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Quarterly Monitor of Economic Trends and Policies in Serbia (QM) was created by Kori Udovički, who was the Editor-in-Chief of the first six issues of QM. For issues seven to twenty three, the Editor-in-Chief of QM was Prof. Pavle Petrović. Diana Dragutinović was the Editor-in-Chief of QM24. Since issue QM25-26 the Editor-in-Chief of QM is Milojko Arsić.

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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, Q4, 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

From the Editor

The growth rate of Serbian economy in the first quarter was 4.6% - above the average of Central and Eastern Europe Countries (CEECs), which grew by 3.8% in the same period. The growth of economic activity in the first quarter is in line with our last year's estimate that we can expect a growth of about 4% at the level of entire 2018, which is approximately equal to the expected growth of CEE countries. Besides, the growth of Serbian economy in the current year is partially under the influence of one-off factors, such as the recovery of agriculture, electricity and coal production, construction, etc. If the influence of one-off factors is excluded, GDP growth in this year will probably only be just above 3%, meaning that the growth trend is still slower than in CEE countries. The direct cause of the slower growth of the Serbian economy, on which we have repeatedly wrote, is a low level of total investments, while the fundamental problems that slow down the growth of the economy are in weak institutions, high corruption level, and so on.

Beside the fact that the growth trend is slower than in other countries of the region, it has certain characteristics that may jeopardize its sustainability in the future. During the previous and over first quarter of this year, domestic demand grew faster than the GDP. In the previous year, with GDP growth of 1.9%, domestic demand increased by 2.9%, while at the beginning of this year the difference between the GDP growth and domestic demand growth was further increased, and so the GDP growth of 4.6% was accompanied by domestic demand growth of 6,8%. Although the growth of domestic demand during the past and at the beginning of this year is not dramatic, it is worrying because its level is already high in Serbia when compared to GDP. Domestic demand in Serbia in 2017 was about 9% higher than GDP, while in 11 new EU member states from Central and Eastern Europe it was 3,4% on average lower than GDP. Romania where a demand in the last year was 2.1% higher than GDP, has already taken measures to "cool down" the economy in this year.

The other effect of the exaggerated demand growth is the increase in Serbia's foreign trade deficit, which largely reflects on the growth of the current account deficit. Trade deficit increased from 6.4% in 2016 to 8.2% of GDP last year and reached 9.8% of GDP in the first quarter of this year. Quarterly dynamics of domestic demand and deficit in foreign trade balance during the past and at the beginning of this year suggest that these are not one-off factors, influenced by some extraordinary factors, but rather a more permanent trend.

In general, the economic growth model in the past year and at the beginning of this year has certain similarities, but also differences, with the model of economic growth that existed in Serbia in the pre-crisis period 2005-2008. The similarly is in the fact that the growth of the economy now, as well as during the pre-crisis period, is accompanied by the faster growth of domestic demand, the strengthening of the Dinar, the growth of foreign trade and the current account deficit, low interest rates in the world, high inflow of foreign capital... The difference is that a relatively high fiscal deficit was generated during the pre-crisis period, while fiscal surpluses are now being achieved, as well as the fact that public sector wages and pensions were rising significantly faster than the GDP, which is not the case now, although government officials are announcing it. Therefore, if the announcements of high wages and pensions growth, tax cuts, etc. are implemented in the forthcoming period, this will result in the fiscal deficit growth which would have little impact on the growth of the economy, but would further increase domestic demand and external deficits. However, the public debt to GDP ratio and international net asset position of the country to GDP ratio are now significantly less favorable than in the pre-crisis period, which means that the economy growth potential based on the growth of domestic demand is now time-limited.

The fastest growth within the framework of domestic demand growth, during the past and at the beginning of this year, was achieved by investments based on which we could conclude that this is a long-term sustainable process, regardless of the fact that it generates an increase in foreign trade and current account deficit. Such a conclusion would be correct only on condition that the dominant part of investments was directed to the interchangeable goods sectors, i.e. sectors that are largely oriented towards exports. However, data on structure of foreign direct investments in the last year, and this year as well, suggest

that a larger part of investments is directed towards the non-tradable sector. In the last year approximately a third of realized investments was directed to the industry, agriculture and other activities that produce interchangeable goods, while around two thirds were invested in non-tradable activities such as construction, real estate, financial services, trade, etc. Thus, a large part of foreign investments in Serbia will not affect the increase of exports in the future, but will affect the outflow of capital from Serbia on the basis of the withdrawal of dividends. Foreign direct investments in the manufacturing industry are relatively low and are largely followed by high state subsidies as well as by media promotion, which creates the impression that such investments are dominant. High investments in the non-tradable goods sector are a relatively reliable signal that the real Dinar value is overvalued. Namely, when the Dinar is overvalued, it reduces the profitability of the investment in the activities that are mainly export oriented, which is one of the reasons why foreign investors are granted with high subsidies to invest in the industry.

There are opinions that growth of the current account deficit is not worrying as long as it is covered by foreign direct investments. Undoubtedly, it is better if the current account deficit is covered by foreign direct investments rather than loans, because the loans will surely generate outflow of capital on the basis of interest and principal in the future. In the case of foreign direct investments, it is not certain, but it is quite likely that investors will draw dividends in future, and perhaps part of the capital, from Serbia. At the end of the last year the total value of foreign capital in Serbia amounted to 23 billion euros, on the basis of which the owners recorded a profit in the amount of 2.1 billion euros last year. Out of the total profits earned by foreigners in the past year, 0.9 billion euros was withdrawn abroad in the form of dividends, while 1.2 billion euros was reinvested in Serbia. Dividends paid to foreign owners in the past year were only slightly lower than the total interest expenses paid to foreign creditors by domestic private debtors and the State. Nevertheless, the total net profit of foreign capital in Serbia amounted to more than two billion euros, and it can in principle be withdrawn in the event of a world crisis or crisis in Serbia, which would seriously worsen Serbia's balance of payments position.

The international net investment position of the country represents an important indicator of macroeconomic risks in the future, as besides the net liabilities on the basis of foreign loans it includes liabilities on the basis of foreign capital. The international net investment position represents the difference between foreign exchange reserves, foreign loans given and foreign capital invested on one side, and foreign loans received and foreign capital invested in the country, on the other. At the end of the last year, the international net investment position of Serbia amounted to -35.8 billion euros, which is -97.4% of GDP, while in the 11 EU member states from Central and Eastern Europe it averaged -46% of GDP, with Slovakia having the most unfavorable value of -64% GDP. Only four countries in Europe have worse international net investment position than Serbia - Ireland, Greece, Cyprus and Portugal – and they all had problems with public debt in the previous years.

The direct cause of the unfavorable international net asset position of Serbia has been a high current account deficit in almost every year since 2000. If in the forthcoming period Serbia continues to realize a high current account deficit of 6-7% of GDP, this, accompanied by a GDP growth of 3 -4%, would lead to an additional deterioration of Serbia's international net asset position by about 2.5 percentage points a year. Any further deterioration of the international net asset position would have the consequence of rising capital outflows on the basis of interests and dividends in the future, which could be particularly enhanced in the period of some future economic crisis.

The fundamental cause of the high current account deficit and unfavorable asset position is a low level of domestic savings. Therefore, a substantial part of otherwise modest investments, which have rarely exceeded 20% of GDP in the last 18 years, is financed by foreign funds - loans or foreign investments. Although domestic savings increased during the previous decade, they are now only slightly above 10% of GDP, which is insufficient to finance otherwise modest investments of around 18% of GDP. Economic policy can directly influence the increase in domestic savings by ensuring that wages, pensions and current government spending in the next few years grow somewhat slower than the GDP growth. Additionally, for the growth of domestic savings it is important to improve the investment environment for all participants in the economy, which means removing various administrative barriers, reducing corruption, equality of market participants, and so on.

This issue of the Quarterly Monitor, in addition to the regular texts, contains two Highlights. In the Highlight 1 Arsić, Ranđelović and Altriparmakov estimate the dynamics of gray economy in the 2012-2017 period, while in the Highlight 2 Živanović analyzes the financial performance of the Serbian economy in the 2013-2017 period.

TRENDS

1. Review

Although year-on-year GDP growth accelerated to 4.6% in Q1, basic macroeconomic trends are in fact very similar as in the previous year. Namely, the acceleration of economic growth at the beginning of the year was influenced by temporarily good results of agriculture, construction and electricity production, which were compared with a poor first quarter of the previous year. Except for the mentioned sectors, most of the economy continued with a similar growth of around 3% which ended 2017. This growth trend of the largest part of the economy, of 3%, is considerably lower than in other comparable countries of Central and Eastern Europe, and consequently Serbia's economy continues to lag behind comparable countries in 2018. At the beginning of 2018, inflation remained low and relatively stable (at the lower limit or slightly below the NBS target band), and the trend of deterioration of Serbia's foreign trade exchange continued. The relatively low growth of the largest part of the economy and the increase in the foreign trade imbalance are sufficient indicators for the Government and the NBS to respond with measures of economic policy, to accelerate structural reforms, to work on improving the business environment and to revise the policy of strengthening of the Dinar. However, for now there are no indications that this will happen. Economic policy makers are still satisfied with the macroeconomic stability achieved through the successful implementation of the fiscal consolidation, and, instead of the necessary reforms there is an announcement of some fiscally irresponsible and economically inefficient measures, such as excessive increase in public sector wages and pensions. Negotiations on a new arrangement with the IMF are about to begin, but good fiscal and economic policies in Serbia should not depend only on the presence of the IMF.

Economic growth in Q1 amounted to 4.6%, which is the highest y-o-y growth of GDP in the past ten years (since the outbreak of the crisis in the second half of 2008). As we expect a gradual slowdown in economic activity in the coming quarters, in relation to Q1, we keep our prediction from previous issues of QM that the GDP growth will amount to about 4% at the entire level of 2018. Serbia's economic growth of about 4%, which we expect to be reached in 2018, is at the level of the predicted average economic growth of other CEE countries (see section 2 "Economic activity").

Despite relatively high growth of GDP in Q1 of 4.6%, we cannot assess the current economic trends as completely favorable. As we already indicated, the achieved economic growth in Q1 is not entirely sustainable as it relies largely on a strong one-off growth of a limited number of sectors, which were compared with poor results from the previous year. Most of the Serbian economy continues to record growth rates of around 3%, as was the case in 2017, which is significantly lower than in the comparable countries. Also, the GDP growth structure continues to deteriorate at the beginning of 2018, as domestic demand rises considerably faster than GDP growth, and one can notice that the investments in the production of tradable products redirected to the investments in non-tradable sectors (trade, banking, construction). Serbia already had an experiance with a similar model of economic growth based on domestic demand in the period 2005-2008 which did not prove to be sustainable (it couldn't have lasted even if there hadn't been a global economic crisis). Therefore, it would be bad for Serbia to go through the same mistakes again, i.e. the Government and the NBS should not ignore these indicators.

A strong deterioration of the foreign trade deficit continues in early 2018. Serbia's deficit in trade of goods with other countries increased in the first four months of 2018 by 450 million euros (from 1,250 million euros to 1,700 million euros). The increase in the goods trade deficit was a result of almost two times higher growth of imports than growth of exports (imports of goods in the first four months of 2018 increased by 13.5% and exports by 7.5%). These trends in imports and exports can be partly explained by objective circumstances. Due to a bad agricultural season of 2017, the exports of agricultural products in the first four months of 2018 had a strong y-o-y

decline of over 30%, which reduced the surplus that Serbia has in exchange of agricultural goods with the world for 100 million euros, when compared to the previous year. Also, global growth in energy prices contributed to the deterioration of Serbia's trade deficit by about 50 million euros. However, when objective factors are excluded it is evident that the deterioration of the foreign trade is still a lasting trend, caused by the increase in domestic demand and excessive strengthening of the Dinar.

Despite the significant deterioration in foreign trade, the current account deficit in Q1 amounted to 650 million euros (7% of GDP), i.e. it was slightly lower than in the same period of the previous year (680 million euros, 8.2% of GDP). The improvement in the current account deficit in Q1 is a result of the reduction of the deficit in the primary income account and mild surplus in secondary income account (see Section 4, "Balance of Payments and Foreign Trade"). On this occasion, we emphasize that the deterioration of trends in trade exchange seems to be more durable, and that improvements in primary and secondary income are the result of their volatility, i.e. we cannot count on their improvement in a longer period of time. Therefore, we assess the improvement of the current account deficit in Q1 as temporary, i.e. with the current foreign trade trends we do not expect the improvement of the current account deficit to continue until the end of the year. In Q1, the net FDI amounted to around 570 million euros and were not sufficient to cover the current account deficit.

In the first half of 2018, the dinar continued to strengthen in real terms against the euro (see section 5 "Prices and the Exchange rate"). From the beginning of the year until the middle of June, the dinar strengthened slightly in nominal terms against the euro by about 0.8%. Due to the differences in inflation in Serbia and the Eurozone the real strengthening of the dinar in the first five months of 2018 was about 1.5%. At first glance, such strengthening of the dinar at the beginning of 2018 does not seem to be significant. However, taking into account that the trend of real strengthening of the dinar in 2018 is connected with the strong appreciation of the dinar from the second half of 2017, this estimate is somewhat different. Namely, the average exchange rate in the first five months of 2017 was 123.6 dinars per euro, and in the first five months of 2018 the average exchange rate was 118.3 dinars per euro. This means that only in one year the dinar strengthened in real terms against the euro by around 5%. Such strong appreciation of the dinar in real terms in the past year was not in line with the movement of the productivity of the domestic economy and seriously undermined Serbia's price competitiveness, which reflects on the growth of the foreign trade deficit. We think that NBS, when deciding on monetary policy and interventions on the interbank foreign exchange market, should in future pay more attention to economically unfavorable trend of the real dinar exchange rate, which continues in 2018.

The price increase in the first five months of 2018 was 1.7%, which is the appropriate inflation trend for Serbia (see section 5 "Prices and the Exchange rate"). During this period, the y-o-y inflation was mainly at the lower limit of the NBS target band (3 ± 1.5%), and in March and April it was temporarily below the lower limit due to the high base from the previous year. The rise in prices in first five months of 2018 was a result of an increase in food prices, but we estimate that this is a seasonal increase. The acceleration of energy prices, due to a global increase in oil prices and recent strengthening of the dollar exchange rate, could be somewhat more durable. Alongside these two factors, the acceleration of inflation at the beginning of 2018 was influenced by the growth of domestic demand and relaxation of the NBS monetary policy. On the other hand, the rise in prices was slowed down by the appreciation of the dinar. Taking all of this into account, we still estimate that inflation in Serbia is stable, low and under control, and we do not expect any significant changes in the coming months.

Labor market saw undeniable improvements in Q1 2018 (see section 3 "Labor Market"). According to the Labor Force Survey (LFS), employment growth compared to the same period of the last year amounted to 1.1% and was (in line with economic expectations) lower than GDP growth. Also, formal employment (without agriculture) according to ARS recorded a growth consistent with the movement of comparable registered employment, which is independently monitored on the basis of the data from the Central Register of Compulsory Social Insurance

(CROCSI) - both indicators show registered/formal employment growth (without agriculture) of just over 3% y-o-y. In addition to improvements of the labor market trends, very important news is that LFS for the first time after a long time provided economically expected data that is consistent with other, independent, sources. This could be a good sign of improving the quality of data from this important Survey.

The average net wage in the first three months of 2018 recorded a nominal growth of 5.5% (3.8% in real terms). The increase in average net wage in 2018 was influenced by several different factors, some of which are not market-based. For example, somewhat higher average wage growth was influenced by wages of employees in the general government, which increased by 9% (on average) in 2018, which is well above the nominal GDP growth, as well as above wage growth in the private sector. Also, the Government introduced a relatively high (by 10%) increase of the minimum wage in 2018, which also affected the acceleration of the average wage growth. Despite a solid increase in average wage in the first three months of 2018, it is not realistic to expect that by the end of the year the average salary will reach the level of 500 euros (as announced in the public). Namely, with the current exchange rate of around 118 dinar per euro, this would mean that in December 2018 the average wage would increase by about 20% y-o-y, for which there is no economic basis, nor there is any indication that this could happen (nominal wage growth in the first three months was 5.5%). Even if this, very unlikely, increase in the average net wage to 500 euros by the end of the year happens, it would be economically very harmful. Namely, due to the appreciation of the dinar, the average net wage in the first three months of 2018 already increased in euros compared to the previous year by around 10% (it reached the level of 415 euros). Labor is the most important non-tradable good in the economy, and this high increase in wages in euros (significantly above productivity growth) has considerably worsened the international competitiveness of the Serbian economy, and further continuation and strengthening of this trend would be very economically dangerous.

Low inflation, with the balanced state budget, provided NBS with the opportunity to continue with the easing of monetary policy (see section 7, "Monetary Trends and Policy"). The key interest rate in 2018 was reduced twice, so it is now at a record low of 3% (which is also the midpoint of the inflation target corridor). We see this as the correct policy of the NBS. In addition, the banking sector is on the upward track. For the time being this is best seen by the increase in credit placements to households, while data on the real credit activity of the economy are still blurred by the write-offs and sales of bad loans which were in the balance sheets of banks. The percentage of bad loans for the first time since the outbreak of the crisis in 2008 was reduced to a one-digit value. Since the banking sector in Serbia is now consolidated, in principle healthy (a relatively low share of non-performing loans), there is no risk of macroeconomic instability after the implementation of fiscal consolidation, and interest rates are still very low - by the end of the year a gradual expansion of credit activity can be expected in Serbia.

Fiscal trends in the first four months of 2018 are in principle similar to those in the previous year (see section 6, "Fiscal Trends and Policy"). Namely, both public revenues and public expenditures have relatively similar growth as in the same period of the previous year (5.5% and 8%), so that the fiscal result remained in a mild surplus (around 7 billion dinars, about 0.4% of comparable GDP). On the public revenues side, a strong growth was recorded by the income tax, excise taxes and contributions, while the collection of net VAT slightly decreased compared to the previous year. On the public expenditures side, the strongest growth was in capital expenditures (primarily due to the comparisons with a low base from the previous year), procurement of goods and services and wage expenses. Public expenditures on interest rates (reduction of public debt, decrease in interest rates, appreciation of the dinar), and expenditures for the repayment of guaranteed debt of public companies (most of the Srbijagas's debt, which was paid for by the state instead this company, was repaid by the end of 2017) were considerably lower, compared to the previous year.

Successful completion of fiscal consolidation opens the possibility for the Government to abolish temporary austerity measures - first of all the Law on Temporary Reduction of Pensions. Ho-

wever, the thing that is not good is that with the abolition of this temporary Law, an additional increase of only below-average pensions is announced. Such an approach is economically wrong, since it would violate the link between paid pensions and paid contributions. Therefore, it is far better to equally allocate the remaining fiscal space (after the abolition of the Law on Temporary Reduction of Pensions) to all pensioners. The pension system in Serbia, just like in other European countries, is regulated on the basis of clear and objective parameters, and this is a part of public finances that should not be arbitrarily (and permanently) violated depending on political priorities.

Public debt at the end of April amounted to 23.6 billion. (61.5% of GDP), which represents an increase of nearly half a billion euros in relation to the end of 2017. The growth of public debt in the first four months of 2018 was influenced by the government borrowing to finance the future liabilities, while the continuation of the dinar appreciation had the opposite effect. The increase in public debt at the beginning of 2018 is temporary, as the budget is basically balanced (a slight surplus is also likely in 2018) - and the balanced budget leads to a more durable trend of public debt reduction in relation to GDP. The downward trend of public debt to GDP ratio, i.e. low fiscal deficit, is necessary in the long run, since the current public debt level of about 60%, for countries like Serbia, is still too high.

Serbia: Selected Macroeconomic Indicators, 2006–2018

	Annual Data											2016				2017				2018
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Economic Growth							y-o-y, real growth[1]														
GDP (in billions of dinars)	2,055.2	2,355.1	2,744.9	2,880.1	3,067.2	3407.6	3584.2	3876.4	3908.5	4043.5	4261.9	4479.0	...	...	...	...	...	...	...	...	...
GDP	4.9	5.9	5.4	-3.1	0.6	1.4	-1	2.6	-1.8	0.8	2.8	1.9	4.0	2.0	2.8	2.5	1.1	1.4	2.1	2.4	4.6
Non-agricultural GVA	5.1	6.9	4.4	-3.3	0.2	1.5	1.1	1.6	-2.5	1.9	2.7	3.1	4.3	1.9	2.3	2.2	1.6	2.4	3.9	3.8	4.9
Industrial production	4.2	4.1	1.4	-12.6	2.5	2.2	-2.9	5.5	-6.5	8.2	4.7	3.5	10.5	2.4	3.7	2.8	0.7	3.1	6.3	3.5	5.9
Manufacturing	4.5	4.7	1.1	-16.1	3.9	-0.4	-1.8	4.8	-1.4	5.3	5.3	6.4	6.5	5.9	4.4	5.3	7.3	5.1	7.7	4.9	5.0
Average net wage (per month, in dinars)[2]	21,745	27,785	29,174	31,758	34,159	37,976	41,377	43,932	44,530	44,437	46,087	47,888	43,588	46,450	46041	48168	45437	48670	47844	49599	49089
Registered Employment (in millions)	2.028	1.998	1.997	1.901	1.805	1,866	1,865	1,864	1,845	1,990	1,989	2,061	1,978	2,008	2,023	2,030	2024	2061	2073	2087	2092
Fiscal data							in % of GDP														
Public Revenues	42.4	42.1	41.5	38.6	-1.5	-4.6	0.6	-3.0	3.2	3.1	7.5	4.0	7.4	7.8	9.2	5.6	5.3	5.5	0.3	3.5	3.6
Public Expenditures	42.7	42.8	43.7	42.7	-1.7	3.3	3.6	-5.7	5.2	-3.2	1.9	-1.7	5.7	4.9	2.3	-3.7	-1.3	-1.8	-4.5	-0.6	5.6
							in billions of dinars														
Overall fiscal balance (GFS definition)[3]	-33.5	-58.2	-68.9	-121.8	-136.4	-158.2	-217.4	-178.7	-258.1	-149.1	-57.1	52.3	-16.0	-2.1	13.8	-52.8	11.8	32.5	37.8	-29.8	3.7
Balance of Payments							in millions of euros, flows[1]														
Imports of goods[4]	-10,093	-12,858	-15,917	-11,096	-11,575	-13,614	-14,011	-14,674	-14,752	-15,350	-15,933	-18,076	-3,638	-4,159	-3,878	-4,258 0	-4,204	-4,576	-4,383	-4,912	-4,704
Exports of goods[4]	5,111	6,444	7,416	5,978	6,856	8,118	8,376	10,515	10,641	11,357	12,814	14,090	2,976	3,310	3,160	3,369	3,277	3,693	3,559	3,560	3,571
Current account[5]	-3,137	-4,994	-7,054	-2,084	-2,037	-3,656	-3,671	-2,098	-1,985	-1,577	-1,075	-2,090	-305	-284	-239	-247	-694	-333	-384	-678	-650
in % GDP[5]	*-12.9*	*-17.2*	*-21.6*	*-7.2*	*-6.8*	*-10.9*	*-11.6*	*-6.1*	*-5.9*	*-4.7*	*-3*	*-6*	-4	-3	-3	-3	-8	-4	-4	-7	*-7.0*
Capital account[5]	7,635	6,126	7,133	2,207	1,553	3,340	3,351	1,630	1,705	1,205	535	1,690	99	180	95	162 0	486	328	266	610	460
Foreign direct investments	4,348	1,942	1,824	1,372	1,133	3,320	753	1,298	1,236	1,804	1,899	2,415	470	454	533	443 0	558	626	660	571	569
NBS gross reserves (increase +)	4,240	941	-1,687	2,363	-929	1,801	-1,137	697	-1,797	166	-302	228	-836	-317	332	519	-455	222	1,061	-600	398
Monetary data							in millions of dinars, e.o.p. stock[1]														
NBS net own reserves[6]	302,783	400,195	475,110	578,791	489,847	606,834	656,347	757,689	788,293	931,320	923,966	891,349	884,093	846,969	899,959	923,966	894,102	881,125	936,542	891,349	866,515
NBS net own reserves[6], in mn of euros	3,833	5,051	5,362	6,030	4,609	5,895	5,781	6,605	6,486	7,649	7,486	7,482	7,180	6,864	7,303	7,486	7,217	7,221	7,851	7,482	7,327
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	2,031,825	2,067,826	1,961,626	2,009,537	2,044,160	2,031,825	2,042,971	2,050,579	2,057,675	2,067,826	2,081,211
FX deposits of households	260,661	381,687	413,766	565,294	730,846	775,600	909912	933,839	998,277	1,014,260	1,070,944	1,074,424	1,027,439	1,048,123	1,053,841	1,070,944	1,087,084	1,067,142	1,069,094	1,074,424	1,095,018
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	8	0.6	7.2	7.3	9.4	8	6.4	4.8	2.3	0.6	2
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	0.9	4.0	1.6	4.2	5.2	0.9	0.5	2.7	2.4	4.0	4.6
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	47.2	45.4	46.7	47.2	47.4	46.6	46.4	46.0	45.7	45.4	44.9
Prices and the Exchange Rate							Y-o-y growth[1]														
Consumer Prices Index[7]	6.5	11.3	8.6	6.6	10.2	7.0	12.2	2.2	1.8	1.6	1.5	3.0	0.6	0.3	0.6	1.5	3.5	3.6	3.2	3.0	1.4
Real exchange rate dinar/euro (average 2005=100)[8]	100.0	91.2	85.4	91.3	95.8	87.7	92.9	87.4	89.2	90.6	91.6	88.9	91.0	91.9	91.6	91.8	90.6	89.9	87.7	87.4	86.3
Nominal exchange rate dinar/euro[8]	84.19	79.97	81.46	93.90	102.90	101.88	113.03	113.09	117.25	120.8	123.26	121.4	122.85	123.01	123.3	123.26	123.88	122.91	119.8	119.1	118.4

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 that 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 beginning of 2018 was marked by primarily positive economic flows. GDP growth in Q1 was 4.6%, which made it a quarter with the highest y-o-y growth in past ten years. The achieved result in Q1 also shows that our forecast for the economic growth to be about 4% in 2018 was not optimistic, but objective. Namely, although we expect GDP growth rates to be somewhat lower in the next quarters than in Q1, it is unlikely that total GDP growth in 2018 will be below 4%. What we have particularly emphasized in this edition of the QM is that economic growth of around 4% in 2018 is still not a satisfactory result for Serbia and there are some worrying economic trends that should be taken into account. Other Central and Eastern European Countries (CEECs) recorded average growth of 4.6% in 2017, and a growth of at least 4% is expected in 2018. Therefore, the projected economic growth in Serbia is only at the average level of comparable countries. In addition, the economic growth of 4% forecasted for Serbia in 2018 is not entirely sustainable, as it is partly based on the recovery of agriculture from drought and the recovery of the electricity production sector, which in 2017 also had a temporary decline. The growth of the largest part of the Serbian economy is actually around 3%. A more detailed analysis of economic growth in Q1 confirms these findings. The relatively high economic growth in Q1 of 4.6% is primarily a result of a high growth in three sectors that were compared to their low base in Q1 2017: construction, electricity production and agriculture. Without this, GDP growth would amount to about 3%. In addition, negative trends of decrease in net exports continue in Q1, i.e. imports continue to grow faster than exports. Finally, the trends of manufacturing industry, whose seasonally adjusted production indices show a sharp fall from January to April, are also troublesome. Therefore, the Government should not "relax" because of temporary and seemingly good results of the economy, but to invest more efforts in stimulating economic growth by implementing structural reforms of the public sector and improving the economic environment (rule of law, reduction of corruption, increasing the efficiency of the state administration, etc.). Also, it is very important that the NBS more decisively stops excessive strengthening of the dinar, which negatively affects the international price competitiveness of the economy and the deterioration of net exports. We believe that in order to achieve these goals, it would be very good to sign a new arrangement with the IMF, which would primarily be aimed at structural reforms that failed in the previous arrangement.

Gross Domestic Product

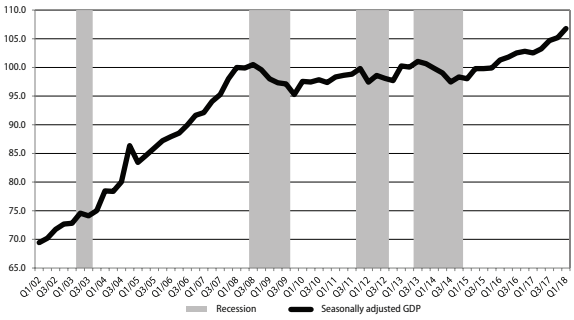
Q1 saw a relatively high growth of 4.6%

According to the latest SORS data, the y-o-y GDP growth in Q1 was 4.6%, which is basically a good result. Namely, the y-o-y growth accelerated noticeably by more than 2.5 pp, compared to 2017, when it was 1.9% on average. Also, the economic growth achieved in Q1 was the highest since the outbreak of the crisis in 2008, which means that in the previous ten years not even one quarter had the approximate growth rates of Serbian economy as the ones in Q1 2018 (in the last ten years, the y-o-y economic growth was more than 3% only in three quarters and it has never reached the 4% line). However, it is very dangerous to be over-optimistic when interpreting these, at first glance, good indicators, since they hide some unfavorable and unsatisfactory trends that are temporarily masked by relatively high y-o-y GDP growth.

Seasonally adjusted GDP growth in Q1 was 1.5% compared to the previous quarter

Graph T2-1 shows a series of seasonally adjusted GDP growth which indicate short-term trends of economic activity somewhat more reliably than the y-o-y indices (the shaded periods represent a recession according to the Bry-Boschan procedure). The seasonally adjusted GDP growth in Q1, compared to the previous quarter, was solid 1.5%, but unlike the y-o-y indices, it already suggests that there was no turn in the long-term economic trends, that is, there were not so many unusual changes that were indicated by a strong increase in the y-o-y growth of GDP. Namely, although the seasonally adjusted GDP growth in Q1 also shows the acceleration of the GDP growth trend, compared to Q4 2017 (when it was 0.6%), such acceleration of seasonally

Graph T2-1. Serbia: Seasonally adjusted GDP growth, 2002-2018 (2008 = 100)



Source: *QM* estimates based on SORS

adjusted GDP is not so unusual, i.e. it occasionally occured in the previous quarters (Graph T2-1), especially at the beginning of the year when new data on agricultural production are entered[1]. Because the acceleration of seasonally adjusted GDP growth in Q1 was partly the result of temporary factors, it is likely that it will be exhausted already in the next quarter, so the growth of the seasonally adjusted GDP will rapidly return to its medium-term growth path and confirm that Serbia's economic growth trend is lower than 4.6%.

The achieved GDP growth in Q1 is mainly supported by construction industry, electricity production and agriculture

As we anticipated, the key to understanding the strong acceleration of the year-on-year economic growth in Q1 is in the movement of individual sectors of the economy and their local trends. For that reason, we will start a more detailed analysis of economic trends in Q1 untypically, with the analysis of GDP by activity. Table T2-2 shows the data on the growth of production by individual sectors of the economy. The table shows that the biggest growth in all sectors of the economy was recorded by the construction industry with a y-o-y real growth of gross value added (GVA) of as much as 26.4%. It is specific for construction that every year in Q1 there are large oscillations in production under the influence of changing weather conditions (different number of work days during the winter when construction works can be performed). It is a bit warmer winter of 2018, compared to the previous year, that is an important reason why construction activity had a very high growth. In addition, we believe that one of the reasons for the extremely high growth of construction activity in Q1 is the unreliability of the statistical measurement of this sector, which will be further elaborated in the special chapter of this text. Another sector that had a relatively high growth in Q1 of over 6% is agriculture, which is compared to the dry 2017[2]. Finally, although Table T2-2 does not show the electricity production sector directly because it is merged with manufacturing industry and mining in the aggregate industry sector - electricity production was a third individual sector which significantly contributed to somewhat better result of economic activity in Q1 with its high annual growth of over 10%. The year-on-year growth of electricity production in Q1 was high because it was compared to low production from the same quarter of the last year, when due to problems in EPS operations there was a temporary deep decline in electricity production.

Table T2-2. Serbia: Gross Domestic Product by Activity, 2008-2018[1]

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1	Share 2016
Total	96.9	100.6	101.4	99.0	102.6	98.2	100.8	102.8	101.9	101.1	101.6	102.3	102.4	104.6	100.0
Taxes minus subsidies	98.6	99.5	101.1	97.8	98.9	99.2	100.9	101.0	102.1	102.1	101.8	102.4	102.1	103.2	15.7
Value Added at basic prices	96.6	100.8	101.5	99.2	103.3	98.0	100.7	103.2	101.8	100.9	101.6	102.3	102.4	105.0	84.3
Non agricultural Value Added	96.7	100.2	101.5	101.1	101.6	97.5	101.7	102.7	103.1	101.5	102.6	104.2	103.8	104.9	90,1[2)]
Agriculture	95.2	106.4	100.9	82.7	120.9	102.0	92.3	108.1	90.5	93.7	90.9	88.1	90.5	106.1	9,9[2)]
Industry	96.8	100.8	103.2	105.6	106.0	92.4	103.2	102.6	103.5	101.3	103.5	106.4	102.8	105.3	24,3[2)]
Construction	87.1	97.6	105.9	90.2	96.1	98.5	102.7	103.2	105.5	96.3	97.9	106.0	117.9	126.4	5,2[2)]
Trade, transport and tourism	92.9	100.0	99.5	99.3	102.3	101.1	102.2	103.7	104.6	103.0	104.1	105.9	104.9	104.6	18,5[2)]
Informations and communications	97.0	103.2	102.6	102.8	99.9	96.1	101.7	105.8	101.2	99.9	101.3	100.9	102.7	105.1	5,2[2)]
Financial sector and insurance	102.6	101.9	98.4	92.0	90.5	97.2	102.3	104.0	102.4	104.8	101.7	101.8	101.1	101.1	3,2[2)]
Other	99.7	99.8	100.9	101.8	100.2	99.9	99.8	101.5	101.1	100.6	101.1	101.2	101.3	102.6	33.8[2)]

Source: SORS
1) In prices from the previous year
2) Share in GVA

1 The SORS methodology is such that the expected y-o-y growth of agriculture in 2018 in relation to 2017 is roughly distributed equally across all four quarters during the year. Bearing in mind that in 2018 the recovery of agriculture from drought in 2017 is expected, i.e. its relatively high growth, this on the seasonally adjusted indices reflects in the one-time growth of agriculture and, consequently, the acceleration of the GDP only in Q1. In the coming quarters, agricultural production will have significantly slower growth and therefore will not significantly affect the growth of seasonally adjusted GDP form quarter to quarter.

2 Although in Q1 the results of the agricultural season in 2018 are not yet known, the SORS methodology is such that in Q1 agricultural production is estimated at the level of its average in the last several years. Since 2017 was a dry year and agricultural production was well below the average in the years that preceded it, Q1 saw a relatively high y-o-y growth in agriculture.

