collection was achieved without the necessary reform of the Tax Administration, thus it is not certain whether this will continue. The bad thing in 2016 is that different public sector reforms are late and are being delayed for the next period.

Budget plans for 2017 envisage further stabilization of public finances and we expect that this will happen despite of the slow reforms. The stabilization is reflected primarily in planned relatively low general government deficit of 1.7% of GDP (75 billion), which will lead to further reduction of the public debt to GDP ratio. However, it is reasonable to observe such plans from another angle. Namely, for 2017 new significant savings are not planned - the only new measures of fiscal consolidation is the amendment of the Law on Local Government Financing, which will lead to a deficit reduction of only 5 billion. It can be therefore said that the fiscal plans for 2017 are essentially confirmation of the results achieved in 2016, as the budget deficit will be roughly equivalent to that which would be achieved in 2016. That is why such budget plan for the next year we consider as insufficiently decisive, especially bearing in mind that there is a risk of the re-increase of the public debt to cover losses due to the unreformed public and un-privatized state-owned enterprises, the introduction of discretionary measures aimed at reducing taxes or increasing expenditures, etc. Also, there are additional problems, such as the unsustainable

finances of some local governments, debts of health care institutions, lack of public investments, and there is a risk that after the ban on employing in the public sector is lifted vacancies created during the validity of this measure will be filled (just as, after the reduction of the employment in the general state it rose again in 2006, immediately after the departure of the IMF). All these factors indicate that the process of healing public finances in Serbia is not nearly finished and that fiscal consolidation should not end prematurely.

## Serbia: Selected Macroeconomic Indicators, 2006 - 2016

	Annual Data										2015			2016			
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Q1	Q2	Q3	Q4	Q1	Q2	Q3
<b>Economic Growth</b>																	
GDP (in billions of dinars)	2,055.2	2,355.1	2,744.9	2,880.1	3,067.2	3,407.6	3,584.2	3,876.4	3,908.5	4,043.5	...	...	...	...	...	...	...
Non-agricultural GVA	4.9	5.9	5.4	-3.1	0.6	1.4	-1	2.6	-1.8	0.8	-1.7	1.2	2.3	1.1	3.8	1.9	2.6
Industrial production	5.1	6.9	4.4	-3.3	0.2	1.5	1.1	1.6	-2.5	1.9	-1.9	2.7	3.7	2.2	4.1	1.7	2.1
Manufacturing	4.2	4.1	1.4	-12.6	2.5	2.2	-2.9	5.5	-6.5	8.2	-2.0	11.1	13.2	10.2	10.5	2.4	3.7
Average net wage (per month, in dinars <sup>2</sup> )	4.5	4.7	1.1	-16.1	3.9	0.4	-1.8	4.8	1.4	5.3	4.2	7.3	6.4	3.2	6.5	5.9	4.4
Registered Employment (in millions)	21,745	27,785	29,174	31,758	34,159	37,976	41,377	43,932	44,530	44,437	41,718	44,719	46,592	43,588	46,450	46,041	46,041
	2,028	1,998	1,997	1,901	1,805	1,866	1,865	1,864	1,845	1,990	1,977			1,978			
<b>Fiscal data</b>																	
Public Revenues	42.4	42.1	41.5	38.6	-1.5	-4.6	0.6	-3.0	3.2	3.1	6.9	3.5	4.5	-1.4	7.4	7.8	9.2
Public Expenditures	42.7	42.8	43.7	42.7	-1.7	3.3	3.6	-5.7	5.2	-3.2	-5.4	-3.8	-1.3	-2.6	5.7	4.9	2.3
Overall fiscal balance (GFS definition) <sup>3</sup>	-33.5	-58.2	-68.9	-121.8	-136.4	-158.2	-217.4	-178.7	-258.1	-149.1	-21.2	-14.2	-15.8	-98.0	-16.0	-2.2	13.8
<b>Balance of Payments</b>																	
Imports of goods <sup>4</sup>	-10,093	-12,858	-15,917	-11,096	-11,575	-13,614	-14,011	-14,674	-14,752	-15,350	-3,648	-3,869	-3,777	-4,057	-3,705	-4,230	-3,937
Exports of goods <sup>5</sup>	5,111	6,444	7,416	5,978	6,856	8,118	8,376	10,515	10,641	11,357	2,601	2,997	2,882	2,877	2,953	3,307	3,122
Current accounts <sup>5</sup>	-3,137	-4,994	-7,054	-2,084	-2,037	-3,656	-3,671	-2,098	-1,985	-1,577	-511	-279	-343	-445	-369	-271	-240
in % GDP <sup>6</sup>	-12.9	-17.2	-21.6	-7.2	-6.8	-10.9	-11.6	-6.1	-5.9	-4.8	-6.7	-3.2	-3.9	-5.2	-4.6	-3	-3
Capital account <sup>5</sup>	7,635	6,126	7,133	2,207	1,553	3,340	3,351	1,630	1,705	1,205	427	139	243	396	173	158	71
Foreign direct investments	4,348	1,942	1,824	1,372	1,133	3,320	753	1,298	1,236	1,804	339	441	510	514	459	374	438
NBS gross reserves (increase +)	4,240	941	-1,687	2,363	-929	1,801	-1,137	697	-1,797	166	111	-32	300	-213	-836	-317	332
<b>Monetary data</b>																	
NBS net own reserves <sup>8</sup>	302,783	400,195	475,110	578,791	489,847	606,834	656,347	757,689	788,293	931,320	854,636	858,972	902,526	931,320	884,093	846,969	899,959
NBS net own reserves <sup>8</sup> , in mn of euros	3,833	5,051	5,362	6,030	4,609	5,895	5,781	6,605	6,486	7,649	7,094	7,125	7,509	7,180	6,864	7,303	7,303
Credit to the non-government sector	609,171	842,512	1,126,111	1,306,224	1,660,870	1,784,237	1,958,084	1,870,916	1,927,668	1,982,974	1,919,958	1,918,917	1,929,573	1,982,974	1,961,626	2,005,537	2,044,160
FX deposits of households	260,661	381,687	413,766	565,294	730,846	775,600	909,912	933,839	998,277	1,014,260	1,004,948	1,010,179	995,123	1,014,260	1,027,439	1,048,123	1,053,841
M2 (y-o-y, real growth, in %)	30.6	27.8	2.9	9.8	1.3	2.7	-2.2	2.3	6.7	5.5	6.4	5.8	2.6	5.5	7.2	7.3	9.3
Credit to the non-government sector (y-o-y, real growth, in %)	10.3	24.9	25.2	5.2	13.9	0.5	-2.1	-8.3	1.2	1.4	3.7	2	0.7	1.4	1.6	4.2	5.2
Credit to the non-government sector, in % GDP	28.6	35.0	42.0	45.8	54.0	52.4	54.7	48.3	49.5	48.4	47.9	47.6	47.6	48.4	47.4	49.4	49.2
<b>Prices and the Exchange Rate</b>																	
Consumer Prices Index <sup>7</sup>	6.5	11.3	8.6	6.6	10.2	7.0	12.2	2.2	1.8	1.6	1.8	1.9	1.4	1.6	0.6	0.3	0.6
Real exchange rate dinar/euro (average 2005=100) <sup>8</sup>	92.1	83.9	78.5	83.9	88.0	80.43	85.3	80.2	81.8	83.1	83.8	83.0	82.6	83.2	83.48	84.31	84.08
Nominal exchange rate dinar/euro <sup>8</sup>	84.19	79.97	81.46	93.90	102.90	101.88	113.03	113.09	117.25	120.8	121.6	120.4	120.2	120.8	122.85	123.01	123.3

Source: FREN.

1) Unless indicated otherwise.

2) Data for 2008 represent adjusted figures based on a wider sample for calculating the average wage. Thus, the nominal wages for 2008 are comparable with nominal wages for 2009 and 2010, but are not comparable with previous years.

3) We monitor the overall fiscal result (overall fiscal balance according to GFS 2001) – Consolidated surplus/deficit adjusted for “budgetary lending” (lending minus repayment according to the old GFS).

4) The Statistical Office of the Republic of Serbia has changed its methodology for calculating foreign trade. As from 01/01/2010, in line with recommendations from the UN Statistics Department, Serbia started applying the general system of trade, which is a broader concept than the previous one, in order to better adjust to criteria given in the Balance of Payments and the System of National Accounts. A more detailed explanation is given in QM no. 20, Section 4, “Balance of Payments and Foreign Trade”.

5) The National Bank of Serbia changed its methodology for compiling the balance of payments in Q1 2008. This change in methodology has led to a lower current account deficit, and to a smaller capital account balance. A more detailed explanation is given in QM no. 12, Section 6, “Balance of Payments and Foreign Trade”.

6) The NBS net own reserves represent the difference between the NBS net foreign currency reserves and the sum of foreign currency deposits of commercial banks and of the foreign currency deposits of the government. More detailed explanations are given in the Section Monetary Flows and Policy.

7) Data for 2004, 2005 and 2006 are based on the Retail Prices Index. SORS has transferred to the calculation of the Consumer Price Index from 2007.

8) The calculation is based on 12-m averages for annual data, and the quarterly averages for quarterly data.

## 2. Economic Activity

The real y-o-y GDP growth in Q3 was 2.6%, which is at the average level of 2016. In the first three quarters, GDP grew by 2.7% compared to the same period of the last year, and it is now quite certain that the total GDP growth in 2016 will be about the same. The growth of economic activity of around 2.7% in 2016 is a good result, taking into account that there has been an acceleration compared to 2015, and that within the achieved GDP growth the increase in investment of about 6% is in the lead. However, international benchmarks show that Serbia still lags behind its neighbouring countries - average economic growth in the region in 2016 is about 3.5%, and also the structure of GDP in Serbia is still not satisfactory, because with low share of investment in GDP Serbia is the last in the entire Central and Eastern Europe. For 2017, the Government has predicted a further acceleration of GDP growth to 3%, and accordingly planned the budget. QM analysis shows that such trends in 2017 are likely and desirable, but that there are certain risks, such as possible global recovery in energy prices, which would not benefit the local economy. We recall, however, that the domestic economy is still in the process of rebalancing and the changes in the structure of GDP in the direction of further increasing of investment and net exports and the decrease in the share of personal and government consumption are more important than the rate of growth in one year. For a long-term sustainable high economic growth of over 4% it is necessary that the share of investment in GDP is about 25%, and in Serbia, after two years of somewhat faster investment growth, this share in 2016 is only about 18.5%. A few more years of relatively strong increase in investment (growth of 5-10%) is therefore needed in order to create conditions for long-term high economic growth. The Government could contribute significantly to this trend by improving its investment environment and ensuring macroeconomic stability.

### Gross Domestic Product

**Y-o-y growth of GDP in Q3 2.6%, and in 2017 approximately 2.7%**

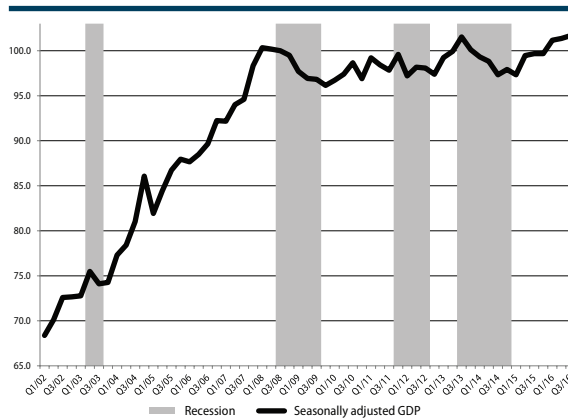
According to the SORS estimates, annual GDP growth in Q3 was 2.6%, which is at the average growth level recorded in the first half of the year. Also, the structure of economic growth in Q3, observed by both expenditure and production components of GDP, does not deviate significantly from the average of the first two quarters, so we can conclude that in Q3 main trends of economic activities established in the first half of 2016 were stabilized. As there were no major surprises in Q3, it confirms our outlook set forth in prior editions of QM that GDP growth in 2016 will amount to 2.5-3%. Namely, after the first three quarters of 2016 recorded GDP growth, when compared to the same period of the previous year, amounted to 2.7%. This growth could change in the last quarter only if some unusually big changes of GDP occur or in the case of more significant revisions of previously published data. Since none of that is expected for now we can, with greater certainty than before, forecast that GDP growth in 2016 will be around 2.7%.

**Seasonally adjusted GDP higher by 0.3% compared to Q2**

Seasonally adjusted GDP indices show current trends of economic activity on a quarterly basis somewhat more reliably than the y-o-y indices. Seasonally adjusted GDP growth in Q3 compared to Q2 amounted to 0.3%, which is somewhat less than the usual seasonally adjusted growth in the previous year, but is still within the expected values. So this indicator, in principle, suggests that there were no excessive deviations from the previously established trends in Q3 (and confirms our assessment based on the y-o-y index). This is shown even better in Graph T2-1 which presents a longer series of seasonally adjusted GDP growth (shaded periods are recession-rated based on the Bry-Boschan procedure). Observing the chart trend of seasonally adjusted GDP, it can be seen that the economic activity in Q3 rose slightly milder compared to the trend of economic recovery, which was established in mid-2015, but these were most probably normal fluctuations in the upward trend of seasonally adjusted GDP.

*Finally, pre-crisis level of production is permanently surpassed*

**Graph T2-1. Serbia: Seasonally adjusted GDP growth, 2002-2016 (2008 = 100)**



Source: QM estimates based on SORS

Graph 1 shows that, after the first wave of the crisis from the second half of 2008, the economy was not able to establish a lasting recovery path, and exit its long stagnation. Episodes of GDP growth were interrupted by recessions, and after 2008/2009 there were two of them. Consequently, the level of economic activity from 2008 could not be sustainably surpassed even seven years after the outbreak of the crisis. However, the mid-2015 saw a start of the recovery of economic activity that we, unlike previous episodes, rated as sustainable. The GDP growth in 2015 was widespread by economic activity, and the main drivers of the growth were investments and exports, which was not the

case in other, temporary episodes of the recovery. This, with relatively favourable regional trends, suggested that this time growth will be permanent in nature. Data on GDP trends since mid-2015, until the last available data for Q3 2016 favour this conclusion. It's been a year and a half since the beginning of the recovery, but economic growth is still looking quite stable. Therefore, we estimate that the level of production from 2008 was, in mid-2016, finally permanently surpassed, and a direct consequence of these trends is the fact that Q3 achieved the highest (seasonally adjusted) level of production since we have monitored GDP data in QM.

*GDP growth trend in 2016, with which we enters 2017 is still lower than 2.7%, and amounts to about 2%*

When seasonally adjusted data from the previous two years are “cleansed” from one-off factors (drainage of flooded coal mines, agriculture), the lasting trends of economic activity are revealed. Thus, the “clean” data suggest that the pace of GDP growth in 2016 is actually lower than 2.7%, and that it is little over 2%. This conclusion can be reached from two angles. Average quarterly seasonally adjusted GDP growth (practically since the second half of 2015) amounted to just over 0.5%, or about 2.1% per year, which means that this is approximately the trend of GDP growth with which we will enter 2017. We could conclude a similar thing in an easier way, if we exclude agriculture from the results of economic activity in 2016, which in 2016 recovered from the drought from 2015, causing temporary high growth of around 8%. The conclusion which we made, that we enter 2017 with GDP growth trend of around 2%, indicates that to achieve the GDP growth rate in 2017 of 3%, which Government forecasts, it would, however, be necessary to have greater acceleration of economic growth than it might seem at first sight - when the 3% growth expected in 2017 is compared with growth of 2.7%, which is likely to be realized in 2016.

*Investment and net exports leading the achieved GDP growth*

The structure of the achieved GDP growth in Q3, as well as in the whole 2016, according to use (Table T2-2), is in the principle favourable - investment and net exports are growing faster than GDP growth, while government and consumer spending are growing slower. The most positive trend in Q3 is certainly a relatively high annual investment growth of 6.2%, which occurred after a minor slowdown in Q2. Another very good indicator in Q3 is that a double-digit growth in exports continues, which is the case for nearly two years. Unlike Q2, when the real import growth of over 11% was slightly faster than the growth of exports, and net exports was negative, imports in Q3 slowed down to about 6%, causing net exports in Q3 to make a positive contribution to y-o-y GDP growth. Finally, in Q3 private and government spending, although they have a positive y-o-y real growth, they are mildly slowing their growth compared to Q2. This, however, suggests that the results of Q2 were uncommon (real growth in government spending of 4%, for example), rather than there were some significant changes in Q3.

**Table T2-2. Serbia: GDP by expenditure method, 2009-2016**

	Y-o-y indices														
	2009	2010	2011	2012	2013	2014	2015	2015				2016			Share 2015
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	
GDP	96.9	100.6	101.4	99.0	102.6	98.2	100.8	98.3	101.2	102.3	101.1	103.8	101.9	102.6	100.0
Private consumption	99.4	99.4	100.9	98.2	99.4	98.7	100.5	100.9	99.9	100.5	100.5	100.9	101.0	100.5	74.7
State consumption	100.6	100.8	101.1	102.4	98.9	99.4	98.5	95.8	96.8	100.4	100.7	102.6	104.0	101.2	16.2
Investment	77.5	93.5	104.6	113.2	88.0	96.4	105.6	102.8	106.0	108.2	104.9	106.9	104.4	106.2	18.9
Export	93.1	115.0	105.0	100.8	121.3	105.7	110.2	112.9	110.8	110.2	107.4	112.2	111.0	110.5	46.7
Import	80.4	104.4	107.9	101.4	105.0	105.6	109.3	114.2	107.0	108.8	108.0	105.0	111.3	105.9	56.4

Source: SORS

Note: The investment includes changes in inventories. Without this, the share of investment in GDP in 2015 would be 17.7%

**Agriculture and construction are the fastest growing activities in 2016.**

Significant changes in Q3 compared to previous quarters are not evident even when GDP is observed by activity (Table T2-3). The key growth drivers are still agriculture (which is compared to the dry year of 2015) and construction, and these are the only two sectors of the economy, which in Q3 have high annual growth of about 10%. The growth of the remaining activities is relatively stable at between 1 and 4%. Although in Q3 there are no major changes in the structure of growth by sectors compared to Q2, perhaps a slight recovery of industry which in Q2 recorded y-o-y decline is noteworthy. However, in this case the cause for such trends should be sought in Q2, rather than in Q3. The reason for the slowdown of industry in Q2 mainly lies in the temporary y-o-y decline in electricity production which is compared to the unusually high production from Q2 2015 (immediately after drying coal mines, a very high production of electricity for the summer period was established). When we take this factor into account as well, we see that in Q3 there was not a significant improvement in the trends of the industry, in fact, achieved growth in GVA of 1.2% (Table T2-3) was somewhat lower than expected, which will be closely explained in the section related to industrial production.

**Table T2-3. Serbia: Gross Domestic Product by Activity, 2009-2016<sup>1</sup>**

	2009	2010	2011	2012	2013	2014	2015	2015				2016			Share 2015
								Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Total	96.9	100.6	101.4	99.0	102.6	98.2	100.8	98.3	101.2	102.3	101.1	103.8	101.9	102.6	100.0
Taxes minus subsidies	98.6	99.5	101.1	97.8	98.9	99.2	100.9	102.0	99.8	101.0	100.8	101.1	101.8	100.3	16.0
Value Added at basic prices	96.6	100.8	101.5	99.2	103.3	98.0	100.7	97.5	101.5	102.5	101.2	104.3	101.9	103.0	84.0
Non agricultural Value Added	96.7	100.2	101.5	101.1	101.6	97.5	101.7	98.1	102.7	103.7	102.2	104.1	101.7	102.1	90.5 <sup>2)</sup>
Agriculture	95.2	106.4	100.9	82.7	120.9	102.0	92.3	91.4	90.1	93.9	93.2	107.1	104.0	110.9	9.5 <sup>2)</sup>
Industry	96.8	100.8	103.2	105.6	106.0	92.4	103.2	94.2	107.3	106.5	105.3	106.2	99.6	101.2	24.4 <sup>2)</sup>
Construction	87.1	97.6	105.9	90.2	96.1	98.5	102.7	89.4	108.8	109.2	101.2	112.9	107.8	108.5	5.2 <sup>2)</sup>
Trade, transport and tourism	92.9	100.0	99.5	99.3	102.3	101.1	102.2	101.6	101.3	103.6	102.4	105.6	103.0	103.7	18.4 <sup>2)</sup>
Informations and communications	97.0	103.2	102.6	102.8	99.9	96.1	101.7	99.3	102.7	104.0	100.7	102.4	102.3	101.9	5.1 <sup>2)</sup>
Financial sector and insurance	102.6	101.9	98.4	92.0	90.5	97.2	102.3	101.8	99.1	105.2	103.9	102.7	103.5	104.2	3.2 <sup>2)</sup>
Other	99.7	99.8	100.9	101.8	100.2	99.9	99.8	99.2	99.0	100.8	100.0	101.4	101.4	100.9	34.3 <sup>2)</sup>

Source: SORS

1) In the previous year's prices

2) Share in GVA

**GDP growth in Serbia is still below the regional average**

GDP growth in Serbia and its structure is undoubtedly favourable, because they sustainably pulled out the economy from years of stagnation. However, in order to have a complete picture of economic developments in Serbia, it is necessary to analyse them also in the regional context. We looked at all the neighbouring countries (Bulgaria, Romania, Hungary, Croatia, Bosnia and Herzegovina, Montenegro, Albania and Macedonia) and Table T2-4 shows the movement of their GDP in 2016. Based on the results achieved in the first three quarters of 2016 we can see that average (weighted) GDP growth of countries in the region in 2016 is 3.6%, and that all of the observed countries had growth rates of more than 2%. This indicates that the results of Serbia in 2016, although good, are not spectacular, as the region's economy is growing slightly faster. It is particularly interesting to compare the growth of GDP in Serbia and in Croatia because the growth rates of these two countries in the first three quarters of 2016 were identical (2.7% compared to the same period of the last year). Also for both countries at the beginning of the year, a similar GDP growth in 2016 of 1.8% (Serbia) and 1.9% (Croatia) was predicted. These data, along with the fact that other countries in the region during 2016 have recorded generally higher rates of growth than was originally predicted (Table T2-4), clearly indicate that the improving economic trends in 2016, is largely regional, not local, trend as it is related not only to Serbia.

**Table T2-4. The predicted and actual GDP growth in neighbouring countries and the share of investment in GDP**

	Q1-Q3_2016/ Q1-Q3_2015	Forecasted growth rates (beginning of the 2016)	Share of investment in GDP (2015)
Albania	3.2	3.4	24.6
Bulgaria	3.4	2.3	21.0
Bosnia and Herzegovina <sup>1)</sup>	2.0	3.0	18.3
Montenegro <sup>1)</sup>	3.0	4.7	19.0
Croatia	2.7	1.9	19.5
Hungary	2.1	2.3	21.7
Macedonia	2.7	3.6	23.1
Romania	4.9	4.2	24.7
<b>Weighted average</b>	<b>3.6</b>	<b>3.1</b>	<b>21.5</b>
Serbia	2.7	1.8	17.7

Sources: Eurostat and IMF

1) For Bosnia Herzegovina and Montenegro there are no data to Eurostat on current developments in economic activity and the share of investments in GDP, and for them we used the last assessment of the IMF (October), and available information of their national statistics

***Improvement in economic trends in Serbia is partly a consequence of regional trends***

In the previous analysis we have shown that an important part of reasons for somewhat better movement of economic activity in Serbia than expected probably came exogenously, as a consequence of regional trends. The reasons for this should be sought in: 1) low energy prices, which improved trade in the region and increased real spending; 2) low interest rates that are a result of the monetary policy of the ECB, which resulted in an increase in credit activity; and 3) the solid growth of imports of the countries of the Eurozone, which in the first three quarters of 2016 amounted to 3.5% (in real terms). It is good that dramatic changes in these factors are not foreseen in the coming period, which leaves a good perspective for regional growth. However, it should be borne in mind that part of the growth of GDP in Serbia which, by all accounts, came from the outside, can easily be reversed and start to slow down economic growth. It is therefore crucial that Serbia uses this favourable moment in the international environment for lasting healing of public finances (deficit reduction and debt restructuring or privatization of state and public companies), as well as for improving the investment environment, because investment in Serbia is insufficient. Only in this way the Serbian economy will be ready for the change of international situation, which will eventually have to happen in the future.

***Serbia holds a record in the low share of investments in GDP***

In addition, we presented one of the biggest structural problems of the domestic economy in Table T2-4 and that is inadequate investments. Observed by low share of investments in GDP, Serbia is the negative recorder among neighbouring countries. Even when we expand the observed pattern to all countries of Central and Eastern Europe, we will not find any country that has so low a share of investment in GDP as Serbia. For long-term sustainable economic growth higher than 4%, Serbia would have to have investments of around 25% of GDP, which means a third above the current level. The increase in investments will largely depend on the economic policy of the Government aimed at reforming the public sector, but also to increase the efficiency of the judiciary, simplifying and speeding up administrative procedures and licensing, control of corruption, reduction of gray economy and more. These reforms would help to increase the share of investments in GDP and ensure long-term sustainable and dynamic economic growth in Serbia regardless the movement of international factors.

***In 2017 we expect GDP growth rate of around 3%***

Current trends and expected movements of individual components of GDP (personal and government consumption, investments, imports and exports) indicate that the GDP growth in 2017 could amount to around 2.8%, which is close enough to the estimates which Government used while adopting the budget for 2017 (3%). We believe that the official forecast of GDP growth is generally good, although this growth is not yet guaranteed. The key assumption for GDP growth in 2017, but also for sustained acceleration in economic activity, is already mentioned increase in investments. Namely, for the forecast for GDP growth trends we used the assumption that investments will continue with the real growth in 2017 as in 2016, of about 6%, and similar growth is planned also by the Government in their forecasts (5.7%). On the one hand, if investment growth is faster, it is possible that the rate of GDP growth will be somewhat higher than

3%, which could happen, especially bearing in mind the announcement of the Chinese company Hest to launch a new investment cycle in the Smederevo steelworks factory. Investments are also a component of GDP which the government can positively influence through its reform policies, which is why economic decision makers have a great responsibility, not only in 2017 but also in the coming years to use good policies to affect permanent increase in GDP. Any attempt of the Government to accelerate GDP growth rate in 2017 by increasing private and government spending would give only temporary results, because effective limit to the growth of the Serbian economy is the low level of capital and the low level of international competitive capacity, rather than the low level of domestic demand. With this, some negative surprises are still possible which could reduce the anticipated growth of GDP in 2017. The biggest risk for economic growth in Serbia in 2017 is seen in a possible change of international factors (oil prices, global instability), and there are some specific local risks related, for example, to a significant decrease in car production of the company FAS (contract obligation of Fiat expires in 2018) and more.

## Industrial production

*Industrial production slightly accelerated y-o-y growth in Q3, but the overall trend is not entirely satisfactory*

In Q3, industrial production recorded an annual increase of 3.7% (Table T2-5), which represents a certain acceleration compared to the previous quarter, when growth was only 2.4%. However, this increase of the y-o-y growth rate hides some unfavourable trends. In fact, this acceleration was caused by the growth of mining and, in particular, the production of electricity. Mining in Q2 had a slight decline of about 1%, which was in Q3 transferred to a growth of 3.4%, and electricity production in Q2 had y-o-y decline of about 10%, and in Q3 had a growth of 2.1%. These changes are consequences of the fact that these two sectors were in Q2 temporarily compared with an unusually high production in Q2 2015, and not due to the real improvements in the trends of production. In fact, in the summer months it is common to overhaul power plants and to reduce production, which in Q2 2016 has happened. However, in Q2 2015, electricity production was unusually high for this time of year, because the capacities have already been rehabilitated during the floods when production was stopped. Therefore y-o-y indices in Q2 temporarily showed a significant decline, which is now lost. On the other hand, a more relevant assessment of the essential trends in industrial production is provided by a manufacturing industry, which in Q3 significantly reduced its annual growth from 5.9% in Q2 to 4.4% (Table T2-5).

**Table T2-5. Serbia: Industrial Production Indices, 2009-2016**

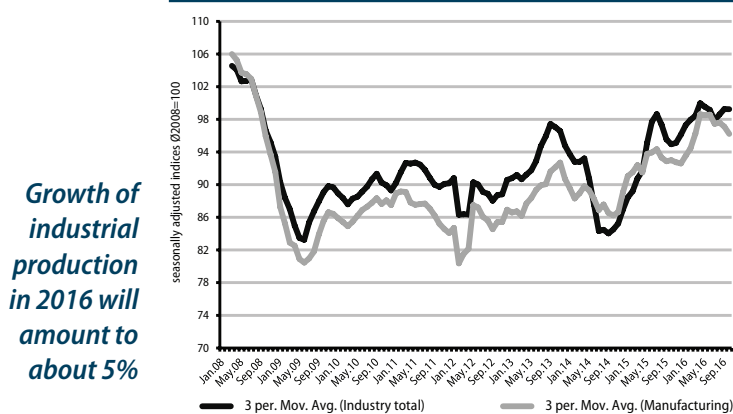
	Y-o-y indices													Share		
	2009	2010	2011	2012	2013	2014	2015	2015				2016			2015	
								Q1	Q2	Q3	Q4	Q1	Q2			Q3
Total	87.4	102.5	102.2	97.1	105.5	93.5	108.2	98.0	111.1	113.2	110.2	110.5	102.4	103.7	100.0	
Mining and quarrying	96.2	105.8	110.4	97.8	105.3	83.3	110.5	84.0	115.8	130.9	123.7	114.3	99.2	103.4	7.0	
Manufacturing	83.9	103.9	99.6	98.2	104.8	98.6	105.3	104.2	107.3	106.4	103.2	106.5	105.9	104.4	80.1	
Electricity, gas, and water supply	100.8	95.6	109.7	92.9	108.1	79.9	118.8	87.0	129.0	141.0	134.9	120.9	90.2	102.1	12.9	

Source: SORS

*Seasonally adjusted indices confirm the reduction in the manufacturing industry in Q3*

Short-term changes in the movement of industrial production and manufacturing industry (which is especially important, because it is not so much influenced by sector and temporary factors), can best be seen in the seasonally adjusted data. Graph T2-6 shows seasonally adjusted production indices of the total industry and particularly manufacturing industry, with the last available data for October 2016. In the graph we can observe two divergent trends which are suggested also by the annual indices. Mining and electricity production with their growth hold seasonally adjusted index of industrial production approximately unchanged compared to Q2, but manufacturing industry recorded solid seasonally adjusted decline (lighter line on the chart). Part of this worsening trend of manufacturing industry came as a result of some temporary factors (for example, production of petroleum products had a big decline due to the rehabilitation of facilities in NIS), but when we exclude these one-off factors there is no doubt that the trend of manufacturing industry is in decline. It remains to wait for the results of the remaining two months of 2016 in order to see whether a growing trend in the manufacturing industry will be

**Graph T2-6. Serbia: Seasonally Adjusted Industrial Production Indices, 2008-2016**



Source: SORS

re-established, similar to the one that lasted from mid-2015 to mid-2016, or the observed slowdown is of lasting nature. Developments in the remaining two months will not change the picture of industrial production from 2016, but are very important, because we enter the next year with them.

In the previous issue of QM we evaluated (divergent) trends in industrial production in the first two quarters and concluded that the actual pace of its growth in 2016 is about 5%, which was also our forecast of growth of industrial production for the year. The results achieved in the third quarter and October confirm this estimate, since in the first ten months of 2016 industrial production increased by 5.2% compared to the same period of the last year. It is interesting that the annual growth of manufacturing industry in the first ten months is identical to total industrial production growth (5.2%), although, viewed individually by months, total growth in industrial production and manufacturing industry were uncommonly very different. We entered last few months with slightly lower annual growth, but this will not significantly affect the results for the whole year. Annual industrial production growth of about 5% could be called satisfactory, but it would be very good if, as we have already pointed out, short-term trends with which we enter 2017 are upward.

Observed by use of industrial products, the only group that recorded a decline compared to Q2 of the last year is the energy production, and other groups had fairly balanced growth of 5-8% (Table T2-7). Energy production in Q3 reduced its decline compared to Q2, but is still in the zone of negative y-o-y growth. A more detailed analysis of trends in energy production indicates that the reason for the decline in Q3 was temporary (as it was and in Q2). The main reason for the y-o-y decline in Q3 was the rehabilitation of facilities at NIS. As a result production of petroleum products in September was temporarily almost completely stopped, i.e. production fell by over 80% compared to the same period of the last year. The positive trend in Q3 is the acceleration of growth in production of capital goods to 4.7% (y-o-y), which is primarily the result of growth of production of equipment. This special purpose group includes the production of cars, thus it is heavily influenced by the production of the company's FAS, which is why it had a predominantly negative growth rates in the previous year, although investment activity is growing in Serbia. In Q3 production in FAS only slightly reduced its y-o-y decline compared to Q2, and so that's not the main reason for the acceleration of the production of capital goods, which is why we indirectly conclude that the production of equipment accelerated. Finally, production of intermediate and consumer products recorded a growth approximately in line with the trends from the previous quarters (Table T2-7).

**Table T2-7. Serbia: Components of Industrial Production by Use, 2009-2016**

	Y-o-y indices													
	2009	2010	2011	2012	2013	2014	2015	2015				2016		
								Q1	Q2	Q3	Q4	Q1	Q2	Q3
Total	87.4	102.5	102.1	97.1	105.5	93.5	108.2	98.0	111.1	113.2	110.2	110.5	102.4	103.7
Energy	98.8	97.7	106.2	93.6	113.2	82.6	116.9	88.5	124.1	141.7	129.8	118.3	94.3	96.5
Investment goods	79.3	93.6	103.2	103.8	127.6	95.9	103.0	112.1	109.1	94.5	99.0	97.7	100.3	104.7
Intermediate goods	78.4	109.2	102.2	91.2	99.0	96.8	105.3	99.3	107.8	104.8	110.2	111.2	110.6	108.0
Consumer goods	86.8	102.1	95.4	103.2	100.7	100.7	104.0	99.4	105.6	106.9	99.7	107.4	103.9	107.0

Source: SORS



## Construction activity

### *Construction in Q3 accelerated growth for almost 10%*

We estimate that the construction sector in Q3 recorded an annual increase of almost 10%. This conclusion is suggested by the movement of several different indicators that QM observes when assessing construction activity. Gross value added of construction sector in Q3 recorded a growth of 8.5% compared with the same period of the last year (Table T2-3). Also, in Q3 index of completed construction works in Serbia recorded a real y-o-y growth by 7%. The movement of cement production is a further confirmation that Q3 truly achieves a growth in the construction sector of almost 10%, as well as independent indicators that QM monitors to form a more reliable estimate. This indicator recorded a y-o-y increase of 9.9% compared to Q3 of the previous year (Table T2-8).

### *The growth of construction activity in 2016 is likely widespread*

**Table T2-8. Serbia: Cement Production, 2001-2016**

	Y-o-y indices				
	Q1	Q2	Q3	Q4	Total
2001	89.5	103.5	126.9	148.1	114.2
2002	83.6	107.9	115.6	81.6	99.1
2003	51.1	94.4	92.7	94.4	86.6
2004	118.8	107.4	98.5	120.1	108.0
2005	66.1	105.0	105.8	107.4	101.6
2006	136.0	102.7	112.2	120.2	112.7
2007	193.8	108.9	93.1	85.0	104.4
2008	100.1	103.7	108.1	110.1	105.9
2009	34.1	81.4	86.0	75.3	74.4
2010	160.7	96.9	96.0	97.4	101.1
2011	97.7	101.3	96.2	97.7	98.3
2012	107.9	88.3	58.2	84.9	79.6
2013	83.5	78.7	127.6	93.5	94.9
2014	136.2	90.3	96.2	104.7	101.5
2015	77.9	112.4	104.5	108.7	103.1
2016	120.2	109.8	109.9	-	-

Source: SORS

in the private and public sector. Namely, non-compliance of the cement production with indices of construction activity is often a good indication of different trends in the investment activity of the state and the private sector. This is because official statistics of construction activity in the current time monitors a lot better activities of large construction companies, which are significantly influenced by public sector investments, and the index of production of cement in principle reflects the entire sector including small private enterprises, individual constructions and other, which are, objectively, difficult to statistically cover. When these two indices are adjusted, as is the case in 2016, this could suggest that the growth in construction activity is widespread i.e. that the activity of large construction companies increases, but also the activity of small and medium companies, both state owned and private. This is an important and positive trend because the construction sector accounts for almost half of the total investments, and they are crucial for sustainable and healthy economic growth of the country.

Unlike 2015, when the quarterly data on the growth of construction sector significantly overestimated the actual growth of this sector (see Box 1), the quarterly data for 2016 are most likely realistic. Namely, in 2015 the movement of cement production was not always in line with other indicators of construction sector, which could suggest that the real growth of construction was lower than the official data showed (which eventually the revised data showed). This is not the case in 2016 - all indicators that QM monitors when assessing the movement of construction activity, including the movement of cement production, consistently point to growth in the construction activity of almost 10%. This however has another important implication - that construction activity is recording a relatively strong growth

### **Box: Revision of the data on construction sector from 2015**

Statistical Office of the Republic of Serbia (SORS) made a major review of the data on the gross value added in the construction sector for the year 2015. The preliminary figures for 2015 showed that GVA in construction grew at double-digit rates in that year, and that the annual growth of GVA of this sector in 2015 amounted to 11.1%. However, with the publication of the revised data for 2015 (in the second half of 2016), it turned out that the real growth of construction activity in that year was only 2.7%. There is, therefore, a huge change in the annual rate of 8.4 p.p. which indicates

that the current data on this sector are very unreliable, as mentioned several times in previous issues of QM.

The most likely reason why there has been a major revision of data is that the sample on the basis of which the SORS follows the construction sector during the year does not include enough small and medium-sized construction companies, entrepreneurs and households compared to large enterprises. Therefore, the current data are biased towards their activities. However, the final SORS data include other indicators, such as the financial statements of all enterprises (including SMEs), so they are far more reliable. The problem is, however, that the final data are published with a considerable delay. Thus it can happen that, if SMEs, entrepreneurs and households have significantly different trend compared to large enterprises, final data are significantly corrected compared to the preliminary data - which was probably the case in 2015. A particular problem is the strong presence of the gray economy in the construction sector, which is concentrated precisely in the sector of small and medium enterprises, with entrepreneurs and in the household sector.

Precisely because of the difficulties in monitoring of current trends in construction, QM regularly monitors the production of cement, which is a good alternative indicator of trends in construction sector, because the cement is used in virtually all construction works. Although the proper methodology is to follow consumption, not production of cement, cement production quite well reflects the consumption, since the longer overland transport of cement is unprofitable, foreign trade is relatively small, and information on the production of cement are available in the statistics of industrial production (consumption is not monitored statistically). Also, indicators of cement production are very reliable because of the small number of cement factories in Serbia, so there is no problem of incomplete coverage. The movement of cement production of course is not ideal indicator of construction activity and cannot replace official statistics of construction activity. Some of the problems with this indicator, for example, are when occasional reconstruction in cement production factories occurs (then the production drops), or with stockpiling (then production grows). In addition, we take in consideration that some of the cement produced is exported (or imported), so production is not completely identical to consumption. Finally, cement is not equally represented in all areas of construction, and so the index of cement production may vary because of the different movements of different types of construction works.

Despite the shortcomings, we estimate that this additional indicator is very good for an indicative assessment of the movement of construction activity. Namely, it was cement production which recorded a growth rate of around 3% in 2015 (Table T2-8) and thus indicated that the real growth of construction activity is significantly lower than 11%, as at that time presented by the SORS. At that time, due to the less precise production of cement indicator, we did not much insisted on perceived difference, but now it turns out that it was significant. With the revision of the data on the GVA of construction sector it was reduced from 11% to 2.7%, which is almost identical to the growth of cement production in 2015.

In the end, we emphasize the fact that we are aware that there are objective difficulties in the current monitoring of the construction activity - a dynamic establishment of new enterprises, closure of the old ones, performing one part of business in the grey area, and so on. However, because of the importance of this sector for policy makers, it is important to increase efforts to advance monitoring where possible (e.g., improving statistical sample). Construction activity makes up a large part of the investments in the country, so the revision of data on construction draws the revision of investment growth. Investments in 2015, according to the revised data, grew at a rate of 5.6%, which is considerably lower than the previously published data of 8.3%. It is the investment component of GDP on which Serbia should base its economic growth, and slower investment growth means poorer prospects of GDP growth in the medium and long term. Therefore, when defining economic policies, timely and accurate assessment of the movement in construction activity should definitely be taken into account, and the official statistics of construction activity, for now, is not able to provide such data.

### 3. Labour Market

According to Labour Force Survey (LFS), strong positive trends continued on the labour market in the third quarter of 2016. In the third quarter, unemployment declined by 14% year-on-year, total employment increased by 7.2%, while formal employment grew by 3.8% year-on-year. As a result of these trends, the unemployment rate dropped to 13.8%, which is close to a historical minimum, while the employment rate reached 46.8%, a historical maximum. Trends in overall employment and unemployment again significantly deviate from other macroeconomic and fiscal trends, which makes us question their credibility. However, even if the stated data were correct, they would indicate that during the last four years, including this one, Serbia’s economic competitiveness has considerably deteriorated due to a decline in productivity – which is in discord with the strong growth of exports in this period?! So, for example, the significantly faster growth of employment than growth of GDP, indicated by LFS, resulted in a decline of productivity by as much as 15% over the last four years, i.e. a decline of 4.4% over the last year. Sectoral structure of the growth of employment which is dominated by an enormous growth of informal employment, especially in the sector of agriculture, adds to the suspicion regarding the reliability of LFS data. Seasonally adjusted net wages grew nominally by 3% and by 2% in real terms year-on-year. Trends of real wages are in line with the trends of economic activity, but in a big discord with the trends of productivity stemming from the LFS data on employment.

#### Employment

*Basic labour market indicators show significant improvements...*

*Unemployment rate is close to a historical minimum...*

*Total employment is again increasing much faster than the growth of GDP...*

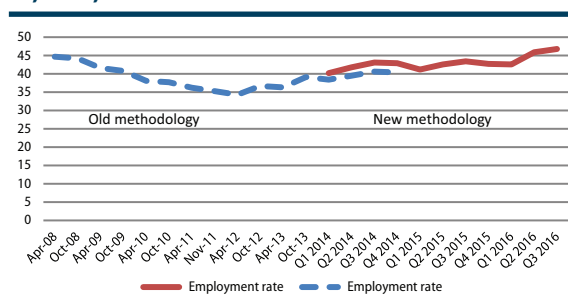
*Employment rate reached its maximum since the application of LFS...*

*Growth of informal employment was as high as 19.8%, while formal employment grew by 3.8%.*

According to LFS data, Q3 of this year recorded significant improvements in the labour market. Unemployment rate in the third quarter was 13.8%, which is only half a percentage point above the lowest value recorded in April 2008. Also, employment rate reached its highest value of 46.8%<sup>1</sup> since the Labour Force Survey started being conducted.

Compared to the same period last year, the total number of employees in the third quarter increased by 7.2% (growth by around 190 thousand). The result of that is the increase of employment rate from 43.4% in the third quarter of last year to 46.8% in the third quarter of this year. According to LFS, growth of the employment rate this year is the continuation of a four-year trend, according to which the total number of employees between the second quarter of 2012 and third quarter of 2016<sup>2</sup> increased by around 650 thousand, while the employment rate increased by 36%?! Graph G3-1 shows the trends of the employment rate according to LFS in the period 2008-2016, with fully comparable date for the period 2008-2014 and 2014-2016.

**Graph G3-1 Trends of the Employment Rate, %, 15+,**



Source: LFS, SORS

Compared to the same quarter of the previous year, formal employment increased by 3.8% in the third quarter of 2016, while informal employment increased by 19.8%. Although formal employment this year grew by around 1 percentage point faster than GDP, the deviation is too moderate to be explained by combatting of the grey economy or by the expected statistical errors that occur in surveys such as LFS. However, growth of informal employment is enormous, it dramatically deviates from other macroeconomic trends and cannot be explained by

1 Due to a change in methodology, data on employment and unemployment before and after 2014 are not completely comparable. However, based on the 2014 data, for which there is data according to the old and the new methodology, it can be estimated that the change in methodology has not had any significant effect on the estimates of the employment and unemployment rates.

2 Similar results are achieved by comparing the second quarter of this year with the second quarter of 2012 – increase in the number of employees in this case is around 600 thousand, while increase in the employment rate is 34%.

usual statistical errors. Besides, the strong growth of informal employment, according to LFS, leads to a high growth of total employment – as high as 7.2%, which is 2.8 times faster than the growth of GDP. According to LFS data, informal employment rate has been continually increasing during the first three quarters of 2016. In Q3 2016, informal employment rate was 24.1%, which means that almost every fourth worker in Serbia is informally employed. Even though the strong growth of informal employment could be explained to a lesser extent by an increase in share of temporary jobs on the labour market, most of the growth is still not in line with other macroeconomic data, which is why we question the credibility of this data.

**Total employment in agriculture is growing...**

**Considerable number of informally employed in agriculture...**

The number of employed in the agriculture sector<sup>3</sup> recorded a year-on-year growth of 19.6% in the second quarter and 17.2% in the third. The increase in the number of the employed in agriculture was realised in both formal and informal sector. In the third quarter, the number of employees in the formal sector increased by almost 22 thousand, while the number of informal employees increased by 78 thousand, i.e. by 10.2% and 21.4% year-on-year, respectively. The share of employees in the agriculture sector<sup>4</sup> was reduced from 19.9% in 2014 to 18.9%, which is the average of 2016.

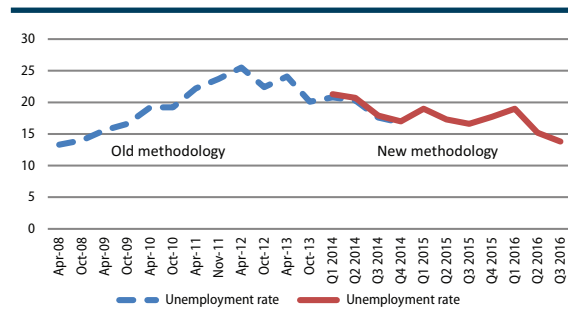
The year-on-year real growth rate of Gross Value Added (GVA) in agriculture, forestry and fishery has been positive during the first three quarters of 2016. Agriculture was the business activity that recorded the highest growth rate of 10.9% in the third quarter. It should also be noted that production year 2015/16 was marked by very favourable agro-meteorological conditions<sup>5</sup>, which certainly contributed to the growth of GVA. Modest year-on-year growth of seasonally adjusted real net wages in agriculture, in the period Q1-Q3 2016, of 0.2, 2.8 and 0.6%, respectively compared to the large growth of added value in agriculture was the result of the fact that most of those employed in agriculture are informally employed as unpaid helping members of the household.

**According to LFS, unemployment rate is close to a historical minimum...**

According to LFS, the unemployment rate in the third quarter of this year dropped by 2.8 percentage points compared to the same period of the previous year. After the stated reduction, the unemployment rate is 13.8%, which is by only 0.5 percentage points higher than the minimum recorded at the beginning of 2008. According to LFS, the unemployment rate has been declining for the past four years and its cumulative decline in that period is as much as 45%!<sup>6</sup> During

**Cumulative decline in the unemployment rate between the second quarter of 2012 and the third quarter of 2016 was as much as 45%?**

**Graph G3-2 Trends in the Unemployment Rate, %, 15+**



Source: LFS, SORS

the same period, Serbia's GDP (at constant prices 2010) increased by 14.5%, which would imply a high decline in productivity. Although part of the improvement on the labour market could be explained by the increase in the number of those working temporary jobs, it is our estimate that big mistakes have been made over the last few years in measuring labour market trends, which is why the entire 2008-2016 data set should be reconstructed<sup>6</sup>. Graph G3-2 shows trends in the unemployment rate according to the old and the new methodology, in the period 2008-2014 and 2014-2016.

<sup>3</sup> Agricultural business activity includes the sector of Agriculture, Forestry and Fishery and part of the sector of Household as an Employer relating to agricultural jobs.

<sup>4</sup> Sector of agriculture includes agriculture, forestry and fishery.

<sup>5</sup> Hydrometeorological Service of the Republic of Serbia, Department of Applied Climatology and Agro-meteorology, Agro-meteorological conditions in 2015/2016 on the territory of the Republic of Serbia.

<sup>6</sup> In the previous issues of the Quarterly Monitor, we have exposed evidence of errors in measuring trends on the labour market.

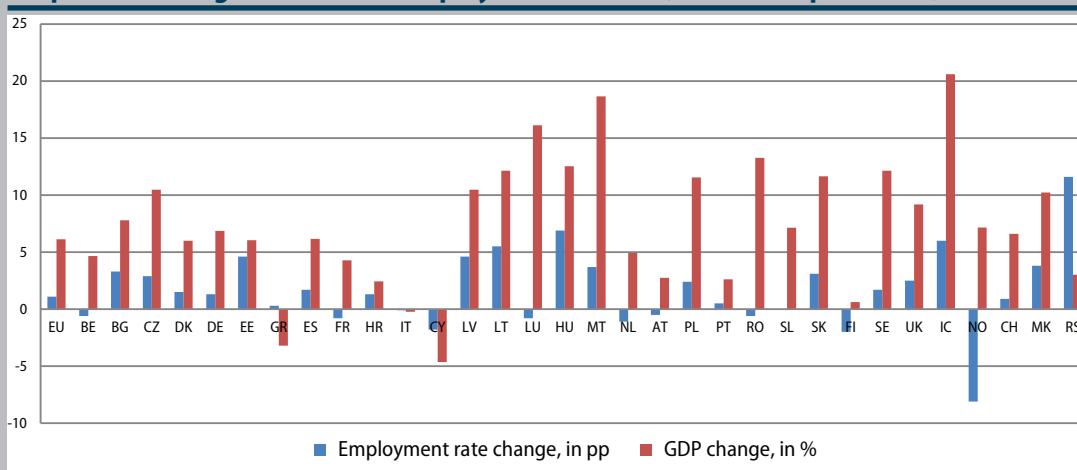
### Box 1. Trends in Employment and GDP in Serbia and European Countries

Based on numerous macroeconomic research, it is well known that there is a relatively high positive correlation between GDP trends and employment rates, which means that during the periods when GDP is growing, the employment rate is growing and vice versa. Growth of employment in times of economic growth is usually lower than the growth of GDP, because most of the GDP growth is the result of growth in productivity, which stems out of technical progress. Contrary to that, in times of recession, the employment rate declines at a slower rate than GDP. Also, most often the changes in GDP precede the changes on the labour market, which means that GDP starts to grow before the employment rate starts to rise. In times when the economy is coming out of a recession, as was the case in the period 2012-2016, GDP starts to grow first, while employment stagnates or grows much more slowly.