The largest part of the economy in Q1 grew by about 3%

The relatively high y-o-y GDP growth in Q1 was a result of the strong increase in production in a smaller part of the economy (high production growth in three sectors, which together account for only slightly over 15% of Serbia's economy). The remaining part, i.e. the dominant part, of the economy recorded the y-o-y growth of production of about 3% in Q1. This data suggests that there was no essential acceleration of the trend of economic activity in Q1 when compared to the previous year (indicated also by seasonally adjusted indices). Namely the largest part of the Serbian economy achieved a growth of about 3% (Table T2-4), and the lower rate of total economic growth of 1.9%, achieved in that year, was primarily the result of a temporary decline of agriculture due to a drought and decline in production of electricity (which we described in detail in the previous issues of QM). Now, these temporary factors have turned direction and are temporarily affecting somewhat higher y-o-y growth rates during 2018, but the basic trends of Serbia's economic activity in 2018 are for now very similar to the ones in 2017, and there are no clear indications of their acceleration.

We expect the gradual slowdown of the y-o-y GDP growth n the coming quarters

The GDP trend in the coming quarters, just like in Q1, will largely depend on changes in a limited part of the economy, namely in the three mentioned sectors (agriculture, construction industry and electricity production). Of the three mentioned sectors of the economy, only agriculture will keep recording high growth rates by the end of the year, as it will be compared throughout the year with the dry 2017 (y-o-y growth rates are likely to accelerate in the coming quarters). Electricity production and construction activity will significantly slow down their growth in Q2 compared to Q1, but they will still probably have a solid year-on-year growth, given that this quarter as well will be compared with the low base from the previous year (in Q2 2017 these sectors also had a sharp decline in production, only this decline was slightly lower than in Q1 2017). Since there was no decline in production in these two sectors in second half of 2017, we do not expect that they will be able to contribute significantly to the overall GDP growth of Serbia in Q3 and Q4. Taking all this into account, we expect that y-o-y GDP growth in Q2 should be around 4%, and that the y-o-y growth rate of GDP is likely to fall below 4% in the second half of the year (if there are no significant changes in the meantime).

The QM forecast that GDP growth in 2018 should be around 4% is being realized for now

As we have pointed out, we expect that in the first half of 2018 the growth of economic activity will be somewhat above 4%, because it will be compared with a low base from the previous year - and that in the second half of the year (unless there are some major changes, such as, for example, an exceptionally good agricultural season), the y-o-y GDP growth will fall below 4%. The result of such quarterly GDP trends would be the economic growth in 2018 of about 4%, which we forecasted in the previous three issues of QM. One of the most important messages of this QM issue is that the GDP growth of about 4% expected in 2018 is neither a surprise (we announced it even in the middle of the previous year) nor is it impressive (it is largely a result of the high growth of a smaller number of sectors of the economy which are compared to the low base from 2017 and not the result of a significant increase of the basic trend of economic activity). This is important to point out because for some time now, at the beginning of every year, the public is presented with optimistic estimates of economic trends which are then basis for some economically unsustainable promises of the Government - such as a large increase in pensions and salaries in the public sector. What is even worse, in addition to overestimating the economic results achieved in the beginning of 2018, some important and rather worrisome trends are neglected, which will be explained in more details in the following part of this text.

A strong drop in net exports continues in Q1

The structure of the achieved GDP growth in Q1 by use is presented in Table T2-3. The table shows that in Q1 the year-on-year growth of investments accelerated and reached 14.9% in that quarter. This, in principle very positive trend of investment growth for now is observed very cautiously for now, as it is the result of a very strong growth of construction activity due to the mild winter, which will not continue in the remaining part of the year. In addition, as we have already mentioned, very high real growth of construction activity in Q1 of over 25% is probably to some extent the consequences of unrealistic measurement of this sector of the economy by the SORS (see the chapter on construction). We also have a certain reservation about the sustainability and reliability of the presented high growth of investments because of the fact that domestic production and imports of capital equipment do not have even closely a strong growth

trend as construction activity[3]. Unlike investments, net exports declined in Q1, as the growth of imports is significantly higher than exports growth (Table T2-3). Such net exports trends at the beginning of 2018 cannot be explained only by the low agricultural season in 2017 and shortage of agricultural products for exports, as trends of net exports decrease are widespread. The Government and the NBS should therefore pay special attention to them. We particularly emphasize that strengthening of the Dinar in the previous year is very dangerous as it negatively affects the movement of net exports. This channel could undermine the Serbian economy growth, i.e. influence the re-expansion of the foreign imbalances, which since the outbreak of the crisis in 2008 until 2016 were significantly reduced. Therefore, in the forthcoming period, the NBS would have to take far stronger measures to prevent the strengthening of the Dinar.

Table T2-3. Serbia: GDP by expenditure method, 2009-2018

	Y-o-y indices														
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017				2018	Share
										Q1	Q2	Q3	Q4	Q1	2016
GDP	96.9	100.6	101.4	99.0	102.6	98.2	100.8	102.8	101.9	101.1	101.6	102.3	102.4	104.6	100.0
Private consumption	99.4	99.4	100.9	98.2	99.4	98.7	100.5	101.0	101.8	102.1	101.6	101.8	101.8	103.0	72.4
State consumption	100.6	100.8	101.1	102.4	98.9	99.4	98.5	102.2	101.0	100.4	101.6	101.0	101.1	102.3	16.0
Investment	77.5	93.5	104.6	113.2	88.0	96.4	105.6	105.1	106.2	102.4	102.6	106.2	112.4	114.9	17.7
Export	93.1	115.0	105.0	100.8	121.3	105.7	110.2	112.0	109.8	109.1	111.2	111.6	107.5	109.3	50.0
Import	80.4	104.4	107.9	101.4	105.0	105.6	109.3	109.0	110.7	111.3	108.9	110.7	112.1	112.5	57.5

Source: SORS

Private consumption in Q1 had a somewhat faster growth than the usual and desirable

The real growth of private consumption in Q1 was 3%, which is the fastest quarterly growth of this component of GDP since the outbreak of the crisis in the second half of 2008. Such a trend of accelerating growth of private consumption is not really so favorable, as the Serbian economy continues to have a pronounced structural imbalance resulting from a much higher consumption than production (a relatively high current account deficit) and a high share of private consumption in GDP (private consumption participates in Serbia's GDP with over 70%, while the average share in the GDP of other CEECs is below 60%). For Serbia, therefore, it would be optimal for private consumption to grow at least one percentage point slower than long-term GDP growth over a longer period of time. Although at first glance, consumption growth in Q1 seems to have met this condition, i.e. that it is by about 1.5 p.p. lower than GDP growth (consumption grew by 3% and GDP by 4.6%), we remind once again that the basic trend of Serbian economy growth is actually 3% and not 4.6% (additional acceleration of economic growth in Q1 is the consequence of temporary factors). The acceleration of consumption in Q1 was most likely contributed by the Government of Serbia with its decision to increase wages in the general government by an average of around 9% in 2018, although this is not only significantly faster than the nominal GDP growth, but also than the growth of wages in private sector, which in the first four months of 2018 is only 4.5% y-o-y.

We expect that Serbia's economic growth in 2018 will be at the regional average level.

Table T2-4 shows GDP growth of Serbia and other countries in the region since 2014, ending with the forecasts for 2018. The data from the Table clearly show that Serbia systematically lags behind the growth rates of comparable countries, because in the past four years it almost always had the lowest economic growth in the entire CEE. Although in 2018 we expect that Serbia's GDP growth will accelerate to around 4%, it will not be as impressive in the regional context - according to the European Commission's forecast, this would only be the average economic growth of comparable countries.[4]

3 It is not disputed that the construction sector as well as total investments grew in Q1 2018, but the rates of their extreme y-o-y growth do not reflect their market trends well and are not sustainable. High growth in construction activity is a temporary consequence of a mild winter with more working days, and is also probably not well mesured by the SORS. Since the growth of construction activity of over 25% is not sustainable, consequently the growth of investments of about 15% is not sustainable. In fact, even these data itself - that construction activity has increased by more than 25%, and the total investments almost half less, about 15% - point out to unnatural mismatch between investing in construction works and investing in equipment. Namely, construction activity represents nearly half of total investments in Serbia, so almost half the slower growth of total investments implies that all other investments have had a very modest growth. If a strong increase in overall investment activity is a general and sustainable economic trend then the differences in investing in construction works and investment in equipment would not be so significant.

4 It should be noted that the European Commission's forecasts are generally conservative, so it is very likely that the economic growth of the CEE countries will in 2018 be, as in the previous three years, slightly higher than the Commission's forecasts currently at 4% (Table T2-4). For example, in the same report for Serbia, the Commission forecast GDP growth in 2018 of only 3.3%, which is even lower than the conservative forecast of the Government and the IMF of 3.5%. Now it is almost certain that the EU's forecast for Serbia will not be realized, that is, the GDP growth in Serbia will be higher, and similarly it could happen for the majority of other CEE countries.

After the exclusion of one-off factors, Serbia's economic growth is still slower than the region's average

Table T2-4, besides the growth of the GDP of Serbia, presents its "trend" economic growth - which excludes temporary factors that affect the growth of GDP (agricultural seasons, changes in electricity production and coal mining under the great impact of the floods from 2014, and the problems in the operations of EPS in the first half of 2017). The table shows that the trend of Serbia's economic growth in 2018 is actually lower than 4% and amounts to around 3% (Table T2-4). This in fact means that economic growth in Serbia in 2018 also continues to structurally lag behind other comparable countries, just as in the previous four years for which we presented the data as well.

Table T2-4. Serbia and countries in the region: GDP growth, 2014-2018

	2014	2015	2016	2017	2018[1)]
Serbia	-1.8	0.8	2.8	1.9	4.0
Serbia – underlying growth [2)]	-0.8	1.2	2.3	2.9	3.1
CEE (weighted average)	2.9	3.8	3.1	4.6	4.0
Neighbouring countries (weighted average)	2.7	3.5	3.7	4.9	4.0
Albania	1.8	2.2	3.4	3.9	3.6
Bosnia and Herzegovina	1.1	3.1	3.1	3.1	-
Bulgaria	1.3	3.6	3.9	3.6	3.8
Croatia	-0.1	2.3	3.2	2.8	2.8
Hungary	4.2	3.4	2.2	4.0	4.0
Macedonia	3.6	3.9	2.9	0.0	3.1
Montenegro	1.8	3.4	2.9	4.4	3.0
Romania	3.1	4.0	4.8	6.9	4.5

1) The European Commission's Progress Report for CEECs, For Serbia QM For BiH there is no forecast of GDP growth, as this country has not yet been granted candidate status for the EU
2) Excessive effect of drought, floods and poor EPS control excluded
Source: Eurostat, European Commission (*European Economic Forecast. Spring 2018)*

The key structural problems of Serbian economy are the lack of investments and relatively low exports

We have recognized the reasons for systematically significantly lower economic growth of Serbia in relation to comparable countries in a much worse structure of Serbia's GDP than in the other countries. Namely, in in relation to comparable countries, Serbia is characterized by a low share of investments in GDP and a low share of exports, while on the other hand the share of private consumption in GDP is extremely high, as much as 15 pp. above the CEE average. This comparative analysis clearly indicates that Serbia cannot seek a permanent boost for economic growth in the further increase of private consumption, which is already oversized compared to the production. Instead, the main drivers of Serbia's growth in the medium term should be investments and (net) exports, and consumption should grow slightly slower than GDP growth. Therefore, the Government and the NBS, for the necessary sustained acceleration of economic growth, would have to pursue policies that would encourage the development of investments in exchangeable goods and net exports, and not consumption.

Excessive reliance on domestic demand, with the tolerance of dinar strengthening, and a strong increase in foreign trade imbalances were precisely the main mistakes in the management of Serbia's economy in the period 2005-2008. These fundamentally unsustainable trends were severely interrupted by the outbreak of the global economic crisis in the second half of 2008, when there was a sharp drop in the value of dinar, with a sharp decrease in GDP, consumption, imports and employment. However, it is also important to point out that the economy of Serbia would very soon face the limitations of economic growth based on domestic consumption even without world crisis, that is, it would have to be adjusted and restructured with the slowdown or decrease of the GDP. We particularly emphasize this episode (2005-2008), because there are first indications that the Serbian economy is going the same direction again. The dinar exchange rate appreciates, the foreign trade imbalance opens, and data on the FDI structure for 2017 indicate that foreign investors' interest for investments in manufacturing industry is decreasing, while investments in trade, banking and construction are growing. There are now some differences in relation to that period, primarily because GDP growth is significantly lower, and fiscal policies are more restrictive. However, once again, we note that a sustainable way to accelerate economic growth leads through an increase in investments in exchangeable production and exports growth, and that the "shortcuts" that lead through the increase in domestic demand and investments

in the non-exchangeable part of the economy proved to be wrong in not so distant past, so this mistake should not be repeated.

Industrial production

Solid industrial production growth in Q1 of about 6% is largely a result of electricity production

Industrial production in Q1 recorded a growth of 5.9% (Table T2-5), which is slightly higher than the average of 2017 (3.5%). However, this acceleration of economic activity at the beginning of 2018, compared to 2017, is the result of the recovery of electricity production after a deep fall in Q1 2017, which is why only this part of industrial production achieved a growth of over 10%. On the other hand, the manufacturing industry, which represents the most important part of industrial production and produces the largest part of Serbian goods, slowed down its growth in Q1 2018 compared to the average of 2017 (the y-o-y growth of manufacturing industry in Q1 was 5%, while the average growth in 2017 was 6.4%).

Table T2-5. Serbia: Industrial Production Indices, 2009-2018

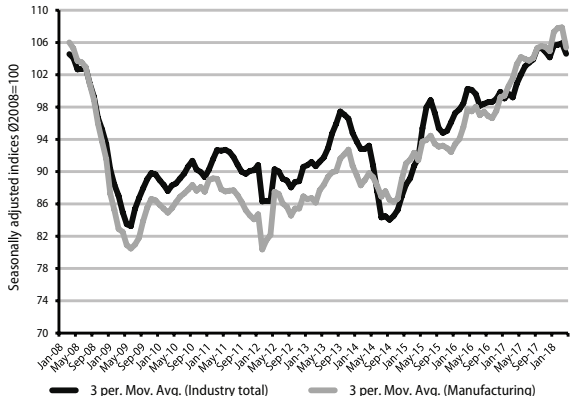
	Y-o-y indices														Share
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017				2018	2016
										Q1	Q2	Q3	Q4	Q1	
Total	87.4	102.5	102.2	97.1	105.5	93.5	108.2	104.7	103.5	100.7	103.1	106.3	103.5	105.9	100.0
Mining and quarrying	96.2	105.8	110.4	97.8	105.3	83.3	110.5	104.0	102.7	93.7	107.3	105.3	105.4	103.0	6.5
Manufacturing	83.9	103.9	99.6	98.2	104.8	98.6	105.3	105.3	106.4	107.3	105.1	107.7	104.9	105.0	80.0
Electricity, gas, and water supply	100.8	95.6	109.7	92.9	108.1	79.9	118.8	102.7	93.8	85.5	94.1	100.7	97.4	110.9	13.5

Source: SORS

Seasonally adjusted data show a slowdown in the manufacturing industry

More detailed estimate of industrial production trends in Q1 can be given on the basis of the seasonally adjusted indices we have shown in Graph T2-6. We draw attention in particular to the movement of manufacturing industry (darker line on the chart). After a relatively high growth during the most of 2017, the manufacturing industry slowed down at the end of the year and halted its growth in early 2018. However, the individual monthly indices of seasonally adjusted industrial production cannot be seen clearly on Graph T2-6 (as the Graph shows three-month moving average in order to reduce monthly volatility of indicators). Individual monthly seasonally adjusted production indices of manufacturing industry in 2018 are therefore shown separately in Table T2-7, with the latest available data for April. In January 2018, seasonally adjusted production of the manufacturing industry reached its maximum, when it was 6.4% higher than the average of 2017. In each following month of 2018 seasonally adjusted production of the manufacturing industry recorded a sharp drop, so that in April (the latest available data) it fell below the average of 2017. Similar trends are also shown by the year-on-year manufacturing production indices by month. Year-on-year growth was the highest in January when it was over 11%, only to drop to mere 1% in April (Table T2-7).

Graph T2-6. Serbia: Seasonally Adjusted Industrial Production Indices, 2008-2018



Source: SORS

Table T2-7. Serbia: Seasonally Adjusted and Y-o-y Manufacturing Industry Indices in 2018

	January	February	March	April
Manufacturing (seasonally adjusted indicies)	106.4	103.0	101.4	99.2
Manufacturing (y-o-y indicies)	111.3	104.7	100.0	101.0

Source: SORS

The slowdown in the manufacturing industry is relatively widespread

The next question we were trying to answer is what lies behind the sharp downturn of the manufacturing industry during the first four months of 2018. Namely, if the slowdown occured due to the unfavorable movement of smaller number of individual areas (e.g. a decline in the food production due to a bad agricultural season), and the major part of the manufacturing industry continues to grow rapidly in 2018, then there should not be many reasons for concern. More detailed analysis by sectors, however, shows the opposite - that the slowdown in manufacturing industry was relatively widespread and therefore significantly more dangerous. Individual areas that in the past had a habit of leading to a temporary decline of the entire manufacturing industry with its incidental drops, were in fact very stable in the first four months of 2018. Thus, in the first four months, the food processing industry had a relatively stable year-on-year decline of 1% and its trend did not change significantly in comparison with the previous year despite the bad agricultural season in the last year (in 2017, the food processing industry had a slight decline of 0.1%). Also, the production of motor vehicles, which in the past led to a temporary slowdown in the entire manufacturing industry (when FAS production was stopped) had relatively stable results in the first four months of 2018, a minimal but stable y-o-y increase of 0.2%. This result of motor vehicle production in 2018 is even slightly better than in the previous year when this sector of the manufacturing industry recorded a drop of 3.3%. Analysis by individual areas suggests that the gradual slowdown in industrial production during 2018 is a common trend of the largest part of the manufacturing industry and is not the consequence of incident falls limited to just a few activities. Although it is early to make a far-reaching conclusions based on data for only four months of 2018 (January and February were actually relatively good), the trends in the manufacturing industry will be monitored with some extra caution in the coming quarters.

Investment product production declined

Observed by the purpose of industrial products (Table T2-8), there were some changes in Q1 compared to the previous quarters. First of all, there was a relatively strong acceleration in energy production, but this trend can be easily explained by the high y-o-y growth of EPS production, which was compared with the low base from the previous year. That is why we expect that this acceleration of the y-o-y growth of energy production will be short-term and exhausted by the middle of the year. On the other hand, the biggest negative change in Q1 was recorded by the production of investment goods, which in Q1 had y-o-y fall of 1.3%, after a growth of almost 10% in 2017 (Table T2-8). As we have mentioned, the analysis of production in the area of motor vehicle production (which belongs to this special purpose group) suggests that the decline in the production of investment goods in Q1 2018 cannot be explained by possible halts in FAS, since this area has actually somewhat better results in 2018 than in the previous year. The widespread decline in investment goods production further doubts the data from national accounts which suggest that investments had a remarkably high growth of 15% in Q1. Other special purpose groups, intermediate and consumer goods production, had in principle similar movements in Q1 to those in the previous quarters.

Table T2-8. Serbia: Industrial Production by Purpose, 2009-2018

	Y-o-y indices													
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2017				2018
										Q1	Q2	Q3	Q4	Q1
Total	87.4	102.5	102.1	97.1	105.5	93.5	108.2	104.7	103.5	100.7	103.1	106.3	103.5	105.9
Energy	98.8	97.7	106.2	93.6	113.2	82.6	116.9	101.9	97.2	88.0	95.2	108.7	100.1	107.9
Investment goods	79.3	93.6	103.2	103.8	127.6	95.9	103.0	101.6	109.2	113.0	107.0	114.6	103.6	98.7
Intermediate goods	78.4	109.2	102.2	91.2	99.0	96.8	105.3	109.5	110.0	110.3	109.5	110.3	109.3	110.7
Consumer goods	86.8	102.1	95.4	103.2	100.7	100.7	104.0	105.6	102.4	105.8	105.3	98.7	100.9	103.3

Source: SORS

Construction activity

According to SORS construction activity strongly accelerated in Q1 by over 25%

According to the SORS estimates, the construction activity in Q1 achieved an exceptionally high real y-o-y growth of 26.4% (Table T2-5). This data was crucial to the acceleration of investment growth and contributed significantly to the growth of total economic activity in Q1. However, the real trend of construction activity is actually very difficult to evaluate correc-

Table T2-9. Serbia: Cement Production, 2001-2018

	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	100.4	108.9
2017	110.4	104.1	96.4	118.7	105.9
2018	107.5	-	-	-	-

Source: SORS

tly. The problem with the monitoring of this sector of the economy is that a large number of small private companies that are quickly established and closed, operate within it, which official statistics has a difficulty to monitor, and a good part of the activity is carried out in the gray zone, out of the sight of the statistics. In addition, construction activity in Q1 seasonally depends to a great extent on meteorological conditions, i.e. the number of working days in which construction work can be performed unobstructed by weather conditions. More detailed QM analysis shows that construction activity undoubtedly recorded a strong growth in Q1, but it is still unlikely that the growth was more than 25% as SORS shows.

For a somewhat more reliable monitoring of the construction activity trend in QM we analyze, besides the value of construction works performed (which is used as the main indicator of the growth of this economy sector), a whole series of additional indicators related to this activity (movement of registered employment, wages in construction sector, cement production and more). Thus, the value of construction works performed in Serbia in Q1 had high y-o-y growth of as much as 28% at constant prices, and this was the main indicator on the basis of which the statistics showed the exceptionally high growth in this activity. However, other construction activity indicators suggest that the growth in Q1, though undeniably high, was probably not so extreme. So, the registered employment in construction sector in Q1 recorded a 5.7% y-o-y increase, while wages in construction activity grew by about 2.7%. Cement production in Q1 recorded an y-o-y growth of 7.5% (Table T2-9).

We expect growth of construction activity in 2018 of over 10%

As we have pointed out, long-term trends in construction activity are difficult to accurately estimate based only on Q1 data. Namely, the winter of 2018 has been somewhat warmer than in the previous year, so that was an important one-time factor contributing to the y-o-y increase in working hours in this sector and, consequently to temporary acceleration of the growth of construction activity in Q1. Another important factor we consider to have temporarily increased construction activity in Q1 is the partiality in the statistical analysis of this sector towards large and state-owned construction companies. Since official statistics has difficulties to track the construction activity of private and informal sector, it is biased towards large and state-owned companies which perform larger and easier-to-see works (usually public investments). This is how the official assessment of the movement of construction activity, more than it should, reflects the dynamics of the execution of public investments, which in our opinion was exactly the case in Q1. Namely, in Q1, capital expenditures of the state had a tremendous increase of as much as 2.3 times higher than the same period of the previous year, which was transferred also to the unusually large growth of the entire construction sector.[5] However, even if we consider that the high growth of construction activity in Q1 was temporary and partly the result of unreliable measurements by the SORS, there is plenty of other and reliable indicators that suggest the acceleration of construction activity in 2018 compared to 2017 (cement production, acceleration of the growth of registered employment in construction activity and others). Good external conditions for the rapid growth of this sector should be added to all this, (a favorable economic cycle throughout Europe, still low interest rates on borrowing and the like). Taking all this into account, we estimate that construction activity in 2018 will most likely have a high double-digit growth of over 10%.

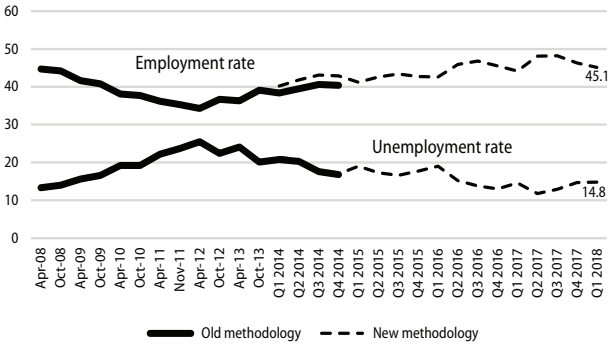
5 Public investments were record low in Q1 2017, so they had their exceptionally large y-o-y growth in Q1 2018. In the coming quarters, there will for sure be some reduction in the y-o-y growth of public investments, which will in all probability also strongly affect the reduction of the y-o-y growth of construction activity in official statistics. We note that during the sharp decline in public investments in Q1 2017 construction activity recorded an unexpected fall that we attributed to unreliable construction measurements in the analyses at the time (QM48) and evaluated as temporary - which proved to be accurate.

3. Labour Market

According to the Labour Force Survey (LFS) data, mild improvements in the basic labour market indicators in Serbia were noticed in Q1 2018 compared to the same quarter of the previous year. The activity, employment and unemployment rates recorded a slight y-o-y growth. The employment rate was 45.1%, while the unemployment rate was 14.8%. The number of employed persons was 2,688 thousand, while the number of persons in formal employment was 2,188 thousand. The rate of informal employment was 18.6%. Total and formal employment increased compared to the same quarter of the previous year, while informal employment declined y-o-y. Data from the Central Register of Compulsory Social Insurance (CRCSI) show employment growth compared to the same quarter of the previous year by 3.3%. Registered employment recorded a higher growth compared to formal employment by LFS (1.9%). According to CRCSI, the number of employees in the public sector has dropped in the past year, while the number of employees outside the public sector has increased. In the observed period, the real growth rate of gross value added (GVA) was 5%. Employment growth (LFS) is lower than the GVA growth, which was not the case in the previous period. Employment rose the most in construction, 20.5% y-o-y, while GVA growth in this activity was 26.4%. Employment has also increased in industry, while it has decreased in agriculture and services. In 2018, the Statistical Office of the Republic of Serbia (SORS) took over the data from the Tax Administration (TA) and ceased to implement the RAD-1 survey. The data based on the new methodology exists for 2017 as well, but it doesn't include the monthly data by activity, which prevents us from adequately performing year-on-year comparisons of earnings per activity, as well as of the comparable unit labour costs excluding agriculture. Average net wages were nominally higher by 5.5%, and in real terms by 3.8% in Q1 2018 compared to the same quarter of the previous year (TA data for 2017). Average public sector earnings were 20.6% higher than non-public sector in Q1 2018. Labour productivity increased y-o-y by 1.6%, while unit labour costs increased by 4.7% (RAD-1 data for 2017). Compared to the 2014 average, productivity has declined, real wages have increased, while unit labour costs increased significantly by 15% for the total economy, or 12.3% excluding agriculture. Significant growth in real earnings in Q1 2018 compared to the average of 2014 of 3.3% was the result of changing the methodology of calculating wages. Therefore, we consider that the growth of unit labour costs is lower, and that it is at the level of previous years. It is necessary that SORS also publishes monthly data by activities for 2017 according to the TA, so that it is possible to fully analyse the earnings including the previous year.

Both the employment and unemployment rates recorded a year-on-year growth

Graph 3-1. Employment and Unemployment Rates, 15+

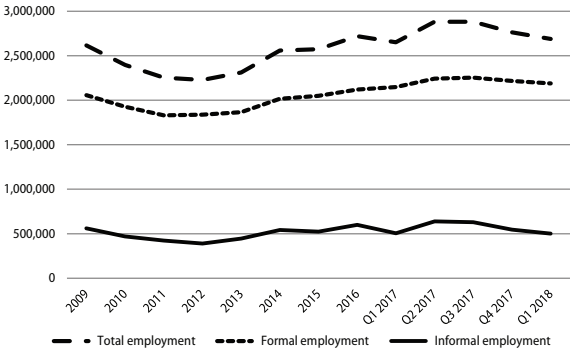


Note: Due to a change in methodology, the data for the period before and after 2014 are not fully comparable.
Source: SORS, LFS

Employment and Unemployment

Basic labour market indicators according to LFS show moderate improvements. The activity rate was 52.9% in Q1 2018 and was higher by 1.1 pp compared to the same quarter of the previous year. The employment rate was 45.1%, which was an increase of 0.8 pp, while the unemployment rate increased by 0.3 pp in Q1 2018 compared to Q1 2017. The unemployment rate was 14.8%. Graph 3.1 shows the trends of the employment rate and the unemployment rate according to LFS.

Graph 3-2. Trends in Total, Formal and Informal Employment, 15+



Note: Due to a change in methodology, the data for the period before and after 2014 are not fully comparable.
Source: SORS, LFS

Total and formal employment are increasing, informal employment is decreasing

The number of unemployed in Q1 2018 amounted to 469 thousand, which was 16 thousand more compared to the same quarter of the previous year, i.e. 3.5% more. Compared to Q1 2017, the number of active persons increased, while the total population decreased, resulting in an increase of activity rate by 1.1 pp. The total number of employees is 2,688 (in thousands), the number of formal employees is 2,188 (in thousands), while the remaining 500 (in thousands) are informally employed. The movement of total, formal and informal employment is shown graphically (Graph 3.2).

Registered employment (CRCSI) increased by 3.3% year-on-year

Growth of registered employment (CRCSI) was higher than the growth of formal and total employment (LFS)

Total employment increased y-o-y by 1.4%, while formal employment increased by 1.9%, and informal employment decreased by 0.8%. The informal employment rate was 18.6%, and it was lower by 0.4 pp compared to the same quarter of the previous year. The informal employment rate had the lowest value since 2012. Table 3.1 shows the movement of employment and GVA by sector. The real growth rate of GVA was 5% y-o-y, and was higher than the rate of total and formal employment (LFS) and registered employment (CRCSI). In the previous period (Q2 2016-Q3 2017), the trend was reversed, the growth rate of total employment according to the LFS was significantly higher than the GVA growth rate. Employment growth was achieved in industry and construction, while agriculture and services recorded a decline in employment. The growth of employment in construction was extremely high, 20.5% y-o-y, but in the observed period, GVA increased as well, by 26.4%. CRCSI data show that registered employment has increased by 3.3%, which is in line with the trends in economic activity.

Observed by economic activity, employment increased in industry and construction, and decreased in agriculture and services

In construction, growth of employment was extremely high, 20.5% year-on-year

Table 3-1. Trends in the number of employees and real GVA by sectors, 15+, year-on-year change, %

	2016				2017				2018
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Total employment CROCSI	-0.3	1.2	1.3	2.1	2.3	2.6	2.7	2.8	3.3
Formal employment LFS	1.9	2.7	3.8	5.2	4.9	5.1	5.5	2.6	1.9
Total employment LFS	2.7	6.7	7.2	5.8	3.2	4.3	2.4	1.2	1.4
Total GVA	4.6	2.1	3.3	2.8	0.6	1.5	2.3	2.6	5.0
Employment- agriculture	-3.7	6.0	6.1	-3.4	-8.0	-1.6	-2.9	-7.8	-7.1
GVA-agriculture	7.5	4.4	11.6	7.8	-6.3	-9.1	-11.9	-9.5	6.1
Employment-industry	4.2	7.8	7.9	7.6	9.3	8.4	7.7	6.3	12.0
GVA-industry	6.6	-0.8	2.0	2.9	0.4	3.5	6.4	3.7	5.3
Employment-construction	-2.9	4.0	-2.1	-1.8	-12.6	8.2	-0.6	2.5	20.5
GVA-construction	9.5	4.6	5.4	-3.5	-3.7	-2.1	6.0	17.9	26.4
Employment-services	4.7	6.8	8.2	9.1	5.7	4.6	2.7	2.0	-1.2
GVA-services	3.2	2.7	2.2	2.6	2.4	3.1	2.8	2.8	3.3

Note: The data source for employment was LFS, except for total employment, which used both LFS and CRCSI data. GVA data for 2017 and 2018 are estimated values.
Source: Authors' calculations based on data from SORS (LFS, CRCSI and SNA).

Year-on-year decrease in the number of public sector employees was 1%, while the growth outside the public sector was 6.1%

During 2017 and in Q1 2018, public sector employment declined, while it grew in the private sector

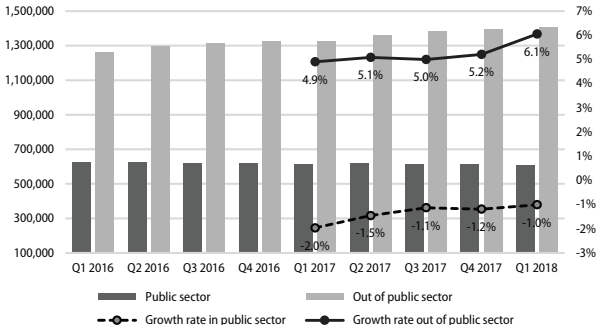
The data available to us was on the number of employees in the public and private sectors from Q1 2016 according to CRCSI. The number of employees, as well as the growth rate, are shown in Graph 3.3. In the public sector in Q1 2016, almost 625 thousand were employed, while in Q1 2018 this number was reduced to about 606 thousand (in the absolute amount, the number of employees decreased by 18,448 or 3%). Outside the public sector, the number of employees increased by about 142 thousand, or 11.3% in the same period. During 2017 and Q1 2018, we see that in all quarters, there has been a y-o-y decline in the number of employees in the public sector and an increase in the number of employees outside the public sector. The highest year-on-year growth in the number of employees outside the public sector was achieved in Q1 2018, when it was 6.1%.

Wages[1]

Wages increased nominally by 5.5%, and in real terms by 3.8%, year-on-year

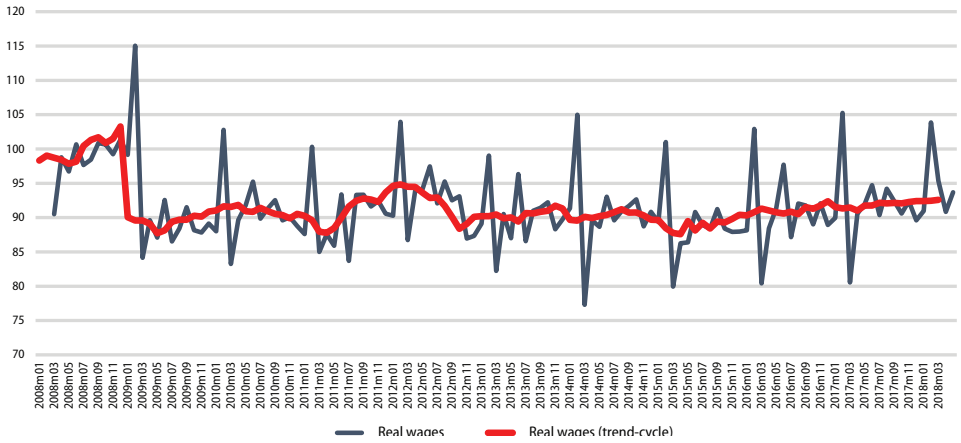
Average net salary for the first three months of 2018 was 49,088 RSD, nominally higher by 5.5%, while in real terms it was 3.8% compared to the same period of the previous year (TA data for 2017). Graph 3.4 shows the movement of average real net wages, as well as the movement trend relative to the base period (average 2008). We can observe that the real earnings index is still below 100, but there is a slight increase.[2]

Graph 3-3. Employment trends in public and private sectors, number (the left axis) and year-on-year change in % (the right axis)



Note: Data for Q1 2018 is previous data.
Source: CRCSI, SORS.

Graph 3-4. Index of real average net wages (2008=100)



Note: Due to a change in methodology for calculating wages, the data prior to January 2018 is not comparable.
Source: Authors' calculations using SORS data.