The following two graphs (G3-3 & G3-4) show the cumulative growth of GDP in the period Q2 2012-Q2 2016 and changes in the employment rate in the same period for EU countries, Serbia, Macedonia, Norway and Switzerland. Change in GDP is bigger than the change in the employment rate in almost all countries (red pillars are higher than blue ones). For example, in all 28 EU member states in the last four years, GDP grew on average by 6.1%, while the employment rate grew by 1.1 percentage points.

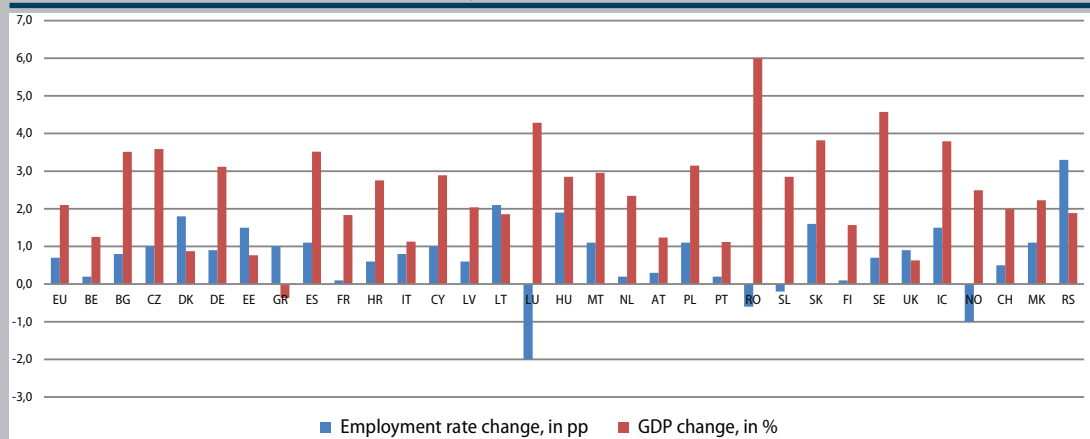
Out of the observed 32 European countries, in only three countries (Serbia, Greece and Cyprus), the GDP and employment rate trends deviate from general tendencies. Deviations in case of Cyprus and Greece are moderate and can be explained by employment rates declining less than GDP during a recession. In Greece, the decline of GDP was 3.2%, while the employment rate increased by 0.3 pp. In Cyprus, both GDP and the employment rate decreased, but GDP decreased by 4.6%, while the employment rate decreased by 1.8 pp. Serbia is quite different in size and direction of deviation in the changes of employment rate and GDP compared to all other European countries. In Serbia, the cumulative growth of GDP in the observed period was 3%, while the employment rate increased by as much as 11.6 pp. The direction and intensity of deviation in the changes of GDP and the employment rate in Serbia during the last four years compared to other European countries is so large that it adds to the suspicion of the reliability of LFS data on labour market trends. Again, we stress that if the data on employment trends in Serbia were correct, the productivity in Serbia in the last four years would have significantly declined, which is almost certainly not the case.

**Graph G3-3 Changes in GDP and Employment Rate in Q2 2016 compared to Q2 2012**



Note: Employment rate 15+, GDP reference year 2010  
Source: Eurostat and SORS

Trends in employment rates and GDP growth rates over the last year in Serbia again deviated from the tendencies in all other European countries. If we observe the change in GDP and the employment rate in the last year, we see that only Serbia and Greece have a bigger change in the employment rate in relation to the change in GDP. Employment rate increased by 1 pp, while GDP decreased by 0.4% in Greece. In Serbia, employment rate increased by 3.3 pp, while GDP increased by 1.9%.

**Graph G3-4 Change in GDP and Employment Rate in Q2 2016 compared to Q2 2015**

Note: Employment rate 15+, GDP reference year 2010

Source: Eurostat and SORS

Note: Data on the employment rate in Q3 2016 is still not available for most EU countries. Country abbreviations are as follows: Belgium (BE), Bulgaria (BG), The Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Greece (GR), Spain (ES), France (FR), Croatia (HR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxemburg (LU), Hungary (HU), Malta (MT), The Netherlands (NL), Austria (AT), Poland (PL), Portugal (PT), Rumania (RO), Slovenia (SL), Slovakia (SL), Finland (FI), Sweden (SE), United Kingdom (UK), Iceland (IC), Norway (NO), Switzerland (CH), Macedonia (MK), Serbia (RS)

## Productivity

Table T3-1 shows the trend of Gross Value Added, number of employees (according to LFS) and work productivity over the current and the previous year. Data shows total values (first part) and excluding agricultural activities (second part). We see that the year-on-year change in productivity, calculated as a ratio of GVA and the number of employees, is negative in the second and third quarter of 2016. This is the result of a faster growth of employment in relation to the growth of GVA. Also, the rate of productivity decline is higher if we exclude agriculture. If the decline in productivity were real, it would imply a need to reduce the real value of wages in order to preserve the international competitiveness of Serbia's economy. However, in Serbia wages are growing in real terms by around 2% annually (see the section on Wages), while exports are growing at an annual rate of around 10%, which implies that there was no deterioration in the economy's competitiveness. The probable explanation for this apparent paradox is that the data on labour market trends is not reliable.

**Table T3-1 Trends in GVA, Number of Employees and Productivity, 2015-2016**

	2015				2016			Change 2016/2015		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q1	Q2	Q3
<b>Total</b>										
GVA (in mil RSD)	601023.5	654013.6	676144.3	692467.9	626950.8	666591.9	696683.7	4.3%	1.9%	3.0%
Number of employed (in 000)	2504.1	2587.8	2623.9	2580.8	2570.7	2761.5	2814.0	2.7%	6.7%	7.2%
Productivity (in RSD)	240015.77	252729.58	257686.76	268315.21	243883.3	241387.62	247577.72	1.6%	-4.5%	-3.9%
<b>Without agriculture</b>										
GVA (in mil RSD)	551734.7	597756.8	602569.1	623087.8	574138.9	608074.3	615080.5	4.1%	1.7%	2.1%
Number of employed (in 000)	2019.4	2095	2107.2	2076.6	2103.7	2239.1	2265.8	4.2%	6.9%	7.5%
Productivity (in RSD)	273217.14	285325.44	285957.24	300051.91	272918.62	271570.85	271462.84	-0.1%	-4.8%	-5.1%

Source: SORS, LFS for employment, SNR for GVA

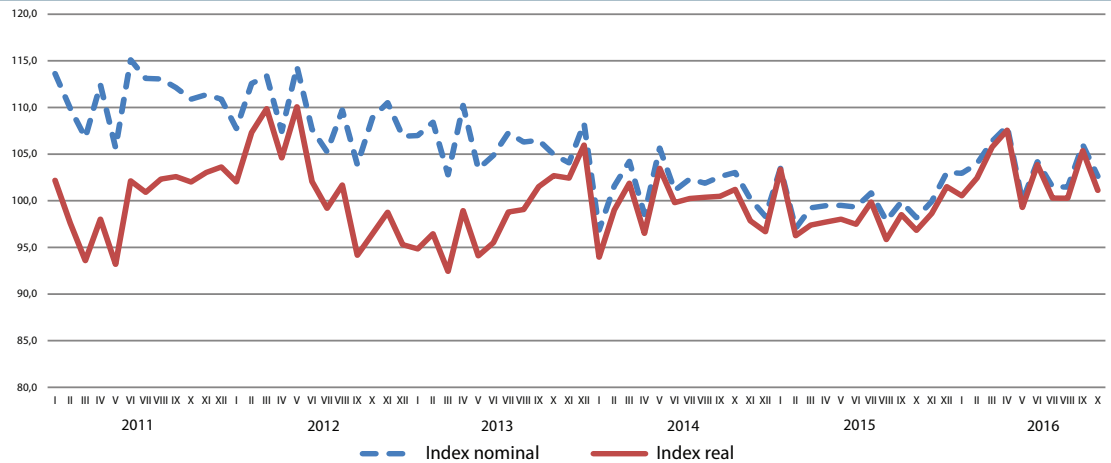
## Wages

*Average wages are increasing both in real and nominal terms...*

*Average wage will probably continue to grow in 2017...*

Trend in growth of wages in the third quarter continued, but at a declining rate. Seasonally adjusted net wages increased nominally by 3% and by 2% in real terms, year-on-year. Graph G3-5 shows trends in the index of nominal and real wages in the period 2011-2016. As a result of the low inflation rate since the end of 2013, the indices of nominal and real wages are not significantly different.

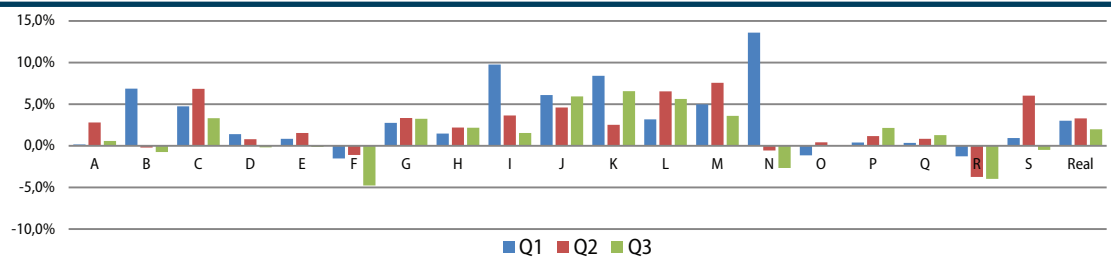
**Graph G3-5 Nominal and Real Wages Indices, 2011-2016**



Note: Same month previous year = 100  
Source: SORS

We expect average wages to grow during 2017. Minimal net wage per hour as of January 2017 will be 130 RSD<sup>7</sup>, which is a 7.4% growth compared to 2016<sup>8</sup>. Observed by business activities, most of the activities recorded a growth of seasonally adjusted net wages in Q3 2016 compared to the same quarter of the previous year (Graph G3-6).

**Graph G3-6 Year-on-Year Growth Rates of Seasonally Adjusted Net Wages by Business Activity, Q1-Q3 2016**



Source: Author's calculations using SORS data  
Note:

A – Agriculture, Forestry and Fishery; B – Mining; C – Processing Industry; D – Electricity, Gas, Steam and Air-conditioning Supply; E – Water Supply; Wastewater Management, Controlling the Process of Waste Disposal and similar activities; F – Construction; G – Wholesale and Retail; Repair of Motor Vehicles and Motorcycles; H – Transportation and Storage; I – Accommodation and Food Services; J – Communications and Information; K – Financial and Insurance Activities; L – Real-estate Activities; M – Professional, Scientific and Technical Activities; N – Administrative and Auxiliary Services; O – Public Administration and Defence; Mandatory Social Insurance; P – Education; Q – Healthcare and Social Protection; R – Art, Entertainment and Recreation; S – Other Services.  
Business activities without a seasonal component in their wages are not seasonally adjusted: D, E, P

The highest growth of wages was recorded in Financial and Insurance Activities – 6.6%, which is a higher growth than that of GVA of 4.2%. Next are the Communications and Information Activities with a 5.9% growth of wages, followed by the Real-estate sector with 5.6% growth. The real-estate sector recorded a 0.4% year-on-year growth of GVA. Growth of wages in the processing industry was 3.3%. The processing industry in October 2016 realised a year-on-year growth of 2.9% compared to the same month of the previous year. Growth of wages in education and healthcare was 2.1% and 1.3%, respectively, while wages in the public administration remained unchanged compared to the same quarter of the previous year.

<sup>7</sup> The decision was published in the "Official Gazette of the Republic of Serbia" no. 77/2016.

<sup>8</sup> Minimal net wages per hour in 2016 was 121 RSD according to the "Official Gazette of the Republic of Serbia" no. 79/2015.

## 4. Balance of Payments and Foreign Trade

Current account balance of payments deficit is still relatively low compared to earlier values. In Q3 2016, it amounted to 240 million euro, i.e. 2.7% of GDP. Such a level of current deficit is due to reduced foreign trade deficit, which was the consequence of lower trade deficit and higher surplus on the Services account. Reduction in the value of trade deficit is the result of still faster growth of exports than imports, which leads to continued growth of coverage of imports by exports, which is almost 80%. Still, according to seasonally adjusted data, both exports and imports are lower compared to the previous quarter, with a significantly more pronounced import value. During Q3 there was a smaller inflow on the Secondary Income account and almost unchanged balance on the Primary Income account. Considering current trends, it is our estimate that the current deficit in 2016 will be extremely low, i.e. around 4% of GDP. We estimate that the goal of economic policy in the coming years should be further reduction of current account deficit, followed by a realisation of a surplus. The key part could be played by a slower growth of domestic demand than of the growth of GDP, as well as maintaining the dinar on its current course. In the coming period, the level of current deficit will probably be positively influenced by more favourable estimates of the growth of Eurozone's economy, while the expected and already begun increase in energy prices on the global market will have a negative impact on foreign trade balance. On the financial side of the balance of payments, there is still a positive tendency of a significant inflow of capital thanks to a considerable inflow of FDI. What is particularly significant is that the amount of net FDI inflow, in both Q3 and the first nine months of 2016, has surpassed the amount of current account deficit, which is expected at the annual level as well. If there are parliamentary elections next year, they will have a certain influence on a temporary deceleration of inflow of foreign capital.

**Reduced value of current account deficit in Q3 2016 compared to Q3 2015...**

**...the result of reduced foreign trade deficit**

**In Q3 2016 current account deficit was 240 million euro, i.e. 2.7%**

Q3 2016 recorded a year-on-year decrease in the value of current account deficit compared to Q3 2015. The decline of current deficit is the result of the lower value of foreign trade deficit, while on the other hand, a decrease in net inflow on the Secondary Income account was recorded in the same period, as well as an almost unchanged balance on the Primary Income account. During Q3 2016, current account deficit was 240 million euro, i.e. 2.7% of GDP, which is a 1.2 pp of GDP decline compared to the same period in 2015, as well as a 0.4 pp of GDP decline compared to Q2 2016 (Table T4-1). Based on existing trends, it is our estimate that the current deficit in 2016 will be low, i.e. around 4% of GDP. We also estimate that the goal of economic policy in export oriented model of economic development, should be further reduction of current account deficit, with the aim of realising a surplus in the mid-term. The key role in achieving this goal, in the domain of economic policy, is played by the policy of controlling domestic demand and maintaining the course of dinar at a competitive level. In the coming period, the level of current deficit will be positively affected by a higher growth of Eurozone's economy (if the expectations are realised), and it will be negatively affected by the probable further increase of energy prices on the global market, i.e. general deterioration of very favourable trade ratios from the past, and certainly depletion of effects on this basis due to a low base.



**Table T4-1 Serbia: Balance of Payments**

	2014	2015	2015				2016				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3		
			<b>mil. euros</b>								
<b>CURRENT ACCOUNT</b>	-1,985	-1,577	-511	-279	-343	-445	-369	-271	-240		
Goods	-4,111	-3,993	-1,046	-872	-895	-1,180	-752	-923	-815		
Credit	10,641	11,357	2,601	2,997	2,882	2,877	2,953	3,307	3,122		
Debit	14,752	15,350	3,648	3,869	3,777	4,057	3,705	4,230	3,937		
Services	465	725	136	114	215	260	182	188	273		
Credit	3,810	4,273	927	1,004	1,167	1,175	992	1,068	1,267		
Debit	3,344	3,548	791	890	952	915	810	880	994		
Primary income	-1,343	-1,658	-296	-468	-491	-402	-469	-431	-490		
Credit	642	682	144	203	165	170	142	185	135		
Debit	1,985	2,340	441	671	656	572	611	615	625		
Secondary income	3,003	3,349	695	948	828	877	670	895	792		
Credit	3,400	3,795	789	1,060	946	1,000	772	1,010	922		
Debit	397	446	93	112	117	123	102	115	131		
Personal transfers, net <sup>1)</sup>	2,442	2,671	568	758	665	680	521	735	624		
Of which: Workers' remittances	1,863	2,077	437	605	523	512	379	577	458		
<b>CAPITAL ACCOUNT - NET</b>	7	-18	4	-1	1	-22	5	-4	-1		
<b>FINANCIAL ACCOUNT</b>	-1,705	-1,205	-427	-139	-243	-396	-173	-158	-71		
Direct investment - net	-1,236	-1,804	-339	-441	-510	-514	-459	-374	-438		
Portfolio investment	-369	289	-474	341	105	317	363	331	-10		
Financial derivatives	-6	2	2	4	-7	3	0	1	5		
Other investment	1,703	141	273	-11	-131	10	760	200	40		
Other equity	0	0	0	0	0	0	0	0	0		
Currency and deposits	830	-218	69	79	-133	-233	318	20	-19		
Loans	757	230	221	-39	-48	97	319	271	12		
Central banks	574	153	57	55	26	15	12	7	4		
Deposit-taking corporations,	795	434	100	103	10	222	100	197	73		
General government	-728	-464	63	-220	-86	-221	30	11	16		
Other sectors	115	107	0	23	2	82	178	55	-81		
Insurance, pension, and standardized	0	0	0	0	0	0	0	0	0		
Trade credit and advances	116	129	-17	-51	50	146	122	-91	47		
Other accounts receivable/payable	0	0	0	0	0	0	0	0	0		
SDR (Net incurrence of liabilities)	0	0	0	0	0	0	0	0	0		
Reserve assets	-1,797	166	111	-32	300	-213	-836	-317	332		
<b>ERRORS AND OMISSIONS, net</b>	273	390	80	141	99	70	190	118	171		
			<b>in % of GDP</b>								
Current account	-5.9	-4.7	-6.7	-3.2	-3.9	-5.2	-4.6	-3.1	-2.7		
Balance of goods	-12.3	-11.9	-13.7	-10.1	-10.3	-13.7	-9.5	-10.7	-9.3		
Exports of goods	31.8	33.8	34.2	34.7	33.2	33.3	37.2	38.3	35.6		
Imports of goods	44.1	45.7	47.9	44.8	43.5	47.0	46.7	49.0	44.9		
Balance of goods and services	-10.9	-9.7	-11.9	-8.8	-7.8	-10.7	-7.2	-8.5	-6.2		
Personal transfers, net	7.3	8.0	7.5	8.8	7.7	7.9	6.6	8.5	7.1		
GDP in euros <sup>2)</sup>	33,420	33,564	7,617	8,632	8,689	8,627	7,940	8,636	8,778		

Note: Balance of Payments of the Republic of Serbia is in line with international guidelines stated in the IMF's Balance of Payment Manual no. 6 (BPM6).

Source: NBS

1) Personal Transfers present current transfer between resident and non-resident households.

2) Quarterly values. Conversion of annual GDP to EUR was done according to average annual exchange rate (average value of official daily middle exchange rates of NBS).

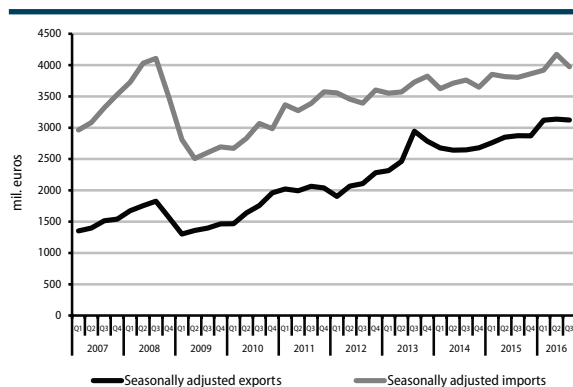
### Relatively low trade deficit...

### ...and a considerable surplus in trade in services

Trade deficit is still relatively low and in Q3 2016 it was 815 million euro (9.4% of GDP). Such a level of trade deficit is lower by 1 pp of GDP compared to the same quarter of the previous year, and by 1.4 pp of GDP compared to Q2 2016. Exports are 35.6% of GDP, while imports are 44.9% of GDP. Therefore, Q3 2016 recorded a relatively high level of coverage of imports by exports, i.e. 79.3% which is by 1.1 pp above the coverage recorded in Q2 2016. Reduced value of trade deficit is the result of the still faster growth of exports than imports. The exports were 3,122 million euro and by 8.4% above the value of Q3 2015. On the other hand, goods in the value of 3,937 million euro have been imported, which is a year-on-year growth of 4.3%. Both exports and imports have decelerated their growth in Q3 compared to the previous quarter, but the deceleration of imports' growth is much more pronounced.

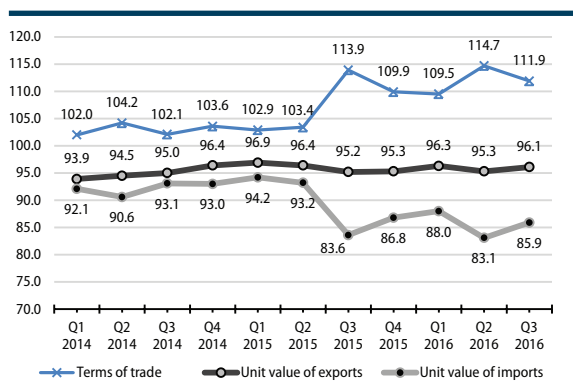
Seasonally adjusted data confirms this (Graph T4-2), as exports are by 0.4% below the realised value of Q2 2016, while imports are by 4.8% lower. Favourable trends in foreign trade values continued in October as well – exports continued their fast growth, while the growth of imports was negligible.

**Graph T4-2 Serbia: Seasonally Adjusted Exports and Imports, Quarterly Values, 2007-2016**



Source: NBS, SORS, QM

**Graph T4-3 Year-on-Year Index of Trade Ratios, 2014-2016**



Source: SORS, QM

On the other hand, in Q3 and expectedly in the coming period as well, the extremely favourable trade ratios, which existed in the last two years, are deteriorating. In Q3 there was an evident increase in the unit price of imports, which led to trade ratio index dropping from 114.7 in Q2 to 111.9 in Q3 2016 (Graph T4-2). This is still an extremely favourable index level, which is in great part responsible for the current low value of trade deficit. The deterioration of trade ratios was to be expected considering their dominantly cyclical nature. Still, it will probably be reduced in the coming period, due to depleting of effects of a low base, as well as due to a possible increase in energy prices on the global market.

The realised surplus in Q3 in trade in services was significant and it amounted to 273 million euro. This is a considerable growing amount of net revenue in the current section of the balance of payments, which, observed relatively compared to the level of GDP, reached in Q3 as much as 3.1% of its quarterly value<sup>1</sup>. Revenue from services was 1,267 million euro, while expenses were 994 million euro, making the revenue from service higher by 8.5% and expenses higher by 4.4% compared to Q3 of the previous year. Therefore, the foreign trade deficit is lower compared to the levels of previous quarters. In Q3 2016, it was 542 million euro, i.e. 6.2%

of GDP, which is by 1.7 pp and 2.3 pp of GDP below the levels of Q3 2015 and Q2 2016, respectively. Export oriented development model, which is most suited for small open economies, requires a continuation in the reduction of foreign trade deficit in the coming years. There is a belief among part of the local experts that economic growth inevitably leads to a deterioration in foreign trade and current balance of payments, which is generally speaking wrong. Economic growth leads to a growth of foreign deficit only if it is dominantly generated by a growth in domestic demand. However, this is not the case when the growth is generated by exports or by investments in export oriented production, with domestic demand growing slightly slower than GDP.

**Net outflow on the Primary Income account almost unchanged...**

Net outflow on the Primary Income account is almost unchanged compared to the same period in 2015 and is 490 million euro (5.6% of GDP). This is a pretty high value of outflow on this basis and it is due to the net outflow of investments, which is 6.1% of GDP, out of which 3.9%, 1.3% and 1.2% of GDP are net outflows of direct, portfolio and other investments, respectively, and a smaller net inflow of 0.4% of GDP based on revenue from forex reserves. Secondary Income (net current transfers) is 792 million euros for the observed three-monthly period (9% of GDP) and is at a slightly lower level than last year. This is primarily due to a lower inflow of personal transfers, which in Q3 2016 amounted to 624 million euros – 7.1% of GDP, which is by 0.6 pp of GDP below the net inflow of Q3 of the previous year (see Table T4-1).

**... Secondary Income on a slightly lower level than last year**

<sup>1</sup> Read more about the importance of net revenue on the Services account in this issue of QM.

**Considerable capital inflow...**

Inflow of capital during Q3 was 403 million euros<sup>2</sup> and is primarily owed to the recorded net inflow on Direct Investment account, i.e. high net inflow of Foreign Direct Investments in the amount of 438 million euros<sup>3</sup> (see Table T4-1). Since the beginning of the year, the recorded net inflow from FDI has been 1,271 million euro. We estimate that the entire 2016 will record a significant inflow of FDI, which will be around 1.8-1.9 billion euros. On the Portfolio Investment account, a net inflow of 10 million euros was recorded, which is primarily due to non-residents buying seven-year government securities in July, which is mostly the result of the positive IMF assessment of the arrangement and improved country credit rating<sup>4</sup>. What is especially significant is that net FDI inflow in Q3 as well as since the beginning of the year, is higher than current account deficit, which is also expected on the annual level for 2016. Still, if there are parliamentary elections next year, they would probably cause a reduction in capital inflow, i.e. they will affect the readiness of foreign investors to invest in the first half of 2017.

**...owed to a significant net inflow of FDI...****...which is above the current deficit level...**

Net outflow of other investments was 40 million euros, as a result of an outflow of financial loans in the amount of 12 million euros and of trade loans in the value of 47 million euros, as well as the inflow on the Cash and Deposit account of 19 million euros. NBS deleveraged by additional 4 million euros and the state by 16 million euros net (as a net result of allocated funds to payment of 200 million euro loans and additional borrowing in the amount of 184 million euros). Financial institutions continued to deleverage their foreign debts and in Q3, their net deleveraging amounted to 73 million euros. The business sector increased their borrowing by 81 million euro, which we see as a sign of their recovery.