Average wages in public sector were higher by 20.6% than in the private sector

Fiscal consolidation affected the reduction in the wage difference between public and private sector

By switching to TA data, data on average wages in the public and private sectors are published as of Q1 2018. Average public sector wages amount to 55,345 RSD, while in the private sector they amount to 45,880 RSD. Average public sector wages were 20.6% higher than average wages in the private sector. Comparison of average wages does not take into account differences in characteristics of employees in the public and private sector, and the fact that registered private sector wages are underestimated due to the large informal employment. Also, in the private sector, it is common practice that some of the salaries of formal employees are paid out in cash (i.e. envelop wages), which is not covered by official statistics.[3] Fiscal consolidation, which implied a 10% reduction in public sector wages in early 2015, led to a reduction in the wage gap between public and private sector employees. Vladisavljević (2017) examines how fiscal consolidation has affected the differences in wages between the public and private sector using LFS micro data. Average wages in the public sector were 30.2% higher than average wages in the private sector in 2014, while in 2015 the difference was 24.5%. Public sector wage premium in 2014 (before fiscal consolidation) was 17.4%, when controlled for the characteristics of employees in the public and private sector (education, work experience, gender, etc.). As a result of 10% wage cuts in the

1 Since January 2018, SORS has been using a new data source for wages, which we wrote about in the previous issue of QM. Data for 2017 follow the new methodology, but data is only available for average monthly net and gross wages, while average monthly wages per economic activity are not available for 2017. Since we were not able to analyse the whole part of wages, as well as unit labour costs using revised data for 2017, we used unrevised data for 2017, unless otherwise stated. The data before January 2018 are not directly comparable.
2 Change in statistical methodology at the beginning of 2009 resulted in a 10% reduction in wages. Therefore, we estimate that real wages now are approximately equal to the wages from 2008.
3 The definition of informal employment does not include employees who are partially paid in cash, and are usually registered for minimum wage or slightly higher than that. Informal employment includes employees in unregistered companies, employees in registered companies, but without a labour contract and unpaid household members (SORS).

public sector, the public sector wage premium was reduced to 11.3% in 2015.[4] The average wage gap between public and private sector was reduced in 2016 and 2017, and was 18.2% in 2017. However, since the beginning of 2018, wages have increased by 9% in the general government sector, which has again increased the gap between the wages generated by both public and private sector, so that in the first quarter it was 20.6%.

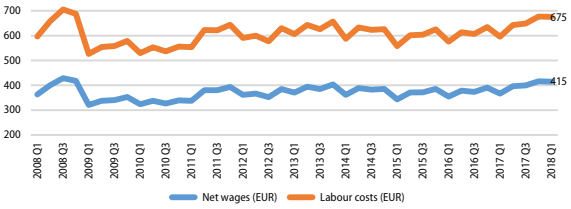
High growth of wages in the public sector deteriorates the economy's competitiveness and increases the labour market distortions

Growth of real wage in a country is determined by the growth of productivity.[5] In addition, the growth of total productivity in the country crucially depends on the growth of productivity in the sector of tradables (industry, agriculture, etc.), which in market economies are dominantly present in the private sector. Most of the activities in the public sector (security, justice, education, health, etc.) belong to the sector of non-exchangeable goods characterised by lack of growth or slow growth of productivity.[6] It follows that the sustainable[7] growth of wages in the country implies that productivity growth in the sector of tradables determines the growth of wages in that sector, and that wages in the sector of nontradable goods, including the public sector, follow their growth. If public sector wages grow faster than private sector ones, given the fact that the state is the largest employer, it puts pressure on the labour market to increase private sector wages too quickly, resulting in the country's total wages growing faster than productivity. Faster growth of wages than productivity growth weakens the competitiveness of the economy, resulting in foreign deficit, foreign debt increase, and deteriorated position of the country's total assets. Of course, this may take several years and ends with a real decrease in wages through inflation, and sometimes a nominal reduction in wages, due to a fiscal or balance of payments crisis. Therefore, for the stability of public finances, but also for overall macroeconomic stability, it is important that wages in the public sector follow the movement of wages in the private sector, and not vice versa.[8]

Growth of average net wages in EUR was 10.4%, year-on-year

Growth of wages in EUR was significantly higher compared to the nominal growth of 5.5% in RSD, which was the result of the appreciation of the dinar

Graph 3-5. Trends in net wages and labour costs in euros



Note: Due to a change in methodology for calculating wages, data prior to January 2018 is not comparable.
Source: Authors' calculations using NBS data.

The average net salary in euros in Q1 2018 was 415 euros, while the employer's costs amounted to 675 euros. Average wages in euros and the costs of employers increased y-o-y by 10.4% and 9.9% (TA data), respectively. Significantly higher growth in wages in euros relative to the growth in dinars was the result of the strengthening of the dinar. The average exchange rate in Q1 2017 was 123.9 RSD / EUR, while in Q1 2018 it was 118.4 RSD / EUR. Movement of wages and labour costs in euros was significant from the aspect of the economy's competitiveness, which depends to a large extent on whether the price of labour is competitive. Labour is the most important non-exchangeable good in world economy[9], so the international competitiveness of a country depends largely on whether its average wages are expressed in a global currency in line with average productivity. Due to the significant strengthening of the dinar, wages in euros and labour costs in Serbia are growing much faster than productivity growth, resulting in the deterioration of the country's international competitiveness.

4 Vladisavljević, M. (2017), „The public sector wage premium and fiscal consolidation in Serbia", Economic Annals, Vol. LXII, No. 215/ October-December 2017, http://www.ekof.bg.ac.rs/wp-content/uploads/2014/04/492.pdf

5 See the Vuksanović & Arsić article from the previous issue of QM.

6 In these activities (education, health, etc.), progress is achieved by increasing the quality of services, while productivity growth, if any, is very slow.

7 Sustainable wage growth implies such growth that does not lead to a large increase in foreign debt, nor the elimination of investments, which undermines the future growth of the economy.

8 More detailed argumentation can be seen in the Fiscal Council's analysis "Public Sector Wages: Current Condition and Guidelines", (2018).

9 Labour markets are still predominantly national, as there is no global labour market, except in some segments that still include a small percentage of the workforce, so the average wage levels vary from one country to another by several dozen times. Due to globalisation, the differences in the prices of other products (raw materials, equipment and final products) by countries differ less and usually range from a few percent to dozens of percent.

Labour Productivity

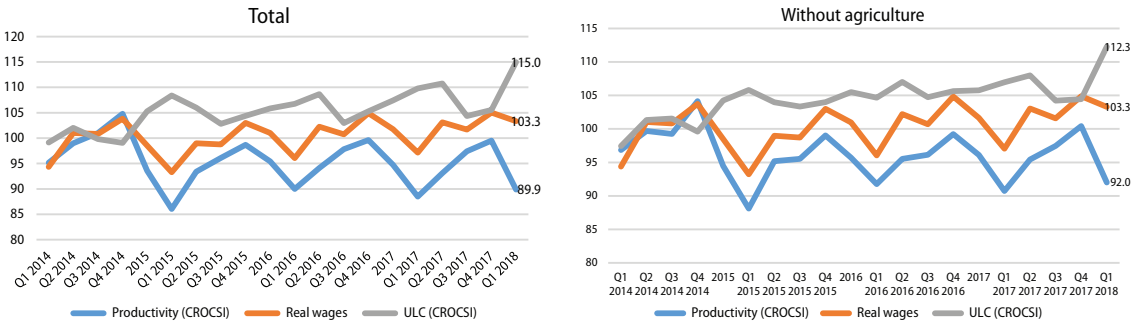
Compared to the same quarter of the previous year, unit labour cost has increased by around 5%

Compared to the 2014 average, labour productivity has declined, real wages have increased, and unit labour cost has significantly increased

In Q1 2018, growth of real wages compared to the 2014 average was significantly higher compared to the first quarters of the previous year, which is the result of the change in methodology for calculating wages

In Q1 2018, compared to the same quarter of the previous year, productivity slightly increased by 1.6%, but unit labour cost also increased (4.7%), due to the higher growth of wages than labour productivity. Unit labour cost also increased (by 5%) in non-agricultural activities. According to CRCSI, the level of productivity in Q1 this year compared to the average of 2014 was lower by 11.1%.[10] Real wages increased by 3.3% in the same period, which led to a 15% rise in unit labour cost. In the first quarter of the previous years (2014-2017), real wages were less than the 2014 average, while in Q1 2018 this was not the case. The reason is the change in the methodology of calculating wages, where there is no such difference at the end of the year.[11] When we look at the non-agricultural sector, productivity has slightly decreased relative to total productivity, by 8% compared to the 2014 average, and unit labour cost increased by 12.3%. The trends in the labour productivity index, real wages and unit labour cost are shown in Graph 3.6.

Graph 3-6. Labour productivity, real wages and unit labour cost, indices (2014=100), 2014-Q1 2018.



Note: CRCSI data used for the number of employees. Data for unit labour cost prior to January 2018 is not directly comparable, due to the change in methodology for calculating wages. GVA data for 2017 and 2018 are estimated values.
Source: Authors' calculations using SORS data.

Annex 3-1. Basic labour market indicators according to LFS and CRCSI

	2014					2015					2016					2017				2018
	Q1	Q2	Q3	Q4	prosek	Q1	Q2	Q3	Q4	prosek	Q1	Q2	Q3	Q4	prosek	Q1	Q2	Q3	Q4	Q1
Activity rate (%)	51.0	52.6	52.5	51.6	51.6	50.8	51.5	52.0	51.9	53.3	52.6	54.1	54.3	52.3	54.0	51.8	54.5	55.3	54.2	52.9
Employment rate (%)	40.2	41.8	43.1	42.9	42.5	41.2	42.6	43.4	42.7	45.2	42.6	45.9	46.8	45.5	46.7	44.2	48.1	48.2	46.3	45.1
Unemployment rate (%)	21.3	20.7	17.9	17.0	17.7	19.0	17.3	16.6	17.7	15.3	19.0	15.2	13.8	13.0	13.5	14.6	11.8	12.9	14.7	14.8
Informal employment rate (%)	19.7	20.4	22.8	21.8	20.4	19.7	19.7	21.5	20.4	22.5	20.3	22.7	24.1	20.9	20.7	19.0	22.1	21.8	19.8	18.6
Employment in 000, (LFS)	2,454	2,548	2,627	2,609	2,574	2,504	2,588	2,624	2,581	2,719	2,571	2,762	2,814	2,731	2,795	2,652	2,881	2881.9	2763.6	2688.3
Employment, index, (2014=100), (LFS)	95.9	99.6	102.6	101.9	100.6	97.8	101.1	102.5	100.8	106.3	100.4	107.9	109.9	106.7	109.2	103.6	112.6	112.6	108.0	105.0
Formal employment in 000, (LFS)	1,969	2,030	2,028	2,041	2,050	2,011	2,078	2,059	2,054	2,137	2,049	2,135	2,137	2,161	2,215	2,148	2,243	2253.5	2217.2	2188.2
Formal employment, index, (2014=100), (LFS)	97.6	100.6	100.5	101.2	101.7	99.7	103.0	102.1	101.8	105.9	101.6	105.9	105.9	107.1	109.8	106.5	111	112	110	108
Total employment in 000, (CROCSI)	1,836	1,845	1,850	1,851	1,987	1,977	1,982	1,994	1,994	2,010	1,978	2,008	2,023	2,030	2,061	2,024	2,062	2,078	2,087	2,092
Total employment, index, (2014=100), (CROCSI)	99.5	100.0	100.3	100.3	107.6	107.1	107.4	108.0	108.0	108.9	107.2	108.8	109.6	110.0	111.7	109.7	111.7	112.6	113.1	113.4

Source: Authors' calculations using SORS data.

Annex 3-2. Real net wages and labour productivity

	2014				2015				2016				2017				2018
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Average real net wages, index, (2014=100)	94.3	101.0	100.8	103.8	93.3	99.0	98.8	103.0	96.1	102.2	100.7	104.9	97.2	103.1	101.7	105.0	103.3
Average net wages, total, (€)	361	389	383	386	343	371	372	386	355	378	373	391	367	399	398	416	415
Average net wages, industry, (€)	359	382	378	378	351	376	379	389	369	391	382	399	376	417	411	429	404
Labour coss, total (€)	588	633	623	626	557	601	603	626	576	613	607	635	596	648	647	677	676
Labour costs, industry (€)	582	622	617	615	570	611	617	632	599	635	623	649	611	677	669	699	658
Productivity, without agriculture, index, (2014=100)	96.9	99.7	99.3	104.2	88.1	95.2	95.5	99.0	91.8	95.5	96.1	99.2	90.7	95.4	97.5	100.4	92.0
Productivity, total, index, (2014=100)	95.2	99.0	101.0	104.8	86.1	93.4	96.1	98.7	90.0	94.1	97.8	99.6	88.5	93.1	97.4	99.5	89.9

Note: Industry includes activities B, C and D, weighted average of wages. Dinar exchange rate against the euro, period average (NBS). Labour productivity is calculated using registered employment data. GVA data for 2017 and 2018 are estimated values. Due to changes in the methodology of calculating wages, data prior to January 2018 is not comparable.
Source: Authors' calculations using SORS and NBS data.

10 Although we estimate that CRCSI now measures well the registered employment, it is possible that at the beginning of its work, the full scope of registered employment has not yet been reached. In this case, real growth of registered employment in the period 2014-2018 was lower than that of the CRCSI data, which is why the decrease in productivity and the growth of unit labour cost in this period was lower than what the data show.

11 Remember that the comparison of average net wages according to TA and RAD-1 data for 2017 shows that in January wages according to TA were 12.4% higher than according to RAD-1, while in December wages according to TA were 10.3% lower than according to RAD-1 (http://publikacije.stat.gov.rs/G2018/Pdf/G201822001.pdf).

4. Balance of Payments and Foreign Trade

In Q1 2018, the current account deficit amounted to 650 million euros, i.e. 7.0% of GDP, and was lower than the realised deficit in the same period of the previous year. On the one hand, there was a more pronounced increase in the foreign trade deficit, while on the other hand there was a significant reduction in the deficit in the Primary Income account, as well as a small increase in the surplus on the Secondary Income account. The growth of the foreign trade deficit was the result of a slightly faster growth in Q1 of imports of goods and services than exports, although both growth rates were in the double-digits. The increase in the foreign trade deficit was due to the effects of real appreciation of the dinar from 2017, higher global energy prices, growth of domestic demand, while the growth of the Eurozone countries and the favourable world price of domestic export products (metals, grains) contributed to its decrease. Further movement of foreign trade components will be conditioned by the future level of prices of primary products on the world market, the pace of Eurozone growth, further growth in investment and production in Serbia, as well as domestic economic policy (fiscal policy, exchange rate policy). The inflow of direct investments and portfolio investment during Q1 was higher than the current account deficit, so the level of foreign exchange reserves increased since the beginning of the year.

In Q1 2018, current account deficit was 650 million euros, i.e. 7.0% of GDP...

In Q1 2018, current account deficit was 650 million euros, i.e. 7.0% of GDP. Therefore, the current deficit is at a lower level by 44 million euros, i.e. 1.3 pp of GDP compared to the level of Q1 2017 (Table T4-1). On the one hand, there has been a more pronounced increased in the foreign trade deficit, while on the other, a significant decrease in the Primary Income account deficit was recorded (mostly due to lower spending on dividends)[1], as well as a small increase of surplus in the Secondary Income account.

...on the one hand, foreign trade deficit is increasing...

Still, we should keep in mind that the level of the current account deficit was particularly high in Q1 2017. At that time, the current deficit was 694 million euros, i.e. 8.3% of GDP. This was a sudden jump since, in 2016, the current deficit amounted to 3.1% of GDP. Such an increase at the beginning of the previous year was the result of an increase in the foreign trade deficit (due to the growth of imports, which occurred due to the deterioration of the exchange ratio, as a result of the increase in the price of energy products), as well as the increase in the primary income (due to the outflow of funds for dividends).

...on the other hand, deficit in the Primary Income account has been reduced, while the surplus in the Secondary Income account has slightly increased

In Q1, foreign trade deficit was 906.5 million euros, i.e. 9.8% of GDP...

In Q1 2018, trade deficit was 1.133 million euros (12.2% of GDP), which was by 206 million euros, i.e. by 1.1 pp of GDP, higher than the deficit in the same period of 2017. During Q1, a surplus of 226 million euros was realised on the Services account, and the foreign trade deficit amounted to 906.5 million euros (9.8% of GDP), which was 1.3 pp of GDP above the deficit recorded in Q1 a year earlier (Graph T4-2). It should be noted that during 2017, the foreign trade deficit was also relatively high. Namely, this deficit had relatively high values in Q1 and Q4 2017: 8.5% of GDP and 10.6% of GDP, respectively, while it was at a relatively lower level in Q2 (7.7% of GDP) in Q3 (6.1% of GDP).

In fact, foreign trade deficit has been increasing since 2016 (see Graph T4-2), so it is not the result of any temporary factors, but of a systemic problem (exchange rate, etc.), which affects the foreign trade deficit. Also, we note that this level of foreign trade deficit is quite high, especially considering that in the previous period a restrictive fiscal policy has been conducted. Therefore, with each growth of the fiscal deficit, it is realistic to expect an increase in the foreign trade deficit.

The increase in foreign trade deficit was the result of a slightly faster growth in Q1 of imports of goods and services than exports, although both growth rates were in the double-digits. The accelerated growth of exports in Q1 was significantly affected by the growth of the Eurozone countries, while the growth of exports decelerated due to the delayed effects of the appreciation of the dinar against the euro in 2017. At the same time, the growth of imports was largely de-

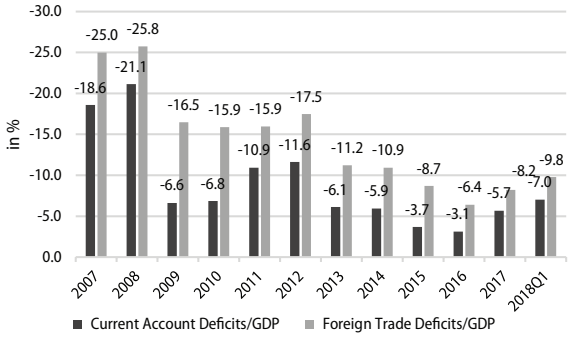
1 Primary income includes income from factors of production such as income based on dividends, interest and other income from capital and labour.

Table T4-1. Serbia: Balance of Payments

	2016	2017	2016				2017				2018
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
						mil. euros					
CURRENT ACCOUNT	-1,075	-2,090	-305	-284	-239	-247	-694	-333	-384	-678	-650
Goods	-3,119	-3,986	-662	-849	-718	-890	-927	-883	-824	-1,352	-1,133
Credit	12,814	14,090	2,976	3,310	3,160	3,369	3,277	3,693	3,559	3,560	3,571
Debit	15,933	18,076	3,638	4,159	3,878	4,258	4,204	4,576	4,383	4,912	4,704
Services	907	951	186	196	268	258	220	167	236	327	226
Credit	4,571	5,240	993	1,068	1,258	1,252	1,106	1,241	1,424	1,470	1,274
Debit	3,664	4,289	807	872	990	994	886	1,074	1,187	1,143	1,048
Primary income	-2,022	-2,570	-499	-524	-581	-418	-700	-564	-638	-668	-544
Credit	630	568	142	185	140	164	105	153	132	179	116
Debit	2,653	3,138	641	709	721	583	805	717	769	847	660
Secondary income	3,159	3,516	670	894	792	803	713	946	842	1,015	800
Credit	3,635	4,098	771	1,009	921	933	848	1,086	986	1,178	941
Debit	476	583	102	115	130	129	135	139	145	164	141
Personal transfers, net [1]	2,510	2,758	521	735	624	630	565	790	630	773	633
Of which: Workers' remittances	1,874	2,049	379	577	458	460	414	595	475	565	480
CAPITAL ACCOUNT - NET	-10	5	5	-4	-1	-9	1	-3	11	-4	6
FINANCIAL ACCOUNT	-535	-1,690	-99	-180	-95	-162	-486	-328	-266	-610	-460
Direct investment - net	-1,899	-2,415	-470	-454	-533	-443	-558	-626	-660	-571	-569
Portfolio investment	917	827	363	332	-10	232	219	-29	-92	728	-328
Financial derivatives	9	-21	0	1	5	3	-5	-2	-9	-5	17
Other investment	740	-310	845	257	110	-473	313	106	-566	-162	21
Other equity	-1	-1	0	-1	-1	0	0	-1	0	0	0
Currency and deposits	220	-623	318	20	-19	-99	-79	-23	-550	29	21
Loans	303	-203	317	260	-1	-272	316	23	-317	-226	5
Central banks	23	9	12	7	4	0	4	0	4	0	4
Deposit-taking corporations,	279	-272	100	199	80	-99	271	-316	11	-239	94
General government	-308	30	30	11	5	-355	34	290	-314	20	-93
Other sectors	309	31	176	42	-91	182	6	49	-18	-7	0
Insurance, pension, and standardized	8	0	3	7	-6	4	0	0	0	0	0
Trade credit and advances	209	518	207	-29	137	-105	75	106	301	36	-4
Other accounts receivable/payable	0	0	0	0	0	0	0	0	0	0	0
SDR (Net incurrence of liabilities)	0	0	0	0	0	0	0	0	0	0	0
Reserve assets	-302	228	-836	-317	332	519	-455	222	1,061	-600	398
ERRORS AND OMISSIONS, net	549	395	201	109	145	94	208	8	107	72	183
PRO MEMORIA						in % of GDP					
Current account	-3.1	-5.7	-3.8	-3.2	-2.7	-2.8	-8.3	-3.6	-4.0	-7.0	-7.0
Balance of goods	-9.0	-10.8	-8.2	-9.7	-8.0	-10.0	-11.1	-9.6	-8.5	-14.0	-12.2
Exports of goods	37.0	38.2	36.9	37.7	35.4	38.0	39.3	39.9	36.8	36.8	38.5
Imports of goods	46.0	49.0	45.1	47.4	43.5	48.0	50.5	49.5	45.3	50.8	50.8
Balance of goods and services	-6.4	-8.2	-5.9	-7.5	-5.0	-7.1	-8.5	-7.7	-6.1	-10.6	-9.8
Personal transfers, net	7.2	7.5	6.5	8.4	7.0	7.1	6.8	8.5	6.5	8.0	6.8
GDP in euros [2]	34,619	36,926	8,061	8,768	8,921	8,869	8,333	9,245	9,677	9,671	9,263

Note: Balance of Payments of the Republic of Serbia is aligned with the international guidelines stated in the IMF's Balance of Payments Manual no. 6 (BPM6).
Source: NBS
1) Personal transfers present current transfers between the resident and non-resident households.
2) Quarterly values. Conversion of annual GDP to euro was done according to the average annual exchange rate (average of official daily exchange rates of NBS).

Graph T4-2 Serbia: Current Account and Foreign Trade Deficits, 2007-2018Q



Source: NBS, *QM*

….while exports of goods and services was above 50% of GDP at the beginning of 2018

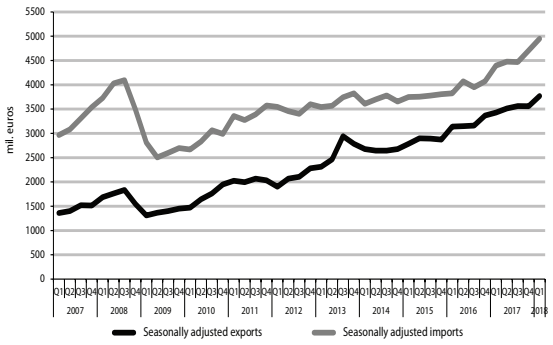
termined by higher global energy prices, the growth of domestic demand, and the effects of real appreciation of the dinar.

Export of goods and services in Q1 2018 was 4.85 billion euros, making it, starting from Q4 2016, more than half of the value of the realised quarterly GDP (more precisely 52.3%). Import of goods and services in the first three months of 2018 was at the level of 5.75 billion euros, i.e. 62.1% of GDP. Exports of goods continued to grow and in Q1 2018 reached 3.57 billion euros, i.e. 38.5% of GDP, while imports of goods amounted to 4.70 billion euros (50.8% of GDP, see Table T4-1). At the beginning of 2018, the coverage of imports by exports in the case of goods was 75.9%, and 84.2% in the case of goods and services.

Therefore, Q1 2018 recorded a 28.2% growth of foreign trade deficit - where the growth of trade deficit amounted to 22.2%, while the growth of surplus of services was 2.7%. Imports and exports of goods and services also recorded a two-digit growth of 13.9% and 10.5%, respectively.

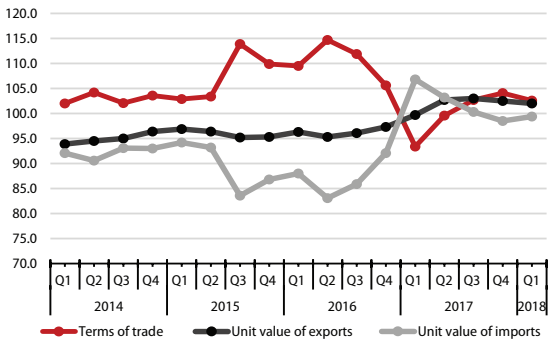
In this period, the growth of exports of goods amounted to 9.0%, while the import of goods increased by 11.9%. Compared to the previous quarter, seasonally adjusted data also indicate a similar growth of exports and imports of goods, although imports recorded slower growth than exports (Graph T4-3). Exports in Q1 2018 were 5.9% above the level from the previous quarter, while at the same time imports increased by 5.1%.

Graph T4-3. Serbia: Seasonally Adjusted Exports and Imports, Quarterly, 2007-2018 Q1



Source: NBS, SORS, *QM*

Graph T4-4. Year-on-Year Index of Trade Ratios, 2014-2018Q1



Source: SORS, *QM*

Changes in the ratio of export and import prices affected the movements and levels in the value of foreign trade. The change in this ratio is represented by the y-o-y exchange rate index. Graph T4-4 shows that this index reached very high values (indicating an improvement in the exchange ratio) from mid-2015 until the beginning of 2017 (when exchange-related ratios are suddenly aggravated), only to improve again from the second half of 2017. In the first three months of 2018, the exchange ratio index was 102.6. Although it is lower compared to the previous quarter (104.1), it remained above 100, indicating still relatively favourable circumstances and a more favourable ratio of export and import prices than a year earlier. In fact, most of the described changes in the exchange rate indices were determined by the level of unit value of imports, which is largely influenced by the movement of the global energy prices. As it is expected that the price of energy in 2018 will be higher than in the previous year, this will also affect the ratio of export and import prices, and thus to the value of foreign trade exchange in our country. It is therefore important that economic policies encourage further export growth in order to neutralise possible unfavourable changes in global prices to the level of foreign trade balance in the current year.

A more pronounced decrease in the net outflow on the Primary Income account

The net outflow on this account was 544 million euros (5.9% of GDP), which was by 156 million euros (by 2.5 pp of GDP) less compared to the same quarter of 2017[2] (Table T4-1). On the Secondary Income account (mostly determined by the movement of personal transfers / remittances), a lower amount of net inflow was recorded in Q1 2018 compared to Q1 of the previous year - although the share of net inflows into GDP remained almost unchanged. The net inflow on Secondary Income account amounted to 800 million euros in Q1 2018, accounting for 8.6% of GDP, recording a mild growth compared to Q1 2017 (by 87 million euros, i.e. by 0.1 pp of GDP). The largest part of this inflow is the inflow from personal transfers of 633 million euros, i.e. 6.8% of GDP, of which the remittance income of workers amounted to 480 million euros (5.2% of GDP).

A significant decrease of deficit on the Primary Income account was recorded in Q1

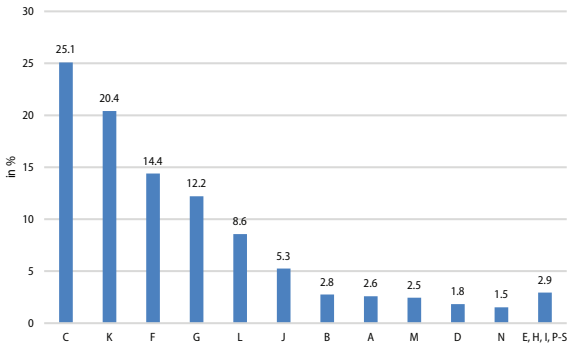
Significant net capital inflow during Q1...

... As a result of inflow of Portfolio and Direct Investments

Q1 recorded a significant net inflow of capital of 865 million euros[3] (Table T4-1). The realised net inflow of capital was due to the inflow of portfolio investments (EUR 328 million) and foreign investment inflows (EUR 569 million), followed by a minor outflow of financial derivatives (EUR 17 million) and other investments (EUR 21 million). FDI inflows are significant, but somewhat lower than the amount of current deficits. The net outflow on the Other Investments account was 21 million euros, recording a net inflow of trade loans in the amount of 4 million euros and a net outflow of financial loans of 5 million euros. Banks deleveraged 94 million euros net, which was offset by state borrowing of 93 million euros. At the same time, a smaller net out-

2 It is possible that the high outflow in the first quarter of 2017 was partly due to the uncertainty surrounding the presidential elections.
3 1.05 billion euros including *Errors and Omittances* account.

Graph T4-5. Net Increase of Financial Liabilities from FDI in 2017: Share of increase by individual economic branches in the overall increase



Source: NBS, QM
Note:
1. C – Manufacturing, K – Financial and Insurance activities, F – Construction, G – Wholesale and Retail trade, Repair of motor vehicles and motorcycles, L – Real estate activities, J – Information and communication, B – Mining and quarrying, A – Agriculture, Forestry and Fishing, M – Professional, scientific and technical activities, D – Electricity, gas, steam and air conditioning supply, N – Administrative and Support Services activities, E, H, I, P-S: Water supply, Sewerage, Waste Management, and remediation activities (E), Transportation and Storage (H), Accommodation and Food service activities (I), Education (P), Human Health and Social Work activities (Q), Arts, Entertainment and Recreation (R), Other Service activities (S), and Not allocated.
2. Foreign Direct Investment methodology is in line with IMF BPM6 and international investment position.
3. Industry branches classified according to statistical classification of economic activities of EC, revision 2 from 2008 (NACE Rev. 2, 2008).
4. Foreign Direct Investment include investments in money, goods, rights, conversion of debt to capital, loans between companies and reinvested profit.
5. Graph was made using NBS data that was available until March 30, 2018 and are subject to changes in line with the changes of the official data sources.

flow of financial loans (EUR 4 million) was recorded on the National Bank account. In Q1 on the Cash and Deposits account, a net outflow of 21 million euros was recorded.

Graph T4-5 shows that in 2017, a quarter of FDI inflows went into the manufacturing industry, where the largest inflow was in the following groups: Production of Motor Vehicles, Trailers and Semi-trailers, Production of Rubber and Plastic, Production of Basic Metals and Metal Products, excluding machinery and equipment, and Other. In addition, a significant portion of the inflow (one fifth) was invested in Financial and Insurance activities, followed by Construction (14.4%), Trade (12.2%), Real Estate (8.6%), Information and Communication (5.3%), etc. (Graph T4-5). The structure of the net increase in financial liabilities of Foreign Direct Investment in 2017 suggests that there is still significant room for directing FDI into the processing sector. Significant FDI inflows continue to go into insurance, trade and finance. From the aspect of further export growth and export-oriented economic development, Serbia is interested in the future FDI inflow to be more focused on manufacturing activities in which interchangeable goods are produced. The structure of Foreign Direct Investments significantly depends on the level of the real exchange rate of the dinar. The overestimation of the real dinar exchange rate makes investments in activities that produce non-transferable goods more profitable than investments in sectors that produce interchangeable goods. In addition, for investments in the sector of commodities, it is important to improve the regulatory framework, reduce administrative and customs procedures, provide educated workforce, etc.

It should also be noted that net income from foreign investments is recorded in the current portion of the balance of payments within the Primary Income account, while the net inflow of FDI is recorded within the financial part of the balance of payments. When paying and analysing foreign investments, we should keep in mind that the positive effect of FDI inflows on the balance of payments is: a) considerably smaller than the one visible only in the financial account, b) decreased over time. Thus, in 2016, the net inflow of capital under the FDI amounted to EUR 1.899 million, and expenditures from FDI recorded on the Primary Income account were EUR 1.416 million, with a difference of EUR 483 million. In 2017, the net inflow of FDI was 2.415, while the net outflow from income from FDI under the Primary Income account was 2.075 million euros, and their balance was 340 million euros. Since the net inflow of FDI during Q1 2018 amounted to 569 million euros, and the outflow from income of FDI 400 million euros, the difference was positive and amounted to 169 million euros. Therefore, we need to bear in mind that there is a significant negative amount on the income account of FDI within the Primary Income, which indicates obligations on this basis. Since the difference between FDI inflows and net outflows of FDI income is still positive, FDI continues to affect favourably the balance of payments of Serbia, but this influence decreases over time.

Level of forex reserves increased since the beginning of the year

Increase of forex reserves in Q1 2018 was 398 million euros and it continue to grow in April. There was a decrease in forex reserves of 173 million euros in January, followed by its increase in February and March by 99 and 472 million euros. Therefore, at the end of April, forex reserves

were 10.43 billion euros, which covers more than five months of imports of goods and services, as well as the money mass M1 of 189%[4].

Exports

Exports in Q1 2018 were 3.8 billion euros, realising a year-on-year growth of 8.5%...

Exports in Q1 2018 amounted to 3.8 billion euros, recording a year-on-year growth of 8.5%. Thus, export growth slightly accelerated in Q1 and decelerated again in April (year-on-year export growth in April was 4.2%, Table T4-6). The value of exports after excluding road vehicles also accelerated growth in Q1 (y-o-y growth at a rate of 11.0%) and decelerated in April (6.6%).

... decelerating their growth in April

Table T4-6. Serbia: Exports, Year-on-Year Growth Rates, 2016–2018

	Exports share in 2017	2016	2017	2017		2018		2017		2018	
				Q3	Q4	Q1	April	Q3	Q4	Q1	April
	in %	in mil. euros						in %			
Total	100.0	13,432	15,047	3,778	3,786	3,815	1,303	12.7	7.8	8.5	4.2
Total excluding road vehicles	91.7	12,057	13,797	3,536	3,511	3,502	1,195	14.6	8.6	11.0	6.6
Energy	2.5	329	379	107	117	77	35	24.0	55.7	11.8	41.9
Intermediate products	38.2	4,669	5,743	1,496	1,445	1,555	508	24.7	18.8	19.4	4.8
Capital products	24.1	3,352	3,633	821	979	956	336	7.8	17.4	9.6	9.3
Capital products excluding road vehicles	15.8	1,977	2,383	579	703	642	228	17.5	26.8	25.6	28.2
Durable consumer goods	5.4	739	811	204	207	196	73	6.5	1.2	5.4	10.2
Non-durable consumer goods	22.3	3,198	3,358	888	860	813	270	6.2	2.0	5.0	5.1
Other	7.5	1,145	1,124	262	179	219	82	-5.8	-47.2	-30.1	-26.1

Source: SORS

The increase in total exports since the beginning of the year is the result of an increase in exports of all production groups with the exception of unclassified exports (see the item Other in Table T4-6). In fact, investments from the previous period, as well as the recovery of the Eurozone countries and the region, as our most important foreign trade partners, are key determinants of the observed y-o-y growth of exports since the beginning of the year, as well as significant seasonally adjusted growth of 5.6% in Q1 2018 compared to Q4 2017. The contribution of previous investments to exports and its sustainability can be seen in the fact that in almost all areas of the processing industry, exports are growing. Also, the increase in the value of exports since the beginning of the year has largely contributed to higher prices of primary products on the world market, such as prices of metals and cereals. In fact, the biggest contribution to the growth of exports in Q1 was due to the high increase in the export of metals, partly due to the increased production of Smederevo Steelworks and partly due to the increase in global prices. There has been a significant increase in cereal exports since the beginning of the year due to the increase in corn and wheat prices[5].