**...which has led to an increase in NBS forex reserves**

High inflow of capital (primarily from FDI) in Q3 2016 was enough to cover the current deficit and lead to an increase in NBS forex reserves by 332 million euros (Table T4-1).

**Exports****In Q3 exports were 3.34 billion euros...**

During Q3, exports were 3,340 million euros, realising a significant year-on-year growth of 9.8% (Table T4-4). Although slightly decelerating their growth, exports recorded a significant increase in October with a year-on-year rate of 9.2%. According to SORS data, exports accelerated growth compared to the previous quarter<sup>5</sup>. Seasonally adjusted data in Q3 indicate a mild decline in exports of 0.4% compared to Q2 2016. Still, significantly high year-on-year rates indicate a favourable trend, which is mostly due to the recovery of export value of Intermediate Goods, Capital Goods (especially after excluding export of road vehicles) and Non-Durable Consumer Goods, which make most of the total exports (these three groups make 83% of total exported value). As the exports of road vehicles in Q3 2016 were slightly above last year's level (year-on-year growth of 0.64%), year-on-year growth rate of export excluding road vehicles was 10.7%. Thus observed exports also recorded an accelerated growth compared to Q2 2016.

**...high year-on-year growth of 9.8% was recorded...****...with continued significant growth in October as well**

Relatively low global energy prices are still affecting export value of energy products. *Energy* export value in Q3 was by 17.5% lower than the value of Q3 2015 and is mostly due to the price level. Once the effect of lower prices is eliminated, the decline of *Energy* exports amounts to 8.3%. We estimate that the decline in energy exports could be the result of the overhaul of certain facilities in the country. In the coming period, the negative contribution of low energy prices on domestic exports due to the low base will be depleted, and the effect could even take on an opposite trend in energy export values if energy prices possibly recover. Still, we should keep in mind that the share of exports of energy products in total exports is small, and so are the changes that could affect total export result, occurring due to some shifts in prices.

<sup>2</sup> Inflow of capital was 574 million euros including the Errors and Omissions account.

<sup>3</sup> Most of FDI were into processing industry, financial sector, construction, trade, real-estate, telecommunication and transport (NBS Inflation Report, November 2016, p. 21)

<sup>4</sup> See NBS Inflation Report, November 2016, p. 21

<sup>5</sup> SORS data for imports and exports of goods are different from the NBS data, which we used in the first part of the article, because they include goods sent for further processing (see Box 1 on changes in calculation methodology of Balance of Payments in QM 37). Therefore, there is a certain difference in levels of exports and imports, as well as in growth rates, depending on whether the source of data was NBS or SORS.

**Table T4-4 Serbia: Exports, Year-on-Year Growth Rates, 2014–2016**

	Exports share in 2015	2014	2015	2016			2015				2016		
				Q1	Q2	Q3	Q1	Q2	Q3	Q4	Q1	Q2	Q3
	in %	in mil. euros			in %								
Total	100.0	11,159	12,041	3,079	3,479	3,340	5.2	11.1	9.2	6.0	11.0	8.9	9.8
Total excluding road vehicles	88.3	9,621	10,630	2,682	3,049	3,071	6.1	15.2	12.5	8.0	13.5	9.9	10.7
Energy	2.8	414	342	77	100	84	-36.1	-16.0	-0.8	-17.8	24.7	-7.3	-17.5
Intermediate products	33.9	3,687	4,084	1,048	1,199	1,195	0.9	13.3	13.1	15.7	13.7	11.1	11.9
Capital products	25.4	2,877	3,064	835	921	763	5.8	4.2	5.3	12.3	9.8	9.2	11.6
Capital products excluding road vehicles	13.7	1,340	1,653	438	491	494	12.7	24.0	26.1	31.8	25.8	15.9	18.7
Durable consumer goods	5.5	586	664	156	187	191	8.6	15.2	19.7	9.6	18.0	10.7	6.6
Non-durable consumer goods	23.7	2,614	2,848	721	798	836	12.3	13.5	6.4	4.8	13.9	13.9	9.6
Other	8.6	981	1,040	242	275	271	19.6	32.7	10.2	-27.5	-8.5	-6.8	9.8

Source: SORS

**All export groups, observed year-on-year, recorded a significant growth in export value**

All export groups recorded a significantly higher values of exported goods in Q3 2016 compared to Q3 2015. From Q3 2015 to Q3 2016, exports of *Intermediate Goods* recorded an 11.9% growth, *Capital Goods* recorded 11.6% growth, *Other Goods* had 9.8% growth, *Non-Durable Consumer Goods* had a 9.6% increase, while *Durable Consumer Goods* had a 6.6% increase. Compared to the previous quarter, the exports of *Intermediate* and *Capital Goods* accelerated their growth, while exports of consumer goods (durable and non-durable) noticeably decelerated their growth. Such a high year-on-year growth of intermediate and capital goods, as well as Non-Durable Consumer Goods, is especially important, because the value of these products makes more than 4/5 of the total export value. *Capital Goods Excluding Road Vehicles* recorded a significant year-on-year growth of 18.7%. An important fact to note is that *Other Exports*, after a negative growth rate in the first half of the year, recorded a year-on-year growth during Q3 2016.

**In Q3, as well as in the coming period, the value of exports will be significantly influenced by global prices and economic activity in the Eurozone**

Since the beginning of the year, the real exchange rate recorded minor fluctuations at a pretty stable level, so the delayed effect was not significant for the export results of Q3. And let us bear in mind that in the conditions of productivity increase, a constant real exchange rate means growth of economy's competitiveness. In order to assess the economy's competitiveness, it is important to have reliable data on productivity trends<sup>6</sup> and real dinar exchange rate. In Q3, global grain prices were significantly lower than last year's (especially of corn and wheat, prices of which in October 2016 were at a level close to 90% and 75% compared to the same month in 2015, respectively), which had a negative effect on the realised value of exports in Q3. Despite all this, a significant value of exports of these products was recorded (especially in exports of corn, which is at the top of the list of our economy's export products). On the other hand, compared to the previous year, there has been a recovery in global metal prices. The latest estimates of Eurozone's economic growth in 2017 are more positive, which should make a positive contribution to the growth of local exports in the coming year.

## Imports

**In Q3 2016 imports decelerated their growth...**

Imports in Q3 2016 were 4,224 million euros, which is by 5.0% above the value of Q3 2015 (Table T4-5). According to October data, value of imports was just 0.7% higher than the one in October 2015. Thus, after imports accelerated their growth in Q3, they decelerated during Q3, which was pronounced even more in October. In October, all product groups except *Non-Classified* (i.e. *Other Imports* in the table) recorded imports that were below last year's. Seasonally adjusted data for Q3 indicate that imports were significantly lower compared to the previous quarter – by as much as 4.8%.

**...and in October they were just 0.7% above the level of October last year**

The value of energy imports is one fifth below the value from the same quarter of 2015. Global price of energy products is by 10% below the price of Q3 of last year, so the decline of imported quantities of energy products is 10%. Reduction in the imported quantities can partly be explained by creating stock in the previous quarter due to the planned overhaul of Pancevo oil refinery<sup>7</sup>. Imports excluding energy recorded a year-on-year growth of 8.2%, which also repre-

**...which is mostly the result of the decline in the value of Energy imports due to still low prices**

<sup>6</sup> See the section on labour market which analyses the influence of unreliable employment data on calculating productivity.

<sup>7</sup> NBS Inflation Report, p. 35

sents a deceleration of growth of thus observed imports compared to the previous quarter (when year-on-year growth rate was 11.7%). Trends of imports excluding energy present a better approximation of trend import growth rate, i.e. growth of imports which could be expected when energy prices reach the multi-year average.

Aside from the reduction in the import value of energy products, decline in the value of imports was also recorded in *Capital Goods and Durable Consumer Goods*. On the other hand, imports of *Non-Durable Consumer Goods*, as well as *Intermediate Goods* recorded a modest year-on-year growth of 0.5% and 2.4%, respectively. At the same time, imports of goods classified under *Other Imports* recorded a high year-on-year growth of 65.4%<sup>8</sup>.

Expectations are that in the coming period the effects of relatively low global energy prices on the reduction of import growth will be depleted. Most of the still low value of imports during Q3 could be explained by the still low domestic consumption, while the effect of foreign exchange rate is negligible. Still, we expect a recovery of imports in the coming period in line with the expected recovery of aggregate demand primarily from the growth of domestic consumption and investments in the next year.

**Table T4-5 Serbia: Imports, Year-on-Year Growth Rates, 2014-2016**

	Imports share in 2015	2014	2015	2016			2015				2016		
				Q1	Q2	Q3	Q1	Q2	Q3	Q4	Q1	Q2	Q3
	in %	in mil. euros											in %
Total	100.0	15,490	16,388	3,981	4,526	4,224	8.7	5.4	2.5	6.7	2.7	8.7	5.0
Energy	11.4	2,180	1,873	341	382	361	-2.4	-8.2	-23.2	-22.2	-31.7	-16.4	-20.2
Intermediate products	33.7	5,156	5,526	1,266	1,457	1,451	2.4	6.0	6.9	13.5	5.4	6.0	2.4
Capital products	24.6	3,757	4,024	792	1,086	901	14.0	3.2	9.8	-1.9	-15.2	3.8	-5.2
Durable consumer goods	2.5	328	416	80	98	88	24.9	40.6	21.9	19.9	-14.3	-5.3	-6.7
Non-durable consumer goods	15.3	2,360	2,512	517	628	639	9.4	4.8	4.7	1.7	-7.9	6.1	0.5
Other	12.4	1,709	2,037	985	875	784	23.9	17.2	2.6	42.1	68.2	47.6	65.4
Imports excluding energy	88.6	13,311	14,514	3,640	4,144	3,863	10.6	7.3	7.0	11.5	7.8	11.7	8.2

Source: SORS

## Foreign Debt

**Foreign debt is 25.8 billion euros, i.e. 76.2% of GDP**

Foreign debt at the end of June 2016 was 25,820 million euros (76.2% of GDP, Table T4-6). Foreign debt is by only 6 million euros lower than the one recorded three months earlier.

**Public sector's foreign debt has been at an almost unchanged level since the beginning of 2015...**

Trends from the previous quarter are continuing – public sector's foreign debt has been at an almost unchanged level since the beginning of 2015, while the level of private sector's foreign debt is gradually declining. During Q2 2016, the state borrowed additional 97 million euros. On the other hand, the private sector reduced its level of foreign debt in this quarter (Table T4-6) by 90 million euros. The banks deleveraged their long-term foreign debts by 182 million euros, while at the same time companies increased their borrowing by 92 million euros. The level of short-term debt is lower by 12 million euros compared to the previous quarterly level, thanks to the reduction of banks' short-term debt.

**... while the level of private sector's foreign debt is gradually declining**

Compared to the situation at the end of June 2015, the foreign debt is lower by 563 million euros. In this period, the growth of public sector's foreign debt was 156 million euros, while private sector reduced its foreign debt by 719 million euros. The public sector especially intensified its borrowing abroad during Q4 2015. Deleveraging of private sector's long-term debt in the observed period was 889 million euros. Out of that amount, the banks deleveraged 549 million euros, and companies deleveraged 342 million euros. Short-term debt was 171 million euro higher at the end of Q2 2016 compared to the situation at the end of Q2 2015. Banks' short-term debt was higher by 96 million euros, and business sector's by 75 million euros (Table T4-6).

<sup>8</sup> The data is published in a way that a significant part of the imported produces are initially classified under Non-Classified Goods according to their EU purpose (item Other in Table T4-5), only to actually be classified later. That is why we expect there will be changes in the value of imports by components. We have written about this and about the need to publish more frequently revised data on imports and exports in the previous issues of *QM* (see for example *QM43*).

**Table T4-6 Serbia: Foreign Debt Trend Dynamics, 2013–2016**

	2013	2014	2015				2016	
			Mar.	Jun	Sep.	Dec.	Mar.	Jun
<b>stocks, in EUR millions, end of the period</b>								
Total foreign debt	25,644	25,679	26,583	26,383	26,158	26,294	25,825	25,820
(in % of GDP) <sup>4)</sup>	74.8	76.8	80.4	79.8	78.7	78.3	76.2	76.2
Public debt <sup>1)</sup>	13,120	14,145	15,049	14,875	14,889	15,295	14,934	15,030
(in % of GDP) <sup>4)</sup>	38.3	42.3	45.5	45.0	44.8	45.6	44.1	44.3
Long term	13,120	14,140	15,044	14,870	14,884	15,295	14,934	15,030
o/w: to IMF	697	152	108	51	29	15	7	0
o/w: Government obligation under IMF SDR allocation	434	463	498	487	485	493	483	488
Short term	0	5	5	5	5	0	0	0
Private debt <sup>2)</sup>	12,525	11,534	11,533	11,508	11,270	10,998	10,892	10,789
(in % of GDP) <sup>4)</sup>	36.5	34.5	34.9	34.8	33.9	32.8	32.1	31.8
Long term	12,328	11,441	11,381	11,346	11,077	10,693	10,547	10,457
o/w: Banks debt	3,219	2,503	2,388	2,279	2,268	2,057	1,912	1,730
o/w: Enterprises debt	9,108	8,935	8,989	9,064	8,805	8,633	8,631	8,723
o/w: Others	1	3	3	3	4	4	4	4
Short term	196	94	153	162	192	305	345	332
o/w: Banks debt	171	57	110	126	151	186	237	222
o/w: Enterprises debt	25	37	43	35	41	119	108	110
Foreign debt, net 3), (in% of GDP) <sup>4)</sup>	42.2	47.2	48.6	48.6	47.1	47.4	48.2	48.8

Note: Foreign debt of the Republic of Serbia is calculated according to the "matured debt" principle, which includes amounts of debt from capital and amounts of calculated interest not paid in the moment of agreed maturity.

Source: NBS, QM

1) Foreign debt of the Republic of Serbia's public sector includes the debt of the state (not including the debt of Kosovo and Metohija, for loans concluded before the arrival of KFOR, unregulated debt toward Libya and the clearing debt toward former Czechoslovakia), National Bank of Serbia, local self-governments, funds and agencies formed by the state, and the debt for which state guarantee was issued.

2) Foreign debt of Republic of Serbia's private sector includes the debt of banks, companies and other sectors for which no state guarantee has been issued.

3) Foreign debt of the private sector does not include loans concluded before December 20, 2000 for which no payments are done (995.4 million euro, out of which 433.7 million euro is from domestic banks, and 561.7 million euro is from domestic companies).

4) Total foreign debt reduced by NBS forex reserves.

5) Sum value of GDP of the observed quarter and previous three quarterly values of GDP.

## 5. Prices and the Exchange Rate

In October and in Q3 inflation moved below the lower limit of National Bank of Serbia target band and at the end of October, it amounted to 1.5%. Low cost pressures in food production caused by low price in primary agricultural products in global and domestic market, low oil prices and slow growth in regulated prices are most significant disinflationary factors that have influenced the movement of inflation below the target band. Underlying inflation (measured by the CPI excluding prices of food, energy, alcohol and tobacco) in Q3 and October also moved below the lower limit of NBS target band and the main factors that influenced that were stable and unchanged dinar exchange rate, as well as low import inflation. National Bank of Serbia continued with the easing of monetary policy in July- key policy rate was reduced to 4.0% and was not changed in the following months. Given that the inflation was stabilized below the lower limit of the target band in the long term, as well as that it is not expected to significantly accelerate in coming years, NBS reduced target inflation by 1 p.p. to  $3 \pm 1.5\%$ , which is estimated as appropriate policy. By the end of 2016 inflation will move below the lower limit of the target band, but it is expected that it will be within the limits of the new target band, where it should be retained. Average inflation in 2016 will amount to 1.2%, while at the end of the year it will be around 2.2%. At the end of Q3 dinar exchange rate was at nominally unchanged level when compared to Q2 (appreciation of 0.02%), in October it slightly appreciated (by 0.1%) and it remained virtually unchanged in November (depreciation of 0.03%). In July National Bank intervened by buying foreign currency in the interbank market to prevent dinar appreciation due to increased demand for domestic currency, which was also done in October. During Q3 and in October, dinar really appreciated by 0.9%, which is largely the result of the differences in inflation in Serbia and in the countries of the eurozone, given that nominal exchange rate remained virtually unchanged.

### Prices

*In Q3 and October, inflation trend is below the lower limit of the NBS target band*

Year-on-year inflation amounted to 0.6% at the end of third quarter of 2016, which is above the value at the end of Q2 (Table T5-1). In October, inflation rose to 1.5%, but it is still significantly below the lower limit of a still valid NBS target band of  $4 \pm 1.5\%$ . On a monthly basis, deflation still occurs very often- in July 0.1% and in September 0.6%, while inflation in August amounted to 0.9% and in October 0.7%. Low prices of oil and primary agricultural products as well as low inflation in international environment during 3 were main disinflationary factors. The decline in food production costs, caused by the fall in the prices of primary agricultural products in the second half of the year has disinflationary effect, and so does a good domestic agricultural season. From the second half of November, when the price of crude oil amounted to relatively low 43 dollars per barrel, its price was in growth, until the beginning of December, when it stabilized at around 51 dollars per barrel. It is expected that the growth in global oil prices will spill over to other prices, but the effect will be modest. The oil prices trend in the following period is still tentative because it is uncertain whether the agreed reduction in production is enough, or will the countries that are largest oil exporters comply with the agreement.

**Table T5-1. Serbia: Consumer Price Index, 2010-2016**

	Consumer price index				
	Base index (avg. 2006 =100)	Y-o-y growth	Cumulative index	Monthly growth	3m moving average, annualized
<b>2010</b>					
dec	144.2	10.2	10.2	0.3	11.7
<b>2011</b>					
dec	154.3	7.0	7.0	-0.7	2.5
<b>2012</b>					
dec	173.1	12.2	12.2	-0.4	9.9
<b>2013</b>					
dec	176.9	2.2	2.2	0.2	-0.9
<b>2014</b>					
mar	179.1	2.3	1.2	-0.3	5.1
jun	180.4	1.2	2.0	0.1	2.9
sep	181.2	2.1	2.4	0.7	1.6
dec	180.0	1.8	1.8	-0.4	-2.4
<b>2015</b>					
mar	182.4	1.8	1.3	0.7	5.5
jun	183.8	1.9	2.1	0.5	3.1
sep	183.7	1.4	2.1	0.0	-0.2
oct	183.3	1.4	1.8	-0.2	2.7
nov	183.1	1.3	1.7	-0.1	-1.3
dec	182.8	1.6	1.6	-0.2	-1.9
<b>2016</b>					
jan	183.8	2.3	0.5	0.5	1.1
feb	183.7	1.4	0.5	-0.1	1.3
mar	183.5	0.6	0.4	-0.1	1.5
apr	184.2	0.4	0.8	0.4	0.9
may	184.3	0.8	0.8	0.1	1.3
jun	184.4	0.3	0.9	0.1	2.0
jul	184.3	1.2	0.8	-0.1	0.2
aug	185.9	1.2	1.7	0.9	3.5
sep	184.8	0.6	1.1	-0.6	0.9
oct	186.1	1.5	1.8	0.7	4.0
nov	185.9	1.5	1.7	-0.1	0.0

Source: SORS.

**Underlying inflation was below the lower limit of the NBS target band and amounted to 1.6% in October**

Underlying inflation (measured by the consumer price index excluding prices of food, alcoholic beverages, tobacco and energy products) was also below the lower limit of the target band of the NBS and at the end of Q3 amounted to 1.7% (Graph T5-2), while in October, it decreased slightly and amounted to 1.6%. Stable low underlying inflation (which ranged from 1.6% to 2.2% in the long term) was greatly contributed by a stable, practically fixed dinar exchange rate, as well as a fall in interest rates. The growth of underlying inflation should be affected by the continuation of the recovery in domestic demand, as well as the growth of inflation in eurozone countries (whose low inflation so far exerted disinflationary pressure on the import prices in Serbia, given that it is expected to grow in 2017). The prices of the most basic metals (aluminum, lead, zinc, tin, nickel, cobalt, etc.) have grown in the past several months, while copper price recorded a significant leap in November, which continued in December, so it can be expected that these prices will have inflationary effect in coming months.

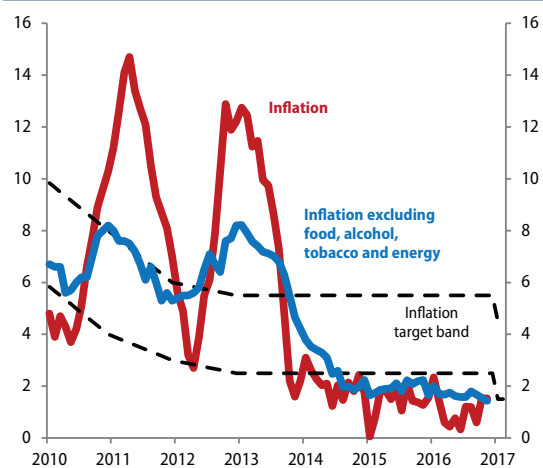
**Since the beginning of the year NBS target inflation has amounted to 3±1.5%**

Low and stable inflation in the long past period, a slowdown in convergence of regulated prices to the level of the European Union and the absence of other significant inflationary factors, as well as the reduction in internal and external imbalance led to anchoring of the expectations of the price growth below the officially targeted corridor. Therefore, the National Bank of Serbia and the Government of the Republic of Serbia made the decision to decrease the target inflation rate by 1 percentage point for 2017 and 2018 - from January 2017 target band will amount to



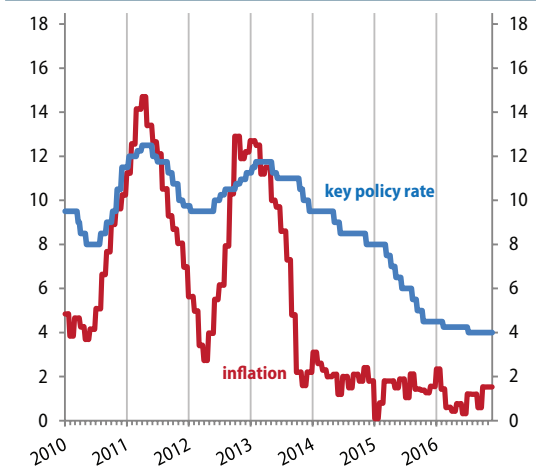
3 ± 1.5%, which is more in accordance with the expected inflation trend in future. In previous issues of QM, we suggested that it could be good for the NBS credibility to either bring inflation within the limits of the corridor or adjust the corridor according to the expected inflation trend. Overall, we estimate that the new inflation goal is more adequate for the following years, although we believe that the target band is relatively wide. The key policy rate (KPR) was reduced in July to 4.0% (Graph T%-3) and it has been kept at this level up until today.

**Chart T5-2. Serbia: Y-o-y Inflation Rate and Underlying Inflation and the NBS Target Band 2010-2016**



Source: NBS and QM estimates

**Chart T5-3. Serbia: NBS Reference Interest Rate and y-o-y Inflation Rate, in %, 2010-2016**



Source: NBS

**Relatively low inflation in Q3**

There was a relatively modest increase in prices in the third quarter of 2016, so that inflation reached 0.2% (Table T5-4), i.e. by months: -0.05% in July, 0.87% in August and -0.59% in Q3 in September. Inflation in Q3 was mostly contributed by the growth in the prices of some food products (fresh meat prices rose by 8.9%, while prices of milk and dairy products increased by 1.7%, making a total contribution to inflation of 0.71 pp), tobacco (increase by 4.7%, contribution of 0.22 pp), books (increase by 13%, the contribution of 0.07 pp), products and services from the group of transport (increase by 0, 3%, contribution of 0.04 pp) and drugs (increase by 1%, the contribution of 0.03 pp). Drop in prices of vegetables (drop by 16.8%, contribution of -0.82 pp), followed by clothing and footwear (-1.2%, contribution -0.06 pp) and drop in prices of bread (-0, 5%, the contribution of -0.03 pp) and fruit (-1.3%, contribution -0.03 pp) had disinflationary effect.

**Relatively high monthly inflation in October**

In October, price growth amounted to 0.7%, mainly due to a growth in the prices of food (growth of 0.7%, contribution to inflation of 0.2 p.p.), out of which the vegetables price increased the most (growth of 6.7%, contribution of 0.33 p.p.), followed by electricity (increase by 3.8%, contribution of 0.2 pp) and the price from the group of recreation and culture (growth of 2.5% and contribution of 0.14 percentage points). A fall in the fruit prices of 4.3% had disinflationary effect (contribution of -0.09 p.p.), while other groups of products and services had significantly less impact on the consumer price index.

**Table T5-4. Serbia: Consumer Price Index: Contribution to Growth by Selected Components**

	Share in CPI (in %)	price increase in Q3 2016	Contribution to overall CPI increase (in p.p.)	Price increase in October 2016	Contribution to overall CPI increase (in p.p.)	Price increase in November 2016	Contribution to overall CPI increase (in p.p.)
Total	100.0	0.2	0.2	0.7	0.7	-0.11	-0.11
Food and non-alcoholic beverages	32.1	-0.5	-0.2	0.6	0.19	-0.68	-0.22
Food	28.6	-0.6	-0.2	0.7	0.20	-0.73	-0.21
Alcoholic beverages and tobacco	7.3	2.9	0.2	0.0	0.00	-0.11	-0.01
Tobacco	4.7	4.7	0.2	0.0	0.00	0.00	0.00
Clothing and footwear	4.6	-1.2	-0.1	1.1	0.05	0.92	0.04
Housing, water, electricity and other fuels	13.7	-0.1	0.0	1.4	0.20	0.34	0.05
Electricity	4.9	0.0	0.0	3.8	0.19	0.00	0.00
Furniture, household equipment, routine maintenance	4.8	0.4	0.0	0.4	0.02	0.25	0.01
Health	5.0	0.8	0.0	0.0	0.00	0.06	0.00
Transport	12.7	0.3	0.0	0.4	0.05	0.24	0.03
Oil products	5.8	0.4	0.0	0.8	0.05	0.36	0.02
Communications	5.1	-0.3	0.0	0.1	0.00	-0.07	0.00
Other items	14.7		0.1		0.19		-0.01

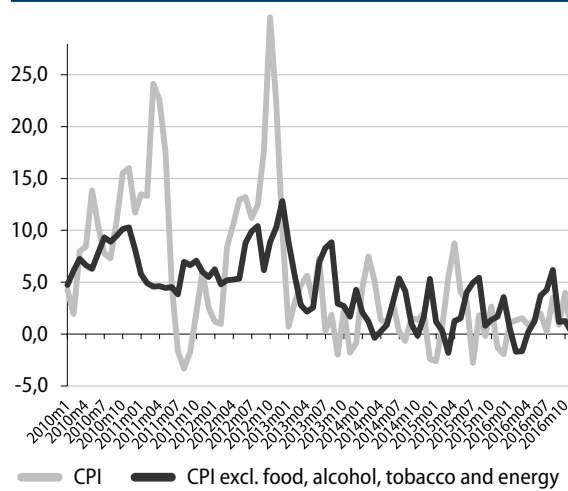
Source: SORS and QM estimates

**Total and underlying inflation are at a stable low level**

Total inflation at the end of Q3 was 0.9% (3m annualized average), while in October, it rose to 4.0% (Graph T5-5). Growth in total inflation was largely contributed by the October increase in food prices and electricity. Underlying inflation (3m annualized average of inflation excluding food, alcoholic beverages, tobacco and energy products) at the end of Q3 stood at 1.2%, while in October increased slightly to 1.3%. The September decline in underlying inflation (from 6.2% to 1.2%) is the result of the output of a relatively high underlying inflation of 0.6% in June from the calculation of a 3m average and input into the calculation of a September deflation of 0.6%.

**Until the end of 2016, inflation will move below the lower limit of the target band, while it is expected to enter within the limits of a new NBS target band in 2017**

Year-on-year inflation growth can be expected in November and December, as monthly deflation from November and December of 2015 are left out from its calculation, but it will nevertheless move below the lower limit of a still targeted band of the NBS until the end of the year. Inflation will enter within the limits of a new corridor in early 2017. In the following months, price growth will be slightly influenced by the spillover of the October growth in the price of electricity, growth in the world price of crude oil and basic materials (whose growth can be expected in the next year), as well as the recovery of domestic demand, while stable dinar exchange rate, low prices of the agricultural products and good domestic agricultural season will have disinflationary effect.

**Chart T5-5. Serbia: CPI and Underlying Inflation Trend, Annualized Rates, in %, 2010-2016**

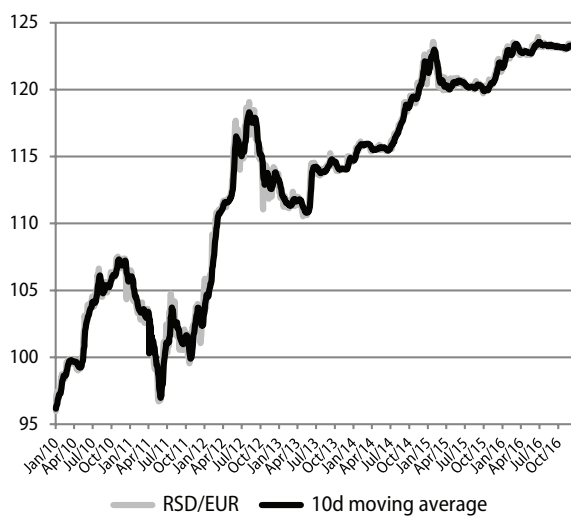
Source: SORS and QM estimates

Inflation growth in international environment should also influence the prices in Serbia, via growth in the prices of imported products and domestic supplements. As the NBS showed the willingness to “defend” the dinar exchange rate in the previous period (both in the case of depreciation pressures, as well as in appreciation pressures) and as the same is expected to continue also in the period until the presidential elections in 2017, the dinar exchange rate will most likely continue to be a bit variable, so that the effect of the exchange rate spillover to the prices will be minimal. We expect that at the end of the year inflation will amount to 2.2%, while average inflation in 2016 will be around 1.2% (we assumed monthly inflations for November and December at the average level of the current year).

## The Exchange Rate

*Dinar exchange rate in Q3 and October and November remained almost unchanged.*

**Chart T5-6. Serbia: Daily RSD/EUR Exchange Rate, 2010-2016**



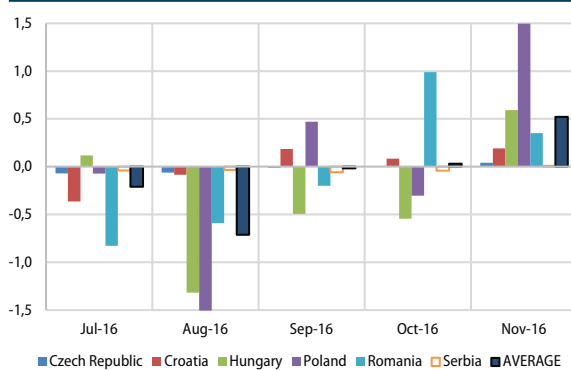
Source: NBS

During Q3, dinar strengthened against the euro by 0.02%, when compared to the end of Q2 (i.e. by 0.14%, when observed at the level of the quarter intersection), in October strengthened by additional 0.1%, while in November, it weakened by 0.03% (Graph T5-6). Significantly larger changes in the exchange rate occurred in relation to the US dollar and Swiss franc. Against the dollar, dinar strengthened by 1.1% in Q3 and in October and November it weakened by 2.2% and 3.2% retrospectively, while it depreciated against the Swiss franc in Q3 by 0.02% and in October by 1.6% and in November by additional 2.1%. In order to prevent the dinar appreciation due to an increased demand for the domestic currency, NBS intervened by buying foreign currency (mostly in July and October) at the Interbank Foreign Exchange Market (IFEM).

*Exchange rate volatility in Serbia is significantly lower than in most countries in the region*

By observing dinar exchange rate changes in the past four months (Graph T5-7) in comparison with the changes in the countries in the region with a similar exchange rate regime, it can be concluded that there is a significantly greater impact of the Central Bank to the movement of the exchange rate in Serbia and that the objective was to prevent a major dinar exchange rate variations. Purchase of the foreign exchange in the IFEM contributed to the reduction of depreciation pressures, which prevented the deterioration of the economy of Serbia competitiveness, which, of course, we assess as positive. Considerably larger fluctuations of the exchange rates of most other selected currencies when compared to the dinar in recent months can be

**Chart T5-7. Nominal Exchange Rate Change (in %) in Selected Countries**



Source: Eurostat, NBS, QM estimates

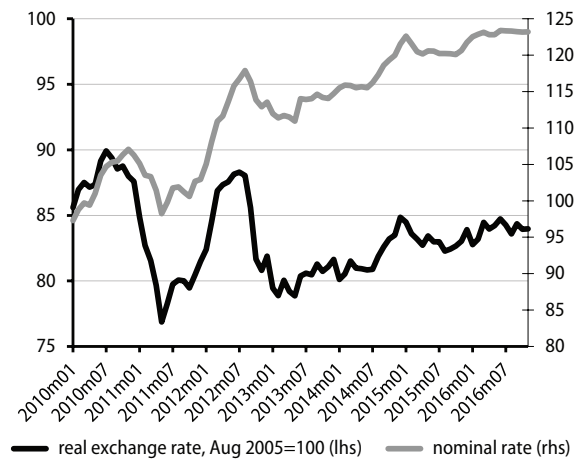
Note: an increase represents depreciation

explained by the willingness of the central banks of these countries to allow greater exchange rate changes in the economies with a lower level of euroisation than is the case in Serbia. Due to a high exposure to the euro, too large dinar depreciation in Serbia would increase the cost of loan servicing and jeopardize macroeconomic stability, while too high appreciation would jeopardize the competitiveness of the economy. Therefore, central banks in other countries may implement measures aimed at achieving a price and financial stability relatively independently from the changes in the exchange rate, while in highly euroized economies this is only possible in relatively narrow corridor.

*Real appreciation in Q3 and October*

During Q3 dinar appreciated by around 0.4%, while in October, it really strengthened by additional 0.5 p.p. (Graph T5-8). Given that the nominal dinar exchange rate moved considerably less, the main factor that led to a moderate appreciation of 0.9% during these for months was a substantially higher inflation in Serbia when compared with the countries of the eurozone. NBS interventions in the interbank market prevented a higher real appreciation and consequently greater loss of competitiveness of Serbian economy. The real exchange rate now has a similar value as at the end of 2014.

**Chart T5-8. Serbia: Nominal and Real RSD/EUR Exchange Rate, Monthly Averages, 2010-2016**



Source: NBS, SORS, Eurostat and QM estimates

Note: an increase represents depreciation

## 6. Fiscal flows and policy

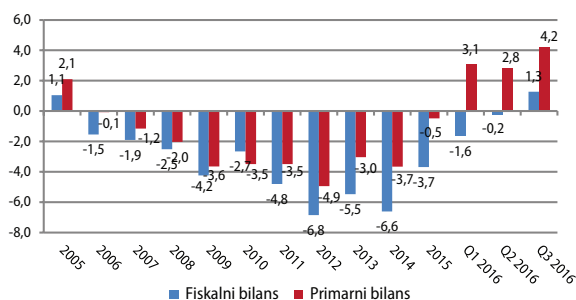
The strong upward trend in public revenues and a slight decrease in expenditures continued in the period July–October. This resulted in a consolidated budget surplus of RSD 12.4 billion in the same period. Consolidated fiscal deficit in the first ten months of 2016 was only RSD 5.8 billion (0.2% of the GDP recorded in the same period). This came as a consequence of growing revenues and generally efficient control of expenditures. Good fiscal result in the period July–October, and in the first ten months of 2016, was driven by the steady increase in real tax revenues (though it was somewhat slower than in the first half of the year), and a considerable increase in non-tax revenues. Increase in almost all types of tax revenues can be attributed to the increase in relevant tax bases (increase in consumption, income and employment), and efficient reduction in the size of the shadow economy. Moderate real rise in public expenditures continued in the period July–October and was primarily driven by continuation of the strong upward trend in capital expenditures, and a moderate increase in expenditures on goods and services. However, public expenditures in the aforementioned period, as well as in the first ten months of 2016, remained within the projected level. If the current trends continue, consolidated fiscal deficit in 2016 will narrow to 1.5% of GDP (or to 2% of GDP if the government assumes the debt owed by some state owned enterprises). Such fiscal result would represent a strong fiscal consolidation (by 2.2% of GDP) compared to the last year. Public debt (including the debt of local self-governments) totaled 73.5% of GDP at the end of October. It is expected to reach 75–76% of GDP by the end of the year, which is similar to the level recorded at the end of 2015. This indicates that the upward trend in public debt to GDP ratio continuing from 2009 is finally halted through fiscal consolidation measures. However, there is still the risk that the public debt may start growing again because its main drivers have not been entirely eliminated (assumption of the debt owed by the state-owned and public enterprises, introduction of discretionary measures allowing tax reduction or increased spending, and similar) since no notable progress in restructuring and privatization of these enterprises has been made.

### Fiscal tendencies and macroeconomic implications

*Strong upward trend in revenues and moderate increase in expenditures continue in Q3 resulting in a consolidated fiscal surplus of RSD 13.8 billion*

Q3 2016 saw a considerable year-over-year increase in public revenues and somewhat slower rise in public expenditures. Accordingly, consolidated fiscal surplus of RSD 13.8 billion, approximately 1.3% of the quarterly GDP, was recorded in this quarter. This increase in public revenues was mainly driven by a strong rise in non-tax revenues. Tax revenues went up as well, though at somewhat slower pace than in the preceding quarters. On the other hand, the aforementioned rise in expenditures was primarily driven by capital expenditures, which continued growing notably in this quarter, and higher spending on goods and services. Positive trends in revenues continued in October, while the expenditures were kept under control. Accordingly, October was another consecutive month in which a small consolidated fiscal deficit (RSD 1.3 billion) was recorded. According to the preliminary data, November saw continuation of these positive trends, namely the central government budget deficit was only RSD 3 billion.

**Graph T6-1. Serbia: Consolidated fiscal balance and primary balance (% of GDP)<sup>1</sup>**



Source: QM calculations<sup>2</sup>

<sup>1</sup> Primary fiscal balance (balance without interests) is the difference between consolidated public revenues and consolidated public expenditures subtracted by expenditures on interest payments.

<sup>2</sup> Estimates for 2016 are based on the official projections made by the Ministry of Finance.

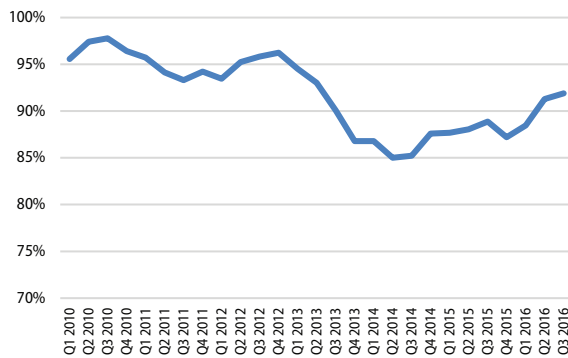
**In the first ten months of 2016 consolidated fiscal deficit stands at RSD 5.8 billion (0.2% of GDP)**

**Strong increase in tax revenues continues, though at somewhat slower pace than in the preceding period**

In the first ten months of 2016 consolidated fiscal deficit was RSD 5.8 billion (0.2% of the GDP recorded in the same period), while the primary surplus totaled RSD 112 billion (3.2% of the GDP recorded in this period). This fiscal result is way much better than expected, and is primarily attributed to a strong increase in tax and non-tax revenues.

Tax revenues grew by 7.5% in Q3 2016 compared to the same period last year. This year-over-year increase was somewhat slower than in the preceding quarter. Real seasonally adjusted tax revenues in this period remained unchanged compared to Q2 2016. Similarly, real tax revenues grew by 8% in the first nine months of 2016 compared to 2015. All types of tax revenues went up. Year-over-year increase in revenues from VAT (7.8%), excise revenues (17.2%), and social security contributions (3.2%) contributed the most to the total increase in tax revenues in this period, while revenues from corporate income tax had the highest growth rate. Although there was a considerable year-over-year increase in revenues from VAT in Q3 2016, these revenues (real seasonally adjusted) fell by 4.5% compared to the preceding quarter. This could be because

**Graph T6-2: Annually adjusted C-efficiency ratio in Serbia**



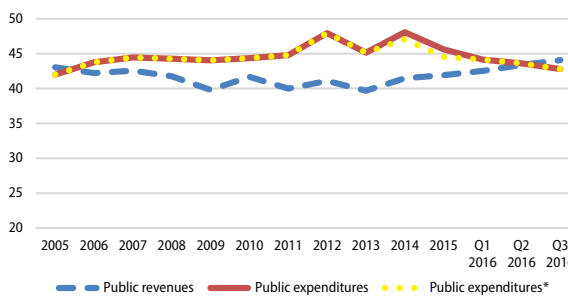
Source: QM calculations based on the MF data

previously postponed VAT refunds were realized, or perhaps the battle against the shadow economy slowed down. Collection efficiency of VAT (C-efficiency) kept improving in Q3, but was somewhat slower than in the preceding quarter, and remained below the level recorded at the end of 2012. Increase in excise revenues, especially from excise duty on petroleum products, was probably driven by reduction in illegal sale of these products, and increasingly frequent postponement of refund of excise duty on heating oil to enterprises. Rise in revenues from personal income tax and social security contributions is generally attributed to wage increase and rise in formal employment.

Strong year-over-year increase in real non-tax revenues (by 15.9%) was recorded in Q3. These revenues (real seasonally adjusted) were higher than in the preceding quarter, as well (by 12.9%). This increase in non-tax revenues came as a consequence of intensified dividend payouts by public enterprises. Trends recorded in the first nine months of 2016 indicate a sharp increase in non-tax revenues (by 8%), although, according to the Fiscal Strategy for 2016, they were supposed to decrease by 20% in 2016 compared to 2015. This suggests that the government continued collecting dividend from public enterprises aggressively. However, such policy is a huge threat to these companies and their business operations in the long-run and, therefore, collection of dividend from these companies should be scaled down in the following period to enable them modernize and expand their capacities.

**Expenditures keep growing, but at a slower pace than in the preceding quarter...**

**Graph T6-3. Serbia: Consolidated public revenues and public expenditures (% of GDP)<sup>3</sup>**



Source: QM calculations based on the MF data

Real public expenditures slowed down in Q3 2016. There was a slight year-over-year increase in these expenditures in this quarter (by 2.3%). On the other hand, real seasonally adjusted expenditures decreased in Q3 compared to Q2 (by 1.4%). Trends in public expenditures in Q3 were mainly driven by continuation of the strong year-over-year increase in capital expenditures (by 25.3%), though at a slower pace than in the preceding quarter, a moderate real rise in expenditures on goods and services (by 4.2%), and a notable decrease in expenditures on subsidies (by 20%).

<sup>3</sup> Public expenditures\* have been adjusted for one-off payment for subsidies and pensions made in December 2014 and 2015.

**...primarily due to a strong increase in capital expenditures, and expenditures on goods and services**

In the first nine months of 2016 public expenditures grew moderately (by 4.2%). Current expenditures generally were in line with the projections (real increase of 2.3%), while capital expenditures grew steeply (29.8%). According to the Ministry of Finance's revised projections, capital expenditures in 2016 will exceed the last year's by 0.3% of GDP (10% increase), and will total 3.1% of GDP. This is good. However, they need to be scaled up to 4-5% of GDP annually and kept at that level for a longer period to make a more notable improvement in the infrastructure. Accordingly, the projected increase in capital expenditures to 3.3% of GDP in 2017 is good, but insufficient.

**Fiscal deficit for 2016 might narrow to 1.5% of GDP...**

If the current fiscal trends continue, consolidated fiscal deficit for 2016 may narrow to 1.5% of GDP. If the government assumes the non-guaranteed debt owed by Petrohemija, as announced earlier, and possibly the debt of other state-owned enterprises, consolidated fiscal deficit for 2016 will be larger, and account for 2% of GDP.

**...a strong fiscal adjustment (by 2.2% of GDP) compared to 2015**

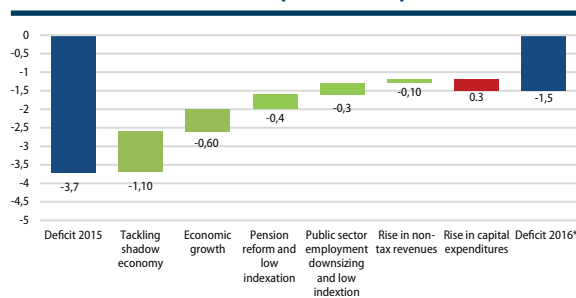
This would be a strong fiscal adjustment compared to 2015 (by 2.2% of GDP), and it would be achieved through a strong increase in tax revenues (faster rise in income and consumption, increased excise duties, excise duty on electricity, and reduction in the size of the shadow economy), increase in non-tax revenues, employee downsizing in the public sector, slower inflow of new pensioners due to the parametric reform of pensions undertaken in 2014, and a low indexation of wages and pensions. The aforementioned increase in capital expenditures contributed additional 0.3% of GDP to fiscal deficit. However, this is justifiable and necessary, considering the level of capital expenditures in Serbia, and their direct and indirect effects on economic growth.

**Total fiscal adjustment of more than 5% of GDP made in 2015 and 2016...**

Fiscal adjustment achieved through implementation of the fiscal consolidation programme in 2015 and 2016 totals 5.1% of GDP (2.9% of GDP in 2015 and 2.2% of GDP in 2016). This is a very good result. The largest reductions in fiscal deficit were made through reduction in public expenditures and increase in public revenues (3.2% of GDP and 1.9% of GDP respectively). Such structure of adjustment is suitable.

**... more than a half of this adjustment achieved through reduction in expenditures on wages and pensions**

**Graph T6-4: Share of individual factors in fiscal consolidation in 2016 (% of GDP)**



Source: QM calculations based on the MF data

Observed by individual factors, more than a half of the fiscal adjustment was achieved through reduction in expenditures on wages and pensions (cumulative decrease in expenditures on employees and pensions was 1.6% of GDP and 1.2% of GDP respectively in this period). This indicates that without implementation of the measures aimed at reduction of these expenditures (wage and pension reduction, low indexation, parametric reform of pensions, employee downsizing), fiscal consolidation would not be successful.

**...indirect fiscal risks (related to public and state-owned enterprises) have not been eliminated yet**

The key goal of fiscal consolidation is to reduce fiscal deficit to the level at which it would be possible to first tackle and then gradually reduce Serbia's public debt. Reduction in fiscal deficit down to 1.5-2% of GDP halted the upward trend in public debt which started several years ago. The risk that fiscal deficit and public debt may start growing again still remains because restructuring of public enterprises and privatization of state-owned enterprises are not developing at the necessary pace, and the government keeps covering their losses and assuming their debts at the end of the year. A more notable progress in restructuring and/or privatization of these companies is, therefore, crucial to the success of fiscal consolidation. Furthermore, measures that would result in increased spending (such as increase in wages and pensions larger than GDP growth rate), as well as the measures aimed at tax reduction (such as the announced reduction in income tax and contributions) could jeopardize sustainability of the achieved fiscal results. Such measures should be implemented along with adequate compensatory measures (reduction in some other expenditures, or increase in some other tax) that would offset their direct impact on the budget.

### Medium-term fiscal goals defined in the Fiscal Strategy are adequate

According to the new Fiscal Strategy, fiscal deficit is to be reduced to 1.7% of GDP in 2017, and further down to 1% of GDP in 2019. Such fiscal goals are adequate, but need to be accompanied by a precise set of measures that would help achieve them. This is especially important because the three-year arrangement with the IMF expires at the beginning of 2018, which increases the risk that some measures that may push up the deficit (such as tax reduction and/or increased spending) would be implemented.

### Trends in public debt

Serbia's public debt totaled EUR 24.1 billion (71.6% of GDP) at the end of Q3... ..or 73% of GDP including the debt of local self-governments

Serbia's public debt totaled EUR 24.1 billion (71.6% of GDP) at the end of Q3 2016, while the non-guaranteed debt of local self-governments increases this ratio to 73% of GDP. Public debt shrank compared both to its amount recorded at the end of Q2 and at the end of 2015 (by EUR 40 million and EUR 660 million, respectively). In relative terms, this reduction was 0.8% and 3% of GDP respectively. Decrease in public debt was larger in relative terms than in absolute amount because GDP grew in this period.

Public debt grew to 74% of GDP at the end of October

In the first three quarters of 2016 Serbia had almost balanced budget, so there was no need for further borrowing. Furthermore, no additional guarantees on loans to public and state-owned enterprises were issued in this period. Consequently, Q3, as well as the whole period from January to the end of September, saw reduction in both direct and indirect debt.

Real dinar to euro exchange rate remained almost unchanged in the first three quarters of 2016 and, therefore, did not affect the level of public debt. On the other hand, dinar slightly appreciated against dollar, which had positive impact on public debt. However, dinar to dollar exchange rate depreciated moderately in October and November (by 4%), and is, therefore, expected to push up the level of public debt by the end of 2016. Public debt stood at EUR 24.6 billion (72.2% of GDP) at the end of October, and was by EUR 450 million larger than at the end of September. This increase was to a certain extent caused by depreciation of dinar to dollar exchange rate.

**Table T6-5. Serbia: Public debt<sup>1</sup> 2000-2016**

	Amount at the end of period, in billions EUR														
	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Q1 2016	Q2 2016	Q3 2016
I. Total direct debt	14.2	9.6	8.6	8.0	7.9	8.5	10.5	12.4	15.1	17.3	20.2	22.4	22.1	22.0	22.0
Domestic debt	4.1	4.3	3.8	3.4	3.2	4.1	4.6	5.1	6.5	7.0	8.2	9.1	9.1	8.7	8.8
Foreign debt	10.1	5.4	4.7	4.6	4.7	4.4	5.9	7.2	8.6	10.2	12.0	13.4	13.1	13.3	13.3
II. Indirect debt	-	0.7	0.8	0.8	0.9	1.4	1.7	2.1	2.6	2.81	2.5	2.4	2.3	2.2	2.1
<b>III. Total debt (I+II)</b>	<b>14.2</b>	<b>10.3</b>	<b>9.4</b>	<b>8.9</b>	<b>8.8</b>	<b>9.8</b>	<b>12.2</b>	<b>14.5</b>	<b>17.7</b>	<b>20.1</b>	<b>22.8</b>	<b>24.8</b>	<b>24.4</b>	<b>24.2</b>	<b>24.1</b>
<b>Public debt / GDP (MF)<sup>2</sup></b>	<b>201.2%</b>	<b>50.2%</b>	<b>35.9%</b>	<b>29.9%</b>	<b>28.3%</b>	<b>32.8%</b>	<b>41.8%</b>	<b>45.4%</b>	<b>56.2%</b>	<b>59.6%</b>	<b>70.4%</b>	<b>75.5%</b>	<b>72.0%</b>	<b>71.9%</b>	<b>70.8%</b>
<b>Public debt / GDP (QM)<sup>3</sup></b>	<b>169.3%</b>	<b>52.1%</b>	<b>36.1%</b>	<b>29.9%</b>	<b>28.3%</b>	<b>32.8%</b>	<b>41.9%</b>	<b>44.4%</b>	<b>56.1%</b>	<b>59.4%</b>	<b>70.4%</b>	<b>74.6%</b>	<b>73.2%</b>	<b>72.4%</b>	<b>71.6%</b>

1) According to the Public Debt Law, public debt includes debt of the Republic related to the contracts concluded by the Republic, debt from issuance of the t-bills and bonds, debt arising from the agreement on reprogramming of liabilities undertaken by the Republic under previously concluded contracts, as well as the debt arising from securities issued under separate laws, debt arising from warranties issued by the Republic or counterwarranties as well as the debt of the local governments, guaranteed by the Republic.