On the other hand, deceleration of the growth of exports since the beginning of 2018 was influenced by the real appreciation of dinar from the previous year. In Q1, the year-on-year decline in the value of exports of road vehicles had adverse effects on export growth. In other words, the export of road vehicles, with the exception of Q1 2015, as well as Q2 and Q3 2016, recorded negative rates starting from the second half of 2014. In Q1, exports of road vehicles were by 13% and in April by 17% below the respective period of the previous year.

At the beginning of 2018, a year-on-year growth of the value of energy exports was recorded, from 11.8% in Q1 to 41.9% in April, both due to the increase in export volumes and the rise in energy prices. The 9.6% y-o-y growth of exports of *Capital Goods* in Q1 2018 slowed down compared to the previous quarter, and this slowdown continued in April as well (yoy rate of 9.2%). On the other hand, the export of *Capital Goods after Excluding Road Vehicles*, decelerated its growth in the first three months, only to slightly accelerate again in the fourth month of 2018 (the year-on-year increase in exports of these products in Q1 was 25.6%, followed by 28.2% in April, see Table T4-5). Exports of *Intermediate Goods* slightly accelerated in Q1 2018 compared to Q4 2017, and recorded a y-o-y growth of 19.4%, only to decelerate significantly in April, recording

4 https://www.nbs.rs/internet/cirilica/scripts/showContent.html?id=12777&konverzija=no
5 *Inflation Report*, NBS, May 2018, p.34

a 4.8% growth rate. Export of *Consumer Goods* recorded a certain acceleration in growth in Q1 2018 compared to the same period of 2017, which continued in April as well. The y-o-y growth in export value of *Durable* and *Non-Durable Consumer Goods* in Q1 2018 amounted to 5.4% and 5.0%, and in April 10.2% and 5.1%, respectively. Only the value of *Other* exports recorded a year-on-year decrease since the beginning of the year, i.e. the value of exports of products classified in this group was by 30.1% in Q1 and 26.1% in April lower than those realised in the same period of 2017.

In the coming period, the appreciation of the domestic currency will have adverse effects on exports. On the other hand, realisation of good growth forecasts of economic activity in the world would reflect favourably on exports (EU, countries of the region, Russia, etc.). Further dynamics of exports will largely depend on the movement of prices of important export products (agricultural products, basic metals, etc.), while in the long term, it will be significantly determined by the continued growth in investments and production in sectors that produce interchangeable goods.

Imports

In Q1, imports recorded a 12.5% year-on-year growth, which accelerated in April

The value of imported goods in the first three months of 2018 was 5.07 billion euros. From the beginning of the year, the growth of imports slightly decelerated in Q1 (y-o-y growth of 12.5% in Q1 2018 after 15.5% in Q4 2017), only to accelerate in April (year-on-year rate of 16.6%, see Table T4 -7). The growth of imports at the end of 2017 and the beginning of 2018 was largely determined by higher global energy prices, the effects of real appreciation of the dinar, and the growth of domestic demand. In this period, the structure of the growth of imports was solid, because in addition to the growth of consumer goods due to the recovery of domestic consumption, the growth of intermediate and capital goods was also recorded, which indicates the growth of the current economic activity, as well as possible investments for the purpose of future growth.

All import groups of products recorded growth in the first four months. The value of energy imports in Q1 was almost equal to last year's level in the first three months. In April, the value was as much as 39.3% higher than the value of imports of energy products from April 2017. Imports of *Intermediate Goods* recorded a certain acceleration of growth - y-o-y growth of 16.4% in Q1, only to record a slight slowdown in April. The growth of imports of *Capital Goods* also accelerated in Q1 (y-o-y rate of 9.7%) with a certain slowdown in April. Similar dynamics of imports - acceleration in Q1 with deceleration in April - were recorded by *Durable Consumer Goods*, while imports of *Non-Durable Consumer Goods* have been accelerating since the beginning of the year. The growth in imports of *Intermediate* and *Capital Goods* points to a potential increase in production in the coming period, while consumption growth is related to the recovery of household consumption. Imports excluding energy have been growing for three consecutive quarters at an unchanged y-o-y rate of 14-15% (Table T4-7).

Table T4-7. Serbia: Imports, Year-on-Year Growth Rates, 2016-2018

	Imports share in 2017	2016	2017	2017		2018		2017		2018	
				Q3	Q4	Q1	April	Q3	Q4	Q1	April
	in %	in mil. euros						in %			
Total	100.0	17,068	19,419	4,730	5,265	5,070	1,756	13.3	15.5	12	17
Energy	10.4	1,544	2,025	485	549	525	200	32.2	21.2	0	39
Intermediate products	35.3	5,880	6,862	1,737	1,779	1,803	617	16.2	14.0	16	14
Capital products	21.2	4,128	4,120	909	1,087	1,012	361	-6.9	4.5	10	7
Durable consumer goods	2.1	380	411	100	115	103	34	10.7	4.1	13	10
Non-durable consumer goods	15.0	2,595	2,906	709	796	755	254	7.3	10.3	13	16
Other	15.9	2,541	3,095	790	940	873	289	34.7	39.2	16	24
Imports excluding energy	89.6	15,524	17,393	4,245	4,716	4,546	1,556	11.5	14.8	14	14

Source: SORS

Imports are expected to continue growing in 2018

We expect an increase in imports in the coming quarters of 2018, due to the high probability that energy prices will be higher than last year's, as well as due to a certain increase in domestic demand. The real appreciation of the dinar will also affect the increase of imports in the coming period.

Foreign Debt

At the end of 2017, the foreign debt was 25.74 billion euros, i.e. 69.7% of GDP

At the end of 2017[6], the foreign debt was 25.74 billion euros, i.e. 69.7% of GDP.

In 2017, external debt was reduced by 759 million euros, based on a reduction in the external debt of the public sector, which is partly compensated by the growth of external debt of the private sector (Table T4-8). Much of the changes in the overall external debt and its relation to GDP is due to the currency changes - the appreciation of the euro against the dollar and the strengthening of the dinar against the euro.

In 2017, during the entire year, as well as the last quarter, the level of the foreign debt was reduced…

Public sector's foreign debt decreased in 2017 by 1.786 million euros, while that of the private sector increased by 1.027 million euros. In this 12 month period, the long-term external debt of the private sector has increased by 815 million euros, of which 690 million euros are an increase of the amount of long-term debt of the business sector. At the same time, banks increased their external borrowing for long-term debt by 122 million euros. The banks' short-term debt at the end of 2017 increased by 212 million euros and the business sector's by one million euros compared to the situation a year earlier (Table T4-8).

… which is a net result of the reduction of the public sector's foreign debt and increase of the private sector's debt

During Q4 2017, foreign debt increased by 354 million euros. Expressed as a percentage of GDP, the external debt at the end of 2017 was lower by 2.5 pp compared to the situation three months earlier. Public sector recorded a debt reduction of 759 million euros in Q4, due to a reduction in the amount of the long-term debt, which was predominantly a result of the repayment of debt on the basis of Eurobonds issued in 2012. On the other hand, the private sector in the last three months of 2017 borrowed 405 million euros. The level of long-term debt increased by 245 million euros, where the banks additionally borrowed 115 million euros, and the business sector 129 million euros (Table T4-8). The level of short-term debt increased by EUR 160 million compared to Q3 2017, exclusively as a result of the higher short-term debt of banks.

Table T4-8. Serbia: Foreign Debt Trend Dynamics, 2014–2017

	2014	2015	2016				2017			
			Mar.	Jun	Sep.	Dec.	Mar.	Jun	Sep.	Dec.
	stocks, in EUR millions, end of the period									
Total foreign debt	25,679	26,234	25,682	25,621	25,603	26,494	26,143	25,462	26,089	25,735
(in % of GDP) [4]	*76.8*	*78.2*	*75.5*	*75.0*	*74.5*	*76.5*	*74.9*	*72.0*	*72.2*	*69.7*
Public debt[1]	14,145	15,295	14,934	15,031	14,923	15,680	15,508	14,590	14,652	13,894
(in % of GDP)[4]	*42.3*	*45.6*	*43.9*	*44.0*	*43.4*	*45.3*	*44.4*	*41.3*	*40.6*	*37.6*
Long term	14,140	15,295	14,934	15,031	14,923	15,680	15,508	14,590	14,652	13,894
o/w: to IMF	152	15	7	0	0	0	0	0	0	0
o/w: Government obligation under IMF SDR allocation	463	493	483	488	484	494	495	472	465	462
Short term	5	0	0	0	0	0	0	0	0	0
Private debt[2]	11,534	10,939	10,748	10,589	10,680	10,815	10,636	10,872	11,437	11,842
(in % of GDP) [4]	*34.5*	*32.6*	*31.6*	*31.0*	*31.1*	*31.2*	*30.5*	*30.7*	*31.7*	*32.1*
Long term	11,441	10,636	10,436	10,314	10,231	10,138	10,114	10,184	10,708	10,953
o/w: Banks debt	2,503	2,057	1,912	1,730	1,514	1,408	1,347	1,392	1,415	1,530
o/w: Enterprises debt	8,935	8,576	8,520	8,580	8,711	8,725	8,760	8,785	9,285	9,414
o/w: Others	3	4	4	4	6	6	7	7	9	9
Short term	94	303	312	275	450	676	522	688	729	889
o/w: Banks debt	57	186	237	220	404	590	382	602	641	802
o/w: Enterprises debt	37	116	75	55	46	86	139	86	87	87
Foreign debt, net 3), (in% of GDP)[4]	47.2	47.2	47.6	47.8	46.7	47.1	47.0	44.7	42.8	42.7

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. Foreign debt of the private sector does not include loans concluded before December 20, 2000 for which no payments are done (934.8 million euro, out of which 402.0 million euro is from domestic banks, and 532.8 million euro is from domestic companies).
3) Total foreign debt reduced by NBS forex reserves.
4) Sum value of GDP of the observed quarter and previous three quarterly values of GDP.

6 Source of data for the foreign debt and international investment position is NBS, and the last available data refers to the end of 2017.

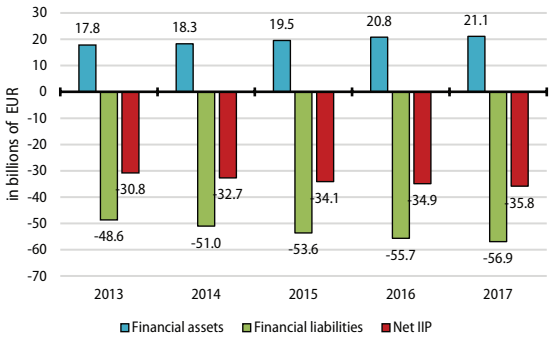
International Investment Position

A country's International Investment Position (IIP) includes external financial assets and liabilities[7]. It represents the difference between foreign financial assets in our possession (foreign exchange reserves, our direct and portfolio investments abroad, approved loans abroad, etc.) and foreign financial liabilities in Serbia (foreign direct and portfolio investments, debts abroad, etc.). The country is a net creditor if its claims and assets abroad are higher than its assets in the country and debts abroad.

The international investment position of Serbia at the end of 2017 was the result of capital and financial transactions (loans issued and taken out, foreign investments in Serbia and ours abroad, etc.) that have been achieved over the past several decades. Therefore, the IIP is the basis for assessing the country's risk of exposure in economic relations with foreign countries.

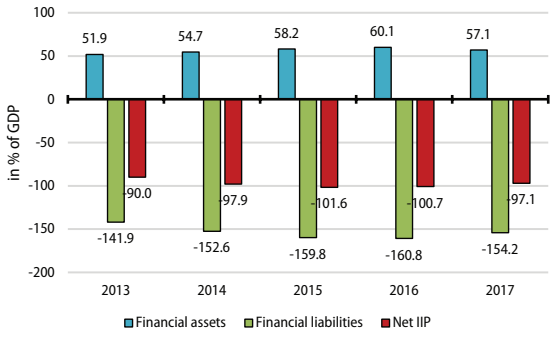
Graphs (Graph T4-9 and Graph T4-10) show that in 2017, Serbia was a net borrower abroad, with IIP of 35.84 billion euros. At the end of 2017, foreign claims amounted to 21.1 billion euros, and liabilities amounted to 56.9 billion euros. Within the net financial liabilities, FDI amounted to 31.4 billion euros, loans were 16.1 billion euros, and portfolio investments 5.5 billion euros. Within FDI, the largest part was equity, in which the smaller part was the reinvested profit. In addition, the IIP of Serbia is deteriorating, it was more than 5 billion euros worse at the end of 2017 than at the end of 2013.

Graph T4-9. Serbia: Net IIP in billions of EUR



Source: NBS
Note: Net financial liabilities are shown as a negative value.

Graph T4-10. Serbia: Net IIP in % of GDP



Source: NBS, *QM*
Note: Share of net financial liabilities in GDP are shown as a negative value.

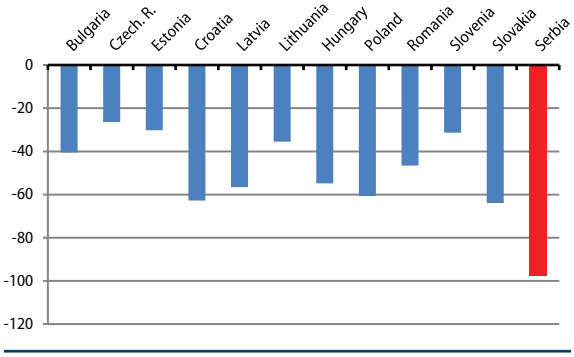
The data indicate that Serbia has a high IIP, almost equal to the annual GDP. Additionally, considerable part of the net liabilities are foreign loans and other forms of foreign debts (25.74 billion euros).

All countries in Central and Eastern Europe have been net importers of capital over the past several decades. Therefore, at the end of 2017 foreign assets and liabilities abroad were significantly higher than their assets and foreign claims (GraphT4-10). This is not a surprising result considering these are developing countries, that were trying to gradually catch up with the developed countries through high investments, but in the first years of transition, they had little funds of their own to invest. However, as the time passes by, these countries are increasingly relying on their own investment funds (own savings), so in the past decade, most of them financed their development mainly with domestic savings. These countries still have high foreign direct investments, but are more and more investing abroad.

Unlike them, Serbia still generates very few of its investment funds (savings), and therefore its development is still largely based on foreign assets. As a result, the net value of foreign capital in Serbia and our foreign liabilities continue to grow both in euro and in relation to GDP. The increase in the value of foreign assets in Serbia results in a large outflow of funds from Serbia based on dividends, interest and other forms of capital income, which already affects the deterioration of the country's current balance of payments. In addition, high indebtedness and a large amount of

7 https://www.nbs.rs/internet/latinica/80/ino_ekonomski_odnosi/mip/mip_definicije_i_pojmovi.pdf

Graph T4-11. International Investment Position, in % of GDP, end of 2017



Source: Eurostat and NBS.

foreign capital make the country vulnerable to disruptions in the global financial market (as was the case in 2009) or to disruptions in the country. In such circumstances, foreign investors (especially portfolio investors) can suddenly stop investing in Serbia, and to withdraw a significant part of the capital, which would lead to a recession.

Serbia has a significantly less favourable International Investment Position than other CEE countries (Graph T4-11), which makes it more vulnerable than other countries in terms of financial disturbances home and abroad. If a high deficit in the current balance of payments is to be realised in the future, the International Investment Position of Serbia will continue to deteriorate, and the risk of the balance of payments crisis will increase.

5. Prices and the Exchange Rate

In the first quarter of 2018, the prices increased cumulatively by 0.8%, mainly due to a seasonal increase in fresh fruits and vegetables, but year-on-year inflation had a significant slowdown and fell to 1.4% in March- which is below the lower limit of NBS target tolerance band (3 ± 1,5%). An abrupt slowdown in y-o-y inflation at the beginning of 2018 was expected, as extraordinary large increases in the prices of food and petroleum products in the same period of the last year were gradually dropped out from its calculation. The high base effect also affected the inflation trend in April - despite increase in prices by 0.4% on average, y-o-y inflation was further reduced this month, amounting to 1%. Weak inflationary pressures contributed to a slowdown in total inflation in 2018, which is confirmed by the record low underlying inflation (measured by the consumer price index excluding food, alcoholic beverages, tobacco and energy), which for the first time since March has fell below 1%. Low and declining inflation and expressed appreciation pressures on the dinar encouraged the NBS to reduce the reference interest rate from 3.5% to 3% in March and April, which is in accordance with our previous recommendations and we believe that this was an adequate response from monetary policy. In the coming months, we expect year-on-year inflation to accelerate and return within the limits of targeted interval, because the high base effect, which has been reducing total inflation since the beginning of the year, is diminishing (May data confirms this), and increase in energy prices accompanied by the strengthening of the US dollar, further growth of domestic demand and recent relaxation of monetary policy should contribute to some extent to the increase in price levels. The appreciation pressures on the dinar continued in the first five months of 2018, so the domestic currency strengthened against the euro by 0.3%. In the observed period, The dinar was one of the most stable currencies in the CEE, which was also significantly contributed by the NBS with frequent interventions on the interbank foreign exchange market - in January, depreciation pressures were reduced by selling 180 million euros, followed by the reduction of appreciation pressures by purchasing 785 million euros. The real dinar exchange rate strengthened against the euro by 1.4% by April, primarily because foreign investors increasingly invested in government debt securities and due to the inflows of foreign direct investments. However, the real appreciation of the dinar in the past and current year was not in line with the development of productivity of domestic economy and it has seriously undermined the price competitiveness of Serbia, which affected the growth of the foreign trade deficit in the previous few quarters. We believe that when deciding on monetary policy and interventions on the interbank foreign exchange market in the future, the NBS should pay more attention to the economically unfavorable trend of the real dinar exchange rate.

Prices

At the end of the first quarter of 2018, year-on-year inflation fell below the lower limit of the target corridor of the National Bank of Serbia (3 ± 1.5%) and amounted to 1.4% (Table T5-1). A sudden slowdown in inflation at the beginning of 2018 was expected, as it was a result of a very low trend in price growth with which this year started and the fact that it was unlikely that some unusually large price increases from the first quarter of 2017 (primarily food prices and petroleum products) will repeat. On a quarterly basis, prices in Q1 cumulatively increased by 0.8% (monthly by 0.2-0.3%), but due to the base effect y-o-y, inflation was more than halved when compared to the level at the end of 2017. When observed by group of products, the key contribution to inflation in Q1 was given by the usual seasonal increase in fresh fruit and vegetables, and to a lesser extent, increase in tobacco products (due to January's regular increase in excise duties) and petroleum products. Similar trends were registered in April - prices increased by 0.4% on average, but y-o-y inflation was actually reduced to only 1%, as it was compared with the last year's high price growth in the same period. The high base effect that conditioned the year-on-year inflation to decline was diminished in May, thus

Table T5-1. Serbia: Consumer Price Index, 2011-2018

	Consumer price index				
	Base index (avg. 2006 =100)	Y-o-y growth	Cumulative index	Monthly growth	3m moving average, annualized
2011					
dec	154.3	7.0	7.0	-0.7	2.5
2012					
dec	173.1	12.2	12.2	-0.4	9.9
2013					
dec	176.9	2.2	2.2	0.2	-0.9
2014					
dec	180.0	1.8	1.8	-0.4	-2.4
2015					
dec	182.8	1.6	1.6	-0.2	-1.9
2016					
mar	183.5	0.6	0.4	-0.1	1.5
jun	184.4	0.3	0.9	0.1	2.0
sep	184.8	0.6	1.1	-0.6	0.9
dec	185.6	1.5	1.5	-0.2	1.8
2017					
jan	188.3	2.4	1.5	1.5	4.8
feb	189.6	3.2	2.2	0.7	8.2
mar	190.0	3.5	2.4	0.2	9.8
apr	191.5	4.0	3.2	0.8	7.0
may	190.6	3.4	2.7	-0.5	2.1
jun	191.0	3.6	2.9	0.2	2.1
jul	190.2	3.2	2.5	-0.4	-2.7
aug	190.6	2.5	2.7	0.2	-0.2
sep	190.7	3.2	2.7	0.1	-0.6
oct	191.2	2.7	3.0	0.3	2.1
nov	191.1	2.8	3.0	-0.1	1.1
dec	191.2	3.0	3.0	0.1	1.1
2018					
jan	191.8	1.9	0.3	0.3	1.3
feb	192.4	1.5	0.6	0.3	2.7
mar	192.7	1.4	0.8	0.2	3.2
apr	193.5	1.0	1.2	0.4	3.6
may	194.7	2.2	1.8	0.6	4.9

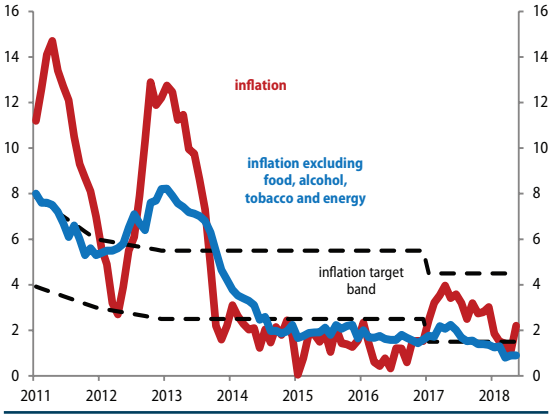
Source: SORS.

price levels jumped and total inflation returned within the limits of the NBS target tolerance band (2.2%) in this month as it was expected. There are several reasons why an additional acceleration of inflation can be expected in the rest of 2018. First, from June to December 2017, a rather low inflation of 0.4% was recorded, thus the low base effect could boost the inflation to some extent. Inflationary pressures should also be contributed by the rise in energy prices in the previous period, which is now reinforced by the strengthening of the dollar, further growth in domestic demand due to favorable trends in the labor market (partly due to the increase in wages in the state sector) and somewhat more expansive monetary policy of the NBS.

Underlying inflation has had a slowdown since the beginning of 2018 due to still weak inflationary pressure, but it is possible to expect its mild acceleration in the following period

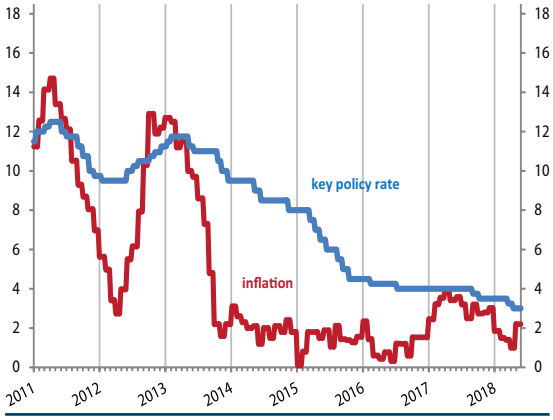
Underlying inflation (measured by the consumer price index excluding food, alcoholic beverages, tobacco and energy) has been gradually decreasing since the beginning of 2018 (Graph T5-2), which is a continuation of the trend from the second half of last year. Namely, as early as in October 2017, underlying inflation dropped below the lower limit of the NBS target band (3 ± 1.5%), while it has been at a record low level of 0.8% since March, i.e. 0.9% in April and May. We estimate that the main factors influencing the slowdown of underlying inflation in the previous period were a still insufficiently strong recovery of domestic demand which would increase inflationary pressures, which was mainly the result of a strong dinar appreciation against the euro. In the last fifteen months (since late 2016), the domestic currency has nominally strengthened against the euro by 4.3%, which did more than just neutralized already low imported inflation. Similarly, the nominal dinar strengthening against the US dollar in the observed period by 13.5% predominantly prevented the overflow of the rise in world energy prices onto domestic prices. However, the latest data indicate that it is possible to expect a reversal of existing trends in the coming months, both in demand and supply, as well as a gradual rise in inflationary pressures and underlying inflation in Serbia. Q1 recorded a solid real growth in private consumption of 3%, which represents a significant increase when compared to 2017 (1.8% annually). It also seems that the notable trend of economically adverse nominal appreciation of the dinar against the euro is currently stopped, which, with the noticeable acceleration of inflation in the Eurozone, may slightly influence the increase in import prices. At the same time, we have recorded a recovery in the value of the US dollar since May, which is why it is realistic to expect that the increase in world oil prices in the previous period will however, with a certain time shift, transmit to the costs of production and, consequently, to the level of domestic prices. Finally, the strengthening of inflationary pressures should be contributed by the additional relaxation of monetary policy to some extent, given that the NBS reduced the key policy rate on two occasions since the beginning of the year - by a total of 0.5 p.p.

Chart T5-2. Serbia: Y-o-y Inflation Rate and Underlying Inflation and the NBS Target Band 2011-2018



Source: NBS and *QM* estimates

Chart T5-3. Serbia: NBS Reference Interest Rate and y-o-y Inflation Rate, in %, 2011-2018



Source: NBS

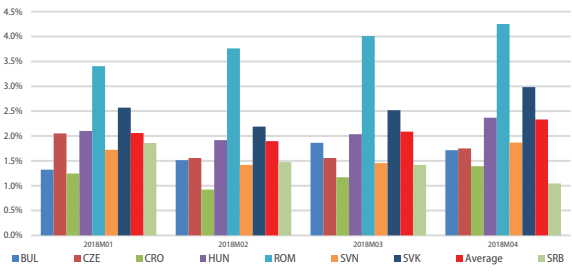
Low underlying inflation and appreciation pressures on the dinar in the previous period encouraged the National Bank of Serbia to reduce the key policy rate in 2018 from 3.5% to 3%

Since the beginning of 2018, the NBS reduced the key policy rate on two occasions - in March and April - by 25 basis points, from 3.5% to 3% (Graph T5-3). Namely, the underlying inflation has been at a record low level of around 1% since the beginning of the year, with the prevailing appreciation pressures on the dinar (depreciation pressures were recorded only in January). In order to prevent excessive appreciation of domestic currency against the euro, the NBS intervened in the interbank foreign exchange market by buying 785 million euros from February to April. These are also the main reasons why in the previous issue of the Quarterly Monitor we suggested that there is room for additional relaxation of monetary policy, and therefore we assess the decision of the NBS to reduce the key policy rate as favourable. Taking into account the latest mid-term projection of the inflation of the National Bank of Serbia, the inflation should remain relatively low by the end of 2019 - below the target interval (3%). Nevertheless, we do not suggest further relaxation of monetary policy in the next few months. We identified several potential sources of inflation acceleration by the end of the year, and the following steps will be strongly defined by the conditions in the international environment - primarily the movement of world oil and food prices and the normalization of monetary policies of the US Fed and the European Central Bank.

Inflation in Serbia since the beginning of 2018 lower in regard to comparable countries of CEE

Since the beginning of the year, most CEE countries have recorded a gradual acceleration of year-on-year inflation, on average from 2% to 2.3% (Graph T5-4). When countries are observed individually, y-o-y inflation in April was above the level in Serbia (1%) in the whole region and ranged from 1.4% in Croatia to as much as 4.3% in Romania. The seasonal increase in food prices and increase in energy prices caused by the movement of world oil prices have been some of the key drivers of inflation in CEE since the beginning of the year, but in many countries there is also a noticeable gradual increase in inflationary pressures due to a strong growth of domestic demand. This is supported by highly favorable trends in the labor market and a solid growth in domestic demand, and central banks of the Czech Republic and Romania have already responded to such trends by increasing key policy rates. Bearing in mind that the dynamic growth of earnings in these countries has continued, it is highly possible that by the end of 2018, an additional monetary tightening will occur. On the other hand, Serbia is slowly catching up with the region in terms of basic macroeconomic indicators – real GDP growth and private consumption, as well as the growth of employment and wages are still lagging behind. Consequently, total and core inflation are below the CEE level and we do not

Chart T5-4. Inflation in Serbia and selected countries in Central and Eastern Europe



Source: Eurostat, SORS and *QM* calculations

exclude the possibility of further relaxation of monetary policy in the coming period, contrary to the tendencies in the region.

First quarter of 2018 recorded a mild inflation of 0.8% mostly due to the increase in the prices of food and tobacco products

Q1 2018 recorded a moderate inflation of 0.8% (Table T5-4), due to a rise in the price level in January and February by 0.3% and March inflation of 0.2%. When observed by product groups, the highest contribution to inflation in Q1 was made by the increase in food prices of 2.3% (contribution of 0.7 p.p.), primarily due to a seasonal increase in fresh vegetables by 9% (contribution of 0.4 p.p.) and fresh fruit by 9.5% (contribution of 0.2 p.p.). In addition, prices of tobacco products increased by 4.1% (contribution of 0.2 p.p.) due to a regular increase of excise duties in January and petroleum products by 1.4% (contribution of 0.1 p.p.). The seasonal decrease in the prices of clothing and footwear by 3.7% (contribution -0.2 pp) had the opposite effect, while the prices of other products did not change significantly - which confirms the prevailing weak inflationary pressures since the beginning of the year. This is also evidenced by the fall of underlying inflation (measured by the consumer price index excluding food, alcoholic beverages, tobacco and energy) by 0.4% in Q1. If we look at the three-month annualized average, which was 3.2% in Q1 (Table T5-1), one cannot say that the inflation in the observed period was extremely low. However, due to the already explained base effect, Q1 registered a relatively sharp decrease in y-o-y inflation - from 3% in December 2017 to 1.4% in March.

Inflation slightly increased in April and May (0.4% and 0.6%, respectively), due to the increase in the prices of limited number of products

April recorded a moderate inflation of 0.4% (Table T5-4), due to an increase in the prices of the same product groups, which decisively influenced the movement of inflation during Q1. Food prices increased by 0.7% on average (a contribution of slightly over 0.2 p.p.), which basically can entirely be attributed to the increase in the prices of fresh vegetables by 4.2% (contribution of almost 0.2 p.p.). The prices of petroleum products gradually continued to grow and the increase in April amounted to 1.1% (contribution almost 0.1 p.p.), and there was also usual seasonal increase in clothing and footwear by 2.1% (contribution of 0.1 pp) . Changes in the prices of other groups of products were negligible and they cancel each other out. Inflation measured by three-month annualized averages accelerated to 3.6% in April, but due to the high base effect, the y-o-y inflation rate was reduced to a level of 1%. However, in May, the base effect, which in the previous part of 2018 was contributing to the decline of year-on-year inflation, changed the direction. This month's inflation was 0.6%, mainly due to a rise in prices of fresh vegetables by 6.6% (contribution 0.4 p.p.) and petroleum products by 2.8% (contribution of 0.2 p.p.). When taking into consideration the fact that last year in May the price level dropped by 0.5%, y-o-y inflation was more than doubled compared to the level in April and it amounted to 2.2%.

Table T5-5. Serbia: Consumer Price Index: Contribution to Growth by Selected Components

	Share in CPI (in %)	price increase in Q1 2018.	Contribution to overall CPI increase (in p.p.)	price increase in april 2018.	Contribution to overall CPI increase (in p.p.)	price increase in may 2018.	Contribution to overall CPI increase (in p.p.)
Total	100.0	0.8	0.8	0.4	0.4	0.6	0.6
Food and non-alcoholic beverages	31.7	2.3	0.7	0.7	0.2	1.2	0.4
Food	28.1	2.3	0.7	0.7	0.2	1.3	0.4
Alcoholic beverages and tobacco	6.9	2.9	0.2	-0.1	0.0	0.1	0.0
Tobacco	4.4	4.1	0.2	0.0	0.0	0.0	0.0
Clothing and footwear	4.7	-3.7	-0.2	2.1	0.1	0.4	0.0
Housing, water, electricity and other fuels	13.8	0.1	0.0	0.0	0.0	0.0	0.0
Electricity	5.1	0.0	0.0	0.0	0.0	0.0	0.0
Furniture, household equipment, routine maintenance	4.9	0.1	0.0	0.2	0.0	0.0	0.0
Health	4.9	0.5	0.0	0.1	0.0	0.4	0.0
Transport	12.4	0.5	0.1	0.6	0.1	1.4	0.2
Oil products	5.9	1.4	0.1	1.1	0.1	2.8	0.2
Communications	5.0	-0.7	0.0	0.4	0.0	-0.5	0.0
Other items	15.7		0.0		0.1		0.0

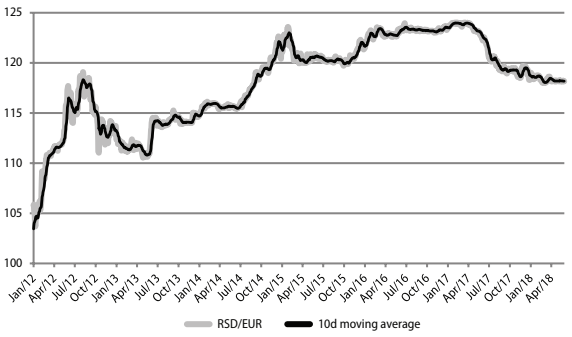
Source: SORS and *QM* estimates

The Exchange Rate

The Dinar in Q1 maintained almost the same value against the euro, while it nominally strengthened against the US dollar by about 3%

Following the usual seasonal depreciation pressures in January 2018, which the NBS mitigated by selling the euro in the interbank foreign exchange market - a total amount of 180 million euros, the domestic currency continued to slightly strengthen against the euro (Graph T5-6). At the end of March, the dinar nominally strengthened against the euro by 0.1% when compared to the end of 2017, while appreciation at the quarterly average was somewhat higher, amounting to 0.6%. The dinar strengthening in February and March could have been even more notable, but the appreciation pressures were quite mitigated by NBS interventions in the interbank foreign exchange market (a total of EUR 580 million was bought). Key factors that contributed to the strengthening of the domestic currency in Q1 were not only mild y-o-y increase in inflows of foreign direct investments, but also a strong net inflow of portfolio investments of around 330 million euros - primarily due to investments made by foreign investors in government debt securities. Given that the euro strengthened against the US dollar and the Swiss franc at the same time, the dinar strengthening against these currencies was even more noticeable - as was the case during the greater part of 2017. During Q1, the dinar strengthened by an additional 3.1% against the US dollar (at the quarterly average by 4.7%), after strengthening by as much as 15.4% in 2017. Similarly, the domestic currency strengthened by an additional 0.6% against the Swiss franc (at the quarterly average by 0.2%), after last year's appreciation of almost 12%.