2) Estimate of the Ministry of Finance of the Republic of Serbia

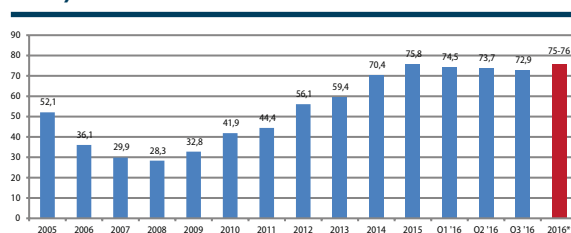
3) QM estimate (Estimated GDP equals the sum of nominal GDP in the current quarter and three previous quarters)

Source: QM calculations based on the MoF data

Public debt may total 75-76% of GDP at the end of 2016

If fiscal deficit for 2016 narrows to 2% of GDP and if the government increases borrowing, instead of using the existing government deposits, to finance the deficit in December; and if the revised projections for economic growth are achieved; and if the slight depreciation of dinar to euro exchange rate continues (by 0.5% by the end of the year); and if dinar to dollar exchange rate remains steady; and if the guaranteed debt does not rebound, Serbia's public debt (including the debt of local self-governments) may total 75-76% of GDP. Assumption of debt owed by some state-owned or socially-owned enterprises, or issuance of new guarantees on their debt, or borrowing in advance intended for covering fiscal deficit in 2017 (for example realization of the

**Graph T6-6. Trends in Serbia's public debt (% GDP)**



Source: QM calculation



loan granted by the UAE) will push public debt above the projected level. On the other hand, if the government deposits are used for this purpose, public debt will be lower than projected.

**Public debt has been tackled, but it is still very large, and its key drivers have not been eliminated**

Public debt at 75-76% of GDP at the end of 2016 will mean that the government managed to stabilize it in the second year of implementation of the fiscal consolidation programme. This would mean that the upward trend in public debt has been halted (it totaled 74.6% GDP at the end of 2015). Efficiency and pace of restructuring and/or privatisation of public and state owned enterprises will be crucial to the dynamics of public debt in the following period. The debt has been halted at a relatively high level compared to the level of development of Serbian economy (expenditures on interest payments of almost 3.5% of GDP speak in favour of this statement). Economic policy should, therefore, be directed at reduction in public debt much below 60% of GDP in the following period. This goal can be achieved through further reduction in fiscal deficit down to 1% of GDP, and restructuring and/or privatisation of public and state owned enterprises.

## Appendices

### Annex 1. Serbia: Consolidated General Government Fiscal Operations, 2010-2016 (bn RSD)

	2010	2011	2012	2013	2014	2015				2016				
						Q1	Q2	Q3	Q4	Q1-Q4	Q1	Q2	Q3	Q1-Q3
<b>I PUBLIC REVENUES</b>	<b>1,278.4</b>	<b>1,362.6</b>	<b>1,472.1</b>	<b>1,538.1</b>	<b>1,620.8</b>	<b>380.5</b>	<b>424.7</b>	<b>432.5</b>	<b>457.1</b>	<b>1,694.8</b>	<b>414.7</b>	<b>460.8</b>	<b>476.9</b>	<b>1,352.4</b>
1. Current revenues	1,215.7	1,297.9	1,393.8	1,461.3	1,540.8	379.5	422.7	430.6	454.8	1,687.6	413.3	458.8	472.5	1,344.6
Tax revenue	1,056.5	1,131.0	1,225.9	1,296.4	1,369.9	324.9	368.7	373.3	396.7	1,463.6	353.2	405.0	405.3	1,163.6
Personal income taxes	139.1	150.8	35.3	156.1	146.5	32.5	35.6	37.6	41.1	146.8	34.5	37.7	40.5	112.7
Corporate income taxes	32.6	37.8	54.8	60.7	72.7	13.0	25.9	11.5	12.2	62.7	13.3	31.1	18.1	62.6
VAT and retail sales tax	319.4	342.4	367.5	380.6	409.6	96.2	100.1	108.2	111.6	416.1	103.8	114.9	112.7	331.5
Excises	152.4	170.9	181.1	204.8	212.5	46.3	57.2	63.8	68.5	235.8	57.4	65.5	75.2	198.1
Custom duties	44.3	38.8	35.8	32.5	31.2	7.9	7.9	8.3	9.2	33.3	8.6	8.7	9.2	26.6
Social contributions	323.0	346.6	378.9	418.3	440.3	115.6	125.9	126.7	137.5	505.7	120.5	130.8	132.6	383.9
Other taxes	46.0	43.5	42.6	43.5	57.3	13.4	16.0	17.2	16.6	63.3	15.1	16.3	16.9	48.2
Non-tax revenue	159.2	36.9	37.9	34.9	170.9	54.6	54.1	57.3	58.1	224.0	60.1	53.8	67.1	181.0
<b>II TOTAL EXPENDITURE</b>	<b>-1,419.5</b>	<b>-1,526.1</b>	<b>-1,717.3</b>	<b>-1,750.2</b>	<b>-1,878.9</b>	<b>-401.7</b>	<b>-438.9</b>	<b>-448.3</b>	<b>-555.1</b>	<b>-1,844.0</b>	<b>-430.7</b>	<b>-463.1</b>	<b>-463.1</b>	<b>-1,356.9</b>
1. Current expenditures	-1,224.8	-1,324.8	-1,479.9	-1,549.8	-1,628.0	-383.8	-406.0	-410.4	-496.3	-1,696.6	-403.9	-419.5	-416.4	-1,239.7
Wages and salaries	-308.1	-342.5	-374.7	-392.7	-388.6	-98.8	-104.3	-103.1	-112.9	-419.2	-99.8	-104.6	-103.7	-308.1
Expenditure on goods and services	-202.5	-23.3	-235.7	-236.9	-256.8	-50.9	-58.8	-65.0	-82.8	-257.6	-57.5	-67.2	-68.4	-193.0
Interest payment	-34.2	-44.8	-68.2	-94.5	-115.2	-40.6	-32.7	-32.4	-24.2	-129.9	-45.9	-32.0	-31.6	-109.6
Subsidies	-77.9	-80.5	-111.5	-101.2	-117.0	-18.7	-23.8	-25.3	-66.9	-134.7	-18.0	-24.1	-20.4	-62.5
Social transfers	-579.2	-609.0	-652.5	-687.6	-696.8	-166.7	-173.8	-174.8	-194.6	-710.0	-171.9	-176.3	-178.3	-526.5
o/w: pensions <sup>5)</sup>	-394.0	-422.8	-473.7	-498.0	-508.1	-121.0	-122.8	-122.1	-124.3	-490.2	-122.1	-123.8	-123.2	-369.1
Other current expenditures	-22.9	-31.7	-37.4	-36.9	-53.7	-8.1	-12.5	-9.9	-14.8	-45.3	-10.7	-15.3	-13.9	-40.0
2. Capital expenditures	-105.1	-111.1	-126.3	-84.0	-96.7	-10.5	-23.8	-29.7	-50.5	-114.5	-17.4	-31.4	-37.5	-86.3
3. Called guarantees	-2.7	-3.3	-3.7	-7.9	-29.7	-6.9	-8.2	-7.5	-7.5	-30.1	-8.7	-11.2	-8.2	-28.1
4. Budget lending	-30.0	-25.0	-38.2	-35.6	-55.4	-0.5	-0.9	-0.7	-0.7	-2.7	-0.6	-1.0	-1.0	-2.6
<b>CONSOLIDATED BALANCE</b>	<b>-141.0</b>	<b>-163.5</b>	<b>-245.2</b>	<b>-212.1</b>	<b>-258.1</b>	<b>-21.2</b>	<b>-14.2</b>	<b>-15.8</b>	<b>-98.0</b>	<b>-149.1</b>	<b>-16.0</b>	<b>-2.2</b>	<b>13.8</b>	<b>-4.5</b>

Source: QM calculations based on the MF data

### Annex 2. Serbia: Consolidated General Government Fiscal Operations, 2010-2016 (real growth rates, %)

	2010	2011	2012	2013	2014	2015				2016				
						Q1	Q2	Q3	Q4	Q1-Q4	Q1	Q2	Q3	Q1-Q3
<b>I PUBLIC REVENUES</b>	<b>-1.5</b>	<b>-4.6</b>	<b>0.6</b>	<b>-2.2</b>	<b>3.2</b>	<b>6.9</b>	<b>3.5</b>	<b>4.5</b>	<b>-1.4</b>	<b>3.1</b>	<b>7.4</b>	<b>7.8</b>	<b>9.2</b>	<b>8.2</b>
1. Current revenues	-1.5	-4.4	0.1	-2.6	3.3	6.8	3.3	5.3	-1.4	3.3	7.3	7.9	8.6	8.0
Tax revenue	-2.5	-4.1	1.0	-1.7	3.5	1.3	-1.1	1.6	-0.4	0.3	7.1	9.2	7.5	8.0
Personal income taxes	-3.9	-2.9	2.1	-12.2	-8.1	0.1	-0.3	0.2	-4.1	-1.2	4.5	5.2	6.8	5.6
Corporate income taxes	-3.6	3.9	35.1	2.9	17.4	-17.1	-14.5	-20.1	-8.7	-15.0	1.2	19.3	55.8	22.9
VAT and retail sales tax	-0.7	-4.0	0.0	-3.8	5.4	1.9	1.5	4.7	-6.2	0.2	6.4	14.1	3.2	7.8
Excises	4.2	0.6	-1.2	5.1	1.6	7.1	1.9	7.6	20.5	9.4	22.2	13.8	16.6	17.2
Custom duties	-14.9	-21.5	-14.0	-15.6	-6.5	9.1	4.0	4.9	5.9	5.9	7.4	9.6	10.2	9.1
Social contributions	-6.5	-3.9	1.9	2.6	3.1	-1.2	-3.0	-2.4	-1.8	-2.1	2.7	3.2	3.7	3.2
Other taxes	14.5	-15.2	-8.8	-5.2	29.2	24.1	9.9	12.4	-4.5	8.9	10.9	0.7	-2.8	2.4
Non-tax revenue	5.8	-6.1	-6.2	-8.7	1.5	58.8	49.0	37.9	-7.8	27.9	8.5	-1.1	15.9	8.0
<b>II TOTAL EXPENDITURE</b>	<b>-1.7</b>	<b>3.3</b>	<b>4.3</b>	<b>-0.3</b>	<b>5.2</b>	<b>-5.4</b>	<b>-3.8</b>	<b>-1.3</b>	<b>-2.6</b>	<b>-3.2</b>	<b>5.7</b>	<b>4.9</b>	<b>2.3</b>	<b>4.2</b>
1. Current expenditures	-2.2	3.1	4.1	-2.7	2.9	-4.5	-3.0	-2.6	3.6	-1.4	3.7	2.7	0.4	2.3
Wages and salaries	-5.9	0.4	2.0	-2.6	-3.1	-12.9	-11.3	-10.6	-4.1	-9.7	-0.4	-0.4	-0.4	-0.4
Expenditure on goods and services	-0.3	4.3	1.5	-6.6	6.2	-1.0	-0.8	6.3	-6.5	-1.1	11.3	13.5	4.2	9.4
Interest payment	-0.3	17.4	41.9	28.8	19.3	13.2	12.2	19.2	-1.5	11.2	11.6	-2.6	-3.4	2.7
Subsidies	40.6	7.4	29.1	-15.6	13.2	-4.1	-1.4	-10.6	43.3	13.6	-5.3	0.5	-20.0	-8.7
Social transfers	13.9	5.8	-0.1	-2.1	-0.7	-3.2	-0.9	-0.4	6.0	0.5	1.6	0.8	1.0	1.2
o/w: pensions <sup>5)</sup>	-3.9	3.9	4.4	-2.3	-0.7	-4.7	-4.9	-6.0	-4.3	-4.8	-0.5	0.2	-0.2	-0.1
Other current expenditures	-6.1	23.9	9.9	-8.4	42.6	-15.8	-2.4	-30.5	-16.6	-16.7	30.0	21.8	39.9	29.8
2. Capital expenditures	-11.8	5.3	6.0	-38.2	12.7	-25.4	-7.4	23.2	47.8	16.8	64.1	30.7	25.3	33.6
3. Called guarantees	-2.7	-3.3	-3.7	248.7	267.8	98.8	34.8	-9.7	-38.3	0.1	25.3	36.0	8.2	23.5
4. Budget lending	-30.0	-25.0	-38.2	44.2	52.2	-90.9	-85.2	126.3	-98.4	-95.1	27.7	19.9	43.7	29.6

Source: QM calculations based on the MF data

## 7. Monetary Trends and Policy

The long period of low and stable y.o.y. inflation with occasional periods of deflation at monthly level caused the National Bank of Serbia (NBS) to change the target inflation level for the next two years to 3% while keeping the allowed tolerance band at  $\pm 1.5$  percentage points. The latest correction of the key policy rate by 25 base points was done in July and the key policy rate currently stands at 4% while the corridor of NBS interest rates vs. the key policy rate was reduced by 0.25 percentage points to the current  $\pm 1.5$  percentage points. The strengthening of the appreciation pressure since July caused a change in the direction of interventions on the inter-banking foreign exchange market (FX market) which in Q3 led the NBS into position of net buyer of foreign currency to the amount of 475 million Euro, continuing this in October and November. The buying of foreign currency on the FX market had a positive effect on the level of NBS net own reserves as well as on the creating of Dinar liquidity which led to a high nominal growth of M2 compared to the same period of the previous year. The recovery trend in credit activities continued in Q3 but predominantly in the households sector while the net growth of loans to the enterprises, although positive, was lower compared to the previous quarter. Along with the positive balance of net placements on the basis of cross-border loans to the enterprises, the overall net growth of loans to the non-state sector is currently at its highest level since mid-2012. Along with placements to the enterprises and the households, business banks increased the amount of funds in REPO placements to 290 million Euro which partly caused a drop in Dinar M2 but not enough to ruin the positive effects of NBS interventions on the MDT and somewhat higher credit activity. A new rise in credit potential in the banking sector was recorded in Q3 with the growth of deposits by the enterprises and the households of 531 million Euro. The NPL segment saw an improvement compared to the previous quarter which can be partly explained with the new measures adopted by the NBS in August this year. The overall participation of bad loans at the end of October dropped to below 20% while preliminary data from the end of November show an additional drop in the participation of NPLs.

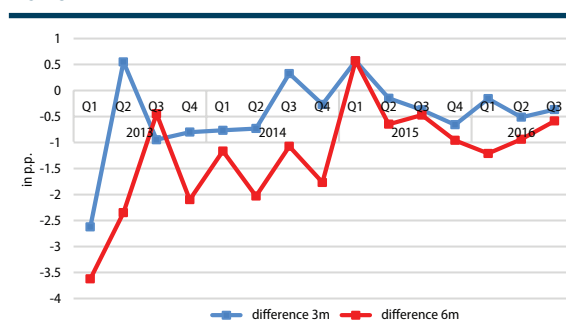
### Central Bank: Balance and Monetary Policy

*Inflation remains low and stable...*

*... which led NBS to lower target inflation level for next two years*

The downwards trend in the y.o.y. inflation rate was stopped in Q2 and the inflation rate started rising to 0.6 in September and 1.5 in October. At monthly level, the inflation rate fluctuated with deflation at  $-0.6\%$  in September followed by a monthly rise of prices of  $0.7\%$  in October. The change of direction of the pressure on the inter-banking foreign exchange market (FX market) from depreciation to appreciation in July allowed the National Bank of Serbia (NBS) to finally tackle the problem of inflation which has been below the target levels for more than two years by increasing Dinar liquidity through the purchase of foreign currency. For that purpose, the key policy rate was corrected by 0.25 base points to the current 4% while the corridor of NBS interest rate vs. key policy rate was additionally

**Graph T7-1. Deviation from planned inflation 3 and 6 months in advance of the actual 2013-2016**



Source: NBS

reduced by 0.25 percentage points and now stands at  $\pm 1.5$  percentage points. Following these changes, the NBS changed the target inflation rate in August starting from 2017 from the current 4% to 3% while maintaining the same tolerance band for allowed discrepancies. We feel that the lowering of the target inflation is justified because inflation has been at a stable level<sup>1</sup> below the lower level of the existing tolerance band for three years. We feel that the risks of inflation being above the level of the target tolerance

<sup>1</sup> Recall that we suggested a lowering of the target inflation level.

band in the next medium-term period are at a minimum. The lowering of the target inflation to 3% is a step towards stabilizing inflation at the level of around 2% which is characteristic for the development of a market economy. We assess that it is justified to consider the narrowing of the tolerance band from the existing  $\pm 1.5\%$  to  $\pm 1\%$ .

**Table T7-2. NBS interventions and foreign currency reserves 2014-2016**

	2014				2015				2016		
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep
Repo stock (in millions of euros)	783.96	824.19	387.39	69.48	2.85	168.72	508.19	253.24	246.50	239.12	325.82
NBS interest rate	9.50	8.50	8.50	8.00	7.50	6.00	5.00	4.50	4.25	4.25	4.00
NBS interest rate	4.38	5.09	6.78	10.63	-1.13	3.08	5.00	6.66	2.60	1.78	3.17
NBS interest rate	5.28	7.08	0.03	-1.94	11.33	5.70	6.29	-0.76	-0.34	3.35	4.57
NBS interventions on FX market (in millions of euros)	-800.00	-630.00	-855.00	-1620.00	170.00	290.00	730.00	520.00	-555.00	-820.00	-345.00
<b>INCREASE</b>					<b>cumulative, in % of initial M2<sup>1)</sup></b>						
NBS own reserves <sup>2)</sup>	-31.2	-4.9	2.0	-6.6	21.4	22.5	35.9	41.4	-14.89	-24.97	-10.99
NDA	12.2	-11.4	-7.6	15.6	-18.2	-16.2	-33.6	-27.9	1.45	12.57	-3.16
Government, dinar deposits <sup>3)</sup>	3.3	-14.6	-24.3	-9.5	-5.3	-0.5	-10.8	-7.7	1.32	8.75	1.11
Repo transactions <sup>4)</sup>	9.2	6.5	28.9	46.0	2.4	-3.4	-14.5	-5.9	0.16	0.62	-8.86
Other items, net <sup>5)</sup>	-0.3	-3.4	-12.2	-20.9	-15.2	-12.3	-8.2	-14.2	-0.03	3.18	4.58
H	-19.0	-16.3	-5.6	9.0	3.2	6.3	2.3	13.5	-13.44	-12.40	-14.16
o/w: currency in circulation	-5.2	-3.5	0.5	3.7	-4.7	-3.4	-1.4	2.7	-2.16	-0.64	1.29
o/w: excess liquidity	-12.1	-11.6	-7.3	-0.6	7.4	8.1	3.7	14.5	-9.03	-10.14	-14.77
					<b>in millions of euros, cumulative from the beginning of the year</b>						
NBS, net	-608.63	-725.22	169.79	-778.03	676.36	561.44	762.45	667.97	-865.84	-1061.63	-784.51
Gross foreign reserves	-793.11	-1090.74	-276.23	-1309.69	638.67	440.86	613.29	508.46	-880.04	-1080.32	-807.49
Foreign liabilities	184.49	365.52	446.02	531.66	37.69	120.58	149.16	159.52	14.21	18.69	22.97
IMF	182.35	364.90	446.72	539.97	39.37	106.55	129.87	141.97	8.10	15.09	16.00
Other liabilities	2.14	0.61	-0.70	-8.31	-1.67	14.04	19.29	17.54	6.10	3.59	6.98
<b>NBS, NET RESERVES-STRUCTURE</b>											
1. NBS, net	-608.63	-725.22	169.79	-778.03	676.36	561.44	762.45	667.97	-865.84	-1061.63	-784.51
1.1 Commercial banks deposits	-125.77	91.72	28.90	610.69	-20.68	-29.93	65.59	100.98	331.11	302.75	339.40
1.2 Government deposits	144.17	541.44	-162.64	48.59	-47.99	107.13	194.81	393.89	65.30	-26.98	98.65
1.3 <b>NBS own reserves</b>	-590.22	-92.05	36.05	-118.75	607.70	638.64	1022.85	1162.84	-469.43	-785.86	-346.46
	(1.3 = 1 - 1.1 - 1.2)										

Source: NBS.

1) Initial M2 designates the state of the primary money at the start of this and end of previous year.

2) Definition of net own reserves NBS is given in section 8 Monetary Trends and Policy, Frame 4, QM no. 5.

3) State includes all levels of government: republic and local authorities.

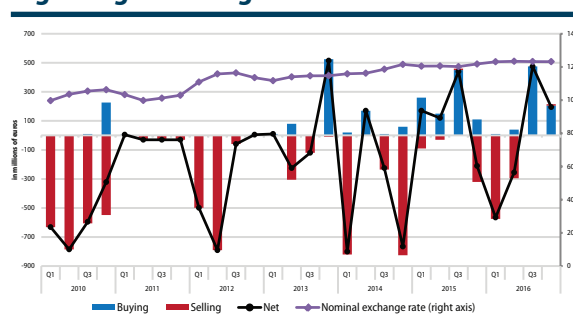
4) This category includes NBS Treasury Bonds (BZ), and repo operations.

5) Other domestic net assets include: domestic credit (net bank debts, not including BZ and repo transactions; net enterprises debts) together with other assets (capital and reserves; and items in balance: other assets) and corrected by changes to the exchange rate.

*Purchase of foreign currency in Q3 had positive effect on creating primary money...*

*...as well as growth of NBS net own reserves*

The imbalance on the FX market in the form of depreciation pressure was shortly stabilized at the end of Q2, only to reappear in July in the form of pressure on strengthening the Dinar exchange rate. To prevent a potentially higher appreciation of the Dinar exchange rate, the NBS bought Euro on the FX market in Q3 to the value of 475 million Euro, most of which – 355 million Euro – was bought in July (in Q2 the NBA was a net seller of foreign currency to the amount of 255 million Euro, Graph T7-3). Despite the weakening of pressure in August and September, NBS data indicates that appreciation pressure is still present and that led to the purchase of an additional 195 million Euro on the FX market in October and November. That purchase of Euro had a positive effect on the creating of money mass and on the increase of NBS net own reserves. Due to that, the NBS net own reserves were increased in Q3 by 439 million Euro which partly eased the reduction in the first two quarters (from the start of the year to the end

**Graph T7-3. NBS interventions on inter-bank foreign exchange market 2010-2016**


Source: NBS

of Q2 the net own reserves were reduced by 786 million Euro, Table T7-2). Although it seems that the intensity of interventions on the FX market in the past were directed to maintaining the exchange rate below a certain level, we feel that it was a positive effort by the NBS to not allow the exchange rate to strengthen in the period of appreciation pressure as was the case in Q3. The potential positive effects of a strengthening of the exchange rate are short-term after which we would quickly see a deterioration of the price competitiveness of our exports and then a slowing down of economic activity.

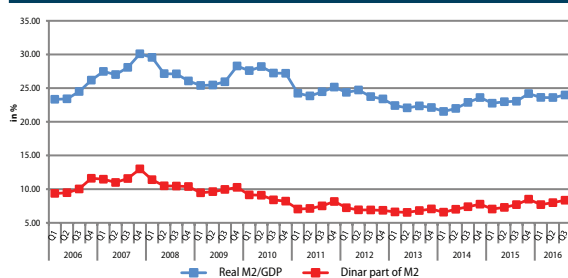
## Monetary system: money supply structure and trends

**Y.O.Y. growth of M2 speeds up in Q3 ...**

**... both in nominal and in real amounts**

The nominal growth of the M2 money mass speeded up in Q3 and stood at 10.2% y.o.y. (in Q2 the growth rate stood at 7.8% y.o.y., Table T7-5) and as part of it the growth of loans to the non-government sector continued to rise to 5.9% y.o.y. When corrections for the exchange rate are included, growth of loans to the non-government sector is somewhat lower and stand at 3.9% y.o.y. with a much higher growth evident in loans to households of 8.4% y.o.y. while loans to enterprises are growing at 1% y.o.y. The real growth rates which take into consideration price changes also confirm the speeding up of the M2 growth to 9.4% y.o.y. which is the consequence of very low inflation in the past period. Following corrections for inflation, loans to households

**Graph T7-4. Money mass trends as percentage of GDP, 2005-2016**



Source: QM calculation

recorded the highest growth rate since 2011 which in Q3 stood at 7.6% y.o.y. while data for the enterprises is much less impressive and show a real increase of 0.3% y.o.y. When we look at the change to the money mass compared to the previous quarter, there is an evident increase of 3.2% of the value at the start of the year. Growth at quarterly level is the result of the Dinar part in the form of growth of net domestic assets (NDA) of 1.7% of the value of the initial M2 in combination with growth of net foreign assets (NSA) of 1.5% of the value of the initial M2.

**Table T7-5. Growth of money and contributing aggregates, 2014–2016**

	2014				2015				2016		
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep
	<b>y-o-y, in %</b>										
M2 <sup>1)</sup>	4.2	4.8	6.6	8.7	8.5	7.8	4.1	7.2	7.9	7.8	10.2
Credit to the non-government sector <sup>2)</sup>	-6.1	-4.5	-1.2	2.9	5.8	4.2	2.2	2.8	2.2	4.7	5.9
Credit to the non-government sector <sup>2)</sup> , adjusted <sup>3)</sup>	-8.2	-5.4	-3.7	-0.8	2.8	1.2	1.7	2.5	0.6	3.1	3.9
Households	2.0	2.5	3.0	3.6	5.5	4.9	3.8	4.3	3.8	5.8	8.4
Enterprises	-13.4	-9.7	-7.3	-3.4	1.2	-1.0	0.3	1.3	-1.4	1.4	1.0
	<b>real y-o-y, in %</b>										
M2 <sup>1)</sup>	1.9	3.5	4.3	6.7	6.4	5.8	2.6	5.5	7.2	7.3	9.4
Credit to the non-government sector <sup>2)</sup>	-8.3	-5.7	-3.3	1.1	3.7	2.2	0.7	1.2	1.6	4.2	5.2
Credit to the non-government sector <sup>2)</sup> , adjusted <sup>3)</sup>	-10.3	-6.7	-5.8	-2.5	0.8	-0.7	0.1	0.8	0.0	2.6	3.1
Households	-0.3	1.2	0.7	1.8	3.4	2.9	2.3	2.7	3.2	5.3	7.6
Enterprises	-15.4	-10.8	-9.3	-4.9	-0.8	-2.9	-1.1	-0.3	-2.0	0.9	0.3
	<b>in billions of dinars, end of period</b>										
M2 <sup>1)</sup>	1691.4	1740.2	1818.4	1864.7	1835.4	1876.1	1893.8	1999.7	1979.6	2023.2	2087.0
M2 <sup>1)</sup> dinars	516.4	555.3	587.1	614.5	567.8	595.3	632.4	702.6	645.5	685.0	727.1
Fx deposits (enterprise and households)	1175.0	1185.0	1231.3	1250.2	1267.7	1280.8	1261.4	1297.0	1334.1	1338.2	1359.9
	<b>cumulative, in % of opening M2<sup>4)</sup></b>										
M2 <sup>1)</sup>	-1.5	1.4	5.9	8.6	-1.6	0.6	1.5	7.2	-1.0	1.2	4.4
NFA, dinar increase	0.2	-0.1	11.7	11.1	3.2	3.4	3.0	2.7	-2.3	-1.3	0.2
NDA	-1.6	1.4	-5.8	-2.4	-4.7	-2.7	-1.3	4.6	1.3	2.5	4.2

Source: NBS

1) Money mass: components – see Analytical and Notation Conventions QM.

2) Loans to non-state sector – loans to the enterprises (including local government) and households.

3) Trends are corrected by exchange rate changes. Corrections are implemented under the assumption that 70% of loans to the non-state sector (households and the enterprises) indexed against the Euro.

4) Initial M2 designates the state of the M2 at the start of the current and end of previous year.

**Growth of M2 generated on basis of increase of M1 and foreign currency deposits**

If the nominal growth of the M2 of 10.2% y.o.y. in Q3 is broken down into lesser monetary aggregates, we see that the greatest contribution of 5.41 percentage points is due to the growth of M1. This smallest monetary aggregates once again records a greater contribution compared to the traditionally dominant growth of foreign currency deposits which in Q3 contributed to the growth of M2 with 5.2 percentage points while savings and timed deposits have made a negative contribution of -0.4% to the growth of M2.

## Banking Sector: Placements and Sources of Financing

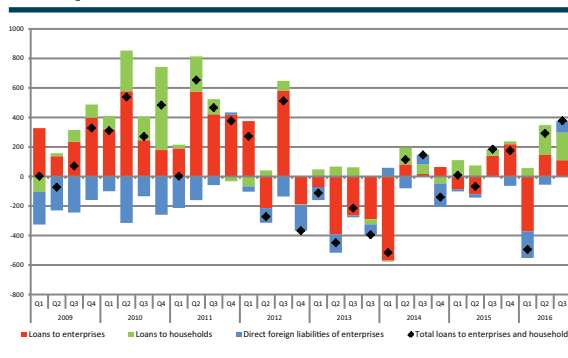
*Net placements to the enterprises and households are positive in Q3 ...*

*... with signs of slowing down while placements in REPO increase*

The net placements of banks in Q3 speeded up with growth compared to the previous quarter when credit activities increased significantly. Business banks recorded a growth of net placements of 703 million Euro in Q3 (in Q2 the growth of net placements stood at 298 million Euro, Table T7-7). In the overall growth, net placements to the non-government sector slowed down while net credit to the state and placement into REPO bonds increased which provides a somewhat less good structure of placements compared to Q2. The growth of net placements to the enterprises and the households in Q3 stood at 297 million Euro (in Q2 the net placements to the enterprises and households stood at 349 million Euro). The greatest part of the recorded growth is due to the households segment which recorded an increase of 187 million Euro, while net placements to the enterprises increased by 110 million Euro. In the structure of newly approved loans to the enterprises in Q3, highest participation was recorded in loans for current assets, while the participation of investment loans which can be observed as a source generating the growth of

production is somewhat lower compared to the previous quarter. The recorded growth of net placements to the enterprises and households slowed down compared to Q2 which is a slight cause for concern in combination with data from October in which the segment of the enterprises repaid 210 million Euro to domestic banks. For the first time in the past two years, Q3 saw an increase in net placements on the basis of cross-border loans to the enterprises which amounted to 81 million Euro bringing the overall growth of placements to the enterprises and households from domestic and foreign sources in Q3 to 378 million Euro (Graph T7-6).

**Graph T7-6. Growth of new loans to enterprises and households, 2009-2016**



Source: QM calculation  
See footnote 1 in Table T7-5

Following a lack of interest by banks in REPO bonds from the start of the year, Q3 saw a rise of banks in this type of placement by 290 million Euro which continued in October when the REPO stock was increased by an additional 91 million Euro (Table T7-7). This neutralized part of the Dinar liquidity which the NBS created by buying foreign currency on the FX market because appreciation pressure appeared in July. A higher level of activity was registered on the basis of loans to the government to which business banks net placed funds for 117 million Euro. Placements into REPO and increased net loans to the government contributed to the overall growth of net placements by the banking sector with 407 million Euro which led to the placements to the enterprises and the households not becoming the dominant (more desirable) source of growth of credit activity.

Improving credit conditions by lowering interest rates continued in Q3. Interest rates, both indexed and on Dinar loans, were reduced compared to the previous quarter with the reduction most pronounced in newly approved Dinar loans for investments. The real interest rate for Dinar loans for investments is 2 percentage points lower compared to Q2 and at 5.37% is just 0.14 percentage points over the real interest rate for current assets (in Q2 the interest rate for investments stood at 7.38%, Graph T7-8). The reduction of interest rates on indexed loans in Q3 stood at between 0.2-0.3 percentage points and because of that it is a new lowest value since we have been monitoring this data. It is certain that this low level of interest rates will remain in place in the coming period bearing in mind the extremely low levels of interest across the European Union.

**Table T7-7. Serbia: bank operations – sources and structure of placements, corrected<sup>1)</sup> trends, 2014-2016**

	2014				2015				2016		
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep
	in millions of euros, cumulative from the beginning of the year										
<b>Funding(-, increase in liabilities)</b>	578	540	504	678	241	33	-368	-513	377	168	-363
Domestic deposits	240	-32	-382	-460	47	-118	-324	-918	223	-235	-708
Households deposits	45	-105	-149	-250	-11	-104	-114	-282	-16	-235	-362
dinar deposits	27	-51	-75	-143	96	19	-57	-196	3	-75	-154
fx deposits	17	-54	-74	-107	-107	-123	-57	-86	-19	-161	-208
Enterprise deposits	195	72	-233	-210	58	-14	-211	-635	239	0	-346
dinar deposits	210	45	-159	-273	168	112	-75	-455	385	222	5
fx deposits	-15	27	-75	63	-110	-126	-136	-181	-146	-222	-351
Foreign liabilities	358	396	610	907	36	150	58	225	181	397	427
Capital and reserves	-20	176	276	232	158	1	-101	179	-27	6	-82
<b>Gross foreign reserves(-, decline in assets)</b>	193	215	673	1,019	-150	-115	-262	-497	214	337	284
<b>Credits and Investment<sup>1)</sup></b>	-343	66	-19	-451	-20	149	928	1,252	128	426	1,129
Credit to the non-government sector, total	-577	-382	-300	-296	24	-21	165	407	-316	32	329
Enterprises	-570	-488	-471	-410	-86	-207	-67	158	-374	-228	-118
Households	-7	105	171	114	111	186	231	248	57	260	447
Placements with NBS (Repo transactions and treasury bills)	-176	-133	-556	-869	-66	100	439	192	-7	-14	276
Government, net <sup>2)</sup>	411	581	837	713	22	69	324	653	452	408	525
<b>MEMORANDUM ITEMS</b>											
Required reserves and deposits	-2	-215	-223	-730	444	605	288	311	-598	-864	-859
Other net claims on NBS <sup>3)</sup>	-136	-135	-4	110	-182	-309	-209	-100	-107	160	6
<i>o/w: Excess reserves</i>	-156	-162	-9	112	-204	-317	-225	-134	-102	160	3
Other items <sup>4)</sup>	-289	-454	-822	-592	-352	-379	-404	-343	0	-204	-175
Effective required reserves (in %) <sup>5)</sup>	23	22	22	19	22	23	20	20	17	16	15

Source: NBS

1) Calculating growth is done under the assumption that 70% of the overall placements are indexed against the Euro. Growth for original Dinar valued deposits are calculated on the basis of the average exchange rate for the period. For foreign currency deposits – such as the difference in states calculated under the exchange rate at the ends of periods. Capital and reserves are calculated based on the Euro exchange rate at the ends of periods and do not include the effects of changes to the exchange rate from the calculation of the remainder of the balance.

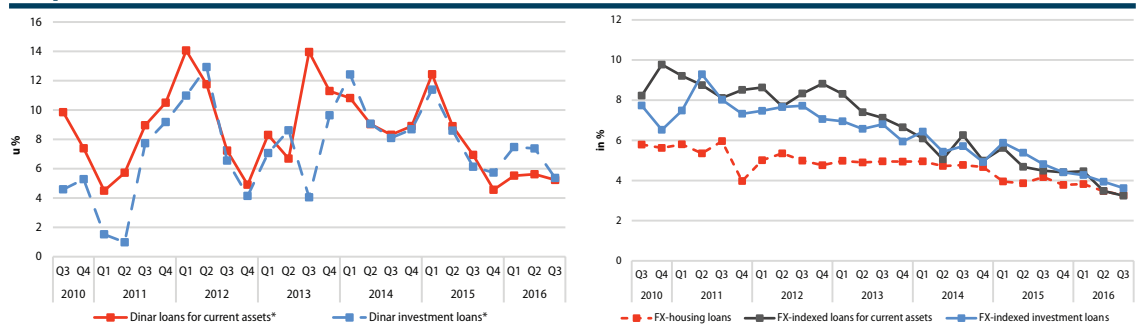
2) NBS bonds includes state and NBS treasury bonds which are sold at repo rates and at rates set on the market for permanent auction sales with a due date of more than 14 days.

3) Net loans to the state: loans approved to the state are reduced by the state deposits in business banks; a negative prefix designates a higher rise of deposits than of credit. State includes all levels of government: republic and local authorities.

4) Other debts of NBS (net): the difference between what the NBS owes banks on the basis of cash and free reserves and debts to the NBS.

5) Items in bank balances: other assets, deposits by companies in receivership, inter-banking relations (net) and other assets not including capital and reserves.

6) Effective mandatory reserve designates the participation of the mandatory reserve and deposits in the overall deposits (households and enterprises) and bank debts abroad. The basis to calculate mandatory reserves does not include subordinated debt because that is not available.

**Graph T7-8. Interest rates on Dinar and indexed loans, 2010–2016**

Source: QM calculation

\* real interest rates

**Sources for new placements additionally increased in Q3 ...**

**... mainly tanks to growth of deposits to the enterprises and households**

In Q3 we noted a significant rise in credit potential because of an increase of sources for new placements which amounted to 531 million Euro (Table T7-7), which increased in October by an additional 136 million Euro. That increase of sources is due in large part to the growth of domestic deposits of 473 million Euro which continues the positive trend from Q2 when the growth of domestic deposits was also the main source of growth. The increase in domestic deposits was caused in large part by the growth of deposits by the enterprises of 346 million Euro including 217 million Euro in Dinars while the rest represents an increase in foreign currency deposits by the enterprises. The remaining part of the growth of domestic deposits of 127 million Euro represents an increase of funds in the accounts of the households which also recorded a higher growth of domestic deposits over foreign currency deposits. We feel that the fact that the growth of domestic deposits continued in October to 124 million Euro is positive. By increasing funds

in the accounts of own capital and reserves by 88 million Euro, business banks had an additional effect on the growth of credit potential in the banking sector. The only negative effect on the growth of sources for new placements in Q3 came from the repayment of foreign debts by banks but the amount of 30 million did not have a serious effect on the growth of bank credit potential.

**Additional measures adopted in August to resolve problem of non-performing loans**

A session of the NBS Executive Board in August adopted the Decision amending the Decision on classification of bank balance sheet assets and off-balance sheet items which should stimulate banks to more quickly resolve problems with NPLs. The adopted new model says that banks which have NPLs amounting to less than or equal to 10% may calculate the amount of required reserve for estimated losses in an amount equal to zero. Banks with higher levels of NPLs in their portfolios can lower the amount of required reserves by the estimated losses by implementing the given formula if that participation is reduced to the next report period, which motivates them to more efficiently solve the problem of NPLs.

**Participation of bad loans reduced in Q3**

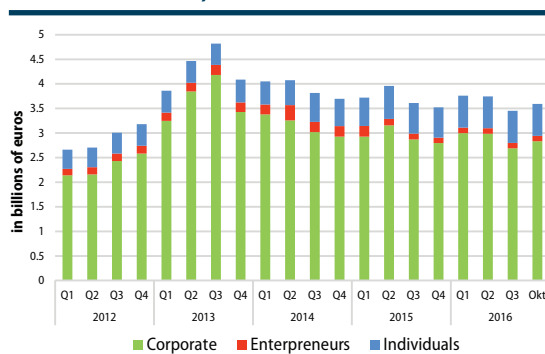
According to data from the Credit Bureau and QM methodology<sup>2</sup> the reduction of NPLs continued by 1.94 percentage points and they now stand at 19.06% of overall placements (Graph T7-11). Viewed by individual category, the improvement is mainly the consequence of a reduction in the participation of NPLs placed to corporate sector of 2.7 percentage points which also represents 75% of the current credit market viewed by value (Table T7-9). The drop in the participation of NPLs is present in the entrepreneur segment (1.68 percentage points) and is somewhat smaller (0.27 percentage points) in the part of the loans placed with private individuals despite the strong growth of net placements of new loans in this segment from the start of the year. Data from the end of October shows a somewhat higher level of participation of NPLs but it is still one percentage point below the level at the end of the previous quarter<sup>3</sup>.

**Table T7-9. Participation of NPLs according to debtor type, 2018-2016**

	2009	2010	2011	2012	2013	2014				2015				2016				
	Dec	Dec	Dec	Dec	Dec	Mar	Jun	Sep	Dec	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Okt	
	<b>balance at the end of period</b>																	
Corporate	12.14	14.02	17.07	19.06	27.76	28.67	28.12	26.76	25.5	25.85	28.63	25.52	24.40	26.89	26.26	23.56	25.21	
Entrepreneurs	11.21	15.8	17.07	15.92	20.82	21.11	29.77	43.61	43.29	45.19	34.91	32.03	29.92	33.03	30.12	28.44	28.79	
Individuals	6.69	6.71	7.24	8.32	8.59	8.7	9.22	11.41	9.97	10.16	11.60	10.68	10.53	10.95	10.63	10.36	10.22	
Amount of debt by NPL (in billions of euros)	1.58	1.94	2.63	3.19	4.09	4.05	4.07	3.81	3.70	3.72	3.96	3.61	3.52	3.76	3.75	3.45	3.59	

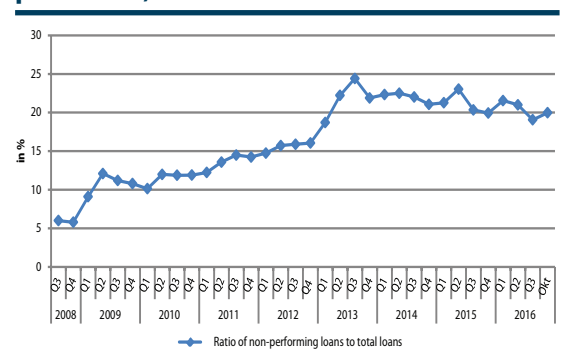
Source: QM calculation

**Graph T7-10. Amount of remaining debt in loans fallen late, 2012-2016**



Source: QM calculation

**Graph T7-11. Participation of NPLs in overall placement, 2008-2016**



Source: QM calculation

2 For details on the manner of calculating the participation of bad loans see QM 6 - Pod lupom 1: NPLs and Loans in Serbia – What is the true measure?  
 3 According to the latest available data from the Credit Bureau in November the participation of bad loans in overall credit was reduced significantly. In the next issue of QM we will take a detailed look into this reduction if the data for December and January shows that the reduction is permanent.

# HIGHLIGHTS

## Highlights 1. Exports potential of IT services in Serbia

Mirjana Gligorić<sup>1\*</sup>, Miloško Arsić<sup>2\*\*</sup>

A strong growth of services exports, but also high positive values in the balance of this account were recorded in the past few years in Serbia, which gives an important contribution to reducing the current account deficit. From 2012 to 2015 almost one-third, and in 2015 almost two-thirds of reduction of the current account deficit is owed to the increase in net services exports. This is to a large extent the result of a strong growth of exports of computer (IT) services, whose level and dynamics are the primary subject of this Highlight. We emphasize that, despite the high value of exports of IT services, there is potential for its further growth, i.e. the possibility of doubling exports of these services in the medium term. In addition, we stress the importance of further development and growth of exports of the IT sector from the standpoint of balance of payments and the fact that this sector has a high added value. Further growth in computer services exports would have significant multiple effects, among others it could contribute to the image of Serbia to be recognized by foreign investors as a country with high-quality human capital – rather than a country with cheap labour – which would lead to a desirable influx of foreign investments from the standpoint of the quality of economic growth, job creation (especially for highly skilled workers), increasing productivity, etc. Therefore, the State support to the development of the IT sector and the export of IT services, through general reforms aimed to improve business conditions and educational policy, is particularly important.

### 1. Scope and structure of exports and imports of services in Serbia

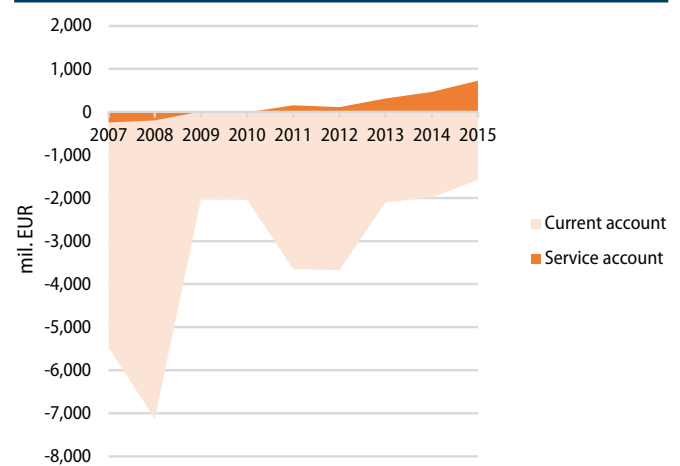
The current account deficit in the balance of payments has recorded significantly lower levels in recent years. Very often the contribution of reducing the trade deficit to the reduction of the current account deficit is being emphasized. The growth of exports of goods, slower growth of imports of goods, as well as favorable foreign trade relations and other fundamentally important trends and circumstances that lie behind such dynamics of foreign trade flows are being analyzed. The fact that the reduction of the current account deficit in the last 3-4

years has been significantly contributed by an increase of net services exports is emphasized in the public to a lesser extent.

Graph 1 gives an overview of the level of the current account deficit and the balance of service account. Although service net exports are still at a relatively modest level, the graph points out their noticeably growing trend, indicating its potential significance. The importance of service net exports comes to the fore when the dynamic of growth is taken into account in the past few years. Net service exports have contributed to the 27% reduction in the trade deficit and 29% reduction of the current account deficit in the period from 2012 to 2015.

In 2015 net service exports had a very prominent importance in terms of current international transactions. In fact, in 2015 69% of the reduction in the trade deficit was a result of a surplus in the export of services. Also, nearly two-thirds (64%) of the total reduction in the current account deficit represents the amount of improvement of the balance in the service account.

**Graph 1. Current account and services account balance, 2007-2015**



Source: Authors based on the NBS data

Improvement in the balance of services is the result of an intensive growth in service exports after 2010, while service imports grew much slower. From 2007, since National Bank of Serbia data are available according to the new methodology, Chart 2 shows trends in service exports and imports in millions of euros. In 2007 and 2008, service imports were above the level of exports, taking into account that after the levels from 2007 in the following year, due to the onset of the global economic crisis, their significant decline was recorded. In the following two years, service account was almost balanced (see Graph 3). In 2011, the value of service exports was

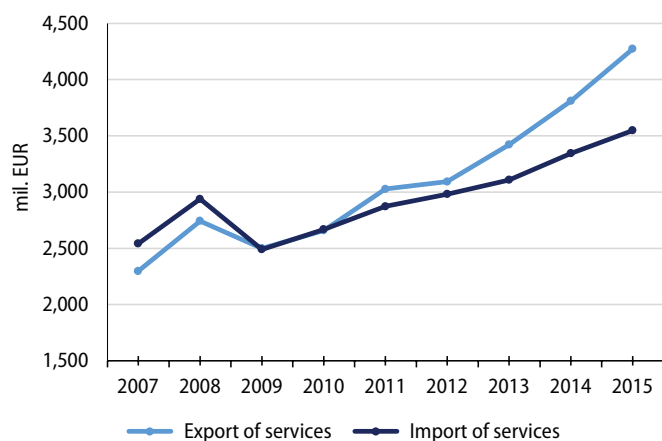
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<sup>2</sup> Faculty of Economics University of Belgrade and QM



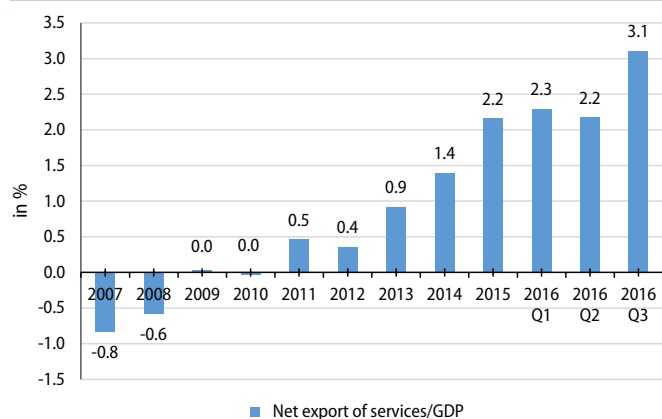
significantly higher than the value of imports. Exports had especially strong pace of growth since 2012, when the increase of surplus occurred, which significantly contributed to reducing the deficit in the foreign trade and the current account balance. The surplus in the balance of services in Q3 2016 covers a third of the trade deficit and this surplus amounts to even 3.1% of the quarterly GDP value. Therefore, we believe that it is important to explore the potential for the development of the service sector in Serbia and the growth of services exports. Namely, the question is what are the chances that the strong growth of service exports will continue in the coming years? Growth of exports and increase in the surplus of the balance of services, with the expected reduction of the trade deficit and standard surplus of the secondary income account (mainly remittances) would significantly contribute to further reduction of the current account deficit, and after that to the eventual surplus. Therefore, the surplus in the services account is an important item of the current account of balance of payments, particularly from the perspective of the fact that there is potential for its further growth in the future.

**Graph 2. Dynamics of exports and imports of services**



Source: Authors based on the NBS data

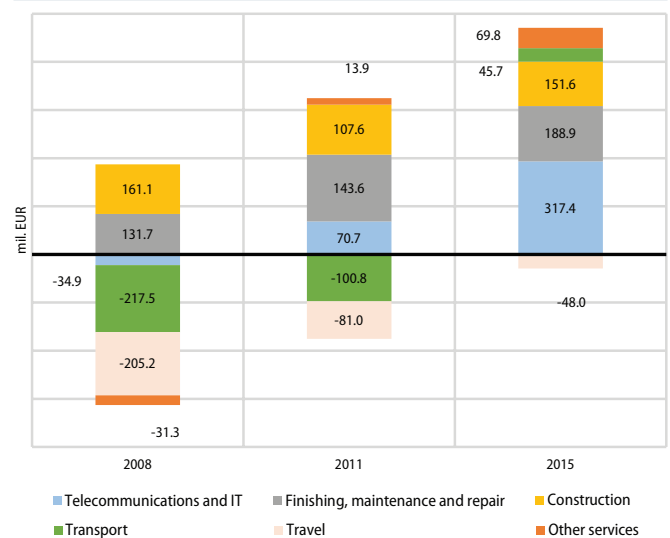
**Graph 3. Net exports of services in GDP, 2007-2016 Q3**



Source: Authors based on the NBS data

Based on this dynamic of services exports and imports growth, Graph 4 provides an overview of the foreign trade balance for six groups of important services.<sup>3</sup> It can be noticed that in three observed years balance of services for observed groups significantly changes. In 2008 as many as four groups recorded a deficit in the foreign trade, and in 2015 deficit was recorded only by the tourism services. However, besides the fact that tourism service imports are still higher than exports, deficit was reduced in this area also. The deficit was high in 2008 in transport services, lower in 2011, while in 2015 these services recorded a surplus. We especially emphasize the change in the Telecommunications, computer and information services (on the Chart named short Telecommunications and IT), in which, after a small deficit from 2008, in 2011 a surplus was recorded, which in 2015 reached a very high level. This trend in the balance of foreign trade of services was also influenced by international circumstances, but also by inner potentials of the domestic economy, where the increase in exports of IT services is especially emphasized - which is the subject of the analysis in the remaining part of this text.