Chart T5-6. Serbia: Daily RSD/EUR Exchange Rate, 2012-2018



Source: NBS

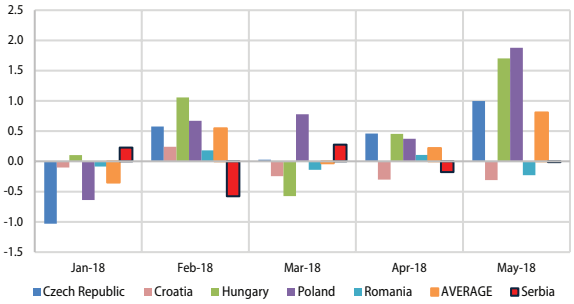
Continuation of the trend of slight dinar appreciation against the euro in April and May, but also a sharp turn in movement of the dinar exchange rate against the US dollar

The main factors that caused the appreciation pressures on the dinar during Q1 were present during April and May as well, so the dinar nominally strengthened against the euro by an additional 0.2% - despite the fact that the NBS bought another 205 million euros in the observed period in the interbank foreign exchange market. Since the beginning of the year, the value of the dinar against the European currency has fluctuated in a relatively narrow corridor between 118 and 118.5 dinars per euro, and the NBS prevented major daily oscillations of the exchange rate in the first five months of 2018 by purchasing 785 million euros and selling 180 million euros. However, the financial markets reacted strongly to the political crisis in Italy, because of which the euro recorded a sharp decline against the US dollar in May, and that automatically affected the weakening of the dinar against the US currency – a total of 5.4% when compared to Q1. The continuation of the US dollar strengthening trend could have several important implications for Serbia. First, the last year's dollar weakening greatly amortized the rise in world petroleum prices, which still hasn't transferred completely to the movement of domestic prices. If the May dollar strengthening continues in the coming months, it would certainly contribute to the strengthening of inflationary pressures in Serbia, which is already confirmed by the recently announced price increase of petroleum products. Noticeable dollar strengthening would also be a fiscal risk, as it would affect the increase in budgetary costs for interest rates and the increase in public debt expressed as a percentage of GDP, despite fairly favorable fiscal developments in the current part of 2018.

Since the beginning of 2018, the Dinar has been one of the most stable currencies (along with the Romanian Leu) compared to the CEE countries with a flexible exchange rate regime

In the first five months of 2018, the dinar nominally strengthened against the euro by mere 0.3%, while the currency volatility of other CEE countries with the same exchange rate regime was generally more pronounced (Graph T5-7). Thus, by the end of May, the Croatian currency strengthened against the euro by 0.7%, while the Czech Republic Koruna depreciated by 1%, the Hungarian Forint by 2.8% and the Polish Zloty by 3.1%. Despite the fact that the currencies of some countries have declined nominally against the euro since the beginning of the year, due to a higher inflation than in the Eurozone, the whole region of the CEE is still characterized

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



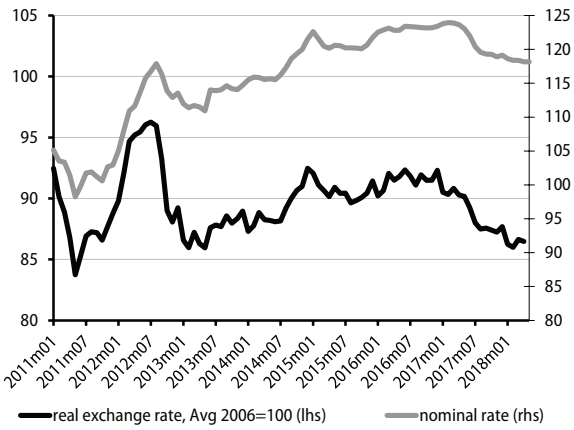
Source: Eurostat, NBS, *QM* estimates
Note: an increase represents depreciation

Unlike some CEE countries where the real appreciation of national currencies is firmly supported by macroeconomic fundamentals, this is not the case in Serbia

by a trend of real appreciation of national currencies - including Serbia. By the end of April, in real terms, the Croatian Kuna was the strongest (by 2%), followed by the Dinar (1.4%), the Czech Koruna (1.3%), the Hungarian Forint (1.2%) and the Romanian Leu , 65), whereby Polish Zloty is the only one that slightly depreciated in real terms (0.1%).

The real dinar appreciation by 1.3% in the first five months of 2018 was only a continuation of the trend that was practically present throughout entire 2017, when the dinar strengthened against the euro by 5% in real terms. Historically, the real dinar exchange rate has not been at this level since the beginning of 2013 (Graph T5-8). A pronounced real appreciation of domestic currency is not necessarily a bad thing if it has a support in other macroeconomic trends, and the Czech Republic example can serve as a good illustration of such situation. Namely, the real strengthening of the Czech koruna against the euro in the previous period (5.9% in 2017 and an additional 1.3% in the previous period of 2018) is quite comparable with the movement of the real dinar exchange rate. Given that the Czech economy simultaneously achieved a strong growth in labor productivity thanks to the growth of investments in modernization of production capacities, automation and robotization of production processes, the real strengthening of the koruna did not adversely affect the competitiveness of the Czech economy and the opening of external imbalances. However, the real dinar appreciation is, in all probability, the dominant consequence of the movement in financial markets and the inflow of capital which does not lead to a significant increase of labor productivity in Serbia for the time being. The latest data show a modest increase of productivity in Q1 by 1.6%, as well as that a total labor productivity is below the level of 2014 - meanwhile the dinar increased by almost 3% in real terms. This has resulted in deterioration of price competitiveness of Serbian economy when compared to the countries of the European Union, which are our most important trade partners, as is confirmed by the trends in foreign trade in the last few quarters. For example, in Q1, the foreign trade deficit amounted to over 900 million euros, which is more than 200 million euros above the level recorded in the same period of 2017. Therefore, we believe that, when making decisions on monetary policy in the coming period, the NBS should pay more attention to the movement of the real foreign exchange rate, which has not been the case so far.

Chart T5-8. Serbia: Nominal and Real RSD/EUR Exchange Rate, Monthly Averages, 2011-2018



Source: NBS, SORS, Eurostat and *QM* estimates
Note: an increase represents depreciation

6. Fiscal Trends and Policy

The growth of public revenue continued in Q1, and after a long time, there was also a rise in public spending, so that a fiscal surplus of 3.7 billion dinar was recorded (0.3% of GDP). It is estimated that fiscal trends in Q1 were more favourable than planned, primarily due to somewhat better dynamics on the revenue side. Growth in public revenue in Q1 was due to a significant increase in tax revenues, which was spread across almost all tax forms, while non -tax revenue declined. Particularly strong growth was recorded in revenues from corporate income tax, excise duties and contributions. The growth in revenues from corporate income tax was the result of a higher profitability of the economy in 2017 (see Highlight 2), while growth in revenue from contributions is fully due to the increase in wages. Total public spending grew in Q1 due to a slight increase in current spending and a strong increase in capital spending. Increase in current spending was primarily due to the strong growth in spending on employees, goods and services, and moderate growth in spending on pensions, while interest and subsidies declined. Capital spending recorded significant growth in Q1, but was still relatively low (about 2.6% of GDP). The announced abolition of the Law on Temporary Reduction of Pensions and the introduction of non-linear increases in wages would affect the growth of annual spending on pensions by about 35 billion dinars, i.e. about 0.9% of GDP. Instead of an arbitrary increase, we should switch to a regular annual indexation of pensions according to a predetermined rule (e.g. according to the Swiss formula). The estimates show that we could achieve fiscal balance in 2018, or a slight deficit, if the payments of increased pensions started from the beginning of the last quarter of the current year. If the process of European integration slows down in the coming period, the potential impact of this process on sustaining fiscal policy will also be reduced, which increases the importance of concluding a new arrangement with the IMF. Public debt at the end of Q1 2018 amounted to 23.7 billion euros (61.8% of GDP), which represents an increase of about half a billion euros compared to the end of 2017. Public debt growth in Q1 was influenced by government borrowing in order to finance future liabilities, while the continuation of appreciation of the dinar in Q1 had the opposite effect.

Fiscal Tendencies and Macroeconomic Implications

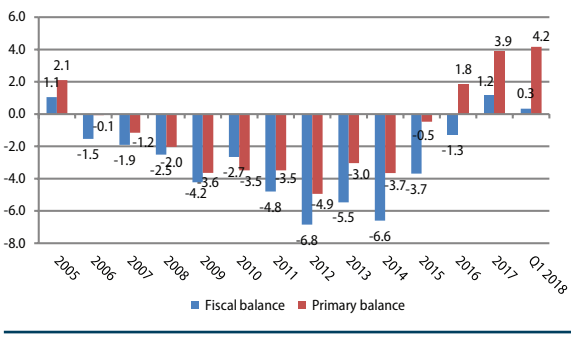
In Q1, fiscal surplus of 3.7 billion dinars was realised (0.3% of GDP)

In Q1, a consolidated fiscal surplus was 3.7 billion dinars (0.3% of quarterly GDP), and excluding interest expenses, the primary surplus was around 45.7 billion dinars (about 4.2% of quarterly GDP). The fiscal result achieved in Q1 represents the net effect of continuing moderate growth in public revenue, due to an increase in tax revenues, and a sharp increase in public spending, due to a mild increase in current spending and a significant increase in capial spending.

Tax revenue in Q1 significantly increased (by 7%)... in almost all tax categories

In Q1 2018, public revenue recorded a real year on year growth of 3.6%, while seasonally adjusted growth was also recorded compared to the previous quarter (by 3.2%). Revenue growth in Q1 represents the net effect of a significant increase in tax and significant decrease in non-tax revenue. Tax revenues in Q1 recorded a real y-o-y growth of 7%, due to the growth of all tax revenues, excluding VAT revenue, which recorded a slight y-o-y decline (by 0.9%). The highest real y-o-y growth in Q1 was recorded in revenue from corporate income tax (19.5%), and strong growth was registered in revenues from excise (16.7%), as well as on contributions (8.2%). Significant growth (5.3%) was also realised in revenue from personal income tax, espe-

Graph T6-1. Serbia: Consolidated Fiscal Balance and Primary Balance (% of GDP)



Source: *QM* calculations

cially considering that the non-taxable part of earnings significantly increased in 2018. The large increase in corporate income tax revenue is due to the significant growth of the profitability of the economy in 2017 compared to 2016 (see: Highlight 2), while revenue growth in income tax and contributions is the result of the growth of wages (by 6.9%), due to the growth of formal employment and earnings. The increase in excise revenues was also widespread, as significant growth was also recorded in revenues from excise duties on petroleum products and cigarettes. The sharp increase in imports also affected the increase in customs revenues in Q1. Compared to Q4 2018, all types of tax revenues recorded seasonally adjusted real growth, which was most prominent in revenue from excises and social security contributions. The growth of all tax revenues, excluding excise tax, can be explained by the growth of the corresponding macroeconomic tax bases, so apart from perhaps turnover of excise goods, there was no significant progress in Q1 in the fight against the gray economy.

Non-tax revenue recorded a mild decline

Non-tax revenuee in Q1 2018 was actually lower by 16.8% compared to the same quarter of 2017, while a significant decline in seasonally adjusted non-tax revenues (by 2.7%) was also recorded compared to Q4 2017. Non-tax revenue drop in Q1 was consistent with the plan defined by the Fiscal Strategy, according to which in 2018 non-tax revenues (as a % of GDP) should decrease by about 10% compared to the previous year. Reduction of non-tax revenue is assessed as positive, if it is a result of the lower collection of dividends from public and state owned enterprises.

Public spending also increased – both current and capital

After a continuous decline in 2017, public spending recorded a real y-o-y growth of 5.6% in Q1 2108. Real seasonally adjusted growth was also observed compared to the previous quarter. Growth of total spending in Q1 contributed to a mild real y-o-y growth of current spending (by 2.7%), and a large increase in capital spending (by 136.8%).

There was especially strong growth of spending on employees, which is estimated as economically unjustifiable

The y-o-y growth of current spending was largely due to a strong increase in spending on employees (by 11.4%), the continuation of significant growth in spending on goods and services (by 8.1%), as well as a slight increase in spending on pensions (2.8%), while spending on subsidies and interest recorded a sharp decline. The growth of spending on employees, mainly due to the increase in earnings since the beginning of the year, is estimated to be too high, since the growth rate of spending on employees is more than double the rate of GDP growth, which will lead to another increase in the share of spending on employees in GDP. The growth of spending on pensions was much slower, due to their lower indexation, but also because of the application of stricter rules for retirement and pension calculation, and due to the fact that a significant part of the baby boom generation in Serbia has retired early in the previous decades. It is estimated that raising the retirement age for women and the application of penalties for early retirement will have a positive effect on the sustainability of the pension system, and that it would be economically unjustified to give up their application, i.e. cancel important parametric reforms of the pension system adopted in 2014.

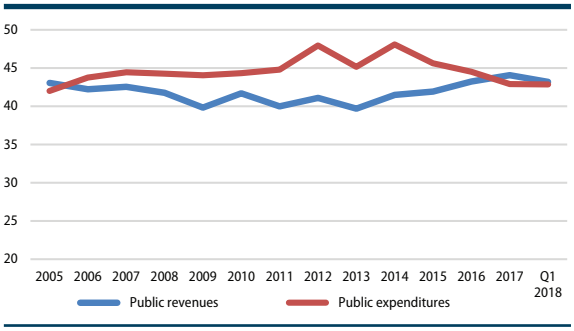
Spending on interest and subsidies has decreased, which is a positive development

Interest expense in Q1 was 12.8% lower in real terms compared to the same period last year, which was the result of the appreciation of the dinar exchange rate, as well as more favourable conditions under which the government borrows in order to repay the due liabilities that bear high interest rates. Of the above changes in the spending dynamics, it is estimated that the significant increase in spending on employees, and the reduction in spending on interest and pensions have the structural or permanent character.

Capital spending have strongly increased, but were still low in real terms

Capital spending recorded a very high growth in Q1, primarily because of the low base for comparison, since capital spending in Q1 2017 was very low. This is supported by the fact that capital spending, despite very high growth, amounted to 2.6% of the quarterly GDP in Q1 2018. However, the seasonally adjusted capital spending was almost a third higher in Q1 2018 than in the previous quarter, which is assessed as positive. In order to reach the targeted amount of capital spending in 2018 (of 3.6% of GDP), it is necessary to continue their significant growth in the coming quarters. As mentioned several times in the previous issues of the Quarterly Monitor, the increase in capital spending from 3% of GDP in 2017 to 4-5% of GDP would have a positive impact on the growth of total investments in the country as well as on the acceleration of economic growth. Given the favourable fiscal situation, the state should approach the planning

Graph T6-2. Serbia: Consolidated Public Revenue and Public Spending (% of GDP)



Source: *QM* caluclations based on MoF data

A surplus of 3.1 billion dinars was realised in April

and realisation of capital spending more agile and systematic approach.

Fiscal trends in April were largely a continuation of trends from previous months. Thus, in the aforementioned month, total public revenue realised a real y-o-y growth of 4.9%, with an increase in both tax and non-tax revenues. Among tax revenues, growth was still widespread, where mild real tax revenue from VAT, indicated in the previous months, deepened in April 2018 (and amounted to 3%). The growth of total spending in April accelerated, as the y-o-y real growth rate was 9.7% in that month, primarily due to an increase in spending on goods and services, but also a significant increase in most other items of current spending, while capital spending growth was slightly slower than the previous months. As a result of the described developments, a consolidated surplus of 3.1 billion dinars was achieved in April, which means that in the first quarter, the consolidated surplus amounted to 6.8 billion dinars.

Fiscal trends in Q1 were more favourable than planned, so a mild surplus could be realised in 2018

Starting from the usual intra-annual dynamics, it is estimated that fiscal developments in the first three months of 2018 were more favourable than planned, and that in that period tax revenues were collected in the amount of around 20 billion dinars higher than the plan. If similar dynamics were to continue in the next period, instead of the planned fiscal deficit of 0.7% of GDP, a fiscal balance could be achieved in 2018. On the other hand, if already in Q4 2018 payment of increased pensions starts, as announced, the fiscal result could be slightly negative this year.

A systematic indexing of pensions is recommended (e.g. according to the Swiss formula)

After the three-year arrangement with the IMF had expired, the Governemnt announced it will abolish the Law on Provisional Reduction of Pensions adopted in 2014. From the perspective of legal and fiscal risks, this abolition is estimated as justified, since it is a temporary law, whose permanent application could be challenged by domestic and international courts, which could potentially have negative fiscal consequences. However, the abolition of this law implies a one-time increase in pension spending by about 25 billion dinars (about 0.6% of GDP) per year. In addition, a non-linear increase in pensions was also announced, i.e. the irregular increase of low pensions, which could be legally disputable, economically unjustified and fiscally unsustainable, since such measures would imply an additional increase in pension spending by more than 10 billion dinars (i.e. over 0.25% of GDP).

Instead of the described arbitrary increase in pensions, it would be economically justified, after the abolition of the Law on Temporary Reduction of Pensions, to index all pensions for the rate of inflation, and then introduce a permanent rule according to which pensions would be adjusted annually (e.g. according to the Swiss formula, which would mean aligning pensions with inflation and wage growth, with both parameters having the same significance). In this way, the adjustment of pensions would be systematically regulated, which would increase predictability of fiscal movements and reduce the possibility of manipulation.

Fiscal space to be used for increase in public investments and other productive spending

In order to ensure the sustainability of public finances and increase the positive impact of fiscal policy on economic growth, in the coming period, wage and pension growth should follow the dynamics of nominal GDP, and additional fiscal space should be used to increase productive spending, e.g. on education, science, investment in infrastructure, etc., while keeping the fiscal deficit at around 0.5-1% of GDP.

A new arrangement with IMF would have a positive effect on the sustainability of public finances and the quality of fiscal policy

Considering the experiences from the previous fiscal consolidation episodes, and especially considering that the risk of slowing down the European integration process could reduce the potential impact of this process on conducting a sustainable fiscal policy, concluding a new arrangement with the IMF is assessed as positive. In addition to maintaining fiscal results, such an arrangement should focus on the restructuring and privatisation of public enterprises, as well as structural reforms in the public sector. The existence of such an arrangement would reduce the

risks of unsustainable fiscal expansion in the coming period, for which there will probably be pressures, bearing in mind current developments and expected political challenges in the coming period.

Public Debt Trend Analysis

Serbia's public debt at the end of Q1 2018 was 23.7 billion euros (61.8% of GDP)...

At the end of Q1 2018, Serbia's public debt amounted to 23.7 billion euros (61.8% of GDP). And when we include the non-guaranteed debt of local communities, the public debt was about 62.7% of GDP, which was about 500 million euros more than at the end of 2017, primarily due to growth of direct debt. The enormous growth of debt during Q1 2018 was the result of government borrowing, in order to secure funds for settling matured debt principals, and to finance any deficit in the coming period. At the end of April, the public debt slightly decreased and was 23.6 billion euros.

...and including the debt of local communities – 62.7% of GDP

Tabela T6-3. Serbia: Public debt dynamics[1] 2000-2018

	Kretanje javnog duga Republike Srbije u milijardama evra														
	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Q1 2018
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	22.7	21.4	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	8.8	9.1	9.7
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	13.9	12.4	12.3
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	2.1	1.8	1.7
III. Total debt (I+II)	**14.2**	**10.3**	**9.4**	**8.9**	**8.8**	**9.8**	**12.2**	**14.5**	**17.7**	**20.1**	**22.8**	**24.8**	**24.8**	**23.2**	**23.7**
Public debt / GDP (MF)[2]	**201.2%**	**50.2%**	**35.9%**	**29.9%**	**28.3%**	**32.8%**	**41.8%**	**45.4%**	**56.2%**	**59.6%**	**70.4%**	**75.5%**	**72.9%**	**61.5%**	**59.0%**
Public debt / GDP (QM)[3]	**169.3%**	**52.1%**	**36.1%**	**29.9%**	**28.3%**	**32.8%**	**41.9%**	**44.4%**	**56.1%**	**59.4%**	**70.4%**	**74.6%**	**72.2%**	**61.4%**	**61.8%**

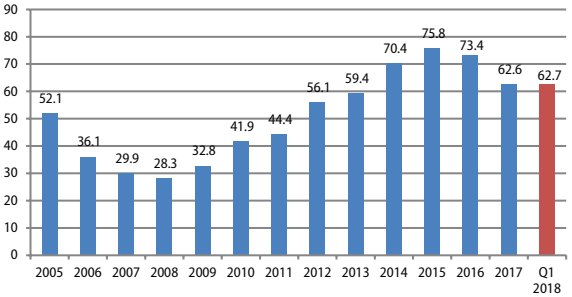
1) According to the Public Debt Law, public debt includes debt of the Republic related to the contracts concluded by the Republic, debt from issuance of the t-bills and bonds, debt arising from the agreement on reprogramming of liabilities undertaken by the Republic under previously concluded contracts, 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.

Dinar appreciation in Q1 continued to affect the decrease of public debt

Changes in the exchange rate in Q1 continued to affect the reduction of public debt, as in Q1, the dinar compared to the euro nominally almost stagnated, and in real terms appreciated by about 0.8%, while the dollar appreciated both in nominal and real terms (by about 3.8%). Thus, the appreciation of the dinar in Q1 influenced the decrease in public debt by around 250 million euros, i.e. by about 0.8% of GDP. Although the direct effects of debt appreciation were positive, since almost four fifths of the public debt were denominated in foreign currency, appreciation trends negatively affected the export performance of the Serbian economy and the future growth rates. This will negatively affects the sustainability of the public debt in the long term, because the appreciation pressures are not the result of strengthened competitiveness of the Serbian economy, but of the movements in the financial sector in Serbia and the world.

In April and May, there was a greater depreciation of the dinar against the US dollar (nominally by 5.4%), due to the strengthening of the dollar against the euro, which has an impact on the growth of nominal public debt. Such debt fluctuations, depending on the change in the dollar and euro exchange rates on global foreign exchange markets, can be considered as temporary or cyclical (in the previous quarters, the appreciation and consequent decrease in public debt were recorded).

Graph T6-4. Serbia's Public Debt Trends (% of GDP)



Source: QM calculations[1)]

Although Serbia's public debt has been declining since 2015, it is still above a level that can be considered sustainable, which is estimated at about 50% of GDP for a mid-level country. A number of fiscal risks are still present, such as unreformed public enterprises, non-privatised state-owned enterprises, and growing pressure to reduce taxes and

1 Including the non-guaranteed debt of local communities

increase non-productive spending. Therefore, in order to ensure the sustainability of public debt, a mild fiscal deficit policy (of about 0.5% of GDP) should be maintained in the current and upcoming years, and finally address the issue of public and state enterprises.

Annexes

Annex 1. Serbia: Consolidated General Government Fiscal Operations, 2010-2018 (bn RSD)

	2010	2011	2012	2013	2014	2015	2016	2017					2018
								Q1	Q2	Q3	Q4	Q1-Q4	Q1
I PUBLIC REVENUES	**1,278.4**	**1,362.6**	**1,472.1**	**1,538.1**	**1,620.8**	**1,694.8**	***1,842.7***	**450.0**	**503.8**	**497.5**	**522.1**	**1,973.4**	**473.8**
1. Current revenues	1,215.7	1,297.9	1,393.8	1,461.3	1,540.8	1687.6	*1833.3*	448.1	502.4	496.4	518.0	1964.9	472.4
Tax revenue	1,056.5	1,131.0	1,225.9	1,296.4	1,369.9	1463.6	*1585.8*	386.4	444.9	438.7	447.9	1717.9	420.0
Personal income taxes	139.1	150.8	35.3	156.1	146.5	146.8	*155.1*	37.5	40.7	43.4	46.3	167.9	40.1
Corporate income taxes	32.6	37.8	54.8	60.7	72.7	62.7	*80.4*	18.9	49.0	21.6	22.2	111.8	22.9
VAT and retail sales tax	319.4	342.4	367.5	380.6	409.6	416.1	*453.5*	109.6	119.5	127.0	123.2	479.3	110.3
Excises	152.4	170.9	181.1	204.8	212.5	235.8	*265.6*	64.9	65.2	78.3	71.6	279.9	76.9
Custom duties	44.3	38.8	35.8	32.5	31.2	33.3	*36.4*	9.3	9.7	9.9	10.8	39.7	10.0
Social contributions	323.0	346.6	378.9	418.3	440.3	505.7	*527.5*	16.6	18.4	17.8	19.0	71.9	142.5
Other taxes	46.0	43.5	42.6	43.5	57.3	63.3	*67.3*	129.6	142.4	140.7	154.7	567.4	17.2
Non-tax revenue	159.2	36.9	37.9	34.9	170.9	224.0	*247.5*	61.7	57.5	57.7	70.1	247.0	52.4
II TOTAL EXPENDITURE	**-1,419.5**	**-1,526.1**	**-1,717.3**	**-1,750.2**	**-1,878.9**	**-1,844.0**	***-1,899.7***	**438.2**	**471.3**	**459.7**	**551.9**	**1,921.1**	**470.1**
1. Current expenditures	-1,224.8	-1,324.8	-1,479.9	-1,549.8	-1,628.0	-1696.6	*-1,717.9*	415.7	424.9	420.2	484.5	1745.3	433.6
Wages and salaries	-308.1	-342.5	-374.7	-392.7	-388.6	-419.2	*-417.7*	102.5	108.2	106.4	109.3	426.3	116.0
Expenditure on goods and services	-202.5	-23.3	-235.7	-236.9	-256.8	-257.6	*-283.6*	60.5	72.7	72.2	96.3	301.6	66.4
Interest payment	-34.2	-44.8	-68.2	-94.5	-115.2	-129.9	*-131.6*	47.4	25.4	31.3	17.1	121.2	42.0
Subsidies	-77.9	-80.5	-111.5	-101.2	-117.0	-134.7	*-112.7*	18.9	26.7	22.0	45.8	113.3	17.9
Social transfers	-579.2	-609.0	-652.5	-687.6	-696.8	-710.0	*-716.8*	174.5	178.4	173.2	194.0	720.1	180.3
o/w: pensions5)	*-394.0*	*-422.8*	-473.7	-498.0	-508.1	-490.2	*-494.2*	123.1	124.6	123.9	126.3	497.8	128.6
Other current expenditures	-22.9	-31.7	-37.4	-36.9	-53.7	-45.3	*-55.6*	11.9	13.6	15.2	22.0	62.7	10.9
2. Capital expenditures	-105.1	-111.1	-126.3	-84.0	-96.7	-114.5	*-139.3*	12.0	35.5	29.7	56.6	133.9	28.9
3. Called guarantees	-2.7	-3.3	-3.7	-7.9	-29.7	-30.1	*-39.1*	8.3	5.8	6.6	8.1	28.8	4.0
4. Buget lendng	-30.0	-25.0	-38.2	-35.6	-55.4	-2.7	*-3.3*	2.2	5.1	3.2	2.6	13.2	3.6
CONSOLIDATED BALANCE	**-141.0**	**-163.5**	**-245.2**	**-212.1**	**-258.1**	**-149.1**	***-57.1***	**11.8**	**32.5**	**37.8**	**-29.8**	**52.3**	**3.7**

Source: *QM* calculations based on the MF data

Annex 2. Serbia: Consolidated General Government Fiscal Operations, 2010-2017 (real growth rates, %)

	2010	2011	2012	2013	2014	2015	2016	2017					2018
								Q1	*Q2*	*Q3*	*Q4*	*Q1-Q4*	Q1
I PUBLIC REVENUES	**-1.5**	**-4.6**	**0.6**	**-2.2**	**3.2**	***3.1***	***7.5***	***5.3***	***5.5***	***0.3***	***3.5***	***4.0***	**3.6**
1. Current revenues	-1.5	-4.4	0.1	-2.6	3.3	*3.3*	*7.4*	*5.2*	*5.6*	*1.0*	*3.0*	*4.1*	3.8
Tax revenue	-2.5	-4.1	1.0	-1.7	3.5	*0.3*	*7.2*	*6.1*	*6.0*	*4.1*	*3.1*	*5.2*	7.0
Personal income taxes	-3.9	-2.9	2.1	-12.2	-8.1	*-1.2*	*4.5*	*5.6*	*4.1*	*2.9*	*6.2*	*5.1*	5.3
Corporate income taxes	-3.6	3.9	35.1	2.9	17.4	*-15.0*	*26.9*	*37.6*	*51.9*	*14.7*	*21.3*	*35.0*	19.5
VAT and retail sales tax	-0.7	-4.0	0.0	-3.8	5.4	*0.2*	*7.8*	*2.4*	*0.3*	*8.3*	*-1.9*	*2.6*	-0.9
Excises	4.2	0.6	-1.2	5.1	1.6	*9.4*	*11.4*	*9.6*	*-4.0*	*0.2*	*3.1*	*2.3*	16.7
Custom duties	-14.9	-21.5	-14.0	-15.6	-6.5	*5.9*	*8.1*	*5.2*	*6.6*	*3.2*	*6.8*	*5.8*	5.5
Social contributions	-6.5	-3.9	1.9	2.6	3.1	*-2.1*	*3.2*	*7.0*	*9.5*	*1.1*	*-2.7*	*3.8*	8.2
Other taxes	14.5	-15.2	-8.8	-5.2	29.2	*8.9*	*5.1*	*4.4*	*5.1*	*2.0*	*4.8*	*4.4*	2.0
Non-tax revenue	5.8	-6.1	-6.2	-8.7	1.5	*27.9*	*9.3*	*-0.4*	*3.1*	*-17.3*	*2.5*	*-3.1*	-16.3
II TOTAL EXPENDITURE	**-1.7**	**3.3**	**4.3**	**-0.3**	**5.2**	***-3.2***	***1.9***	***-1.3***	***-1.8***	***-4.5***	***-0.6***	***-1.7***	**5.6**
1. Current expenditures	-2.2	3.1	4.1	-2.7	2.9	*-1.4*	*0.2*	*-0.1*	*-2.3*	*-3.0*	*-0.9*	*-1.2*	2.7
Wages and salaries	-5.9	0.4	2.0	-2.6	-3.1	*-9.7*	*-1.4*	*-0.4*	*-0.2*	*-1.4*	*-3.0*	*-0.9*	11.4
Expenditure on goods and services	-0.3	4.3	1.5	-6.6	6.2	*-1.1*	*8.9*	*2.1*	*4.4*	*1.5*	*3.4*	*3.3*	8.1
Interest payment	-0.3	17.4	41.9	28.8	19.3	*11.2*	*0.2*	*0.2*	*-23.5*	*-5.0*	*-24.3*	*-10.6*	-12.8
Subsidies	40.6	7.4	29.1	-15.6	13.2	*13.6*	*-17.3*	*1.8*	*6.9*	*3.6*	*-11.3*	*-2.3*	-6.5
Social transfers	13.9	5.8	-0.1	-2.1	-0.7	*0.5*	*-0.1*	*-1.5*	*-2.4*	*-6.6*	*0.7*	*-2.1*	1.7
o/w: pensions5)	-3.9	3.9	*4.4*	*-2.3*	*-0.1*	*-4.8*	*-0.3*	*-2.2*	*-2.9*	*-3.2*	*-1.9*	*-2.2*	2.8
Other current expenditures	-6.1	23.9	9.9	-8.4	42.6	*-16.7*	*21.4*	*7.7*	*-14.5*	*4.7*	*37.9*	*9.6*	-10.1
2. Capital expenditures	-11.8	5.3	6.0	-38.2	12.7	*16.8*	*20.3*	*-33.2*	*9.7*	*-23.9*	*3.6*	*-6.7*	136.8
3. Called guarantees	-2.7	-3.3	-3.7	248.7	267.8	0.1	28.5	-7.9	-50.2	-22.5	-28.1	-28.5	-52.3
4. Buget lendng	-30.0	-25.0	-38.2	44.2	52.2	-95.1	20.8	243.9	372.7	219.7	267.5	283.9	62.2

Source: *QM* calculations based on the MF data

7. Monetary Flows and Policy

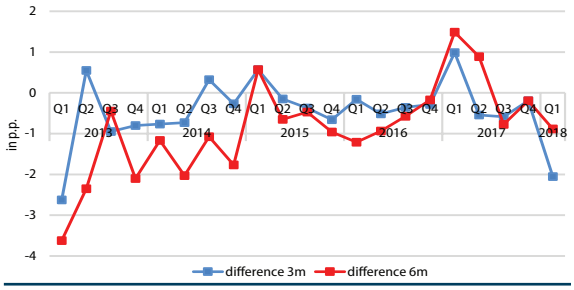
Year on year inflation continued to slow down and in the first four months of 2018 it mainly stood below the lower limit of the target framework, and in May it returned to within the target interval. That led the National Bank of Serbia (NBS) to change its key policy rate twice bringing it to the current 3%. The NBS interventions on the inter-banking foreign exchange (FX) market were mainly aimed at preventing the Dinar from growing stronger in Q1. Including the interventions in May, the NBS was net buyer of 885 million Euro on the FX market including 400 million Euro in Q1. Despite that, the NBS net own reserves dropped and that, along with the drop in net domestic assets, caused a reduction in the primary money in Q1. The y.o.y. growth rate M2 slowed down slightly compared to the previous quarter but data on the real y.o.y. growth of loans to the non-state sector showed signs of improvement. Bank net placement in Q1 recorded an increase mainly thanks to the net debts of the state and households. At the same time, banks withdrew from REPO placements while the enterprises recorded a nominal repayment of loans to the domestic banking sector. We should bear in mind that this is mainly the consequence of the writing off and sale of bad loans which were included in bank balances which led to an underestimating of net placement to the enterprises. However, in regard to cross-border loans to the enterprises, Q1 ended at an unchanged level which suggests that there is still no significant improvement in this segment. A seasonal reduction of sources for new placements has been recorded since the start of the year because of a drop in the deposit accounts of the enterprises and capital and reserves of commercial banks. The share of NPLs has been showing a significant drop for the second quarter in a row. For the first time since the crisis broke out, the share of NPLs due to speedier writing off and sales has dropped to a single digit value. There is evidence of some reduction in interest rates for certain types of indexed loans but with Dinar loans in Q1 there has been both a nominal and a growth in real terms in interest rates.

Central Bank: Balance and Monetary Policy

NBS relaxes monetary policy even further in response to lower inflation and stronger Dinar

The y.o.y. inflation over the first five months of this year is low and stable. The lower than expected level of inflation and increased pressure to strengthen the Dinar caused the NBS to lower the key policy rate in March and again in April by 0.25 percentage points each time. In the first quarter, y.o.y. inflation stood lower than 2% and in May, seasonal effects and the rise in fuel prices caused it to rise to 2.2%. The low y.o.y. inflation in the first quarter is partly the consequence of comparison with last year's high base. Since the effects of last year's high base is slowly fading, we expect inflation to draw closer to the target level by the end of the year. It is not likely that the NBS will lower the key policy rate further because that would mean that it would loose the room to maneuver that it needs for interventions in case of unplanned shocks in the international environment. In this period, business banks withdrew part of their funds from REPO placement which did not have any significant effect on Dinar liquidity because of a significant drop in net domestic assets in Q1 (Table T7-2). In the previous period, the NBS successfully implemented its strategy to lower the share of bad loans in the domestic banking sector. Despite that, it seems that there have been no significant positive effects in speeding up credit activity in the enterprises sector. A significant rise in loans to the enterprises would signal a revival of current economic activity and a rise in trust of banks and companies in Serbia's economic perspective.

Graph T7-1. Deviation from planned inflation 3 and 6 months ahead of the real situation 2013-2018



Source: NBS

Following the stabilization of inflation at the target level at the end of 2017, inflationary pressure weakened in Q1 and inflation dropped below the lower level of the target framework. The low level of achieved inflation and pressure to strengthen the Dinar caused the NBS to change its key policy rate downwards by 0.25 percentage points in March and again in April. This should partly decrease appreciation pressure on the Dinar exchange rate and increase Dinar liquidity in the system which recorded a significant drop in Q1.

Table T7-2. NBS interventions and foreign currency reserves 2016-2018

	2016				2017				2018
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
Repo stock (in milions of euros)	246.50	239.12	325.82	279.23	480.53	572.42	634.74	384.53	348.00
NBS interest rate	4.25	4.25	4.00	4.00	4.00	4.00	3.75	3.50	3.25
NBS interest rate	2.60	1.78	3.17	1.94	-5.11	1.94	4.17	2.68	0.40
NBS interest rate	-0.34	3.35	4.57	3.37	4.48	15.71	7.77	3.50	4.75
NBS interventions on FX market (in milions of euros)	-555.00	-820.00	-345.00	-160.00	-345.00	160.00	765.00	680.00	400.00
INCREASE	**in millions of euros, cumulative from the beginning of the year**								
NBS own resreves[2]	-469.43	-785.86	-346.46	-163.03	-269.73	-265.22	364.16	-4.87	-154.90
NDA	45.62	395.60	-99.67	94.92	-171.42	-248.75	-704.00	137.47	-264.65
Government, dinar deposits[3]	41.52	275.36	35.00	195.73	-41.59	-358.48	-755.64	-247.10	-376.19
Repo transactions[4]	5.09	19.53	-279.20	-25.66	-207.38	-285.41	-346.27	-95.49	43.47
Other items , net[5]	-0.99	100.71	144.53	-75.15	77.56	395.14	397.91	480.06	68.07
H	-423.81	-390.27	-446.13	-68.11	-441.15	-513.96	-339.84	132.60	-419.56
o/w: currency in circulation	-68.06	-20.21	40.74	157.26	-104.02	-114.39	-103.93	39.59	-102.01
o/w: excess liquidity	-284.91	-319.01	-465.39	-241.74	-351.17	-422.08	-269.15	22.35	-335.18
	in millions of euros, cumulative from the beginning of the year								
NBS, net	-865.84	-1061.63	-784.51	-137.62	-464.59	-618.87	452.21	-280.73	64.63
Gross foreign reserves	-880.04	-1080.32	-807.49	-153.76	-469.25	-632.21	431.51	-302.83	36.47
Foreign liabilities	14.21	18.69	22.97	16.14	4.66	13.34	20.70	22.10	28.16
IMF	8.10	15.09	16.00	14.12	-0.04	5.81	7.68	8.67	9.42
Other liabilities	6.10	3.59	6.98	2.02	4.69	7.53	13.02	13.43	18.75
NBS, NET RESERVES-STRUCTURE									
1. NBS, net	-865.84	-1061.63	-784.51	-137.62	-464.59	-618.87	452.21	-280.73	64.63
1.1 Commercial banks deposits	331.11	302.75	339.40	90.80	144.67	156.34	123.17	159.61	47.26
1.2 Government deposits	65.30	-26.98	98.65	-116.22	50.18	197.32	-211.22	116.25	-271.67
1.3 **NBS own reserves** (1.3 = 1 - 1.1 - 1.2)	-469.43	-785.86	-346.46	-163.03	-269.73	-265.22	364.16	-4.87	-159.78

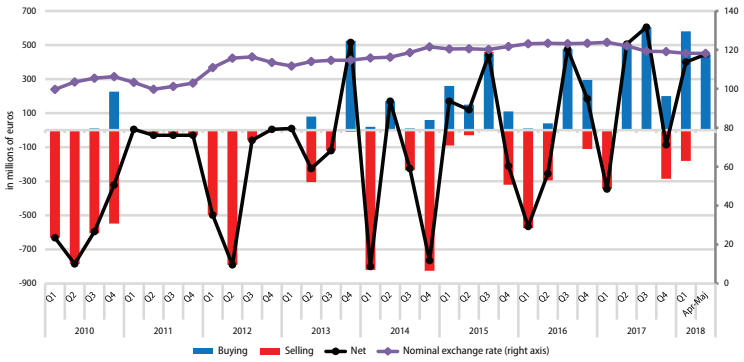
Source: NBS.
1) Initial M2 designated the state of primary money at the start of the current and end of previous year.
2) The definition of net own reserves NBS is given in Section 8 Monetary Trends and Policy, Frame 4, *QM* 5.
3) State includes all levels of government: republic and local.
4) This category includes NBS Treasury Bonds and repo operations.
5) Other domestic net assets include: domestic loans (net bank debts, including bonds and repo transactions; net enterprises debts) along with other assets (capital and reserves; and items in the balance: other assets) and corrected by changes to the exchange rate.

Appreciation pressures dominant since start of year …

Depreciation and appreciation pressure traded places on the MDT since the start of the year, affecting the level of NBS interventions. In the first three months, the NBS was a net buyer of 400 million Euro on the MDT and in interventions in April and May, it raised its net purchases to the level of 885 million Euro (Graph T7-3). Despite that, the NBS net own reserves dropped by 155 million Euro in Q1 which had a negative effect on the primary money level. Besides the drop in NBS net own reserves, a seasonal reduction in NDA of 265 million Euro was recorded (in the previous quarter, the NDA recorded a growth of 841 million Euro). Although the withdrawal of banks from REPO placements had a positive effect on the rise in NDA, Dinar deposits decreased by 376 million Euro in the same period. That completely neutralized the effects

… causing NBS to intervene by buying 885 million Euro in first five months

Graph T7-3. NBS interventions on FX market 2010-2018



Source: NBS

of the drop in REPO stock and other net domestic assets. Due to the drop in net own reserves and net domestic assets, the primary money was reduced by 420 million Euro in Q1 which is similar to the drop recorded in the first quarter of 2017. The noted reduction of primary money at the start of the year is mainly the result of seasonal effects which can be noted on the basis of data for the same quarter in previous years.

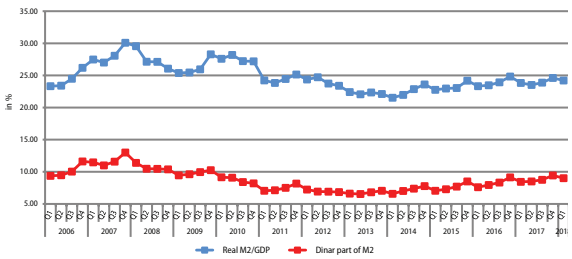
Monetary System: Structure and Money Mass Trends

Y.o.y. growth of M2 slows slightly in Q1 …

… but real growth of loans to non-state sector shows signs of recovery

The y.o.y. nominal growth of M2[1] slowed slightly in Q1 and continued the trend of a drop in the pace of growth which has been present since the start of 2017. Compared to the level from the previous year, M2 in Q1 grew nominally by 3.3% (in Q4 2017, the nominal growth of M2 was 3.6% y.o.y., Table T7-5). Compared to the level from the end of 2017, the money mass dropped by 0.9% which is due to the drop in met foreign assets (NFA) whose negative contribution stood at 2.5 percentage points and was larger than the positive contribution of the growth of NDA of 1.6 percentage points. Following the correction for inflation over the previous year, the real y.o.y. growth rate M2 stood at 2% while loans to the non-state sector increased their real growth rate to 4.6%. The real growth rate of loans to the enterprises speeded up somewhat but continues to stand at a modest 1.5% y.o.y. while the real growth of loans to the households continued from 8.9% y.o.y.

Graph T7-4. Money mass trends as percentage of GDP, 2005-2018



Source: *QM* calculation

Table T7-5. Growth of money and accompanying aggregates, 2016–2018

	2016				2017				2018
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
					y-o-y, in %				
M2[1)]	7.9	7.8	10.2	9.9	10.3	7.4	5.6	3.6	3.3
Credit to the non-government sector[2)]	2.2	4.7	5.9	2.6	4.1	2.0	0.7	1.8	1.9
Credit to the non-government sector[2)],	0.6	3.1	3.9	1.5	3.5	3.5	2.9	4.7	5.1
Households	3.8	5.8	8.4	9.4	11.0	11.8	10.8	10.9	10.2
Enterprises	-1.4	1.4	1.0	-3.3	-1.3	-2.1	-2.4	0.4	1.3
					real y-o-y, in %				
M2[1)]	7.2	7.3	9.4	8.0	6.4	3.8	2.3	0.6	2.0
Credit to the non-government sector[2)],	0.2	2.3	2.8	0.9	2.1	2.7	2.4	4.0	4.6
Households	2.9	4.6	6.6	7.5	8.6	9.7	9.0	9.2	8.9
Enterprises	-1.5	0.9	0.4	-3.2	-1.7	-2.0	-2.1	0.4	1.5
					in bilions of dinars, end of period				
M2[1)]	1,979.6	2,023.2	2,087.0	2,196.8	2,182.7	2,173.3	2,204.5	2275.5	2255.1
M2[1)] dinars	645.5	685.0	727.1	808.0	772.7	785.2	808.3	872.1	838.6
Fx deposits (enterprise and housholds)	1,334.1	1,338.2	1,359.9	1,388.7	1,410.0	1,388.1	1,396.2	1403.4	1416.5
					quarterly growth M2[4)] and shares				
M2[1)]	-1.0	2.2	3.2	5.3	-0.6	-0.4	1.4	3.2	-0.9
NFA, dinar increase	-2.9	2.0	2.1	3.9	-1.6	0.6	1.1	2.9	-1.5
NDA	1.9	0.2	1.1	1.4	1.0	-1.0	0.4	0.3	0.6

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 changes to the exchange rate. Corrections are introduced under the assumption that 70% of loans to the non-state sector (both households and the enterprises) are indexed in Euro.

4) Trends are corrected by changes to the exchange rate and inflation. Corrections are introduced under the assumption that 70% of loans to the non-state sector (both households and the enterprises) are indexed in Euro.

1 Monetary aggregate M2 in section Monetary Trends and Policy includes the lesser aggregate M1, savings and timed deposits as well as foreign currency deposits in business banks. That means that the aggregate M2 which we observe is equal to the monetary aggregate M3 in NBS reports

Narrowest monetary aggregate records biggest contribution to M2 growth again …

… while foreign currency deposits record lowest deposit in past few years.

The structure of the y.o.y. nominal growth of the M2 in Q1 was relatively unchanged compared to the previous quarter when we observe narrower monetary aggregates. The greatest contribution comes once again from the growth of the narrowest aggregate M1 which stood at 2.48 percentage points. The next most important contributions are savings and timed deposits which contributed to the overall growth of M2 with 0.54 percentage points while the smallest contribution came from the growth of foreign currency deposits. Of the overall nominal growth of M2 which stood at 3.32%, the increase in foreign currency deposits accounted for just 0.3 percentage points which is one of the lowest values recorded over the past few years.

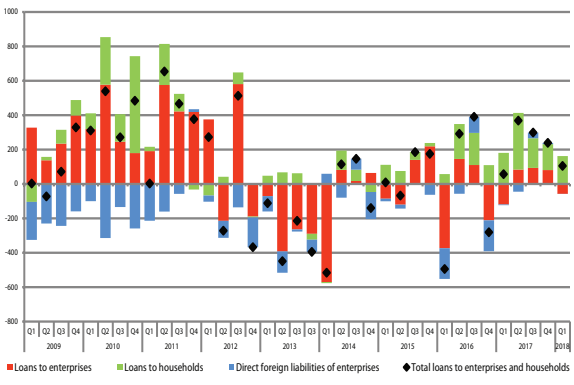
Banking Sector: Placements and Sources of Financing

A rise in overall net placements by business banks was recorded in Q1 …

…mainly thanks to a rise in net debts of the state and households

Despite the significant write-off of bad loans, business banks recorded a rise in net placements in Q1 in terms of increased net loans to the state and non-state sector. In the first three months, those net placements were worth 219 million Euro with net placements to the enterprises and households increasing by 105 million Euro (Table T7-7). That growth included a rise of net placements to the households of 154 million Euro which is almost identical to the growth recorded in the previous quarter (in Q4 2017 the rise in net loans to the households stood at 151 million Euro). Unlike the previous quarter when new debts to the enterprises were higher because of the write-off of bad loans, the net placements to the enterprises in Q1 dropped by 58 million Euro. If we know that a significant amount of bad loans was written off in Q1, the real net placements to the enterprises are very probably positive. Along with the growth in net placements to the enterprises and the households, the state also increased its debts to business banks by 154 million Euro in Q1. A part of the rise in net placements by commercial banks was neutralized with the withdrawal of banks from REPO bonds. In Q1, commercial banks reduced their REPO placements by 39 million Euro which continued in April when the REPO stock was reduced by another 62 million Euro.

Graph T7-6. Yield of new loans to the enterprises and households, 2009-2018



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

The real increase in net placements to the enterprises is hidden …

…because of the write-off of a significant portion of bad loans in Q1

Despite indications that a further recovery of credit activity can be expected we still see no changes in trends among cross-border net loans. In Q1, the net state of cross-border loans remained unchanged which means that domestic companies borrowed money from foreign creditors equal to payments on earlier loans. Because of the unchanged net state of cross-border loans, overall credit activity is equal to the placements by domestic banks to the enterprises and households (Graph T7-6).

Seasonal drop in sources for new placements was recorded in Q1…

… because of the withdrawal of deposits by the enterprises and drop in capital and reserves of business banks

A seasonal drop in sources for new placements by business banks was recorded in Q1 which is typical for the start of the year. Compared to the previous three quarters when banks increased their credit potential, it was reduced in Q1 by 286 million Euro (in Q4 the sources of new placements increased by around a billion Euro, Table T7-7). The drop in credit potential caused a drop in the level of domestic deposits and capital and reserves while, on the positive side it had an effect on the bank debts abroad. Domestic deposits in Q1 dropped by 65 million Euro which is the consequence of a greater reduction of deposits by the enterprises compared to the growth recorded in the deposits by the households. From the start of the year, the deposits by the households with business banks increased by 166 million Euro which continues the trend from the previous year but at a slower pace (in Q4 deposits by the households increased by 259 million Euro). This growth was completely neutralized due to the withdrawal of deposits by the enterprises totaling 231 million Euro which caused a drop in overall domestic deposits with business banks. Following several quarters of growth, business banks reduced the funds in capital

and reserve accounts by 390 million Euro in Q1 which also caused a drop in the sources for new placements along with the reduced domestic deposits. The positive contribution to increasing credit placements by commercial banks was recorded only in terms of bank debts abroad. On that basis, sources for new placements increased in Q1 by 169 million Euro which suggests that commercial banks expect a further recovery of domestic credit activity (in 2017 banks increased their net debts abroad by 547 million Euro.)

Table T7-7. Bank operations – sources and structure of placements, corrected[1] trends, 201-2018

	2016				2017				2018
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar
	in millions of euros, cumulative from the beginning of the year								
Funding(-, increase in liabilities)	377	168	-363	-1,130	354	-252	-1,138	-2,185	286
Domestic deposits	223	-235	-708	-1,425	107	-104	-426	-1,032	65
Households deposits	-16	-235	-362	-625	-69	-164	-258	-517	-166
dinar deposits	3	-75	-154	-290	27	-7	25	-121	15
fx deposits	-19	-161	-208	-334	-96	-157	-283	-395	-181
Enterprise deposits	239	0	-346	-800	175	60	-167	-515	231
dinar deposits	385	222	5	-352	207	142	-30	-307	170
fx deposits	-146	-222	-351	-448	-31	-82	-137	-208	61
Foreign liabilities	181	397	427	335	218	49	-317	-546	-169
Capital and reserves	-27	6	-82	-40	29	-198	-395	-607	390
Gross foreign reserves(-,decline in assets)	214	337	284	244	-35	-153	-286	-261	215
Credits and Investment[1]	128	426	1,129	997	255	856	1,162	1,237	219
Credit to the non-government sector, total	-316	32	329	186	61	474	740	972	105
Enterprises	-374	-228	-118	-372	-119	-36	58	138	-58
Households	57	260	447	559	180	510	682	833	162
Placements with NBS (Repo transactions and treasury bills)	-7	-14	276	27	202	289	341	90	-39
Government, net[2]	452	408	525	784	-8	93	82	176	154
MEMORANDUM ITEMS									
Required reserves and deposits	-598	-864	-859	-565	-161	-94	-83	-30	120
Other net claims on NBS[3]	-107	160	6	201	-324	-401	-220	62	-338
o/w: Excess reserves	-102	160	3	187	-326	-415	-223	42	-339
Other items[4]	0	-204	-175	253	-79	18	545	1,176	-514
Effective required reserves (in %)[5]	17	16	15	16	16	15	15	15	15

Source: NBS

1) Calculating yield is done under the assumption that 70% of overall placements are indexed in Euro. Yield for original Dinar deposit values are calculated by the average exchange rate for the period. For foreign currency deposits – as the difference in the state calculated by the exchange rate at the start and end of the period. Capital and reserves are calculated by the Euro exchange rate at the start and end of the period and do not include the effects of exchange rates from the calculation of the remained of the NDA.

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

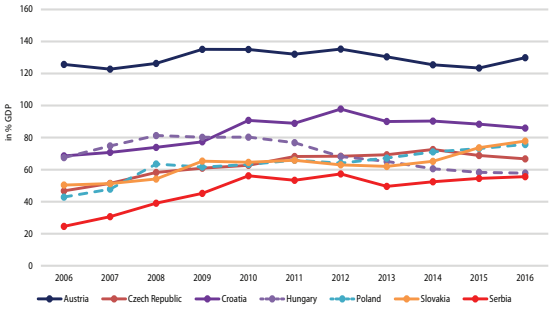
3) Net loans to the state: loans approved to the state are reduced by state deposits in business banks; a negative prefix designates a higher rise in deposits than of loans. State includes all levels of government: republic and local.

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

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

6) Effective mandatory reserves are the share of mandatory reserves and deposits in the sum total of overall deposits (households and enterprises) and bank debts abroad. The basis for calculation of the mandatory reserve does not include subordinate debts because that is not available

Graph T7-8. Share of domestic loans in GDP, 2006-2016



Source: World Bank

Data on the share of loans placed by domestic financial institutions in the GDP show that the Serbian economy is less indebt than other Central European economies. This data does not include cross-border loans but since companies in Serbia have paid off debts over the past few years, the lag behind the observed economies is probably even greater. The relatively low indebtedness of the Serbian economy indicates that a potential exists for loans to grow in future. The progress achieved in the field of reducing the share of bad loans and the trend of low interest rates on the international capital market have opened the door to incre-

ase credit activity on the domestic market. For now, the recovery of demand for loans has been noted only in the household sector while the enterprises are still failing to achieve the expected growth.

Table T7-9. Share of non-performing loans according to debtor type, 2008-2018

	2009	2010	2011	2012	2013	2014	2015	2016				2017				2018	
	Dec	Dec	Dec	Dec	Dec	Dec	Dec	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	May
	balance at the end of period																
Corporate	12.14	14.02	17.07	19.06	27.76	25.5	24.40	26.89	26.26	23.56	19.48	19.92	19.24	16.86	13.83	12.51	12.51
Entrepreneurs	11.21	15.8	17.07	15.92	20.82	43.29	29.92	33.03	30.12	28.44	27.42	26.49	25.02	23.90	16.96	12.60	12.16
Individuals	6.69	6.71	7.24	8.32	8.59	9.97	10.53	10.95	10.63	10.36	9.66	9.21	8.35	7.56	6.43	5.84	5.71
Ammount of dept by NPL (in bilions of euros)	1.58	1.94	2.63	3.19	4.09	3.70	3.52	3.76	3.75	3.45	2.83	2.83	2.77	2.63	2.16	9.93	9.80

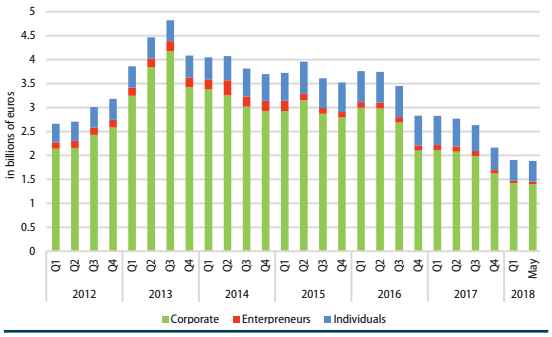
Source: *QM* calculation

Commercial banks continued writing off and selling non-performing loans …

…with a strong drop in their share recorded in Q1

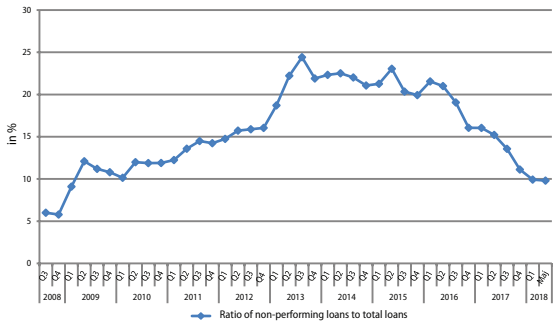
The positive trend of a reduction of non-performing loans (NPLs) both in absolute and relative amounts continued in Q1 with their value standing at single digits for the first time since 2008. The overall share of loans whose installments debtors have not repaid for more than 90 days stood at 9.93% at the end of Q1 according to QM[2] calculations (Graph T7-11). Improvements were recorded in all three segments in the structure of NPLs with the biggest relative drop among entrepreneurs while in absolute terms the most significant drop in NPLs was in the company segment. NPLs placed with companies dropped to 12.5% in Q1 which is a drop of 1.3 percentage points compared to the previous quarter (in Q4 2017, NPLs to companies dropped by 3 percentage points Table T7-9). The share of NPLs to companies dropped by 6.36 percentage points compared to the end of 2017 but those loans are just 3% of the total NPLs and their share in the overall drop is marginal. The households segment saw its share of NPLs drop by 0.6 percentage points to 5.84% which is the closest to the level from the period prior to the crisis. A part of the reduction in NPLs is owed to the moderate recovery of credit activity which is evident in the household segment while placements to the enterprises are still not showing significant growth. Most of the reduction of the share of NPLs was achieved through a reduction of the stock of NPLs in all debtor segments. Viewed in nominal amount, NPLs recorded a drop of some 260 million Euro in Q1 including 200 million Euro in written off and sold loans to companies.

Graph T7-10. Remainder of debt in loans falling late, 2012-2018



Source: *QM* calculation

Graph T7-11. Share of NPLs in overall placements, 2008-2018



Source: *QM* calculation

Interest Rates: State and Trends

Real interest rates on Dinar loans rose in Q1…

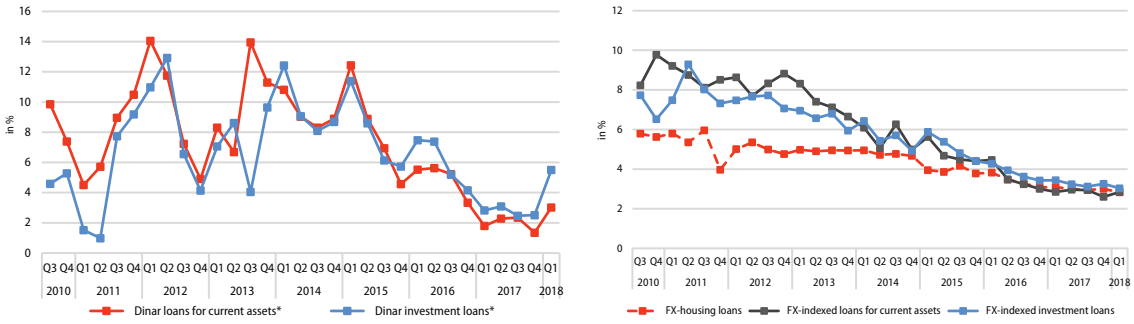
… with different trends present depending on type of indexed loan

Trends with interest rates from the start of the year suggest that we should expect moderate growth following the historic minimum in the previous year. The indexed loan market still shows a slight drop in interest rates on housing loans and investment loans. In Q1 the weighted interest rate on housing loans was reduced to 2.83% which is 0.17 percentage points lower than at the end of 2017 (Graph T7-12b). The weighted interest rate on investment loans at the end of Q1 stood at 3.03% which is a drop of 0.23 percentage points compared to the previous quarter. On the other hand, the weighted interest rate on indexed loans for current assets, which accounts for the ma-

2 For details of the manner of calculation of share of bad loans see *QM* 6 – Spotlight On 1: NPLs in Serbia– what is the true measure?

jority in the structure of bank placements to companies, increased compared to the previous quarter by 0.24 percentage points bringing it to 2.84% at the end of Q1. The Dinar loans segment recorded an increase in nominal interest rates which was additionally reinforced with a drop in inflation stronger than predicted. The real weighted interest rate on Dinar loans for current assets was raised to 3.02% in Q1 which is a growth of 1.68 percentage points (Graph T7-12a). The rise is even more pronounced in real weighted interest rates on Dinar loans for investments which rose by 3 percentage points at the end of Q1 compared to the previous quarter to stand at 5.5%.

Graph T7-12. Interest rates on Dinar and Indexed loans, 2010–2018



Source: *QM* calculation
* real interest rates

HIGHLIGHTS

Highlight 1. Shadow Economy Trends In Serbia: 2012-2017

Milojko Arsić[1], Saša Ranđelović[2], Nikola Altiparmakov[3]

Introduction: Research Motivation and Objective

More efficient collection of tax revenue and the fight against the shadow economy are the most important elements of successfully implemented fiscal consolidation in the period 2015-2017. Recognising its economic and social importance, the Government of Serbia in 2015 adopted the National Programme for the Suppression of the Shadow economy, which stipulates that the volume of the shadow economy, which was estimated to be one of the largest in Europe in 2012, is reduced to the level of the average of the Central and Eastern Europe (CEE) by 2020. A recent NALED study (2018), using comparable company surveys from 2012 and 2017, estimated that in this five-year period, the shadow economy in Serbia has been reduced by more than a quarter (i.e. by 27%), which would mean that the goal of the National Programme was reached before time, and that the level of shadow economy in Serbia was already lower than the CEE average in 2017.

However, it is well known that subjective perceptions of citizens and businesspersons do not necessarily reflect the economic trends in a realistic way. Thus, there are numerous examples of contradictions and lack of logics in the international ranking of business conditions in different countries based on the subjective perceptions of entrepreneurs. Hence, the aim of this research is to use objective macro-fiscal statistics to assess the dynamics of the shadow economy in Serbia from 2012 to 2017 and compare them with results based on the perception of entrepreneurs.

Analyses based on macro-fiscal data indicate that in the period from 2012 to 2017, there was no significant reduction in the shadow economy in Serbia. Actually, the movement of tax aggregates suggests an increase in the shadow economy during 2013-2014. Only with the start of fiscal consolidation in 2015 has the shadow economy started to decline. Although the reduction of the shadow economy in the period 2016-2017 was considerable, in some segments (such as VAT collection) even impressive, it is estimated that this reduction has only managed to neutralise the increase in the shadow economy during 2013 and 2014. Thus, the size of the shadow economy in 2017 is estimated to be at approximately the same level as in 2012, where the shadow economy in trade of goods and services (that is VAT-taxable) and in earnings and employment has stagnated, while in trade of oil derivatives, the shadow economy has been reduced, while increasing in tobacco products. Such cumulative developments are the result of the strong growth of the shadow economy in all segments in 2013 and 2014, and its reduction as of 2015. These results show that the shadow economy in Serbia is still high and that additional tax administration improvements, as well as other institutional reforms, are needed in order to achieve the CEE average. Also, our findings point to the weakness of the monitoring of the shadow economy (exclusively) through surveys and subjective perceptions of citizens and favour macro-fiscal aggregates analyses.

Methodological Framework

Assessing shadow economy is a challenging task, because it is necessary to identify cases of tax evasion whose actors, logically, are not willing to provide information that could incriminate them. Therefore, shadow economy was most often assessed on the basis of indirect methods, the advantage of which is a uniform methodological framework, which can easily be applied in different countries and serve as the basis for international comparisons. This advantage of the indirect methods is at the same time their weakness, because it is not possible to determine to what extent the generic methodological framework for assessment is appropriate to concrete social conditions in a given country, and to what extent it is able to cover all forms of shadow economy. The most common model used in the international practice for the indirect assessment of shadow economy is MIMIC - Multiple Indicator Multiple Causes, which, based on typical structural equations, attempts to identify the connection between the causes and consequences of shadow economy, and indirectly assess the participation of shadow economy in GDP. According to an internationally comparable estimate based on the 2012 MIMIC model, the shadow economy in Serbia was around 30% of GDP, which was 1/6 higher than the average of the CEE countries and almost 50% higher than the European average (Krstic and Schneider, 2015).

In an attempt to eliminate the shortcomings of indirect methods for assessing shadow economy, researchers began to develop direct assessment methods, primarily ba-

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sed on household and business surveys. Thus, a group of authors in the monograph Krstic and Schneider (2015), in addition to assessing the MIMIC model, also made estimates of the shadow economy based on the household and business surveys. Therefore, using the HTC (household tax compliance) method, based on macroeconomic data on household income and consumption, it is estimated that the shadow economy is 23.6% of GDP, while according to the Survey on Conditions of Doing Business for Companies and Entrepreneurs, the shadow economy is 21% of GDP. In interpreting the above estimates, it is necessary to bear in mind that only the MIMIC method covers all forms of shadow economy and all institutional sectors, while the HTC method includes only the shadow economy that is related to the household sector, while the Survey includes only the shadow economy that is realised by companies and entrepreneurs, but not the households. Hence, these three different estimates of the shadow economy do not necessarily have to be contradictory, but differences can arise due to the different scope of different methods.

Although all the listed methods have their advantages and disadvantages, the NALED study (2018) identifies the Survey of Entrepreneurs as an important framework for measuring and monitoring the informal economy. Hence, the same survey was repeated in 2017 on a representative sample of businesspersons, and the size of the shadow economy in the registered companies was monitored in the two most important forms of tax evasion - unregistered employee salaries and unregistered turnover. A comparative analysis of NALED studies (2018) and Krstic and Schneider (2015) suggests that the shadow economy in this segment has been reduced from 21% of GDP in 2012 to 15.4% of GDP in 2017, which means that the shadow economy decreased by 27%. This big reduction in shadow economy and the conversion of 5.6% of GDP from the grey zone into legal flows should be accompanied by a correspondingly large increase in tax revenues. In particular, if we look only at the segment of registered companies followed by the Survey, the reduction of the shadow economy from 21% to 15.4% of GDP would mean additional tax revenues of 2.1% of GDP. If we look broader and assume that the equivalent reduction in shadow economy also occurred in other sectors assessed by the MIMIC model, then additional tax revenues should amount to 3% of GDP.[4] In this research, we will limit ourselves to the most conservative assumption and analyse whether in the period 2012-2017 there was an increase in tax revenues of 2.1% of GDP due to the reduction of shadow economy.

The high level of shadow economy has very negative effects on the sustainability of public finances and the conditions of doing business, which negatively affects economic growth. However, from mid-2012 and almost until the beginning of 2015, there has been a significant decline in tax collection efficiency in Serbia. Shadow economy increased, primarily due to reasons related to the political economy. After that, starting from 2015, several reforms have been implemented aimed at improving the efficiency of tax collection. Naturally, a question arises as to how much progress has been made, cumulatively, in the previous period in suppressing the shadow economy.

The aim of this research is to assess and analyse the movement of the shadow economy in Serbia from 2012 to 2017 based on macroeconomic and fiscal data. Monitoring the relative trends of the shadow economy is less demanding than estimating the absolute volume of the shadow economy, because we can rely on the basic methodological assumption that the change in tax revenue should reflect the change in the relevant macroeconomic tax bases and tax rates, and that any deviation in the movement of these variables may be the consequence of changing the level of the shadow economy. In addition, it is important to identify adequate macroeconomic statistics for monitoring trends in tax bases and to bear in mind that the suppression of the shadow economy in addition to tax revenue can also be reflected in certain official macroeconomic statistics (GDP, consumption, employment, etc.). Thus, the suppression of the shadow economy in the area of excise goods or the labour market can lead to the increase in registered consumption of excise goods or the increase in registered employment. This problem is less pronounced in monitoring the efficiency of VAT collection, which is based on aggregate macroeconomic data, such as personal consumption.

Aggregate Assessment of the Shadow Economy Dynamic

The share of tax revenue in GDP from 2012 to 2017 increased by 2.4 percentage points (pp). During that period, the rates of a large number of tax forms, including VAT, excises and income tax have significantly increased. Growth in tax revenue was realised from revenue growth from excises, income tax, and slightly less VAT and contributions. Observed by sub-periods, it is noticeable that growth of tax revenues in the relative amount almost stagnated from 2012 to 2015 (growth of 0.1%

4 Monography authors Krstić and Schneider (2015) estimate the tax gap in 2012 to be at 11% of GDP, using the estimate of the grey economy based on the MIMIC method. Therefore, the 27% reduction in the grey economy should imply a reduction in tax gap as well, by 3% of GDP. However, if we use as a starting point the estimate of the grey economy based on the Survey, which has a more narrow scope than the MIMIC method, then the tax gap in 2012 was 7.7% of GDP. In that case, the 27% reduction in grey economy would imply a 2.1% of GDP reduction of the tax gap.

Table 1. Tax Revenue Dynamic 2012-2017 (% of GDP)

	Tax revenues	VAT	Excise duties	Wage tax and social contributions	Corporate income tax
2012	36.1	10.3	5.1	15.9	1.5
2013	35.3	9.8	5.3	15.6	1.6
2014	36.8	10.5	5.4	15.8	1.9
2015	36.2	10.3	5.8	15.2	1.5
2016	37.2	10.6	6.2	15.0	1.9
2017	38.5	10.7	6.3	15.5	2.5
Δ2012-2015	**0.1**	**0.0**	**0.8**	**-0.7**	**0.0**
Δ2016-2017	**2.3**	**0.4**	**0.4**	**0.3**	**1.0**
Δ2012-2017	**2.4**	**0.5**	**1.2**	**-0.5**	**1.0**

Source: Authors' calculations based on Ministry of Finance data

Table 2. Tax Revenue Real Growth Rates (%)

	Tax revenues	VAT	Excise duties	Wage tax and social contributions	Corporate income tax
2012-2015	*1.6*	1.6	16.8	-3.5	2.6
2016-2017	*12.5*	10.5	13.8	7.7	71.0
2012-2017	***14.3***	**12.2**	**33.0**	**3.9**	**75.5**

Source: Authors' calculations based on Ministry of Finance data

of GDP), although in that period a number of tax rates have increased; while from 2015 to 2017 there was a significant increase in tax revenues (by 2.3% of GDP), even though there was no significant increase in tax rates in that period.

In the period from 2012 to 2017, tax revenues rose by 14.3% in real terms, and in the period 2012-2015, this growth was very slow and amounted to only 1.6%, followed by an acceleration, so that in 2016 and 2017, real growth was cumulatively 12.5%.