**Graph 4. Foreign trade balance of services by type of service**



Source: Authors based on NBS data

Note: 1) Telecommunication and IT services are telecommunications, computer and information services, 2) Finishing, maintenance and repair services are Processing services on physical inputs owned by others, and Maintenance and repair services not included elsewhere, 3) Other services include: Financial services, Insurance and pension insurance services, Trade in goods and services of the country not included elsewhere, Charges for the use of intellectual property not included elsewhere, Personal, cultural and recreational services and other business services.

According to the available data of the World Bank for 2015 for 124 countries of the world<sup>4</sup>, Serbia is on the 66th place in the world by the value of services exports (according to the value of exports of goods Serbia in

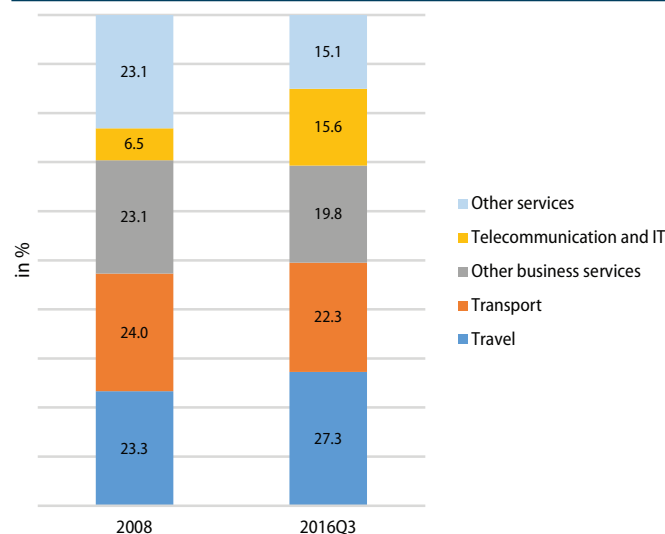
<sup>3</sup> See note below Graph 4

<sup>4</sup> World Development Indicators, data in current prices in US dollars.

2015 holds 70th place out of 146 countries). In 2014 and 2013, since the data have been available for a larger number of countries, Serbia's ranking observed by the service exports was 74th and 72nd, respectively<sup>5</sup>. Compared with the neighbouring countries, worse position have only Macedonia, Albania, Bosnia and Herzegovina and Montenegro, while Romania (37th) and Croatia (45th place, because of tourism) are ranked high.

Graph 5 shows the structure of service exports by type of service. Although there have been some changes in the structure from 2008 to 2016, still, the fact that has not changed is that the dominant services we export are in three groups: tourism, transport and so-called other business services. These three groups make up about 70% of the exported value of all services. Within them exports of tourism services make more than a quarter of the value of service exports, and in the observed period recorded a substantial increase of 4 percentage points - from 23.3% to 27.3%. On the other hand, the share of exports of transport services is lower by 1.7 percentage points in 2016 compared to 2008 (from 24.0% to 22.3%).

**Graph 5. Structure of services exports**



Source: Authors based on NBS data

Note:

- 1) Telecommunication and IT Services are Telecommunications, computer and information services,
- 2) Other services include: Processing services on physical inputs owned by others; Maintenance and repair services not included elsewhere; Financial services; Insurance and pension insurance services; Trade in goods and services of the country not included elsewhere; Charges for the use of intellectual property not included elsewhere; Personal, cultural and recreational services and construction services.

Decrease of the share of exports of other business services amounted to 3.3 percentage points during the same period (from 23.1% to 19.8%). In particular, the graph shows a significant increase in the share of exports of so

<sup>5</sup> According to the export of goods between the countries of the world for which data is available, Serbia is at the 73rd place in 2013 and 72nd place in 2014.

called Telecommunications and IT services (full name: Telecommunications, computer and information services), from 6.5% in 2008 to 15.6% in 2016. Thus, in Q3 2016, except these four groups of services, exports of other groups individually make much lower percentage of total exports (below 10%). Thus, the sum of exports of *Processing services on physical inputs owned by others, maintenance and repair services, Personal, cultural and recreational services, Construction services and Financial services* accounts for 15% of the value of total services exports (see Graph 5).

This text especially analyses IT services, bearing in mind the importance of their balance of payments – on the basis of the value of exports (comprising 15.6% of the total value of services exports in Q3 2016, see Graph 5), and also on the basis of the realized surplus (total account surplus in 2015 amounted to 725 million euros and a surplus of IT services was 317 million euros). In addition, we believe that there is a potential for exports of IT services to achieve rapid growth in the future, which would have multiple favourable effects on the Serbian economy in the long run.

## 2. Recent trends and the relative importance of exports of IT (computer) services

Information and communication technologies (ICT) with their rapid development led to revolutionary changes in the world economy. The latest data of the World Bank (2014) suggests that the exports of ICT services in the world amounted to 1.536 billion US dollars<sup>6</sup>. Serbia recorded value of exports of ICT services of 1.76 billion dollars and holds 52nd position in 2014 (i.e. makes 0.11% of world exports of these services), while according to the data for 2015 holds 50th place. Compared with neighbouring countries, just Romania and Bulgaria are better ranked than Serbia.

Computer services are by scale, but also the pace of growth, of great importance at the global level. In the period between 1995 and 2014, according to the World Trade Organization<sup>7</sup>, the world's exports of computer and information services were increasing significantly faster than exports of any other service sector - the growth rate of 18% per year on average. It is estimated that the value of exports of computer and information services in 2014 reached 302 billion US dollars. High growth of exports of these services was recorded in Asian countries (from 8% in 1995 to 29% of total world exports in 2014, primarily in India and China). Europe is still the leader in the world, with exports of these ser-

<sup>6</sup> Including telecommunication services. Source: World Development Indicators data in current prices in US dollars.

<sup>7</sup> [https://www.wto.org/english/res\\_e/statis\\_e/its2015\\_e/its2015\\_e.pdf](https://www.wto.org/english/res_e/statis_e/its2015_e/its2015_e.pdf)

vices of 58% of total world exports<sup>8</sup>. In addition, besides pronounced dynamics of growth of foreign trade, additional importance of the IT sector is its resilience during the crisis.

According to the methodology of Balance of Payments of the International Monetary Fund<sup>9</sup>, computer services are comprised of services related to hardware and software, and data processing services. They include:

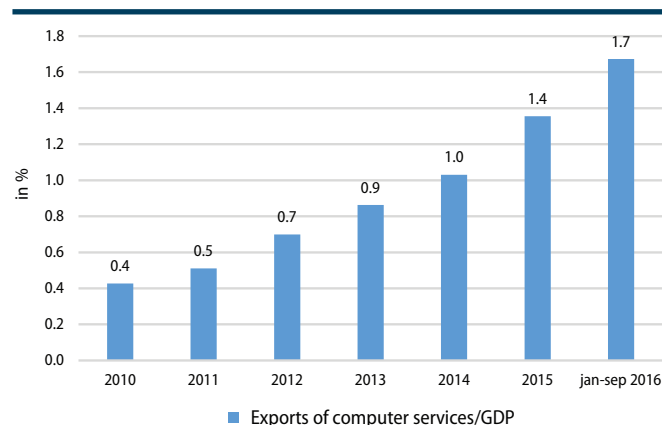
- (a) sales of customized software (however delivered) and related licenses to use;
- (b) the development, production, supply, and documentation of customized software, including operating systems, made to order for specific users;
- (c) non customized (mass-produced) software downloaded or otherwise electronically delivered, whether with a periodic license fee or a single payment;
- (d) licenses to use non customized (mass-produced) software provided on a storage device such as a disk or CD-ROM with a periodic license fee (non customized software on storage devices with licenses that convey perpetual use is included in goods);
- (e) sales and purchases of originals and ownership rights for software systems and applications; (f) hardware and software consultancy and implementation services, including the management of subcontracted computer services;
- (g) hardware and software installation, including installation of mainframes and central computing units;
- (h) maintenance and repairs of computers and peripheral equipment;
- (i) data recovery services; provision of advice and assistance on matters related to the management of computer resources;
- (j) analysis, design, and programming of systems ready to use (including web page development and design), and technical consultancy related to software;
- (k) systems maintenance and other support services, such as training provided as part of consultancy;
- (l) data-processing and hosting services, such as data entry, tabulation, and processing on a time-sharing basis;
- (m) web page hosting services (i.e., the provision of

server space on the Internet to host clients' web pages); and

(n) provision of applications, hosting clients' applications, and computer facilities management.

Telecommunications, computer and information services have a significant share in exports and in net exports in Serbia. Within them, computer services are very important. The surplus in the trade of computer services in 2015 covered even 7.2% of the trade deficit, and this figure is as high as 11.5% for the first nine months of 2016. The exported value of computer services accounts for a significant part of the total value of services exports: 8.6% in 2013, 9.0% in 2014, 10.6% in 2015, and even 12.7% in the first nine months of 2016. In addition, in recent years there was a large increase of the share of the value of exports of IT services in GDP (Graph 6), from 0.4% in 2010, to 1.4% of GDP in 2015 (in the first nine months of 2016 this share amounted to 1.7 % of GDP). In recent years, exports of IT services has pronounced rapid growth, while on the other hand, imports recorded minor fluctuations around a constant level, which has led to a sharp increase in the value of the realized surplus (Graph 7). Such rapid growth in exports of computer services, and thereby increase the surplus represents a significant trend for the balance of payments. After a deficit of 8 million euros in 2010, the following years - from 2011 to 2015 recorded a surplus of 44, 72, 135, 172 and 288 million, respectively. Therefore, in the period between 2012 and 2015, about a tenth of the reduction of the current account and the trade deficit is a result of the increase in the surplus of IT services.

**Graph 6. The share of exports of computer services in GDP**

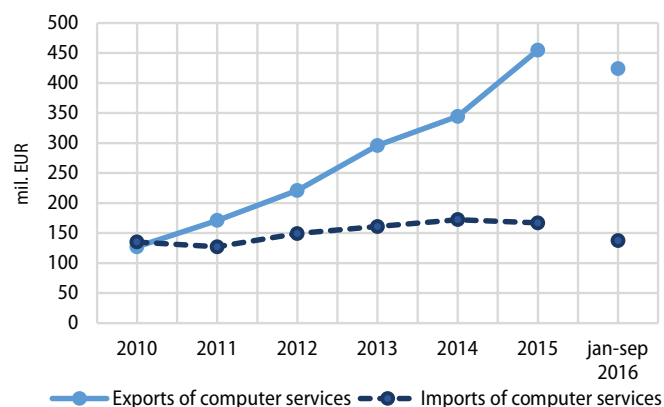


Source: Authors based on the data of the EUROSTAT and NBS

Note: By 2013, data from the Eurostat base, after 2013 from the NBS database

<sup>8</sup> Same

<sup>9</sup> IMF BPM 6, <https://www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf>

**Graph 7. The level and dynamics of imports and exports of computer services**

Source: Authors based on the data of the EUROSTAT and NBS

Note: By 2013, data from the Eurostat base, after 2013 from the NBS database

We believe it is particularly important to expand the potential that exists in the IT sector in Serbia. One of the arguments is the dynamics of the growth of exports of IT services, i.e. a possible contribution to balancing the external imbalances in the future. Also, numerous effects that the development of IT sector carries, such as, the development of education, recruitment of skilled work force, tracking of global trends, the fact that the exports of IT services proved to be very resistant to the crisis, and others, indicate its special significance in terms of providing long-term sustainable economic growth. These are high value added services that require a small initial investment. Also, growth in exports of computer services could contribute to the image of Serbia to be recognized by foreign investors as a country with high-quality human capital - rather than a country of cheap labour - which would lead to an influx of foreign investments desirable from the standpoint of the quality of economic growth, job creation (especially for highly skilled workers), increase of the level of technology and productivity in the economy, and others. Serbia is now comparatively well placed in terms of the development of the IT sector, but also has significant potential - skilled workforce.

### 3. The potential growth in exports of IT services

Countries of the European Union exported IT services worth 179 billion dollars in 2013, which was 68% of the exported value of these services in 10 world's largest exporters<sup>10</sup>. Significant annual growth rates of this EU exports were also recorded: 6% in 2012 and 9% in 2013.

According to Eurostat data, the total exports of computer services of the Baltic States, countries of East-central

<sup>10</sup> [https://www.wto.org/english/res\\_e/statis\\_e/its2015\\_e/its2015\\_e.pdf](https://www.wto.org/english/res_e/statis_e/its2015_e/its2015_e.pdf), page 142.

and South-East Europe with Serbia in 2014 amounted to 9.5 billion euros (Table 1). The average annual exports growth of these services in the period from 2010 to 2014 was very high and amounted to 16.8%.<sup>11</sup> Exports of IT services grew at a rate slightly below the average for the countries of Central and South-eastern Europe (average annual growth rate for 2010-2014 period of 16.3% and 16.4%, respectively), while the Baltic countries recorded below-average growth (rate of 18.3%). In Serbia, the value of exports of IT services reached very high value of 344 million euros in 2014 (Table 1) and 455 million euros in 2015. These exports recorded particularly high average annual growth rates of 25.5% in the period 2010-2015. So expressed rapid exports growth of the IT sector in Serbia is obvious, compared with the initial level, and comparatively, in relation to the dynamic of growth of these exports in separated European countries. Serbia, in the observed five-year period, observed by the speed of growth of exports of IT services, was in second place among the countries of Central and Eastern Europe, just behind Lithuania.

**Table 1. The value of exports of computer services in Serbia and selected European countries**

	2010	2011	2012	2013	2014	Average annual growth rate
	mil. euros					in %
Estonia	146	163	206	217	238	12.1
Latvia	91	117	138	168	184	17.6
Lithuania	28	39	68	87	131	38.6
<b>Total Baltic States</b>	<b>265</b>	<b>320</b>	<b>412</b>	<b>472</b>	<b>553</b>	<b>18.3</b>
Czech Republic	954	1,309	1,592	1,618	1,757	15.3
Hungary	968	1,002	1,084	1,226	1,375	8.8
Poland	1,054	1,389	1,737	2,064	2,640	22.9
Slovakia	-	-	-	409	386	-5.5
Slovenia	92	84	109	99	106	3.5
<b>Total Central Europe*</b>	<b>3068</b>	<b>3784</b>	<b>4522</b>	<b>5416</b>	<b>6265</b>	<b>16.3</b>
Croatia	152	193	184	176	277	15.0
FYR Macedonia	37	41	51	52	59	11.3
Bulgaria	237	312	391	452	487	18.0
Romania	-	-	-	1,272	1,482	16.5
<b>Total Southeast Europe**</b>	<b>426</b>	<b>546</b>	<b>627</b>	<b>1952</b>	<b>2305</b>	<b>16.4</b>
Serbia	127	171	221	296	344	24.9
<b>Total Baltic States, Central Europe, Southeast Europe and Serbia***</b>	<b>3887</b>	<b>4821</b>	<b>5781</b>	<b>8136</b>	<b>9466</b>	<b>16.8</b>

Source: Eurostat

Note: \* The sum for the period 2010-2012 without Slovakia, and in 2013 and 2014 with Slovakia. \*\* The sum for 2010-2012 excluding Romania, and in 2013 and 2014 with Romania. \*\*\* The sum for the period 2010-2012 without Slovakia and Romania, and in 2013 and 2014 with Slovakia and Romania

However, a clearer picture for comparison of selected countries is obtained when the level of exports of IT services is put in relationship to the number of inhabitants and the size of the economy (GDP level). According to the data given in Table 2., the value of exports of IT services per capita, we can conclude that Serbia in 2014 was "near the bottom" of the list, among the observed countries. According to the level of this indicator

<sup>11</sup> The average annual growth rate of these countries without Romania and Slovakia, for which no data is available for the initial year of the observed period.

in the observed countries, Serbia is just above Lithuania and Macedonia. Although the growth rate of exports of IT services per capita in Serbia is very high, the level indicates that there is considerable potential for growth of exports in the future. Estonia, Czech Republic and Hungary had the highest level of exports of computer services per capita in 2014. Export of services per capita in 2014 in these three countries amounts to 162 euros, which is 3.4 times more than Serbia.

**Table 2. Exports of computer services per capita in Serbia and selected European countries**

	2010	2011	2012	2013	2014	Average annual growth rate
	EUR per capita					in %
Estonia	110	123	155	165	181	12.5
Latvia	43	57	68	83	92	18.9
Lithuania	9	13	23	29	45	40.0
<b>Average Baltic States</b>	<b>54</b>	<b>64</b>	<b>82</b>	<b>93</b>	<b>106</b>	<b>16.8</b>
Czech Republic	91	125	151	154	167	15.1
Hungary	97	100	109	124	139	9.1
Poland	28	36	46	54	69	23.0
Slovakia	-	-	-	76	71	-5.6
Slovenia	45	41	53	48	51	3.4
<b>Average Central Europe*</b>	<b>65</b>	<b>76</b>	<b>90</b>	<b>91</b>	<b>100</b>	<b>12.4</b>
Croatia	35	45	43	41	65	15.3
FYR Macedonia	18	20	25	25	28	11.1
Bulgaria	32	43	54	62	67	18.6
Romania	-	-	-	64	74	17.0
<b>Average Southeast Europe**</b>	<b>29</b>	<b>36</b>	<b>40</b>	<b>48</b>	<b>59</b>	<b>15.8</b>
Serbia	17	24	31	41	48	25.5

Source: Calculation of the authors based on EUROSTAT data

Note: \* The average for the period 2010-2012 without Slovakia, and in 2013 and 2014 with Slovakia, the average annual growth rate without Slovakia \*\* The average for 2010-2012 excluding Romania, and in 2013 and 2014 with Romania

**Table 3. The share of exports of computer services in GDP in Serbia and selected European countries**

	2010	2011	2012	2013	2014	Growth
	in % of GDP					in pp
Estonia	1.0	1.0	1.1	1.1	1.2	0.2
Latvia	0.5	0.6	0.6	0.7	0.8	0.3
Lithuania	0.1	0.1	0.2	0.2	0.4	0.3
<b>Average Baltic States</b>	<b>0.5</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>0.2</b>
Czech Republic	0.6	0.8	1.0	1.0	1.1	0.5
Hungary	1.0	1.0	1.1	1.2	1.3	0.3
Poland	0.3	0.4	0.4	0.5	0.6	0.4
Slovakia	-	-	-	0.6	0.5	0.0
Slovenia	0.3	0.2	0.3	0.3	0.3	0.0
<b>Average Central Europe*</b>	<b>0.5</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>0.8</b>	<b>0.3</b>
Croatia	0.3	0.4	0.4	0.4	0.6	0.3
FYR Macedonia	0.5	0.5	0.7	0.6	0.7	0.2
Bulgaria	0.6	0.8	0.9	1.1	1.1	0.5
Romania	-	-	-	0.9	1.0	0.1
<b>Average Southeast Europe**</b>	<b>0.5</b>	<b>0.6</b>	<b>0.7</b>	<b>0.8</b>	<b>0.9</b>	<b>0.3</b>
Serbia	0.4	0.5	0.7	0.9	1.0	0.6

Source: Calculation of the authors based on EUROSTAT data

Note: \* The average for the period 2010-2012 without Slovakia, and in 2013 and 2014 with Slovakia, the growth without Slovakia \*\* The average for 2010-2012 excluding Romania, and in 2013 and 2014 with Romania, the growth without Romania

Ratio of exports of computer services and the value of the GDP (see Table 3) suggests that Serbia has better position within selected European countries. In 2014, exports of computer services in Serbia accounted for 1.0% of the GDP, based on which Serbia was ranked as the fifth country of the 13 observed countries, behind Hungary (1.3%), Estonia (1.2%), Bulgaria (1.1%)

and Czech Republic (1.1%). However, according to this indicator also, Serbia had the largest growth in exports of IT services during the observed period, which was 0.6 percentage points of the GDP.

All these data indicate that Serbia is in a good position when it comes to the level and dynamics of growth of exports of computer services compared to most countries in transition. However, there are countries in Central and Eastern Europe which have significantly higher exports of computer services per capita, as well as in GDP, such as Hungary, Czech Republic and Estonia, which in this area could represent a desirable benchmark for Serbia. Therefore, we believe that there is still a lot of potential for Serbia to continue to record high growth of exports of IT services in the coming years, and to repeat the success in terms of growth of these services recorded in previous years. This would provide a significant contribution to balancing the balance of payments in the future. In addition, if the computer services per capita in Serbia in the coming period grow at a rate of about 25% on average per year, Serbia would reach the current level of per capita exports of IT services of Estonia in 5-6 years, and the EU-28 average (which is 318 EUR per capita) in 7-8 years. This indicates the great potential for further growth and a high level of these services in the future. Therefore, we estimate that as a result of favourable trends in the global IT services market, as well as appropriate policies in the country, Serbia could double the exports of IT services in the next few years.

#### 4. Possible measures to encourage exports growth of the IT sector

The IT sector is one of the few areas of high technology which does not require a large capital investment per job, and therefore the potential for its development exists also in countries which do not have significant amounts of own capital, as is the case with Serbia. Key factors for the development of this sector are skilled workforce, good telecommunication infrastructure and good overall economic environment. Telecommunication infrastructure in Serbia follows the world trends so it does not presents effective limit for the development of the IT sector and increase of its exports. However, increase of the volume of activity and exports growth of the IT sector requires a continuous increase in the number of IT professionals. The increase in the number of IT professionals is limited from one side by demographic factors and the percentage of members of the young generation who have a talent and interest in this activity, and the capacity of the educational system. The State can encourage the interest of young people for information technology by increasing the number of

students who hold the scholarship of the Government of Serbia at universities and courses which educate IT experts. However, increasing the number of trained IT professionals will be beneficial for the economy and society only if their massive production does not lead to a decline in the quality of education. Therefore, it is justified for the State to invest additional funds in order to increase the capacity of the state universities for education of IT professionals. These investments would include recruitment of additional teaching staff, including experts from abroad, expansion of physical capacities of some faculties and higher investments in equipment. Higher investments in education of IT professionals would be provided by the redistribution of resources from universities and courses for which there is lower demand on the market. If the state universities do not have sufficient human resources and other capacities for education of IT professionals, it would be appropriate to introduce the possibility of scholarships for students who are receiving IT education in private universities. Of course, in this case the scholarships would be granted only to those universities that educate professionals who are easily employed in the IT sector.

Given that the number of members of the young generation who can, and want, get the education in IT is limited, it is reasonable to introduce programs of retraining and additional training for young people who graduated at the faculties which represent a suitable basis for working in IT sector. Retraining could be organized in the form of specialist or master studies, and the State support would consist of ensuring budgetary funding for education, as well as approving additional funds to faculties for education of IT experts.

The development of the IT sector, similar to any other sector, to a large part depends on the general economic environment in Serbia. Over the past few years there was a progress in the area of macroeconomic stability, interest rates dropped, the reform of the labour market was realized and a relatively modern tax system has been introduced. However, general business conditions in Serbia are still considerably weaker than in the countries of the Central Europe. According to the rankings of competitiveness of the World Economic Forum Serbia is on the 90th place while most countries of Central and Eastern Europe are above the 50th place. According to the rankings of the World Economic Forum's Networked Readiness Index (NRI), which measures

the willingness of the country to be included in the IT sector, Serbia is better positioned and is on the 75th place out of 139 countries of the world. It is relevant that the position of Serbia on this list has been improved over the last few years. However, on this list in 2016 Serbia is ranked lower than the majority of the countries of the Central and Eastern Europe, as shown by the following data: Czech Republic (36), Poland (42), Slovakia (57), Hungary (50), Romania (66), Bulgaria (69). The main reasons for the relatively modest ranking of Serbia on the list which measures benefits for the development of the IT sector are related to weak general characteristics of the economic environment (low independence of the judiciary, weak protection of contracts, weak copyright protection, underdevelopment of the financial sector), low overall quality of the educational system, low ability of the company to acquire and create new technologies, and others. From the abovementioned, it can be concluded that the IT sector in Serbia faces the same barriers for development as other activities (for more details see *From the editor* section of this issue of QM). Therefore, for its development, not only changes in the sector of education of IT staff are necessary, but also reforms aimed at improving general business conditions.

## References

1. EUROSTAT
2. <http://ec.europa.eu/eurostat/data/database>
3. IMF BPM 6, <https://www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf>
4. National Bank of Serbia
5. <http://nbs.rs/internet/cirilica/80/index.html>
6. WorldBank
7. <http://databank.worldbank.org/data/home.aspx>
8. WorldTradeOrganization, International Trade Statistics 2015,
9. [https://www.wto.org/english/res\\_e/statis\\_e/its2015\\_e/its2015\\_e.pdf](https://www.wto.org/english/res_e/statis_e/its2015_e/its2015_e.pdf)
10. WorldEconomic Forum and INSEAD, The Global InformationTechnologyReport 2016, Innovating in the Digital Economy, Eds. SiljaBaller, Soumitra-Dutta, and Bruno Lanvin