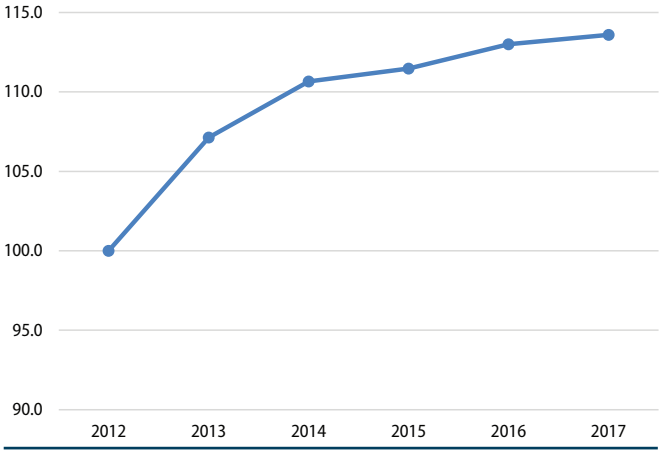
The dynamic of tax revenues has been influenced by the increase in tax rates, the real growth of tax bases, and the suppression of the shadow economy. In the period from 2012 to 2017, a higher number of tax rates has increased, with most of these increases being made from 2012 to 2015:

- Increase of general VAT rate from 18% to 20% in Q4 2012;
- Increase of lower VAT rate from 8% to 10% as of 2014;
- Increase in profit tax rate as of 2013 from 10% to 15%;
- Abolition of the investment tax credit in the corporate income tax as of 2014 (the annual tax spending amounted to around 20 billion dinars), which is equivalent to increasing the tax rate by an additional 4 percentage points, in phases;
- Introduction of excise on electricity at a rate of 7.5% as of August 2015;
- Gradual increase in excise taxes on cigarettes according to an agreed calendar. Thus, in October 2012, the specific excise duty rate on cigarettes was increased from 26 to 43 dinars per box (20 pcs.), while the ad valorem rate was slightly reduced (from 35% to 33%). After that, the ad valorem rate was not changed, while the specific rate increased every year, so in 2017 it was 65.5 RSD per box. In the same period, the excise rates on fuel were increased, especially diesel fuel, so the excise on diesel increased from 37.1 dinars per litre in 2012 to 54.9 dinars per litre in 2017. The excise on unleaded petrol was mainly increased for the rate of inflation.

Growth rates in most of the basic tax forms also affected the growth of the overall average weighted tax rate and, therefore, of potential tax revenues. The dynamics of the average weighted tax rate were estimated as the weighted average growth rate of basic tax forms, whereby their share in total tax revenues was used as weight. For the purposes of this calculation, excise rates on gasoline and petroleum products are expressed in a specific form (dinar per litre), excluding the effect of inflation.

The average tax rate in the period from 2012 to 2017 increased by 13.6%, with the largest part of this growth being realised in 2013 and 2014, while afterwards the growth of tax rates was slower and related primarily to a slight increase in excise rates.

Graph 1. Average Tax Rate Base Index (2012=100)

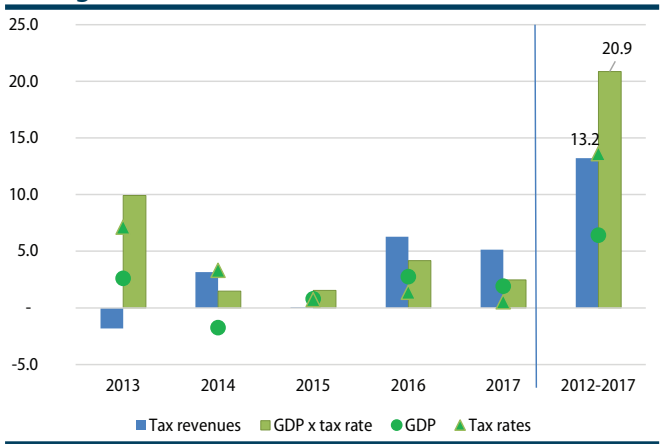


Source: Authors' calculations

It can be observed that growth in tax revenues in 2013, 2014 and 2015 was significantly lower than the cumulative growth rate of GDP and the average tax rate, which means that during this period there was a significant expansion of the shadow economy compared to 2012. In 2016 and 2017, tax revenue growth was faster than the aggregate growth of GDP and tax rates, which may indicate that during this period the shadow economy was suppressed.

At the level of the entire period (2012-2017), tax revenues increased by 13.2%[5] in real terms, while the overall growth rate of GDP and the average tax rate was around 20.9%. This means that the real growth of tax revenues in this period was 6.4% slower than cumulative GDP growth and average tax rates. If the shadow economy was estimated at 21% of GDP according to the Survey in 2012, then based on this result, it would be estimated at about 22.4% of GDP in 2017.

Graph 2. Growth Rates of Tax Revenue, GDP and Average Tax Rates (in %)



Source: Authors' calculations

Part of the effects of the suppression of shadow economy could have been reflected in the dynamics of the tax base, i.e. GDP. If we were to assume that half of the GDP growth was due to the suppression of the shadow economy, this would mean that tax revenue growth of 3.4% was actually lower than the cumulative growth of the base and rates, i.e. that the shadow economy grew by 3.4% and amounted to 21.7% of GDP in 2017, measured by the Survey of Entrepreneurs. Given that it is not possible to accurately assess which part of the effects of the shadow economy is contained in the dynamics of GDP, and that analyses by individual taxes indicate that the shadow economy has stagnated in the trade of non-excise goods and earnings/employment, while decreasing in the trade of petroleum products, and increasing in the trade of cigarettes (see Chapter 4), the general conclusion would be that the shadow economy in 2017 remained unchanged compared to 2012, as a result of primarily the big growth of shadow economy in 2013, 2014, and in some segments in 2015, and then its decline in the period 2015-2017. Therefore, the data on the movement of tax bases, tax rates and tax revenues do not support estimates based on perceptions, according to which the shadow economy declined by as much as 27%.

Significant growth of shadow economy, which occurred from 2012 to 2015, is due to a number of factors. Firstly, the degree of tolerance for non-payment of taxes by the new Government has increased, reflected in the tolerance of the non-settlement of tax debts, as well as the uncovered illegal traffic of excise goods to Kosovo and Metohija. In addition, the change in the governing structure in mid-2012 influenced the transition slowdown in the functioning of institutions. Thus, in some institutions, such as the Tax Administration, there has been a long delay in appointing managers of regional branches. In this sub-period, the tax collection strategy was primarily based on encouraging voluntary payment of taxes, rather than increasing the likelihood of disclosure and punishment of non-compliance with tax regulations, which also acted as encouraging to taxpayers. In addition, the continuation of the practice of occasional, all-inclusive or partial tax amnesties also acted as a disincentive to the observance of tax regulations. From mid-2012 to mid-2014, there were reports from the Government and the Tax Administration's management about the unwanted application of the then applicable repressive legal measures to combat the shadow economy. The possibility of political messages influencing the application of tax regulations is one of the many manifestations of the weaknesses of institutions in Serbia. Finally, the increase in tax rates, which occurred in the period 2012-2014, also increased the profitability of working in shadow economy.

The sharp decline in tax discipline and the expansion of the shadow economy contributed to the accelerated growth of fiscal deficit, which in 2013 reached 6.6% of GDP. Therefore, in mid-2014, the Government began implementing measures to combat the shadow economy. In addition, some of the reforms, which are not primarily motivated by fiscal motives, but rather the need to improve business conditions, have also contributed favourably to the suppression of the shadow economy. It is estimated that the shrinking of the shadow economy, which came about in the second half of 2014, is a result of several institutional reforms[6]. Thus, in 2014, a reform of the penalty system for not complying with tax regulations was implemented, which increased the penalties and made the system more transparent and consistent. By adopting the Law on Inspection, the coordination of inspection services was improved. Labour legislation reform in 2014 liberalised the labour market, thus reducing the costs of legal recruitment and dismissal of workers, which created favourable conditions for reducing informal employment and salary payments. A certain

5 Total tax revenue increased in real terms by 14.3% in the period 2012-2017. Still, part of that growth was the result of introducing electricity excise duty in 2015. Therefore, as the basis for comparison, this analysis uses the rate of real growth of tax revenue, excluding the revenue from electricity excise, which was 13.2%. It is estimated that there is no grey economy in the electricity trade.

6 For more details, see: Ranđelović (2017)

shift was also made in terms of tax collection efficiency. After moving to electronic filing of tax returns, part of the employees in the Tax Administration were transferred to the tasks of controlling the issuance of fiscal receipts, which increased the perception of the probability of getting caught. In addition, the suppression of the shadow economy was critically influenced by the change in the Government's political stance towards the shadow economy that came after parliamentary elections in mid-2014. Instead of the previous, high tolerance towards the shadow economy, a series of actions to suppress it were launched, accompanied by strong media support.

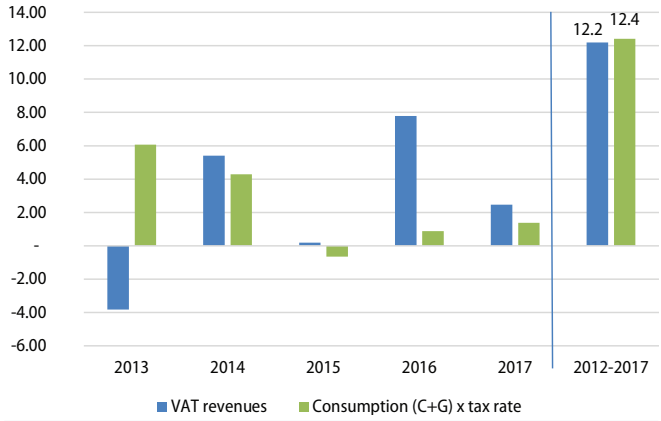
Although a shift in shadow economy has been made in the last three years, it is estimated that the shadow economy is still at the level of 2012, which was very high. This indicates that there is a considerable space for further suppression of the shadow economy, which implies the implementation of a number of institutional reforms. Firstly, for a more sensible shift, a fundamental reform of the Tax Administration needs to be carried out, which would involve an increase in the number of employees and the budget, reforming the system of recruiting, promoting and rewarding employees, strengthening the systemic risk assessment and transitioning to risk-based controls. In addition, the government needs to commit to no more tax amnesties (for example, by introducing an appropriate provision into the Budget System Law), as well as more decisive action of state institutions (Tax Administration, judiciary, etc.) in the collection of existing tax debts. It is also necessary to strengthen the autonomy of the Tax Administration in order to protect it from the political influences that put the tax collection policy into the service of political interests of the ruling parties. Strengthening the independence of the Tax Administration is a condition of protecting the Tax Administration from various types of informal interventions, which cause selective application of tax regulations. Along with the strengthening of the Tax Administration's autonomy, it is necessary to develop mechanisms for controlling the legality of its work in order to combat corruption. In this regard, a reform of Administrative Courts is also necessary, with the aim of having a more efficient processing of tax cases. Also, in order to reduce the shadow economy, it is necessary to make a step forward in terms of improving tax morality, that is, the willingness of taxpayers to pay taxes, which is crucial for the improvement of the quality of goods and services that are financed from taxes, and systematic informing of citizens about the significance and value of these goods (for example, through the education system).

Assessment of Efficiency in Collecting Individual Tax Forms

Value Added Tax

Value added tax represents one of the most significant tax forms, since its revenues account for more than a quarter of tax revenues (more precisely 28%). In the period from 2012 to 2017, VAT revenues increased in real terms by 12.2%. The dynamics of VAT revenues have affected the movement of consumption, tax rates, and the dynamics of the shadow economy. Thus, in the past five years, personal and government consumption fell by 1.6% in real terms due to the implementation of fiscal consolidation, but the average tax rate increased by 2 pp, i.e. by about 14.3%. Therefore, in this period, the combined effect of consumption growth and the increase in the tax rate amounts to 12.4%, which is approximately equal to the increase in VAT revenues, which indicates that the efficiency of collecting this tax in 2017 was approximately at the level of 2012. A major reduction in VAT collection efficiency came particularly in 2013, when tax revenues declined in real terms, although tax rates were significantly increased. In the following years, VAT revenues grew faster than the aggregate growth of the base and rates, but only after the 2017 neutralised

Graph 3. Real Growth Rates from Revenue from VAT, Consumption and Tax Rates (in %)



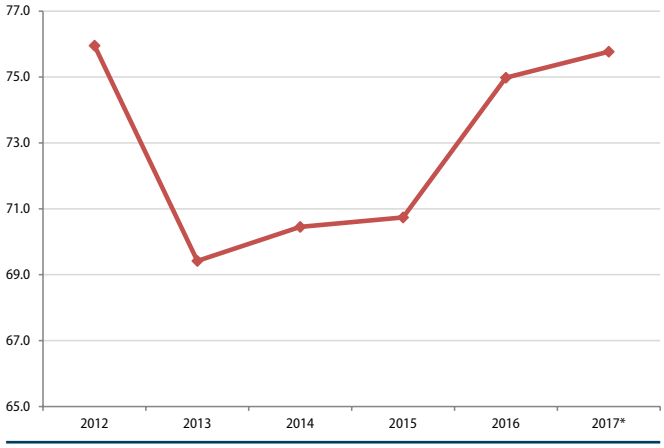
Source: Authors' calculations

deterioration created in 2013.

Analysis of C-efficiency[7] in VAT collection points to a similar conclusion – collection efficiency has significantly fallen in 2013, while it stagnated in 2014 and part of 2015, only to start growing again from the second half of 2015. Still, at the end of 2017, C-efficiency was approximately at the same level it was in mid-2012.

7 In calculating C-efficiency, effects of increase in standard and lower VAT rate were excluded.

Graph 4. C-efficiency in VAT Collection in Serbia



Source: Authors' calculations

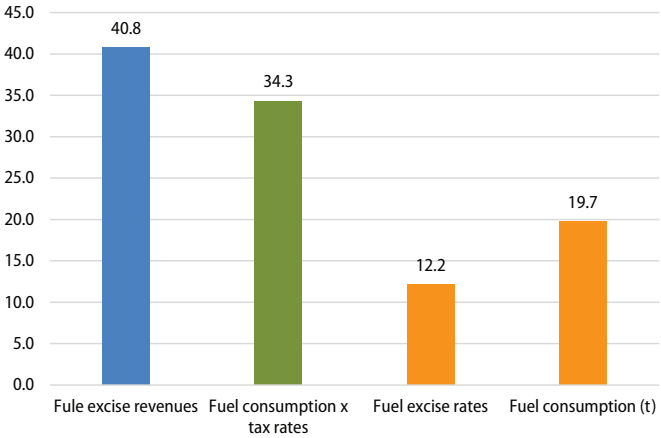
Excise

Excises in Serbia are paid on the sale of oil derivatives, tobacco products, alcoholic beverages, coffee, and as of the second half of 2015 on electricity. Nevertheless, the ones that stand out as the most significant are the excise duties on oil derivatives and cigarettes, which account for almost 90% of total revenues from excise duties.

Excise on Oil Derivatives

In the period from 2012 to 2016[8], revenue from excise duties on fuel have increased in real terms by 40.8%, while the average weighted real excise rate per litre of fuel increased by 12.2%. In the same period, the final consumption of oil derivatives that are subject to excise duty (according to RS Energy Balance, published by SORS) increased by 19.2%. Cross-referencing of this data shows that the collection of excise duties on oil derivatives grew faster (40.8% growth) than the growth of potential tax due to the increase in the consumption of oil derivatives and the increase of excises (33.7%), from which it follows that the shadow economy in the trade of excise in the period 2012-2016 decreased by about 5%. However, independent monitoring of the final consumption of oil derivatives is a challenging task, as it is not certain whether the increase in registered consumption of oil derivatives in the energy balance is the result of a real increase in consumption or the suppression of the shadow economy. Therefore, in order to estimate the real dynamic of consumption of oil derivatives, two instrumental variables[9] were used - the traffic dynamics (number of vehicles) on Corridor 10, according to Serbia Roads, and the dynamic of the number of registered vehicles, according to the SORS data. The dynamic of oil derivatives consumption is estimated as the weighted average traffic dynamics on Corridor 10 and the number of registered motor vehicles, where weights for both variables are equal, which partially offsets the deficiencies of each of these variables. Starting from the abovementioned methodological approach, it is estimated that the consumption of petroleum products increased by 19.7% from 2012 to 2017, which is close to the estimate of the increase in the final consumption of oil derivatives based on the SORS Energy Balance (19.2%). Therefore, using independent consumption data, it was confirmed that the shadow economy in the field of oil derivatives decreased by around 5%. Reducing the shadow economy in oil derivatives is the result of the general anti-evasion measures applied since 2014, but also of several important and decisive measures that were directly focused on combating smuggling of oil derivatives. Therefore, after 2012, a fuel marking system was introduced, and the control of the oil derivatives trade with Kosovo and Metohija was strengthened, which contributed to the stabilisation of the legal market for oil derivatives. Since excises on oil derivatives make up the biggest part of total excise revenues, the reduction in the shadow economy in this domain has also contributed positively to the overall efficiency of charging excise duties. Similarly, the growth of revenues from excises on oil derivatives on the cumulative growth of excise rates and consumption of oil derivatives also shows a much faster conclusion (Chart 5).

Graph 5. Real growth rates from revenue from excise on fuel, excise rates and fuel consumption (in %)



Source: Authors' calculation.

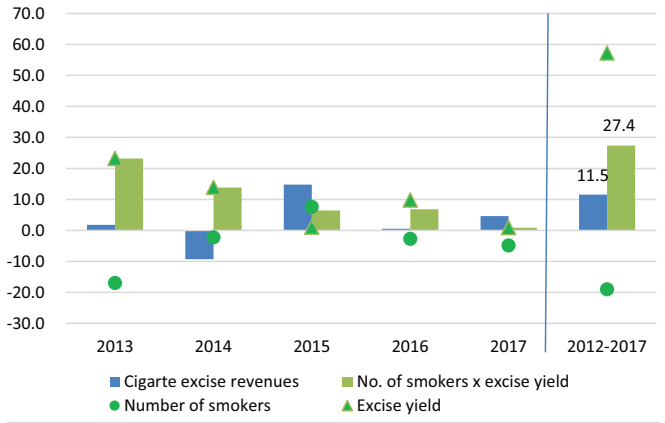
8 Data on the consumption of oil derivatives for 2017 have not yet been published, which is why the analysis relates to the period until 2016. However, there are no indications that there were any significant changes in 2017 in the grey economy in the trade of oil derivatives.

9 These instrument variables are very suitable for estimating the grey economy, because they are highly correlated with real consumption, while they are unaffected by the grey economy.

4.2.2 Excise on Cigarettes

In the period from 2012 to 2017, revenues from excise duties on cigarettes increased by 11.5% in real terms. Based on the data from the Household Budget Survey on the dynamics of monetized consumption of tobacco products and data on the movement of the average weighted price of cigarettes, the dynamic of cigarette consumption was carried out. It is estimated that in the period from 2012 to 2017, cigarette consumption decreased by 19%.[10] However, the real value of excise duties per cigarette pack in this period increased by as much as 57.2%, from which it follows that the growth of potential tax revenues, which is the result of an increase in excise duties and a decrease in cigarette consumption, was 27.4%. By comparing the growth of excise taxes with the growth of potential revenues from excise taxes on cigarettes, it follows that in the period 2012-2017, the shadow economy in cigarette traffic increased by around 12.5%. Similar to other taxes, the shadow economy in cigarette trade grew in the period 2012-2014, since positive trends have been noticed since 2015 due to the application of anti-evasion measures. However, the improvement achieved over the last three years was not sufficient to eliminate the growth of the shadow economy that had occurred before that.

Graph 6. Real growth rates of revenue from excise on cigarettes, cigarette consumption and real excise rates (%)



Source: Authors' calculations

10 The data from the Batut Institute (Batut, 2017) indicate that from 2012 to 2017, the number of smokers in Serbia increased by 2%, which is unexpected given the ever-firmer policy of smoking ban, as well as the significant rise in cigarette prices (by 63% nominally) in this period. Various researches in the world show that 10% increase in cigarette prices affects the reduction of cigarette consumption by 3-4%, which implies that the increase in the price of cigarettes affects their consumption by about 19-25%. Real incomes of citizens in this period did not increase significantly, so there was no significant income impact on the consumption of cigarettes.

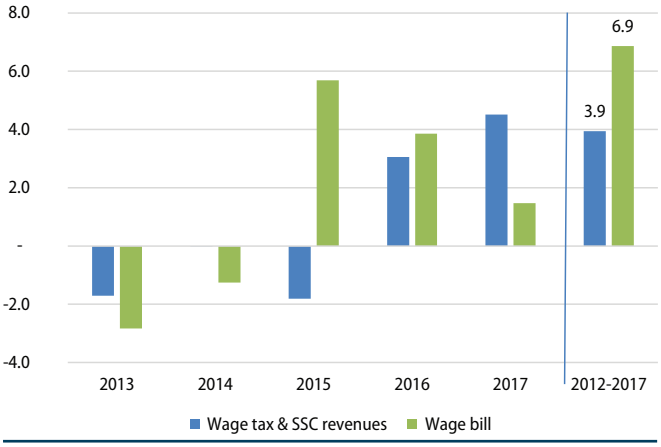
Wage Tax and Social Security Contributions

In the period 2012-2017, revenue from taxes on salaries and social contributions recorded real cumulative growth of 3.9%. In the same period, there was no change in the aggregate tax rate and contribution on wages - the rate of wage tax was reduced from 12% to 10%, but the aggregate contribution rate increased by the same amount. The tax rates have also been reallocated from health contributions to contributions on pension and disability insurance, but without changing the overall fiscal burden. In the mentioned period, the mass of salaries, as a measure of potential tax base and contribution growth, rose by 10% in real terms, due to formal employment growth of 10.3% and stagnation of real wages (marginal decline of 0.3%). Hence, by simply cross-referencing data on growth of tax revenues (3.9%) and data on the growth of potential tax revenues (10%), it could be concluded that there was an increase in the shadow economy in the labour market by over 5%. However, Petrovic et al. (2018) disputes the validity of high employment growth, which was registered in the Labour Force Survey (LFS) in this period. Also, based on the available data, it is not possible to determine which part of formal employment growth is the result of real employment growth, and which part is the result of the formalisation of work, i.e. transition from informal employment, to legal formal employment. Unlike trade in oil derivatives, identifying appropriate instrumental variable is a more challenging task in the case of employment trends, especially in the scarce environment of credible data in Serbia. However, the movement of employment can be approximated to some extent by using elasticity in relation to economic growth. Since the empirical data from the region suggests an average elasticity of employment of 0.3 in relation to GDP growth, we can assume that the employment growth in Serbia in the period 2012-2017 was about 1.9 percent. Since the average wage remained unchanged in real terms during this period, and since there was no change in tax rates, it is estimated that the real growth of potential revenue from taxes on wages and contributions in this period should amount to about 2%, while the actual growth of public revenues on this basis was approximately 3.9%. We can, therefore, conclude that at the level of the observed five-year period, there has been a certain decline of the shadow economy in the field of employment and payment of earnings[11]. Observed by years, it can be noted that in 2013 there was an increase in shadow economy in this domain, and that

11 However, we should take this estimate with a certain reservation, because it depends crucially on the coefficient of elasticity of employment in relation to GDP. If we assume that the coefficient of elasticity is at the lower limit achieved in the CEI countries (0.1), then we get that the suppression of the grey economy in the field of labour is greater than 2%. However, if we assume that it is at the upper limit (0.9) then we get that the grey economy in the field of employment slightly increased.

since 2014 this trend has been reversed, which coincides with the implementation of labour market reforms, which reduced the costs of legal employment.

Graph 7. Real Growth Rate of Revenue from Taxes and Contributions on Wages and Wage Bill (%)



Source: Authors' calculations

Corporate Income Tax

Revenue from corporate income tax increased by 76% between 2012 and 2017, reaching 2.5% of GDP in 2017. In the same period, the nominal tax rate increased by 50%, from 10% to 15%. In addition, the investment tax credit has been abolished as of 2014, reducing the tax spending by an amount equivalent to the increase in the tax rate by 3-4 pp. Since it is allowed to use a previously obtained tax credit, we assumed, for the purpose of this analysis, that this abolition will be gradual, over a period of 4 years, starting from 2014. It is therefore estimated that in the period 2012-2017, the effective tax rate increased by 83% (50% tax rate and about 30% tax investment loan).

Data from the Business Registry Agency on pre-tax profits of companies, banks and insurance companies show that this gain increased by 49% in real terms in the period 2012-2017.[12] Since the cumulative growth of tax revenues is slower than the aggregate growth of profit and tax rate, such developments could indicate an increase in the shadow economy in this domain. However, due to the lack of reliable data on the results of the economy for 2012, as well as the fact that data on taxable profit, movement of tax incentives and facilities are not available[13], and that the change in the profit structure before taxation can significantly affect taxable profit, it is not possible to estimate more precisely which part of the difference between the growth rate of revenue from profit tax and cumulative growth of the rate and the base is the result of the shadow economy.

12 There is no consolidated report of the Business Registry Agency for 2012 on the financial performance of the Serbian economy, so pre-tax profit data are not available. Data on net profit were taken from other BRA publications, they were then increased for profit tax, and thus the pre-tax profit for 2012 was approximated.

13 It is possible that a significant part of profit has been achieved in companies that are exempt from paying taxes on profits due to large investments, etc.

Conclusion

According to the results of the MIMIC-based research, in 2012, the shadow economy in Serbia was estimated at 30.1% of GDP, which is about one-sixth above the CEE average. According to the results of the Survey among employers, which does not include shadow economy of natural persons, the shadow economy was estimated at 21% of GDP, while according to the Survey among Employers (NALED, 2018), the shadow economy rate was estimated at 15.4% of GDP, which is 27% less than five years ago. This paper assesses the dynamics of the shadow economy in Serbia in the period from 2012 to 2017, based on the comparison of the real change in tax revenues, relevant tax bases and tax rates. The results of the research based on macroeconomic and fiscal data show that in the period from 2012 to 2017, the level of shadow economy in Serbia remained approximately unchanged. The movement of shadow economy in the period 2012-2017 was the result of the strong growth of shadow economy in 2013 and 2014, followed by a slight decline as of 2015, which nevertheless was sufficient to neutralise the deterioration that had previously occurred. The mild growth of shadow economy is the net result of the growth of the shadow economy in tobacco products trade, the suppression of the shadow economy in the oil derivatives market, the stagnation or moderate growth of the shadow economy in the field of earnings and employment, and the stagnation of the shadow economy in the trade of goods and services taxed with VAT. These results, based on objective, macro-fiscal data, indicate that the shadow economy in 2012-2017 was not reduced, as suggested by the trends in the perceived shadow economy based on the Survey (NALED, 2018). Accordingly, we conclude that the shadow economy in Serbia is significantly higher than the CEE average, as well as the European average, and that for its more considerable reduction it is necessary to implement a series of institutional reforms that will reduce the relative profitability of working in shadow economy and increase the willingness of the taxpayers to comply with tax regulations. These reforms include, above all, improving the efficiency of the Tax Administration, as well as the judicial system, commitment to terminate the practice of granting tax amnesties, and continuous work on improving the quality and accessibility of public goods and services.

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Highlight 2. Financial Performance Analysis of the Serbian Economy

Milutin Živanović[1]

Financial performance of the Serbian economy has improved in 2017. Part of the improvement was the result of more efficient performance of the core business, while the rest was due to changes in external factors, such as the strengthening of the dinar, the reduction of interest rates, the change in prices on global markets, the rise in real estate prices in Serbia. Some of the external changes, such as interest rate reductions, were the result of improving macroeconomic stability and the business environment, and will benefit the economy in the longer term. Other exogenous changes that have affected the improvement of the economy (fluctuations of the exchange rate, changes in prices on global markets) are cyclical in nature and their impact on the operations of the economy in the future is uncertain. If we observe three basic dimensions of financial performance, the most successful sectors in 2017 were the information and communications sector and the mining sector. The least successful sector in 2017 was the agriculture sector, primarily due to the large drought that hit Serbia in the observed year. If we compare the financial performance of companies according to their size, the most successful group of companies in 2017 were small enterprises, while the least successful were micro-enterprises.

Financial Performance Analysis of the Entire Economy

Dynamics of financial performance of the economy is analysed on the basis of indicators of liquidity, solvency and profitability. The paper analyses only the performance of the real sector of the economy, using the Business Registers Agency data.

1 Faculty of Economics, University of Belgrade.

Liquidity Analysis

If we assess the liquidity of the economy on the basis of a current ratio[2], we can conclude that we can conclude that the short-term financial security of the economy slightly improved in the observed period. However, it remains at a relatively low level, since the value of the indicator in all observed periods was less than 1. This means that enterprises on average were unable to cover their short-term liabilities with working assets. In the period 2013-2016, the value of this indicator did not significantly change considering that it was moving in a relatively narrow interval of 0.89 - 0.91. A more significant leap was recorded only in 2017 compared to 2016, when its value rose from 0.91 to 0.95. This somewhat more significant general liquidity jump was the result of a faster growth of working capital than the growth of short-term liabilities of the company. If we use a quick ratio[3] for liquidity analysis, then the numerator, instead of the total working capital[4], contains only one part of it, monetary assets. This is a more rigorous and more realistic liquidity indicator compared to the one previously used, since it removes inventories from the nominator as the least liquid form of working capital. Analysing the movement of this indicator, we conclude that the level of liquidity of the economy in 2017 (0.65) was at the almost identical level in which it was in 2013 (0.64). It should be pointed out that, although the value of this indicator remained unchanged in the analysed period, the structure of monetary capital in its nominator did not remain the same. Particular attention should be paid to the constant decrease in the share of short-term financial placements in the structure of monetary capi-

2 Current ratio represents the ratio between the working capital and short-term liabilities, and it shows how many dinars of working capital cover each dinar of shor-term liabilities.

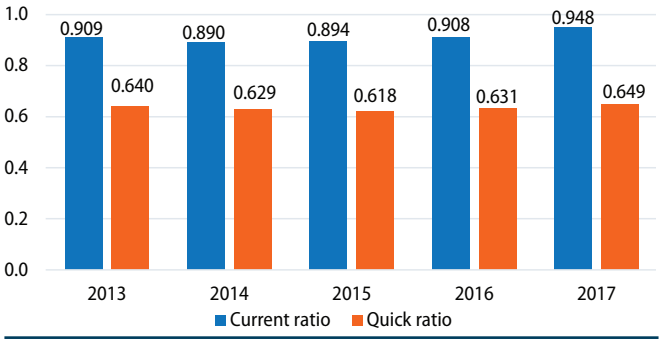
3 Quick ratio is the ratio between the monetary capital and short-term liability and it shows how many dinars of monetary capital cover each dinar of short term liability.

4 Working capital, in addition to monetary capital includes inventory as well. We need to stress here that in addition to receivables, short-term financial placements and cash and cash equivalents, we also included in the monetary capital prepayments and deferred expenses.

tal with the simultaneous increase in the share of cash and cash equivalents. In 2017, the value of short-term financial placements was by 3.34% lower than in 2013, while the value of cash and cash equivalents in the same period increased by as much as 49.75%. Such a change in the structure of monetary capital could be related to the trend of continuous interest rate cuts. While this change positively reflects on the current liquidity of the economy, it can negatively affect profitability in the long run, since it is obvious that enterprises are accumulating an increasing amount of cash that is not placed and which does not yield any returns.

By comparing the previous two indicators, we can conclude that the increase in the liquidity of the economy in the analysed period, as indicated by the current ratio, was primarily the result of an increase in the share of inventories in the structure of working capital. Therefore, the quality of the liquidity growth indicated by this indicator is questionable. If in the future there is no significant increase in efficiency in terms of inventory management and the management of receivables (a higher level of collection of receivables with a shortening of the collection period), a significant improvement in the position of the liquidity of the economy cannot be expected. In addition, it is necessary to continue with the trend of shortening the period of payment of obligations to suppliers and to develop a scenario for the impact of possible weakening of the domestic currency on the growth of short-term financial liabilities that, with all other circumstances unchanged, would adversely affect the liquidity of the economy.

Graph 1. Dynamics of the economy's real sector liquidity in Serbia, 2013 – 2017



Source: Author's calculations using BRA data

Solvency Analysis

Net Working Capital (NWC)[5] shows which part of the working capital is financed from long-term sources of financing. NWC can be used as one of the indicators of long-term financial security of the economy. Although there are different factors that determine the amount of NWC, it starts from the fact that the higher the value of this indicator, the better the position of the economy's solvency. If we analyse the movement of the NWC in the real sector of the domestic economy for the period 2013-2017, we can conclude that in all observed years the value of this indicator was negative, which would mean that part of the fixed assets[6] were continually financed from short-term sources. As of 2016, its value began to increase and became less negative. If such a tendency continues in the future, we can expect an improvement in the long-term financial security of the economy. However, in order to be able to speak of the sustainability of such a trend, we need to look at what are the main sources of the NWC increase in 2016 and 2017.

The increase in NWC in 2016 and 2017 was the result of the faster growth of long-term sources of financing in relation to the growth of investments into fixed assets. If we look at the growth leverage of long-term sources of financing, we see that they primarily lie in the growth of own capital, since its share in long-term funding has increased from 65.3% in 2015 to 66% in 2016, and finally to 67.1% in 2017.

In 2016, the increase in own capital was mostly due to the increase in core capital. Assuming that this was a fresh inflow of capital, due to the establishment of new or recapitalisation of the existing economic entities, this represents an extremely positive tendency. Considering that in 2016, 3% more companies in Serbia operated compared to 2015[7], we can conclude that the increase in the share capital was primarily due to the establishment of new economic entities[8]. Also, we should keep in mind that, according to the data of the Business Registers Agency (BRA), the increase in the number of companies in 2017 was by 4,114 units lower than in 2016, as indicated by twice as small increase in the share capital in 2017 compared to 2016. Consequently, this source of increasing own capital and solvency of the economy cannot be counted on permanently. This is an obvious consequence of insufficient improvement of general business conditions such as legal security, administrative efficiency, level of corruption, etc.

Unlike in 2016, in 2017, the growth of own capital was primarily the result of the increase in undistributed profits and the reduction in losses from previous years, which was the result of the higher profitability of the

5 Net Working Capital is calculated as a difference between long-term sources of finance and fixed assets.

6 Fixed assets include: Intangible assets, Property, plant and equipment, Biological assets, Long-term financial placements and Long-term receivables.

7 In 2016, 8,429 new companies were established, while in the same year 5,442 enterprises ceased to operate.

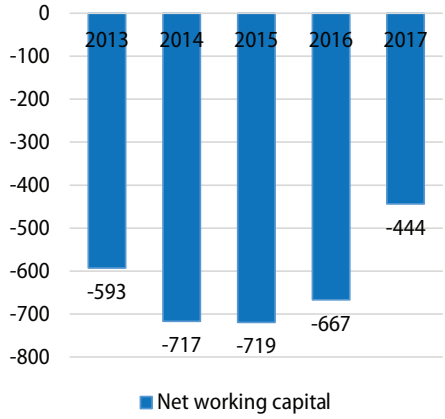
8 This was, among other things, the result of a simplified and accelerated procedure for the establishment and registration of legal entities.

economy in 2017. However, we should take into account the growth sources of the profit that is retained in the enterprise and used to cover the losses incurred. Namely, the growth of the net profit realised at the level of the real sector of the economy in 2017 was the result of: (1) a sharp increase in gains from financing, that is, the growth of positive exchange rate differences that arose due to the strengthening of the domestic currency and (2) further decline of the interest rates. Thus, the growth of business results contributed to the growth of the net profit and solvency of the entire economy to a much lesser extent. This further means that the solvency in 2017 was influenced by factors that are largely independent of enterprises and which companies operating in the Serbian economy can hardly influence. Some of the external changes, such as interest rate reductions, are the result of improving macroeconomic stability, and it is expected that the economy will benefit from them in the long run. Other exogenous changes that have influenced the improvement of solvency, such as volatility of the exchange rate, are cyclical in nature and their impact on the economy's operations in the future is uncertain.

As noted earlier, fixed assets investment grew at a lower rate than long-term sources of financing, which led to the value of NWC being less negative. If we look at changes in the structure of fixed assets from 2013 to 2017, we can notice that the biggest changes occurred in the positions of property, plant and equipment and long-term financial placements. While the share of real estate in total assets has steadily increased from 45.89% in 2013 to 48.51% in 2017, the share of long-term financial placements in total assets has declined steadily from 10.12% in 2013 to 7.32% in 2017. Based on the changes in the structure of fixed assets, we can conclude that the investments of companies were partially diverted from financial to real assets [9]. Potential reasons should be sought in higher rates of return that companies can expect from this type of investment, as well as in the consequences of administrative reforms of 2015, which have led to simplification of procedures regarding the issuance of construction permits. The chronic underdevelopment of the domestic financial market, which offers companies very limited opportunities for investing in financial assets, with a constant decline in interest rates, has obviously led to reduced allocation of free cash flows to financial assets.

9 We should keep in mind that the growth in the share of property, plant and equipment in fixed assets, among other things, is due to the growth of their market value.

Graph 2. Net Working Capital in billions of RSD, 2013 – 2017

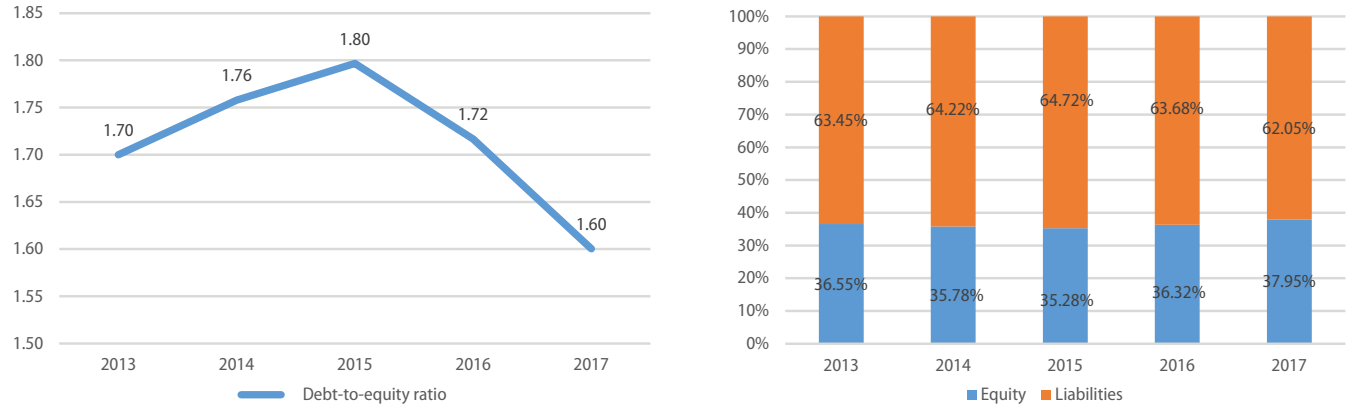


Source: Author's calculations using BRA data

In addition to NWC, one of the basic solvency indicators is the debt-to-equity ratio that indicates the relationship between debt and equity. The value of this indicator in the period 2013-2015 increased from 1.7 to 1.8, which means that in the observed period the indebtedness of the economy grew. In 2014, compared to 2013, total liabilities increased by 211.9 billion dinars. In the same period, the value of own capital decreased by 27.9 billion dinars due to the large increase in losses at the level of the entire economy, which, among other things, should be attributed to the consequences of the floods that affected some areas of Serbia in 2014. In addition, the cause of simultaneous growth in total liabilities and losses should be sought in the weakening of the domestic currency, which caused the occurrence of increased negative exchange rate differences and cost of interest for loans taken in foreign currencies. In 2015, compared to 2014, total liabilities increased by 239.3 billion dinars, with the structure of liabilities growth being slightly different from that recorded in 2014 in favour of the growth of short-term liabilities. Unlike in 2014, when the value of own capital declined, in 2015, a slight increase of 35.7 billion dinars was recorded. This growth was primarily due to the increase in profits as a result of the stalled weakening of the domestic currency and the growth of revaluation reserves (growth in the market value of real property, plant and equipment), which presents a signal of the real estate market recovery. However, since in 2015, the increase in liabilities continued to be higher than the increase in own capital, the indebtedness of the economy continued to grow.

In 2016 and 2017, the relative indebtedness of the economy began to decline primarily because the increase in own capital in these two years was greater than the increase in liabilities. In 2016, the value of indebtedness ratio amounted to 1.72. In the mentioned year, the value of own capital increased by 420.4 billion dinars, while

Graph 3. Indebtedness Ratio and Own Capital to Liabilities Ratio, 2013 – 2017



Source: Author's calculations using BRA data

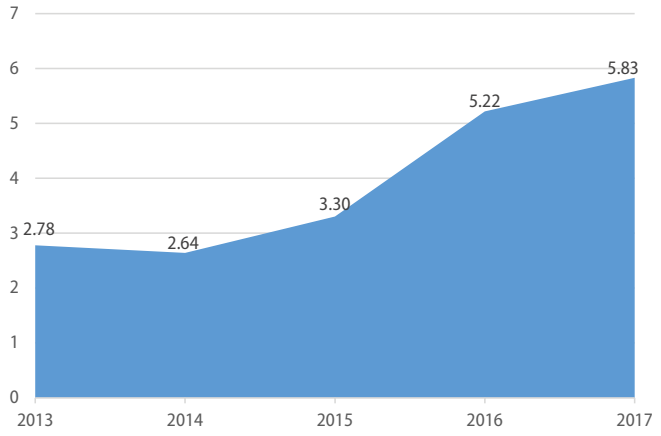
the value of total liabilities increased by slightly less - 359 billion dinars. In 2017, the value of the indebtedness indicator was additionally reduced to 1.6. This year, the value of own capital increased by 440.9 billion dinars, while the value of total liabilities increased by a much lower amount of 130.1 billion dinars, which contributed to the accelerated decrease in the level of indebtedness. We wrote about the factors that contributed to the increase of own capital in 2016 and 2017 and their long-term sustainability in the section referring to the analysis of the NWC. On the other hand, if we observe the increase in total liabilities in these two years, we can notice that the growth of total liabilities in 2017 was far lower than the growth recorded in 2016. This was largely due to the strengthening of the domestic currency against the euro and the dollar, which has led to the value of foreign currency liabilities denominated in dinars becoming smaller.

One of the solvency indicators used in the financial analysis of companies is coverage ratio[10] that should reveal the company's ability to cover the incurred cost of interest from the achieved business result. This indicator speaks much more of an economy's solvency than the one previously analysed, since it is under much less influence of branch characteristics. In the period 2013-2014, the value of this indicator declined. In 2013, its value was 2.78, only to reach its lowest value of 2.64 in 2014 for the entire analysed period. Such a low value of interest coverage ratio in 2014 was to a large extent the result of the rapid growth of the cost of interest due to the growth of indebtedness. As previously noted, growth in indebtedness has contributed to the rapid weakening of the domestic currency in relation to the currencies in which most domestic companies have their long-term and short-term liabilities (primarily the euro, the dollar and the Swiss franc). In the observed year, financial expenses amounted to 504.1 billion dinars, which was 50% more than in 2013. Although in 2014, the companies achieved a positive business result in the amount of 370.8 billion dinars (which was 4.9% more than in 2013), it was not sufficient to cover the increased financial expenditures.

In the period 2015-2017, the value of the indicators was in constant growth, which indicates improvement in the economy's solvency position. In 2015, its value was 3.3, in 2016, 5.22, reaching its maximum value in 2017 in the amount of 5.83. Although the value of the mentioned indicator in the observed period was constantly increasing, it should be emphasised that the sources of its growth by years were not identical. The growth in value recorded in 2015 compared to 2014, was largely owed to the reduction of cost of interest (a decrease of 12.9%) due to the stabilisation of the domestic currency and a further decline in interest rates, rather than the increase in operating income (a 9% increase). On the other hand, if we look at the growth in the value coverage ratio in 2016 compared to 2015, we see that it was largely due to an increase in business profits (a 25.3% increase), rather than the decrease in the cost of interest (a 20.7% decrease). While both increases indicate an improvement in the economy's solvency, higher quality of growth lies behind the increase that is more likely to contribute to the growth of business profit than the reduction in the cost of interest. Especially if we know that what primarily impacts the interest are interest rates and exchange rates for loans taken in foreign currency. If we look at 2017, we can notice further increase in the coverage of interest ratio by business profits, which contributed to a simultaneous increase in business profits (4.8%) and a decrease in the cost of interest (6.2%).

10 The interest coverage ratio represents the relationship between the business result and the cost of interest, and shows the extent to which the cost of interest, arising as a result of the use of borrowed funds, is covered by the business result (profit) of the enterprise.

Graph 4. Coverage of interest by business profit ratio, 2013 – 2017



Source: Author's calculations using BRA data

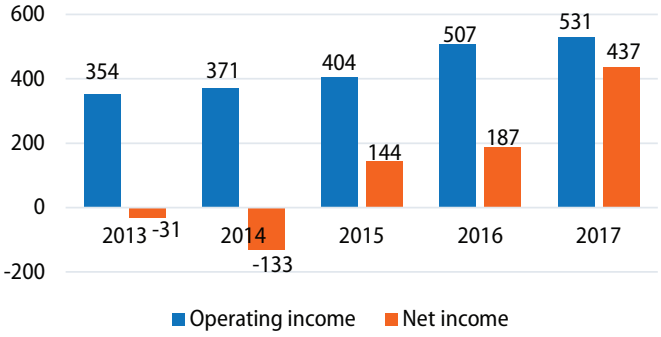
Profitability Analysis

At the very beginning, we analyse the profitability of the economy using operating income margin[11] that should point to the trend in the profitability of company's core business and, at the same time, the ability of the company to create value by performing its core business. In the period 2013-2016, this rate recorded a constant increase. Looking at the graph, we can notice that the operating income margin increased from 4.37% in 2013 to 5.56% in 2016, primarily due to the fact that operating revenues in the observed period grew at a higher average rate (4.1%) compared to operating expenses (3.6%). However, in 2017, there was a slight decline in the profitability of the core business, bearing in mind that the profit margin was slightly lower than in 2016, amounting to 5.43%. In the observed year, operating income grew at a lower rate (7.18%) compared to operating expenses (7.32%). What should be noted when the operating income is concerned is that, unlike all the previous years covered by the analysis, in 2017, revenues from sales of products and services grew at a higher rate (9.05%) compared to sales revenues of goods (5.43%). Such movements are a signal of refocusing from the growth based on trade in goods, on the production of industrial goods and the development of service activities such as information communication technologies, tourism and catering, professional activities, etc.

Although the reasons for the mild decline in business profitability will be clearer once we go down to the level of analysis by sector, since each sector of the economy has its own specificities that determine core business characteristics and, therefore, the sources of business results, we will present some general conclusions here. A slight decline in operating income of 0.2 percentage points in 2017 resulted from a fall in the volume of agricultural production that arose as a result of the drought that hit Serbia in 2017. This led to a decrease in agricultural business income and a simultaneous increase in agricultural product prices. The increase in agricultural product prices has affected the increase in operating expenses of those enterprises from the manufacturing industry that use agricultural products as inputs in their production process. In 2017, there was a rise in the price of oil and oil derivatives, which, for the part of the manufacturing industry that used these raw materials as primary inputs, had a very negative impact on the business result. The growth in the price of oil and oil derivatives also had a negative impact on the business result in the transportation and storage sector. The drought that hit Serbia in 2017 affected not only the agricultural sector, but also the electricity supply sector, since the production of electricity at hydropower plants was lower and was compensated for from more expensive energy sources. Drought and high temperatures did not favour the water supply sector, as there was an increase in excessive water consumption and a rise in water losses in the water supply process.

For the analysis of the overall profitability of the economy, we use net income magin which should actually show how much the net gain are realised for each realised dinar of operating revenues. Although there are other indicators that can measure total profitability, this indicator has been chosen to analyse its disparity in terms of the direction and intensity of changes that exist between the business and the net result and which is characteristic of the domestic economy by comparing it with the rate of business profit[12]. In fact, for real sector companies in Serbia, it is characteristic that segments of a non-business result have a much greater impact on

Graph 5. Business and net result in billions of RSD, 2013 – 2017



Source: Author's calculations using BRA data

11 The rate of business gain is the ratio between business profit and operating income.

12 The net result, in addition to the business result, is also affected by other components, such as positive and negative exchange rate differences, interest income and expense, asset value change, gains and losses from the sale of assets…

overall profitability. This means that the overall profitability of the economy has a greater influence on the factors, which the enterprises themselves cannot influence and which can often obscure the (non)ability of the company to create value by performing the core business. For this reason, the net result represents a considerably more volatile value than the business result.

In 2013 and 2014, net income margin was negative, with the value of -1.62% in 2014 and lower than in 2013, when this rate was -0.38%. Thus, although in these two years there was a growth in operating income margin, which implies strengthening the core of the business, the net result rate was not only negative, but further reduced. The increase in losses at the level of the entire economy in the period 2013-2014 was the result of the weakening of the dinar. The depreciation of the dinar against the currencies in which the largest number of our companies borrowed resulted in a sharp increase in negative exchange rate differences, as well as cost of interest on loans taken in foreign currency. In addition, a significant amount of write-offs of impaired receivables also affected the decline in overall profitability. In 2015 and 2016, the profitability of the company's core business and overall profitability moved in the same direction as a result of simultaneous strengthening of the conjuncture, greater operational efficiency of the company, stabilisation of the domestic currency and lower write-off of receivables. The rates of net profit in 2015 and 2016 were 1.69% and 2.06%, respectively. Although in 2017 there was a slight decline in operating income margin relative to 2016, net income margin recorded a significant jump from 2.06% to 4.47%. Growth in total profitability came first as a result of an increase in financing gains owing to the strengthening of the domestic currency and the consequent emergence of positive exchange rate differentials on foreign currency liabilities. The increase in the overall profitability of the economy in 2017 was further influenced by the reduction of expenditures based on the write-off of impaired receivables, but also the increase in other results, which is by definition of a once-off character.

Financial Performance Analysis by Individual Sectors

In the second section, the focus is on the analysis of financial performance by activity. The analysis covered the last two years, 2016 and 2017, taking into account only those activities that had a significant impact on total economic trends (all activities that in 2017 achieved a minimum of 100 billion of total revenues with the exception of the accommodation and food sector). A special emphasis will be placed on the analysis of movements in the manufacturing industry, bearing in mind that it represents the core of the industry and the overall economy.

Liquidity Analysis

The sectors that recorded the most visible progress in terms of short-term financial security include: mining, information and communication and construction. In the observed sectors there was a noticeable increase in the current and quick ratios. Such a growth in liquidity can be regarded as high quality since it was the result of simultaneous growth of both of these indicators. This guarantees that the improvement of short-term financial security is not the sole consequence of stockpiling inventories as the least liquid form of working capital. The most noticeable worsening of the liquidity position in 2017 compared to 2016 was in the electricity supply sector and the transportation and storage sector.

If instead of changing the liquidity position, we compare the individual sectors according to the achieved level of liquidity, as a criterion for comparison, we use a quick ratio. This is why it represents a more rigorous test than the current ratio, and in addition it is affected less by branch characteristics. The best position of short-term financial security in 2017 was achieved by information and communication sectors (0.91) and mining (0.79). The lowest values of the used indicators are present in the sector of hospitality industry (0.49) and the electricity supply sector (0.52). However, it should be emphasised that the structure of the monetary capital of these two sectors differs, and in this sense, the low values of a rigorous liquidity indicator need to be interpreted differently. In contrast to the electricity supply sector where 60% of monetary capital are receivables, the housing and food sector accounts for 44% of monetary capital, while the rest relates to short-term financial placements and cash as liquid assets. In addition, the collection time for housing and food sector services is 2.5 times shorter than the electricity supply sector, which additionally speaks in favour of a better liquidity position in which this sector is located.

If we focus on the manufacturing industry as the core of the economy, we can notice that the current ratio recorded a significant increase in 2017 compared to 2016 and is exactly at the level of the economy's average, while the quick ratio remained at almost the same level, below the economic average. This again leads us to conclude that the growth of liquidity was primarily the result of the accumulation of inventories as the least liquid form of working capital, so the change in liquidity in this sector should be interpreted in this light. What is worrying is stagnation in terms of inventory turnover speed, as well as in terms of the period of collecting receivables and settlement of liabilities to suppliers.

Solvency Analysis

When analysing the change in the position of solvency of individual sectors, changes in the debt-to-equity ratio and ratios of interest coverage by business gains are unified. The sectors that have achieved the most significant improvement in long-term financial security are: mining, information and communication, and wholesale and retail trade. If we exclude wholesale and retail trade, we can notice that the remaining two sectors were also leading in improving the liquidity position and in terms of the absolute liquidity level in 2017, which places them in the sectors with the best perspective in terms of short-term and long-term financial security. The decrease in indebtedness was positively influenced by a significant increase in own capital as a result of the increase in undistributed profits. However, what should be kept in mind are the different sources of unallocated profit growth identified in the above sectors. In the mining sector this growth was primarily caused by the growth of business profits [13], while in the information and communication sector and wholesale and retail sector it was the result of an increase in financing gains. In support of strengthening the position of solvency, the increase in interest coverage by business gains is identified in all three sectors.

The most noticeable decline in solvency in 2017 compared to 2016 was identified in the sectors of agriculture and electricity supply. Although in both sectors the debt-to-equity ratio remained at approximately the same level with the tendency of a slight decline, coverage ratio, which shows the ability of enterprises to cover interest expenses from the business gains, was in a sharp decline due to a sudden decrease in the business gains.

Bearing in mind that the level of indebtedness of the sector, observed in isolation, does not reveal much about its solvency, and that its level is largely determined by the branches, for the ranking of the sector in terms of long-term financial security, the primacy was given to the interest coverage ratio. Starting from this point of view, with all other conditions unchanged, the most solvent sectors in 2017 were the information and communication sector (16.77) and the mining sector (8.55). High level of solvency was also shown by the wholesale and retail sector (7.92) as well as the water supply sector (7.50), although we should keep in mind that the wholesale and retail sectors are far more indebted than the water supply sector. The least solvent sectors in 2017, with all other conditions unchanged, were construction sector (2.07) and hospitality industry (2.18), although in the observed year they recorded growth in coverage of interest by operating profits. The low solvent sectors for 2017 include agriculture (2.82), although it should be kept in mind that the low value of interest coverage ratio in the agricultural sector was the result of a drastic decline in the business profits of a reduced volume of activities due to drought.

If we take a special look at the manufacturing industry, given its previously mentioned importance, we note that the indebtedness in 2017 compared to 2016 has decreased, which is a positive tendency in terms of long-term financial security. However, in spite of this, this sector belongs to the most indebted sectors, immediately behind wholesale and retail trade. Coverage of interest by operating profits remained virtually unchanged (5.99) and was above the economy's average (5.83), which is good considering the high level of indebtedness previously indicated.

Profitability Analysis

The three sectors that achieved the highest growth of business profitability in 2017 compared to 2016 were: mining, hospitality industry, and professional and scientific activities. The increase in the operating profit margin in the mining sector was largely due to the growth in operating revenues resulting from the increase in the price of oil, petroleum products and industrial metals (aluminium, copper, iron, etc.), as well as greater operational efficiency that allowed business expenses to grow at a lower rate compared to operating income. The rise in core business profitability in the housing and food sector contributed to a higher growth of operating revenues in relation to operating expenses. It is assumed that the increase in business revenues of 22.5% was mostly due to the increase in the number of tourists, having in mind that, according to the Statistical Office of the Republic of Serbia, the number of tourist arrivals and tourist nights increased by 10.5% in 2017 compared to 2016. Sector of scientific and professional activities registered growth of operating income margin from 6.15% in 2016 to 7.06% in 2017, which makes this activity one of the more profitable in the real sector of the Serbian economy.

The growth of the profitability of the core business, although to a lesser extent, has been identified in the sectors of construction and wholesale and retail trade. It is assumed that the administrative reforms of 2015 that led to the simplification of procedures regarding the issuing of building permits along with the continuation of the downward trend in interest rates and rising real estate prices, enabled further improvement of the profitability of the basic business of the construction sector. However, we assume that the delay in significant infra-

13 This is particularly positive considering that R&D investments, which are crucial in this sector for improving long-term financial performance, are mainly financed from internal sources.

Table 1. Selected indicators of liquidity, solvency and profitability for individual sectors, 2016-2017

	Liquidity analysis				Solvency analysis				Profitability analysis			
	Current ratio		Quick ratio		Debt/Equity ratio		Coverage ratio		Oerating ratio margin		Net income margin	
	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017
Agriculture	0.95	0.98	0.57	0.57	0.79	0.74	4.27	2.82	5.80%	3.50%	2.60%	3.00%
Mining	0.95	1.1	0.72	0.79	1.84	1.56	3.3	8.55	7.50%	12.50%	5.40%	10.90%
Manufacturing	0.87	0.95	0.56	0.58	3.2	2.4	5.96	5.99	6.30%	6.00%	2.90%	5.60%
Electric power industry	0.68	0.63	0.57	0.52	0.69	0.67	6.36	5.19	11.90%	6.60%	3.30%	5.80%
Water industry	0.73	0.73	0.57	0.56	0.57	0.63	7.28	7.5	8.20%	6.30%	3.30%	3.80%
Building and Construction	0.88	0.94	0.54	0.59	1.75	1.82	1.55	2.07	3.60%	3.80%	2.30%	1.50%
Retail, Wholesale and Distribution	1.02	1.07	0.62	0.65	3.36	2.91	6.63	7.92	3.10%	3.60%	1.10%	2.40%
Transportation	0.84	0.79	0.74	0.7	0.83	0.83	5.69	5.4	5.70%	5.10%	3.20%	3.70%
Hospitality industry	0.65	0.63	0.51	0.49	1.81	1.91	1.76	2.18	2.60%	3.60%	4.50%	2.80%
IT and Telecommunications	0.95	1.03	0.83	0.91	2.04	1.87	13.55	16.77	12.20%	11.80%	8.40%	11.40%
Profesional and Scientific Services	0.91	0.94	0.75	0.76	1.66	1.69	5.36	6.61	6.10%	7.10%	5.80%	6.20%

Source: Author's calculations using BRA data

structure projects has led to the growth of this sector being lower than planned. If the wholesale and retail sector is analysed, we can conclude that profitability growth was not the result of a larger sales volume, since the turnover of goods in 2017 decreased. Therefore, sources of profitability growth should be sought in some other factors, such as: (1) contraction of assortments and redirection of sales on goods with higher profit margins, and (2) strengthening of dinar which has led to imported products being cheaper, where the decline in prices of imported products has not been transferred to consumers, given that the consumer price index in 2017 was 3%, which is 1.4 percentage points more than in 2016.

The largest decline in business profitability was identified in the electricity supply sector. The main causes of a sharp decline in business profits in the electricity supply sector should be sought in the growth of operating expenses that were not accompanied by a corresponding increase in operating revenues. The increase in operating expenses in this sector, according to the IMF report, was the result of a decline in electricity generation, which appeared in early 2017, which was compensated by the import of electricity that is more expensive in the winter months. This situation is a result of unfavourable weather conditions and long-term weaknesses in EPS planning and management. In addition, in order to ensure regular and secure supply of customers, the lack of production in hydroelectric power plants resulting from drought was compensated by more expensive energy sources and purchasing electricity on the stock exchange where prices showed a significant increase in 2017.

The decline in profitability of core business has also been identified in the following sectors: agriculture; water supply; transportation and storage; information and communication; and manufacturing, ranked from the highest to the lowest profitability recorded. In the agricultural sector, this situation was the result of a drastic fall in the volume of agricultural production due to extremely unfavourable agro-weather conditions. In the water supply sector, the decline in the profitability of the core business was caused by the fact that water consumption decreases from year to year in both households and the economy, and the processing of water decreases accordingly. On the other hand, only 65% of the water consumed is revenue-generating water, while the rest is water that is not invoiced and thus does not generate income, even though it increases business expenses. The faster growth of operating expenses in relation to operating revenues in the transportation and storage sector was due to the 14.5% increase in fuel and energy costs due to the increase in the price of oil and oil derivatives on the global market. In the information and communication sector, there was a very slight decrease in operating income margin. According to the RATEL report, in the Serbian market, unlike the EU market, revenues continued to grow, but it is possible that lower growth rates of revenues can be explained by trends that are present in the markets of the EU countries. As of 2013, for the vast majority of EU countries, there has been a downward trend in revenues in this sector due to the decline in revenues from voice and fixed telephony services.

If, instead of a relative change in business profitability in 2017 compared to 2016, we observe the level of business earnings per sector, we can notice that the highest rates of operating profits were recorded in the sectors of Mining (12.46%) and Information and Communication (11.81%), while the lowest profit margins were recorded in the Agriculture sector (3.53%) and the Wholesale and Retail sector (3.56%).

In all sectors, growth in the net profit margin was recorded, primarily due to exogenous factors, with the highest growth being identified in the accommodation and food, mining and construction sectors. The highest net profit margins were recorded in the information and communication sectors (11.42%), and mining (10.92%). Interestingly, these two sectors have swapped first two places in relation to the previous situation when ranking was done according to the rate of business gain. The

explanation lies in the greater indebtedness of the information and communication sector in relation to the mining sector and, consequently, the greater impact of positive exchange rate differences on the net income of the information and communication sector in relation to the mining sector. The lowest net profit margins were identified in construction sector (1.48%) and wholesale and retail (2.40%).

Although in the manufacturing industry business profits rose in absolute terms in 2017 compared to 2016, its share in operating income (operating profit) decreased from 6.31% to 5.98%. However, it should be noted that in this sector, the slightest decline in business profitability has been identified in relation to all sectors that recorded a decline in operating income margin. The main reason for the faster growth of operating expenses in relation to operating revenues should be sought in the rise in raw material prices, especially for the part of the manufacturing industry that uses oil and oil derivatives and agricultural products as the main raw material. In contrast to operating income margin that experienced a decline in 2017, the share of net profit in operating revenues rose from 2.93% to 5.56%. As has been pointed out several times in the past, this disparity between business growth and net result has emerged as a result of an increase in financing gains. At the manufacturing process level, positive exchange rate differentials in 2017 were even 200% higher than in 2016. In addition, almost one third of net results were other income that arose as a result of the sale of assets above its book value and which are by definition of one-off character.

Financial Performance Analysis Depending on the Company Size

In the third section, we analyse the performance depending on the company size. This is to determine whether there are significant differences in relation to the mentioned characteristics between enterprises depending on their size.

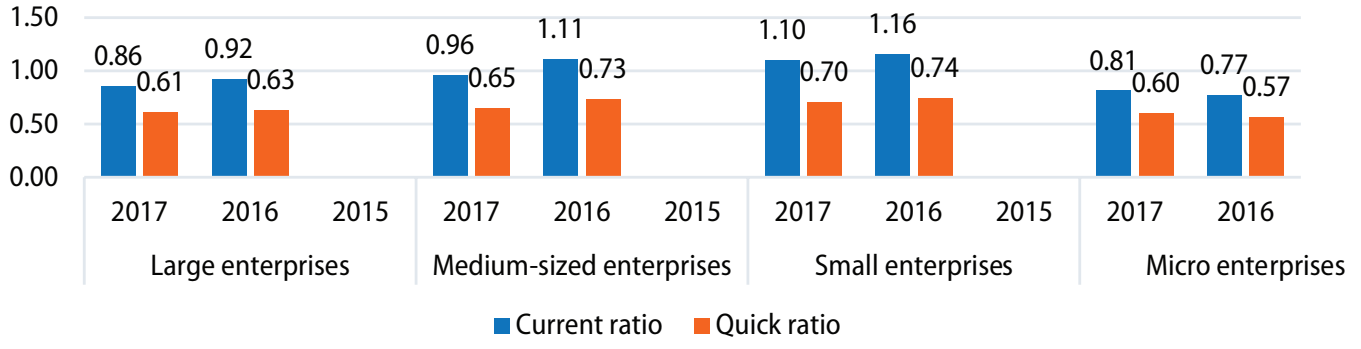
Liquidity Analysis

Except micro enterprises, all other groups of companies classified by size have made improvements in terms of the position of short-term financial security. Although in relative terms medium-sized enterprises recorded the most significant improvement in terms of liquidity position, in absolute terms the highest values of the selected indicators, in both 2016 and 2017, were realised by small enterprises. The liquidity of large companies in 2017 was at a similar level as in 2016 with a slight improvement. The level of liquidity of large enterprises was slightly below the economy's average and below the level of liquidity of small and medium enterprises. What can positively affect the liquidity of large companies in the future is shortening the period of inventory turnover and the collection of customer receivables, which are the biggest issues in this group of companies compared to other groups. Also, what is observed in large enterprises, which can positively affect the liquidity of the entire economy in the future, is a slight improvement in the financial discipline, which is reflected in the shortened period from the moment obligations toward suppliers occur to the moment they are settled (shortened by 19 days).

Solvency Analysis

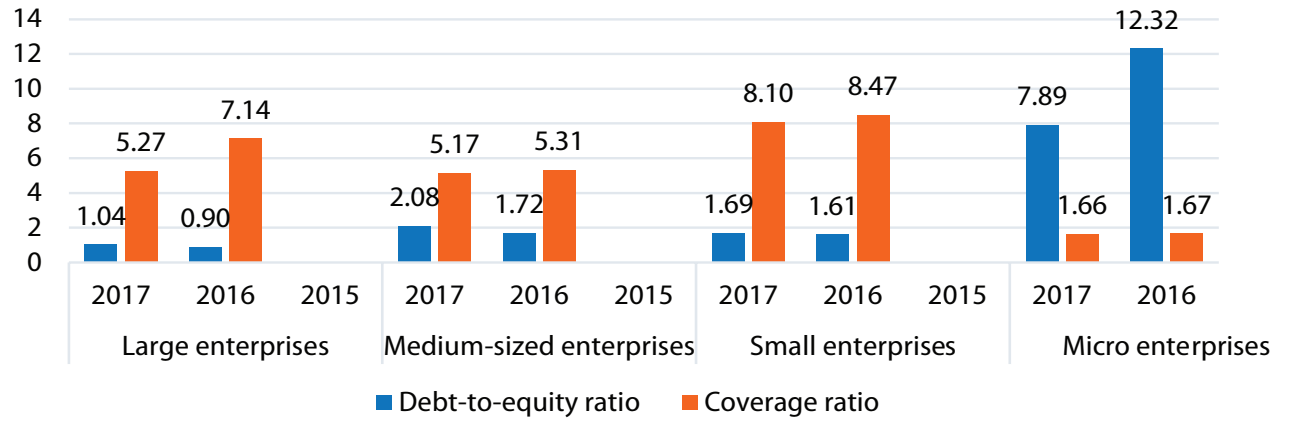
Judging by the movement of the selected solvency indicators, we can conclude that major companies recorded the most significant improvement in terms of long-term financial security in the period 2016-2017. Strengthening the solvency situation was present in medium and small enterprises. The indebtedness of medium-sized enterprises was reduced in 2017, but still remained slightly above the average of the economy. Coverage of cost of interest by business profits increased in 2017, however, despite this, the indicator was below the economic average. The indebtedness of small enterprises decreased in 2017 and was below the economic average. Coverage of the cost of interest by operating profits

Graph 6. Real sector liquidity observed by company size, 2016 – 2017



Source: Author's calculations using BRA data

Graph 7. Real sector solvency observed by company size, 2016-2017



Source: Author's calculations using BRA data

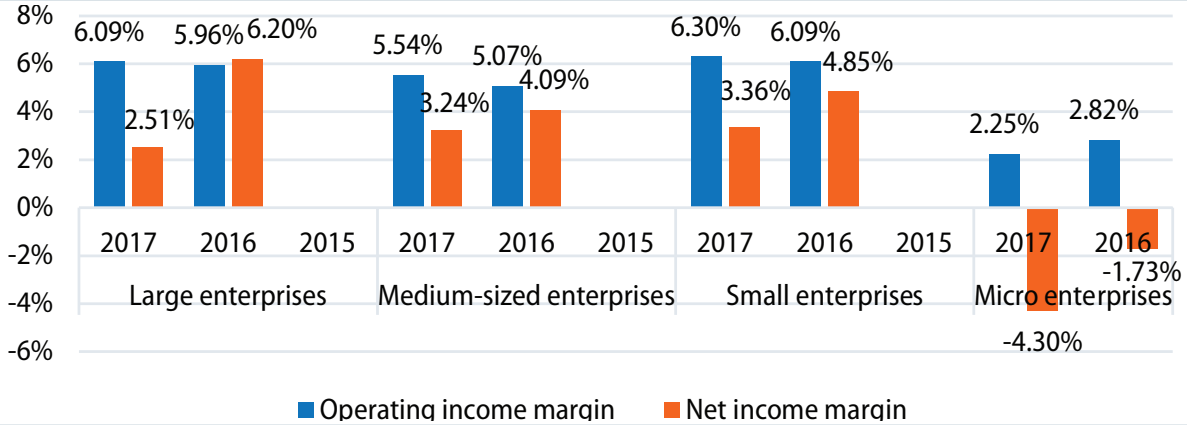
increased from 8.10 in 2016 to 8.47 in 2017. Such high values of this indicator, position small businesses far above the economic average and rank them in the most solvent group of companies. Micro companies were not only the least liquid, they were by far the least solvent as well. The indebtedness indicator increased significantly in 2017 (12.32) compared to 2016 (7.89). This high value of indebtedness indices is extremely worrying and suggests that micro enterprises are largely over-indebted. The fact that the loss higher than the amount of capital shown in 2017 at the level of all micro-enterprises (858 billion dinars) was higher than the sum of losses above the level of capital of all other enterprises (686 billion dinars), speaks enough about the problematic position of this group of companies. Coverage ratio by business profits remained unchanged in the two years observed. With a value of 1.67, this group of companies confirms the poor prospect of long-term financial security.

Profitability Analysis

What is interesting is that micro enterprises were the only ones to achieve growth of core business profitability in 2017. Regardless, in the two years observed, these companies had the lowest business profit and were the only ones to report a negative net result. This in turn resulted in negative net profit margins of -4.3% in 2016 and -1.73% in 2017. All other groups of companies recorded a slight decline in business profitability in the period 2016-2017. The highest rate of business profit in 2017 was recorded in the group of small enterprises (6.09%). So, this group was not only the most liquid and most solvent, but it also achieved the highest level of "healthy" profitability.

All groups of companies recorded growth in the net profit margin. The biggest leap in the net profit margin was realised by large companies. This group of companies made such a significant leap in the net profit margin that it jumped from its third position in 2016 to the first position in 2017 in terms of the value of this indicator. It should also be noted that these groups of companies have an unusual situation that the net profit margin rate in 2017 (6.2%) was higher than operating incomerate (5.96%), which would mean that other components of the results additionally increased the business gains, so the net profit in 2017 was greater than the business gains.

Graph 8. Real sector profitability observed by company size, 2016-2017



Source: Author's calculations using BRA data

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